Women and Hormones in Tibetan Medical Literature

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Abstract

This dissertation examines a contemporary genre of Tibetan medical writings that seek to integrate Tibetan medical and biomedical notions of “hormones” in the reproductive bodies of women. The analytical lens of ‘gender’ plays a significant role in this dissertation, specifically the ways in which medical and Buddhist language and literature surrounding the Tibetan integration of biomedical notions of hormones deeply implicates modern-day Tibetan national, ethnic, and religious identities. This dissertation provides overviews and analyses of a selection of recently published Tibetan medical works that research methods to integrate and articulate biomedical notions of ‘hormones’ into the Tibetan medical system. These works include book-length commentaries, medical journal articles, book chapters, and home reference books that focus on women’s health. This dissertation analyzes the relationship between establishing medical authority with the practice of textual research in present-day Tibetan medical writing in ‘Chinese Tibet,’ and how ‘hormones’ are the central point of intersection and integration between the Tibetan medical and biomedical systems. Many present-day Tibetan medical authors turn to Buddhist thought, and specifically the texts and language of Tantra, to explicate and articulate the
Tibetan understanding of hormones. In their research into the authoritative and classical texts of their traditions, the majority of the authors discussed within this dissertation argue that it can be definitively established that the classical Indo-Tibetan medical and Buddhist writers and experts ‘knew’ about the very subtle substances circulating throughout the body that are today known in biomedicine as “hormones.”
In Loving Memory of

T. Nicholas Schonhoffer

1982 - 2012
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List of Conventions

1. Tibetan Transliteration

In this dissertation the spelling of Tibetan words follows the Wylie transliteration system outlined on the Tibetan and Himalayan Library website (www.thlib.org). The names of Tibetan persons are rendered phonetically according to the *THL Simplified Phonetic Transcription of Standard Tibetan* by David Germano and Nicolas Tournade (2003) also found on the Tibetan Himalayan Dictionary Website. With the exception of proper names of persons and places, which remain phoneticized (unless they appear in the Wylie transcription of a translated passage, or as part of a Tibetan bibliographic reference), the Wylie transliteration system is employed in footnotes.

2. Chinese Transliteration

This dissertation renders Chinese characters in Wade-Giles, unless the Chinese character is given in the original source.

3. Tibetan Capitalization

This dissertation capitalizes the first letter only for Tibetan text titles, and names of persons and places.

4. Spelling

This dissertation uses Canadian spelling.

5. Foreign Terminology in Parentheses

Some English terms are followed by their equivalent in Tibetan, and in some instances, in Chinese and Sanskrit, which is marked with Ch. and Skt. respectively. In the case that both Tibetan and Sanskrit and/or Chinese terms are given, the Tibetan and Chinese and/or Sanskrit words are separated by a semicolon.

6. Italicization of Foreign Terminology

Non-English words are italicized, unless they are commonly known and used in the English language, such as karma and Tantra.
General Introduction

One of her first remarks when I met the resident gynaecology specialist at the Qinghai Tibetan Medical Hospital (QTMH) in Xining, China was that her medical practice was a “mixture” (‘dres pa) of Tibetan and “world medicine” (‘dzam gling gso rig). Showing me her crossed fingers, she gave the impression of believing that these were equal systems in their own rights, each methodology supporting the other, and integrated together, achieved an optimum benefit for the patient. The idea of ‘mixing’ or ‘integrating’ two medical systems, while seemingly simple in her hand gesture, is enormously complex. It involves not only the medical or scientific problems of translation, but also the social, political, religious and moral factors. In a similar way to daily clinical practice, contemporary Tibetan medical writers (who are themselves doctors and researchers) must also consider the social, religious, and political implications of integrating biomedical ideas with ‘traditional’ Tibetan medical ones. This thesis focuses on the social and scientific complexity of ‘mixing’ in the present-day Chinese Tibetan medical tradition through an investigation of medical works that integrate biomedical notions of “hormones” with authoritative Tibetan medical thought.

The central argument herein is that research on hormones—and the mixing of Tibetan and biomedical knowledge—in contemporary Tibetan medical works is based upon the strategic positioning and use of authoritative Buddhist and medical texts that articulate not only a Tibetan Buddhist nationalist identity, but also one that is carefully scripted so as not to disrupt China’s official narrative of Tibet’s “liberation” and a ‘Chinese Tibet.’ It can be observed that the present-day Tibetan medical writers script their works by referencing their authoritative sources, which are masterpieces of the Tibetan intellectual world, and engaging these as the primary sources of their tradition. By such means these authors establish Tibetan medicine, knowledge and culture as unique, distinct, and universally valuable. As Mingji Cuomu\(^1\) writes, Tibetan medicine is “a priceless and amazing gem among the treasury of world medicine, which is equally famous in

\(^1\) Mingji Cuomu is a contemporary author whose work I examine in the second chapter of this thesis.
the ten directions for emanating radiant happiness and benefit.”

Given the current climate of ‘glocalization’—the economic, political and social situation wherein the so-called notions of ‘global’ and ‘local,’ ‘unique’ and ‘universal,’ ‘tradition’ and ‘modernity’ are made to operate together to solidify ethnic and national identities—it is not surprising that Mingji Cuomu frames Tibetan medicine in the way that she does. To call an exalted person, text, celestial palace and so on a “gem” or “jewel” (nor bu) has historically been common in Tibetan Buddhist and medical culture, and therefore Mingji Cuomu’s choice of calling Tibetan medicine a jewel—a common assertion in contemporary medical works—communicates salient cultural meanings. Mingji Cuomu also places Tibetan medicine on an even footing among the world’s systems of medicine, implying in part that despite the worldwide dominance of biomedicine, other national medical systems are of equal worth and value, much like the national cultures that embed them. In important ways, from her choice of authoritative sources to the terms and phrases she employs to name and integrate biomedical and Tibetan notions of hormones in relation to menstruation, she, like her colleagues, participates in and speaks to the wider discourse of Tibet’s national, cultural and religious identity.

The medical works I engage with as my primary sources are published from inside ‘Chinese Tibet,’ that is, the Tibetan regions that beginning in 1951 were incorporated into the People’s Republic of China (PRC). Although not exclusively, I focus on a selection of medical works published or written by authors from the eastern or ‘marginal’ regions of Chinese Tibet, the former Amdo and Kham provinces, and in particular the capital of Qinghai province, Xining where Qinghai Tibetan Medical Hospital—the central medical institution of eastern Tibet of which more will be said in the following chapter—and its affiliated colleges, research institutes, publishing houses and pharmaceutical industry is centrally located. Other primary sources are published either in Lhasa, the capital of the Tibetan Autonomous Region (TAR), or in Beijing, the Chinese national capital. My primary sources are all fairly recent, spanning the mid 1990s to

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2  ’dzam gling gso rig bang mdzod nang rin thang gzhal du med ba’i khyad ’phags kyi nor bu zhig dang mtshung par phan bde’i gzi ’od phyogs beur ’phros nas. Sman skyi mtsho mo, Mo nad phal pa’i nad la zhib ’jug dang gso bcos kyi nyams yig (Lhasa: Krung go’i bod kyi gso rig, 2009), 2.

the early 2010s, and can readily be found in bookstores in Xining and in some cases, surrounding areas. Significantly, a number of my primary authors are female and offer a perspective of Tibetan gynaecological thought in a field that had previously been the exclusive terrain of male, and frequently monastic authors who would not normally have intimate knowledge of women’s bodies. Most of the authors are forty years of age or younger and have had their primary training in Chinese Tibet, meaning that they are fluent in and have comprehensive knowledge of at least the Chinese (Mandarin) and Tibetan languages, a feat not logistically easy in many Tibetan, especially rural communities.4

The *Four Treatises*5 is the central and foundational text of the Tibetan medical tradition. It indicates that experience is needed to illuminate the knowledge of the texts, and that textual learning alone is not sufficient. Consequentially, when I spoke to doctors for help in locating and researching texts, especially the ones that they read and considered important, they insisted that I needed some clinical experience, and that I spend time directly observing and learning about Tibetan medical practice with a specialist. And so, I gained some clinical experience, which indeed was invaluable for helping me see the texts as part of a living tradition wherein the meanings of Tibetan medical knowledge are established, debated and re-interpreted “in accordance with the times” (*dus rabs dang mthun pa*).6 The high value placed on practical experience coupled with textual knowledge in the Tibetan tradition is a theme that I will be exploring throughout this thesis.

In looking at the education of Buddhist monks in Laos and Thailand, Justin McDaniel uses the phrase “lifting words” to describe how “Pali words are lifted from texts … then

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4 As of 2014, roughly thirty-three per cent of Tibetans are urban, and the remaining sixty-six per cent are rural. Rongxing Guo et al., eds., *Multicultural China: A Statistical Yearbook (2014)*, (Berlin: Springer, 2015), 71.

5 G.yu thog yon tan mgon po, *Dud rtsi snying po yan lag brgyad pa gsang ba man ngag gi rgyud ces bya ba bzhugs so*, ed., Blo bzang the ring (Lhasa: Bod ljong mi dmangs dpe skrun khang, 2000). For this thesis, I exclusively refer to this version of the *Four Treatises*, which is the widely used standard edition in Tibet.

6 Dpal bzang rgya mtsho, *Bud med bde srung skor gyi rgyun shes phran bu bzhugs* (Sichuan: Si khron mi rigs dpe skrun khang, 2010), 1. This phrase appears in almost all of my contemporary sources.
creatively engaged with and explained by lectures based on their own experiences.”

Similarly, the specialist under whom I studied would select texts, words, and phrases that she felt was important for me to learn in order to understand Tibetan medicine. McDaniel saw this methodology as allowing the observation of texts in “their living contexts,” that is, the ways that knowledge is shaped and transmitted through the relations among “orality and textuality, temporality and timeless authority, lay life and monastic life, the local and translocal.” Like McDaniel’s study of Buddhist education, my thesis is about “interpretive communities,” that is “the construction of a particular reading community, one which validates itself through texts deemed important to a shared sense of culture and cultural attainment.” Therefore, I posit that in the medical literature researching and integrating Tibetan medical and biomedical notions of hormones, words can be said to be ‘lifted’ from Buddhist and medical sources deemed culturally important, and re-interpreted to support both Tibetan ‘tradition’ and ‘modern’ interpretations of that knowledge in a way that is politically, socially and religiously acceptable.

In Tibet, the relationship between lived experience and textual knowledge historically is and continues to be extremely important. The doctor under whom I studied under is herself involved in the production of contemporary medical works published in Xining. In one instance, she contributed as an expert consultant to a home health reference work, *The Body and How it Works,* which integrates Tibetan and biomedicine (including hormones), and in another, to a published interview focussed on Tibetan women’s health, *Common Views and Questions of Tibetan Women,* edited by Gönpokyi and published in Gansu province. There is a symbiotic relation between medical publishing and clinical practice in present-day Tibet, as there always has been in the Tibetan medical system, where both comprehensive textual knowledge as well as

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8 Ibid., 8.


10 The Jinpa Project, *Mi lus grub tshul dang byed las* (Xining: Mtsho sngon ni rigs dpe skrun khang, 2010).

11 Mgon po skyid, *Bod mo’i dogs gzhi dang thun mong gi lha tshul* (Gansu: Kan su’u rigs dpe skrun khang, 2010).
“experience” \((nyams\ myong)\) were considered equally necessary in order to be a competent doctor or medical writer. Contemporary authors or their publishers often tell the reader that credibility as a medical writers draws from experience, in addition to the study of the Tibetan “authoritative literature” \((gzhung\ lugs)\) and biomedicine. The Tibetan word for experience, \(nyams\ myong\), refers to a subjective, integrated kind of knowing, that is, to experience one’s experience. Depending on the context, this experience can be as exalted as the realized experience of bliss and emptiness or as mundane as clinical experience. In either case, in Tibetan thought this kind of experience “indicates a certain kind of depth,” meaning without it one’s knowledge is merely “superficial” and “they have not thoroughly integrated the teachings of religion [or medicine] into every aspect of their existence.” The assertion by so many Tibetan medical doctors and writers that they combine their experience with expertise of Tibet’s authoritative knowledge in addition to the study of biomedicine is clearly a way of showing not only their medical, and cultural and political authority, but also what constitutes authority itself in the case of Tibetan medicine in Chinese Tibet.

The term, “Tibetan medicine” \((bod\ sman)\) can potentially cover a wide range of healing practices and texts that could be considered either ‘medical,’ or ‘religious,’ or a mix of both. Tibetan healers who belong to the profession of \(gso\ ba\ rig\ pa\), the “science of healing”, are considered doctors. These people are variously called “Amchi” \((am\ chi;\ em\ chi)\), “Menpa” \((sman\ pa)\), and the honorific, “Lhaje” \((lha\ rje)\). Tibetans also might seek treatment, or advice on healing options from a variety of Buddhist specialists. These advisors either can be a “lama” \((bla\ ma)\), “Tantric practitioner” \((sngags\ pa)\), “spirit medium” \((lha\ pa,\ dpa’bo,\ and\ mkha’gro\ ma)\),

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13 Gyatso, “Healing Burns with Fire,” 118.
“diviner” (mo pa), and “astrologer” (rtsis pa). This thesis looks at the writings of Tibetan doctors educated in the tradition of gso ba rig pa. Their textual basis, having influence over such institutions as hospitals, universities, research centres and pharmacies, is principally based on the Four Treatises and its commentarial tradition. Here, the phrase “Tibetan medicine” refers to gso ba rig pa, representing the literature and institutions that are explicitly identified as being gso ba rig pa. “Tibetan medicine” should be pluralized. However, for the sake of simplicity the singular form of this subject will be used. Tibetan medicine has always existed in vibrant intellectual communities where different viewpoints were exchanged and debated. Many important schools of thought and teachings arose, giving rise to a polylithic medical tradition that became hardly uniform or even consistent.

0.1 The Relation between Medicine and Buddhism in Recent Tibetan History: Issues of Translation and Integration

Janet Gyatso writes in Being Human in a Buddhist World: An Intellectual History of Medicine in Early Modern Tibet, that “[s]o much of the intellectual history of Sowa Rikpa has been occupied with its position vis-à-vis Buddhist structures of knowledge and authority.” This is certainly the case in the contemporary Tibetan medical works that address women and hormones. In this section I address Gyatso’s historical and intellectual account of the early modern period, a time in Tibetan medicine closely preceding the works of this dissertation. I outline in what ways the contemporary sources of this dissertation, and my interpretation of them, continue the empirical and scientific sensibilities of the early modern Tibetan medical thinkers, while at the same time, how they closely align modern Tibetan medical thought with Buddhist sources of knowledge and authority. In the second part, I examine issues surrounding translation and integration in another East Asian context through Pierce Salguero’s Translating

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Lastly, I briefly describe another means of medical syncretism through the collaborative research efforts of Western and Tibetan medical scholars, practitioners, and anthropologists. From among these sources, I situate the contemporary Tibetan medical discourse on women and hormones within methodological approaches towards understanding issues of translation, integration, and syncretic medical (and religious) systems.

Being Human In A Buddhist World, is in Gyatso’s own words, a study of “how knowledge changes.” She contends that the “uneasy fit” between received Buddhist knowledge and empirically minded scientific sensibilities fermenting among medical thinkers is at the heart of the changes taking place in early modern Tibetan medicine. Seeking to account for the “double movements” taking place, Gyatso maintains that Tibetan medical learning, “a mix of the main Asian health care systems of the day, fostered a probative attitude towards religious authority even as it grew to maturity within the great institutions of Tibetan Buddhism.” Gyatso asserts that a telling demonstration of this tension is evident by medical scholars doubting that the Four Treatises was the received (and therefore complete and perfect) teaching of the Medicine Buddha. Instead, these early modern medical thinkers asserted the text’s human authorship, displaying a self-reflective awareness of the contingencies of time and place in the making of knowledge. This awareness is seen by Gyatso as pointing to a scientific sensibility unlike, and sometimes contradictory to, authoritative Buddhist knowledge and texts. Thus, Gyatso concludes that, given the all-encompassing nature of Buddhist thought in Tibetan life at the time, these medical thinkers demonstrated an “outstanding example of alterity in Tibetan intellectual and cultural history.”

One might assume that, as described by Gyatso, the integration of hormones into the Tibetan medical system would represent a continuing of the reaching towards scientific (and non-Buddhist) sensibilities about the material world and the human body. Present-day sources on

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17 Ibid., 1.
18 Ibid., 1.
19 Ibid., 2.
women’s bodies betray an ethos of medical thought that attempts to bridge, and mutually co-legitimize, the authoritative knowledge of both Tibetan medical and Tibetan Buddhist texts. Dissimilar from the “alterity” suggested by Gyatso, today’s Tibetan medical researchers and writers are well within other mainstream Tibetan cultural and religious thought and firmly rooted in a Tibetan Buddhist cultural and national identity. And, when Buddhist ideas of reproduction, obstetric care and gynaecology are lacking evidentiary basis, today’s medical writers tend not to openly discredit the Tibetan system. Even when writers are critical of aspects of Tibet’s medical tradition, they tend not to disparage the central texts of Tibetan medicine (or Buddhism). I will return to the geopolitical context of my sources in a following section, but here it is worthwhile to indicate that the political stakes of the medical thinkers of the early modern period of Tibet, and the contemporary era, compel rather different allegiances. It would appear that, in today’s political climate Tibetan medical experts have more to gain by joining with Tibetan Buddhist thought, and showing continuity across Tibetan intellectual traditions, than by showing Tibetan medicine as distinct from Buddhism.

Today’s Tibetan thinkers are ‘scientific’ in their study of the human body, and in this dissertation, we will see tensions arise between Buddhist and medical conceptions of the body. In some places medical writers are explicit on the differences between the Buddhist red element ideas and the medical knowledge of women’s bodies. What can be seen is a strategic use of Tibetan medical and Buddhist texts to support textual research into the Tibetan medical tradition, while as well to integrate biomedical ideas. In the same cosmopolitan spirit as their early modern predecessors, we see contemporary Tibetan medical researchers integrating biomedical ideas by “intentionally mixing disparate streams of thought and practice,” using a range of Buddhist, tantric, medical and sexological texts to establish hormones in Tibetan medicine. Gyatso’s insight that medical thinkers “adapted a range of methods and concepts developed in Buddhist contexts… in novel ways that could inform scientific aims” is quite relevant in our examination on the present-day sources on women and hormones.

20 Ibid., 2.
21 Ibid., 2.
Gyatso asserts that the Buddhist world kept the medical one “in check” with early modern medical scholars remaining strategically loyal to Tibetan Buddhist structures knowledge and authority. This appears, to some degree, still to be formative of the present-day Tibetan medical tradition. Hence, no clear separation between so-called science and religion has occurred in Tibetan medicine. Despite the ever present Buddhist influence, Gyatso portrays “no less than astonishing” the early modern medical thinker’s endeavours to carve a relatively autonomous space outside the purview of Buddhism. According to Gyatso, the Tibetan case shows us “what it takes for knowledge to recast its foundations, on conceptual and rhetorical registers alike.”

The contemporary sources of this dissertation show a resistance to recast the foundations of Tibetan medical (or Buddhist) thought, at least in regards to women’s bodies and reproduction. Biomedical knowledge is positioned to be both a confirmation of Tibetan Buddhist (particularly Tantric) and medical knowledge of the body, as well as a rich resource to ‘develop’ and ‘modernize’ Tibet’s national medical tradition. Moreover, Tibetan medical knowledge, in harmonious relation to Buddhist knowledge of the body, is presented as a continuous intellectual tradition (glossing over the disruptions midway through the twentieth century) that is still being continued today. Therefore, the integration of hormones marks an innovation in Tibetan medical thought which has not compelled a shift in medical thinking away from Buddhism. In fact, and quite to the contrary, many contemporary writers are reaching towards Buddhist thought as a means of incorporating new (biomedical) ideas.

Whatever their slippery and cross-cutting relation in Tibetan history, in both the early modern medical sources of Gyatso’s work and the contemporary sources of this dissertation, the Tantric form of Buddhism is a “site of both engagement and disjuncture.”

Much like their predecessors, medical writers debate about the relation between the subtle body of Tantra and the empirically recognizable physical body possessed by their patients. In their quest to name, translate, describe, and integrate biomedical ideas of hormones into the Tibetan system, present-day medical writers, much like their early modern counter-parts, “work through tantric anatomical and physiological categories, arguing about whether they should be taken literally or

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22 Ibid., 3

23 Ibid., 3.
figuratively and finding ways that the insights of an arcane spiritual tradition might sometimes be useful for their purposes.”24 As will be explored in this dissertation, Tantric notions of the subtle body have been a particularly useful and advantageous resource for medical researchers to think about, and craft a Tibetan understanding of hormones and the endocrine system of biomedicine.

Gyatso posits that early modern Tibetan medical thinkers valourized new and local knowledge while being remarkably cognizant of the historical and geopolitical contingencies of scientific truth. Based on this, she maintains that these early modern Tibetan scientists shied away from ideas of universal Buddhist truths and admitted to the existence of knowledge outside of Buddhism’s reach. She also argues that they favoured evidence over received text because they rejected the Buddha origins of the Four Treatises. The contemporary medical authors of my study show a common strand with their early modern counterparts insofar as being forthright about the social, legal, historical and geographic contingencies of their medical knowledge. This does not cause these particular medical writers to reject the textual tradition, and quite the opposite occurs. In my sources, the textual resources of Tibet’s rich medical, Buddhist, and Bön history form the fundamental basis of new research into their integration with the science of hormones. As we shall see in this dissertation, a number of my sources propose that the Tibetan textual sources undeniably demonstrate that Tibetan medical and Tantric experts knew of the very subtle or microscopic substances that are crucial for life, rebirth and development, and which today are known as ‘hormones.’ Biomedical knowledge or global medicine is used to confirm and valourize the ‘old’ knowledge that is found in the revered texts of the Indo-Tibetan medical and Buddhist traditions.

The issues of translation, integration and medical syncretism are vital in understanding ‘how knowledge changes’ in the case of contemporary Tibetan medical works on women and hormones. This dissertation closely examines the writings of a select group of medical writers translating and integrating various kinds of medical ideas, and from these efforts, generating innovative shifts in thought and new knowledge. Pierce Salguero’s Translating Buddhist Medicine in Medieval China is an instructive example that highlights the crucial role of the

24 Ibid., 3.
translator, the process of translating, and the sociopolitical climate in which translation, and the domestication of foreign ideas takes place. Centering on the translation activities of a handful of diverse medical and religious scholars, Salguero places “human decision-making at the heart of the story.”\textsuperscript{25} In this dissertation, we see the translation decisions made by contemporary Tibetan writers are strategic, multi-layered and emerging from the personal viewpoints of researchers embedded in the Chinese Tibetan political context.

In his study of the exchange of Buddhist and medical ideas along the Eurasian silk trade routes, Salguero outlines tactics that translators developed to walk the fine line between remaining authentic and close to the meaning of the original text, and expressing these foreign ideas in language targeted at a domestic audience. Much like today’s Tibetan medical writers, medieval translators were “purposeful and strategic” in their translation choices and the power that “seemingly small lexical choices”\textsuperscript{26} yield over their reader within particular sociopolitical contexts. Salguero identifies four “translation tactics,” used in the translation choices of Tibetan researchers integrating biomedical notions of hormones. These tactics include transliteration, calquing, incorporating pre-existing indigenous terms, and “sinicization of Buddhist terminology”.

According to Salguero, transliteration, which renders a term phonetically rather than semantically, signals to the reader that the word is of foreign origin. Calquing is used to “translate a specific … idea with a calque, an accurate root-for-root reconstruction of the original term using existing [words]…”\textsuperscript{27} While introducing a neologism into the textual arena, this method, according to Salguero, risks being cumbersome, jarring to the eyes of the native reader, and is “difficult to comprehend without adequate contextualization.” The incorporation of pre-existing indigenous terms to translate foreign words and ideas has, according to Salguero, the advantage of being “familiar” to the reader. However, he also notes that the method of translation can lose some of the term’s semantic nuances, and conversely, require that native terms “bend” their meanings so as to accommodate new uses, without losing some of the meanings of the

\textsuperscript{25} Salguero, \textit{Translating Buddhist Medicine in Medieval China}, 44.

\textsuperscript{26} Ibid., 54.

\textsuperscript{27} Ibid., 56.
original source. Salguero observes that the “‘sinicization’ of Buddhist terminology” appears to have happened in the medieval sources. He writes that this “fully domesticating tactic involves translating Buddhist terms with perceived equivalents from the existing Chinese religiomedical vocabulary.” Relating to the contemporary Tibetan medical sources on women, Salguero writes that by using terms with “indigenous resonances” in an equivalent way, translators “traded fidelity” to the original sources but gained “the ability to tap into native cultural and linguistic repertoires.”

As we can see in these four methods, the process of translating cultural, religious and medical ideas across cultures is in-itself a deeply integrative process, which produces syncretic or hybrid kinds of knowledge. As we shall see in the sources for this thesis, contemporary Tibetan medical writers employ translation stratagems similar to those developed in medieval China. Salguero also positions these translation tactics, and the syncretic and hybrid types of knowledge they produced, within the sociopolitical context of the “religiomedical marketplace.” Hence, he places translators (and groups of translators) within the competitive and diverse medieval Chinese marketplace of medical ideas and practices. He asserts that such meetings in the ‘marketplaces’ of medical and religious ideas produced inherently syncretic systems of thought. Such is the case of the integration of Tibetan medicine and biomedicine in the ethnically and culturally diverse populations of modern-day China.

The collaborative and interdisciplinary efforts on the part of Tibetan, Himalayan and Western medical scholars, doctors, researchers and anthropologists to translate and produce new research integrating Tibetan medical and biomedical thought represent another important chapter

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28 Ibid., 57.
29 Ibid., 57.
30 Ibid., 58.
31 Ibid., 60.
in the history of modern Tibetan medicine. Here, we see “engaged” Western medical anthropologists and scholars with extensive fieldwork experience across the Tibetan cultural world spearhead interaction with Tibetan medical practitioners, aiming to co-produce new, and often state-sponsored knowledge, while at the same time being attentive to indigenous epistemologies and healing practices. Addressing the objectives of one such collaborative workshop held in Kathmandu, Nepal, Blaikie, Craig, Gerke and Hofer write:

Our imperative… was to use anthropology in ways that would benefit those whose positions are compromised by politics and whose voices are silenced by geographic or social marginalization. Through this process, we hoped to encourage connections and knowledge exchange between diverse practitioners from across Tibetan cultural worlds, and also generate new, collective, and more nuanced forms of anthropological knowledge about Sowa Rigpa epistemology, history, theory, and practice. As such, our method of choice was collaborative ethnography formulated as a *workshop* in the most literal sense of the word: a space where artisanal forms of praxis would be honored and where material things—medicines—would be collectively made.

Clearly, the authors are very much aware of the impact such cross-cultural research has on the development of Tibetan tradition, and show an academic community which continually reflects on the cachet of their own analytical categories, particularly of ‘religion’ and ‘science’. (More will be said on Western academic responses to Tibetan medicine’s integration of biomedicine in the section dealing with the sociopolitical context of Chinese Tibet.) They also see, as do their Tibetan interlocutors and counter-parts, the potential benefits of such research not only for its patients but also for Tibetan medicine as a cultural institution.

Among the engaged anthropologies of contemporary Tibetan medicine, integration, representing the process of “intentionally mixing together disparate streams of thought and

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practice,“\textsuperscript{35} occurs by way of international collaboration among various stakeholders. Therefore, attention to the choices of individual actors involved in the process of cross-cultural exchange, translation, and research are essential to their investigations. Consequently, this dissertation focuses on a small handful of individuals, and through a close textual analysis of their works examines, in the sociopolitical context of Chinese Tibet, the choices they make from their research questions to their strategic use of foreign and indigenous terminology.

0.2 “Chinese Tibet” and the Politics of Tibetan Identity

“Chinese Tibet” (Krung go’i bod) is an offensive term for some, and is certainly a politically fraught expression for many English-speaking scholars. Despite some hesitation, I use the term for four primary reasons: first, it differentiates Tibetans living inside China from those living in various exile communities outside of China, such as those in India, Nepal and the West. Secondly, the term technically describes the geo-political legal status as well as thirdly, the lived situation of modern day Tibet, that is, as an “ethnic minority” (shaoshu minzu or more commonly, minzu)\textsuperscript{36} within a much larger nation state. Lastly, the term “Chinese Tibet” appears in a variety of published works and other places, including some of my primary sources for this thesis. In this section I elaborate on these points, not so much to argue for the use of the term, ‘Chinese Tibet’ but rather to provide some background of the political and social context of contemporary Tibetan medical thought.

As of 1959, the territories of the Tibetan plateau, known formerly as the “three provinces” (chol kha gsum) of Ü-Tsang (dbus gtsang), Amdo (a mdo) and Kham (khams)—an consisting of an area roughly 2.5 million square kilometres—have been politically and administratively re-organized by the People’s Republic of China (PRC). The Tibetan Autonomous Region (TAR) (bod rang skyong ljongs; xizang zizhiqiu) which roughly covers 138,400 kilometres of the former Ü-Tsang region, is the only officially “autonomous” Tibetan region of China. The vast areas of Kham and Amdo, approximately 1,040,625 square kilometres

\textsuperscript{35}Gyatso, Being Human in a Buddhist World, 2.

have become the Chinese provinces of Qinghai (mtsho sngon), Gansu (kan su’u), Sichuan (si khron), and Yunnan (yun nan).³⁷

As of the 2010 Chinese census, ethnic Tibetans number around 6.2 million nationally,³⁸ a tiny fraction of China’s 1.3 billion people³⁹ of which 91% are ethnically Han.⁴⁰ Before 1959, almost all of the population of the TAR consisted of ethnic Tibetans. Historically, the population in the other Tibetan provinces was ethnically diverse. However, Tibetans still formed the majority of the people in those provinces. Qinghai Province, formerly part of the Tibetan province of Amdo, has the highest number of ethnic Tibetans outside of the TAR.⁴¹ As of the 2010 census, Qinghai province had a population of 5,626,723. The Tibetan, then numbering 1,375,059 people, formed the largest ethnic minority group of the province.⁴²

The capital city of Qinghai, Xining (Zi ling; Ch. Tongren) is home to the Arura Medical Group, which is the chief medical institution of Tibetan medicine in eastern Tibet. Because the research for this thesis took place within the Amdo Tibetan⁴³ medical community, especially at QTMH and the Arura medical establishment in Xining, many of my sources on women and hormones are published in the outlying Tibetan areas of Amdo and Kham, that is, the modern-day provinces of Sichuan, Yunnan, Gansu and Qinghai.

There is a significant and highly contentious international argument surrounding the political and national status of Tibet prior to its incorporation by the PRC, in particular, China’s

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³⁸ Rongxing Guo et al., eds., Multicultural China, 350.

³⁹ Ibid., 349.

⁴⁰ Ibid., xv.


relation with the central Tibetan government in Lhasa historically, and related to this, what territories were actually ruled by the central Lhasan government. I will not venture far into this myself, but it is evident that despite indications that show that the three regions of Tibet were not always politically cohesive, there appears to have been widespread allegiance throughout the three province towards the Dalai Lama, and his theocracy in central Tibet. The Buddhist reach into nearly all aspects of Tibetan life cannot be underestimated, and Tibet’s governmental structure was based on a “dual system of religion and politics” (chos srid gnyis), which ideologically meant a synthesis of the temporal and spiritual world. Certain features of Tibetan Buddhism allowed for this kind of government and society.

Despite degrees of competitiveness, Tibetan Buddhism has always enjoyed a kind of institutionalized ecumenism, wherein prominent teachers and students travelled, studied and exchanged texts, teachings and initiations. Given that the extensive web of Buddhist temples, monasteries, and universities were the most powerful cultural, economic, and political shapers—and the largest landowners—throughout the Tibetan areas, Buddhism was a powerful unifier of a Tibetan national identity. It could also be said that although the three regions of Tibet experienced events like the cultural revolution and land reforms quite differently, and today their socio-political situation can be similarly quite different, there has arisen a collective feeling of “national pride” (mi rigs kyi la rgya). Similarly, in the present-day Tibetan works on women and hormones, authors quote widely—one could say ecumennically—from various medical, Buddhist, and Bön works in order to demonstrate a cohesive Tibetan understanding of the female body. This lends itself to not only a unified understanding of Tibetan medicine, but also to a

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wider Tibetan culture and nationhood that encompasses the three provinces of Amdo, Kham and Ü-Tsang.

Presenting Tibetan medicine as a unifying force for Tibetan nationalism and cultural identity within socialist China is actually quite explicit in many present-day Tibetan medical works, including those focused on women. For example, in the introduction to her textbook, *Healing Women's Disorders* Jampa Dolkar outlines the socio-political situation of Chinese Tibet quite plainly:

Tibetan medicine is an important element of our national traditions, constituting our medical and healing knowledge. Furthermore, the Chinese medical system is promoting, and has established a framework for health and sanitation according to the unique features of the Chinese system of socialism. Likewise, Tibetan medicine must suitably develop and transform its system of higher education. Under the supervising office of China’s national medical system, this textbook, which maps out the educational model of the Tibetan system of medicine, has been produced for the medical organizations throughout central Tibet [TAR], Qinghai, Gansu, Sichuan and Yunnan, together with the five counties.

Also, in the customary publisher’s note at the beginning of Tashi Tsering, Dawa and Rigzin Dorje et al.’s home-reference book, *Clear Mirror of Useful Knowledge of Health and Well-Being according to Tibet's Medical Science* the publisher writes, “Tibetan medicine is the quintessence of our nation of Tibetan people, which over a thousand years, is the accumulation of the innermost nectar of the experience gained from realizing the inner methods for curing disorders at their source.” (Incidentally, within the phrase, “innermost nectar” (*nying bcud*) is

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49 Byams pa sgrol dkar, *Mo nad gso ba* (Beijing: Mi rigs dpe skrun khang, 2004). This textbook was extensively studied and large sections memorized by my medical student friends specializing in gynaecology.

50 *bod kyi gso ba rig pa ni rang re’i rgyal khab kyi srol rgyun gso rig sman rig gi grub cha gal chen zhig yin / de yang krun hwa mi rigs kyi phul byung srol rgyun rig gnas gong du spel ba dang / krun hwa go’i khyad chos ldan pa’i spyi tshogs ring lugs kyi phrod bsten bya gzhag ’dzugs skrun byed pa / bod kyi gso rig gi mtho rim slob gso bcos sgyur dang ’phel rgyas kyi dgos mkho dang ’tsham pa bcas kyi ched / rgyal khab krun dbyi gso rig do dam cus kyis rtsa ’dzugs’og bod ljongs dang / mtsho sngon / kan su’u / si khron / yun nan bcos zhing ljongs lngas mnyams du rgyal yongs bod lugs gso rig dngos tshan slob gso ’i char ’god slob deb ’di nyid rtsom sgrig par skrun byas pa ste, ibid., 1.

51 Bkra shis tshe ring, Zla ba, Rig ’dzin rdo rje, Bsod nams bag gro, Bkra shis rnam rgyal, Smin grub, Dbyang skyid, and et.al., *Bod lugs gso rig gi bde srung shes bya spang blang gsal ba’i me long* (Lhasa: Bod ljongs mi dmangs dpe skrun khang, 2010).

52 *bod kyi gso ba rig pa ni rang rgyal gyi bod rigs mi dmangs kyis lo ngo stong phrag ring nad gzhi sel thabs nang thob pa’i nyams myong gi nying bcud yin pa… / Publishers note, ibid., 1.*
the term, “nectar” (*bcud*), which is used in some of the present-day sources as part of the word for hormones.) In the above statement, there appears a tripartite unity among Tibetan nationalism, religion, and medicine. To describe Tibetan medicine as the nectar of experience gained from knowing the inner methods evokes the notion of a Buddha-originated knowledge, conjuring the experience of Buddhist realization, something that is unique to the Buddhist nation of Tibet.

Evident in the examples above, many present-day Tibetans cannot help but imagine their futures as a part of China or at least claim to in their published works, and the prevailing climate is one of working within the system rather than attempting to overthrow it, as some of those living outside of Tibet might imagine it. There are two sides to this—on the one hand, Tibetans are making profound efforts to preserve and re-vitalize their national identity, languages, religious traditions and culture, but on the other hand, they are compelled to do so within the political and social framework of the PRC. Therefore, although I describe perhaps plainly the ways that the term “Chinese Tibet” is apt, and I further indicate that Tibetan writers work within the Chinese state system rather than directly against it, I don’t suggest that Tibetans are not expressing nationalistic feelings and being strategic in their manner of doing so. I will return to this point in Chapter One, but I presently suggest that what Tibetan modernity and the future of a Tibetan national identity looks like and what can be ‘imagined’ by individuals and groups emerges\(^{53}\) from its relation with and within China.

The authoritative sources chosen by the authors of my sources reflect this approach. For example, Gendun Chöphel,\(^ {54}\) an intellectually gifted and eccentric writer and cultural hero from


Amdo, not far from modern-day Xining, who eschewed the conservatism of the Gelukpa government (seventeenth to twentieth-century) in Lhasa and urged his fellow Tibetans to embrace modernity, appears in a number of my sources that integrate hormones. He was connected with the “Association for Improvement of Western Tibet” (*nub bod bcos kyi skyid sdug*), a name which not only clearly identifies itself as not east to Lhasa but west to China, and also mimics the Chinese word used for Tibet, “Xizang”, which literally refers to the “western provinces.”\(^\text{55}\) (In contemporary times, “Xizang” refers only to the TAR\(^\text{56}\).) He is even said to have designed the flag for the group: a loom, sickle and hammer.\(^\text{57}\)

Although Gendun Chöphel and his like minded Tibetan contemporaries looked in large part to foreign models of modernity, such as those in the West and emerging in India and China, they were certainly dedicated to crafting a Tibetan modernity, one imagined and created by Tibetans. For Gendun Chöphel this also meant one free from the arch conservative overreach of the religious and aristocratic elite that dominated Tibetan culture and religion, not to mention the social and economic structure. He was not in favour of Chinese rule necessarily, but rather was fearful that if Tibet did not modernize, it would make itself naive and vulnerable to its more powerful, nation-building neighbours.

Among Gendun Chöphel’s numerous and wide ranging works that include Tibetan-English-Sanskrit translations and writings on travel, Buddhist philosophy, Tibetan political history, geography, plants and minerals, and so forth, perhaps his most famous work is his candid and experience-based sexological work, the *Treatise on Passion*\(^\text{58}\) which is evoked in a number of places in my primary sources as support for Tibetan interpretations surrounding hormones. Throughout the present-day sources, although authors premise the foundation of present-day *gso ba rig pa* clearly and unequivocally on the Indo-Tibetan tradition, overt connections are made with modern China, its project of modernity and its revolutionary figures. Gendun Chöphel, who does not disrupt the prevailing narrative that Tibetans were in need of modernity, is a politically


\(^{56}\) Kolås and Thowsen, *On the Margins of Tibet*, 30.


\(^{58}\) Dge ’dun chos ’phel, *’Dod pa’i bstan bcos* (Delhi: T.G. Dhongthog, 1969).
safe source of authority for contemporary Tibetan medical writers, even while at the same time, he figures prominently in Tibetan nationalist discourse. This is because people like Gendun Chöphel appeal to how young Tibetans can live in their present, and imagine their pasts and possible futures. For many young Tibetans, he is a native, pre-Chinese example of what a modern Tibetan can be.

Given the pragmatic needs of the present and what kind of future Tibetans can be hopeful of, it is not perhaps surprising that the term “Chinese Tibet” appears in many different kinds of contemporary works. For example, the phrase, “Chinese Tibetan knowledge” (krung go’i bod kyi shes rig pa) appears in the titles of series not uncommonly, as well as the names of publishers, such as the “Chinese Tibetan Knowledge Publishing House” (krung go’i bod rig pa skrun khang) based in Beijing. Not too infrequently, medical works use the expression, “Chinese Tibetan Medicine” (krung go’i bod kyi gso rig pa) in titles, series names, and introductions, although within the content of the works themselves “Tibetan medicine” is overwhelmingly used to identify their system. One can hardly argue that these phrases do not reflect the shifting geopolitical and social situation of Tibetans working with the Chinese system. Tibetans are not unique in this—every citizen of China has a role to play in the national narrative, and good citizenry requires signs and performances that display this.59

Despite the climate of ‘co-operation,’ there have been significant and multiple protests and even riots in different parts of Tibet in recent times. The widespread protests of 2008, of which the reverberations are still felt today, perhaps provide some sober reflection on the state-generated optimism for the future of Tibetan culture. The situation in Chinese Tibet is enormously complicated, as is the role of Tibetan medical writers, researchers and doctors who must navigate its constantly changing landscape so that Tibetan medicine, as both a clinical practice and body of medical knowledge can survive and remain viable in the PRC.

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0.3 Current Trends in Western Studies of Tibetan Medicine

In broad thematic strokes, Western academic studies of Tibetan medicine in present-day China primarily centre on issues surrounding Tibetan culture; ethnicity and nationalism; science; religion and morality; and modernity and secularism. Some of these studies look into the problems regarding the integration of the Tibetan medical and biomedical systems in Chinese Tibet.

In this section, I examine a common overarching theme among these studies, which questions whether or not this integration with biomedicine in medical research and practice might undermine the authority and integrity of the Tibetan medical tradition and its religious basis. My central conclusion is that the contemporary Tibetan medical writings that speak to “hormones” show that Buddhist thought still plays a very central role in constituting the Tibetan medical system. The finding counters the prominent Western narrative that Tibetan medicine, in...
its integration with biomedicine, is becoming ‘secularized’ and therefore losing its epistemologically and morally Buddhist underpinning.

The worry that integration of the Tibetan medical system with modern biomedicine undermines its integrity is voiced by several Western observers. For example, Vincanne Adams argues that the requirement for so-called “alternative” or “traditional” medical systems to adopt “modern” methods, particularly those that assess clinical effectiveness (such as Random Control Trials), leads to the eclipsing of the unique features that makes them locally effective healing practices. Based on field work in the women’s division of the Lhasa Mentsikhang in 2000, where she observed “integrated” Tibetan and biomedicine in practice, as well as in clinical trials, Adams writes that

…integration occurs by way of a prioritizing of, and preference for, biomedical techniques and practices over those of Tibetan medicine that leaves Tibetan medicine appearing ‘abstract…’ I call this process ‘integrating abstraction,’ in which abstraction has the meanings of being, in different contexts and in relation to different aspects of Tibetan medicine, ‘less concrete,’ clinically and theoretically ‘chaotic or disorganized,’ ‘extraneous’ to the real basis of medical efficacy, ‘vague,’ and simply ‘unscientific.’

Also working in the Lhasa Mentsikhang around the same time, Janes similarly articulates what he sees as the two main practical outcomes of integrating Tibetan and biomedicine: 1) The increasing inclination to align “essential theoretical elements” of Tibetan medicine with biomedicine, particularly physiology, and 2) the tendency to “accept rather than resist Western scientific standards for evaluating treatment efficacy.” These factors, Janes writes, “may not necessarily result in a complete acceptance of biomedical epistemology; it does however require that Tibetan medicine accept the cultural authority of science in its production of a ‘modern’ Tibetan medicine.”

On the other hand, Adams, Dongzhu and Le’s research at the Arura group in Xining in the early 2000s shows what they claim to be the “reverse” of this trend. They write that “in various subtle and yet commanding ways, practices of biomedicine are being refashioned and revised in

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order to accommodate and even serve Tibetan medicine.” But, they also ask: “Can Western medicine and research be used to legitimise traditional Tibetan medicine or does the use of these techniques inevitably undermine the integrity of the Tibetan system?” Clearly, for many scholars, the uneasy power relations between Tibetan medicine and biomedicine is central to the problems of integrating the two systems.

In their explorations of the dynamics of this problem among the Tibetan researchers of the Arura research department, Adams, Dongzhu and Le describe an active debate that involves two general lines of research which they write, “pull in opposite directions”: “animal testing and biochemical analysis versus historical recovery of documents.” The authors consider the former approach taken by the researchers as “reductionist” in the sense that researchers are using biomedical techniques, such as “deciphering active ingredients, testing single medicines rather than combination therapies,” in order to test the validity of Tibetan medical knowledge. The latter approach is considered “expansionist” by the authors, in the sense that researchers consider the recovery, analysis and engagement with Tibet’s textual tradition as a means of gathering “information from the past in order to establish a broader range of relevance and accuracy.”

Proponents of the textualist view reason that because textual knowledge arose from the knowledge of skilled practitioners (and Tibetans hold scriptural authority as epistemologically preeminent), it “provides an accurate guide to truth, no matter how old or how much regional variation between the texts.” Countering this position, according to Adams, Dongzhu and Le, are those who claim that “since this type of research uses no statistical biometric measures and is not conducted as experimental knowledge acquisition (that is using experimental methods), it is not actually a form of scientific research and thus cannot reveal objective truth.” Central to this debate, therefore are conflicting views of ‘proof,’ and how to best ‘test’ the validity of Tibetan medical knowledge.

64 Adams, Dongzhu and Le, “A Tibetan Way of Science,” 108.
65 Adams, Dongzhu and Le, “Translating Science,” 112.
67 Ibid., 122.
68 Ibid., 122–3.
Conflicting views of what constitutes ‘proof,’ according to Adams in her many individual and collaborative works, arise in large part from a moral incompatibility, that is, translating Tibetan Buddhist-medical epistemologies into “secular” biomedical ones. She writes that it is not the case that one system is moral or more moral than the other, but rather “both approaches offer insights into different ways of locating “truth.”” Adams implies that the biomedical system offers truths based on clinical trials, statistical evidence and other verifiable metrics, whereas Tibetan medicine locates the true nature of the body in a moral universe.

The Tibetan medical system sees the human body as made up of five elements and three dynamics. The former are material elements like water, fire, and wind, while the latter are the materialization of the three poisons which are the afflictive emotions of anger, desire, and ignorance. It is your “karma” (las), or more precisely your “habitual way” (bag chags) of thinking, feeling and acting, arising from the afflictive emotions, that determines your present body and the disorders afflicting it. In this system, which assumes reincarnation (and this is still the case in my sources that integrate hormones), our present body is the “fruit” or “result” (‘bras) of the thoughts, actions, and emotions of our previous lifetimes and the bardo experience. Of importance to this philosophy is the requirement of living the morally upright life largely defined in Tibetan culture by gendered Buddhist ideals.

In the Four Treatises, women’s bodies are defined as being made of “low karmic merit” (bsod nams dman pa), due to an excess of the poison of desire. In the following chapter, I will examine what some of the early authoritative medical sources say about women’s bodies and how their statements are regarded by modern writers. Western anthropologists like Adams note that the Tibetan view of the body, as a morally manifesting one, affects women in particular ways. Despite burdening women with extra moral baggage over issues like abortion, Adams fears

69 Adams, “Saving Tibet,” 74.
70 Bar do literally means to be ‘in the middle’ or ‘in-between’ and a “bardo being” (bar do ba) refers to the migrating consciousness between lifetimes. There are a number of works on bardo beings in English, perhaps the most well-known in the West is: Padmasambhava and Karma gling pa, The Tibetan Book of the Dead: The Great Liberation by Hearing in the Intermediate States, eds. Graham Coleman and Thupten Jinpa, trans., Gyurme Dorje (New York: Viking, 2006).
71 G.yu thog yon tan mgon po, Dud rtsi snying po, 375.
that the culturally salient moral underpinning of the three dynamics and other Buddhist concepts
are being abstracted and erased from Tibetan medicine and replaced with secular biomedical
definitions of the body. For her and others, this erasure is undoubtedly negative and amounts to
the loss of the unique and beneficial features of the Tibetan medical system, and even of Tibetan
culture. Moreover, this erasure of the Buddhist moral underpinning of medical care is to the
disadvantage of women, taking away their ability to express, in a culturally meaningful way, for
example, their moral distress over having an abortion.72

Some Tibetan women do not necessarily agree that the moral associations of Tibetan
medicine is a good thing for them. The Indian-exile Tibetan women-only authored book, Healthy
Body, Healthy Mind: Health Handbook for Tibetan Women73 makes virtually no mention of
Tibetan medicine and refers exclusively to biomedical knowledge and therapies. Fundamental to
the work is a woman-centred response to ideas they see as morally “guilting” women about their
bodies and life decisions. They find many Tibetan-medical perspectives of women to be
discriminatory, and conversely, biomedicine to be free of the moral associations that disempower
them. Hence, we cannot assume that all Tibetan women see their tradition as ideally as some
Western scholars sometimes might do. The Tibetan case tells us that what constitutes proof, and
whether or not it be a moral truth, varies considerably among institutions and individuals.

We see, in works like Adams’, the fear among scholars of the “secularizing” forces of
Chinese sponsored biomedicine leading to the erasure not only of Buddhist morality, but also of
its philosophical elements that are at the scholarly heart of the Tibetan medical system. Janes
writes that, for Tibetan medicine to endure inside China, it must adapt to Chinese modernity
without “losing the depth of its classical scholarly base, the integrity of its theoretically rich
explanatory system, or the principles of its non-materialistic, Buddhist epistemology.”74 Yet, I
have found that nearly all of the recent Tibetan medical writings on women’s bodies resist this
prognosis. The Tibetan medical writings very much trend towards maintaining and strengthening


73 Tibetan Nuns Project, Healthy Body, Healthy Mind: Health Handbook for Tibetan Women
(Dharamsala, India: Tibetan Nuns Project, 2006).

the authority of Buddhist knowledge as part of the philosophical and textual basis of Tibetan medicine. In these works, establishing the notion of “hormones” in the Tibetan system is through the study of some of the earliest and most important medical and Buddhist texts of the Tibetan tradition. Therefore, the scope of Tibetan medical literature integrating biomedical and Tibetan medical ideas of hormones adds to, and complements, existing Western scholarship.

An assumption sometimes made by both Western and Tibetan scholars is that being ‘secular’ necessarily means being atheistic, therefore implying that, biomedicine, as a ‘secular scientific’ system, is divorced from the ‘non-rational’ and ‘non-empirical’ notions of ‘religion.’ This line of thinking has been challenged in the wider Western academic world, most notably by thinkers like Talal Assad,75 who argues that rather than being separate from, or the antithesis of religion, the notion of ‘secularism’ and secular institutions are the cultural and historical products of religious thought and religious institutions. In other words, what constitutes the “secular” in modern life is constituted in part by “religion.”

The notion that to be ‘secular’ necessarily means to be ‘non-religious’ has been largely debunked in the wider field of the study of religion, medicine and science. So called “biomedicine,” a term that points to a knowledge about biology that is considered universal and objective, has been shown to be deeply implicated with Christianity. For example, Pamela Klassen illustrates in Spirits of Protestantism that the twentieth-century Christians who were to pioneer Canada’s biomedical institutions saw no contradiction in being dedicated to both ‘secular’ and ‘religious’ ideals. Klassen describes a network of liberal Protestants whose commitments to science and the social gospel helped bring into being the very institutions of secular modernity—including hospitals, universities, the Canadian version of a state-funded health care system, and transnational nongovernmental organizations—while they maintained a commitment to the reality or at least the possibility, of supernatural intervention in the world. Their supernaturalism was bred of habits of prayer, convictions that spiritual energies coursed through the universe.

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and the body, and for some, a hope that all religions offered paths, via rituals and spiritual exercises, to these universal truths.⁷⁶

These Christians carved out significant ‘secular’ space through biomedical institutions, yet at the same time they viewed ‘healing,’ whether physical, mental, emotional or spiritual to be an equally medical and religious endeavour. Moreover, by implicating themselves in the rising popularity and later establishment of biomedicine, Liberal Protestants could be seen as the most “modern,” “secular” and “rational” among Christian denominations, thereby retaining some level of authority and power in local sites of biomedical research and practice.

The spreading of biomedicine as part of missionary activity among Canada’s First Nations and abroad exemplified how Liberal Protestants could couch modern, secular and scientific endeavours as compelled by an ethic of Christian love. Likewise, the establishment of the Canadian healthcare system “gradually came into being over the course of the twentieth-century partly with the help of Liberal Protestants and Catholics who considered that all people were equal before God and deserved equal access to medical care.”⁷⁷ Rather than erasing religious thought, the science of biomedicine was conceived as mutually reinforcing a Christian world view of God’s universal love for all humankind. Still today the ideals of Canadian “universal” or “socialized” medicine is guided by the conviction that healthcare is a human right and should be free and accessible to all.

Klassen’s work on Canadian Christians is one example, repeated variously throughout the world, whereby the institutions of biomedical research, teaching and practices are, in implicit and explicit ways, steeped in the religious worlds of their shapers. Similarly, in the Tibetan world, Buddhist explanations of life, birth and gender are present throughout their contemporary medical sources on women. Tibetan researchers, doctors, writers and institutions today position themselves as ‘modern,’ ‘secular,’ and ‘religious.’ For them, showing Buddhist thought in Tibetan medicine as inherently ‘scientific’ strengthens the authority of their positions.


⁷⁷ Ibid., 5.
Western scholars have tended to focus on the question of ‘science’ and ‘religion’ in modern Tibetan medicine. There is good reason for this given the precarious and ambiguous status of Buddhism within the Chinese communist state. Adams, Dongzhu and Le suggest that a shift in emphasis away from focusing on science and religion and towards an analysis of how specific theories that incorporate Tibetan and biomedicine work, will “help illuminate how things are changing and what is potentially lost or what is at stake in the incremental march toward secular modernisation.”

I agree that there is much to be gained by a close analysis of how specific biomedical notions are interpreted and incorporated into Tibetan medical knowledge, and my thesis basically takes up this method. My work problematizes the notion that the ‘secularizing effects’ of biomedicine results in the erasure of Buddhist thought from Tibetan medicine. I show that Buddhist ideas about gender, the body and the origins and nature of human life remain prominent and influential in contemporary Tibetan medical works on women. And, I contend that present-day Tibetan medicine in Chinese Tibet can be said to be modern, scientific, secular and religious in many of the works on women’s bodies.

0.4 Medical Authority in a Biomedical World

Beginning more or less in the 1960s, Western scholars have tended to think about ‘authoritative knowledge’ or ‘authority’ chiefly in terms of social, political and cultural ‘power’. According to this approach, the authoritative knowledge of any system does not garner its authority from the content of the knowledge itself, or as Briggite Jordan writes, its “correctness,” but instead by what a community of people value and consider “consequential”. In medical systems, to call something “authoritative,” according to Jordan, draws “attention to its status within a particular social group and to the work it does in maintaining the group’s

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definition of morality and rationality”.\textsuperscript{80} Further, by means of education, institutionalization and so on, the community is produced by and reproduces both itself and its particular knowledge. Therefore, to say that someone ‘has’ authoritative knowledge (or that a text is authoritative), from an academic point of view, entails an analysis of “how participants in a social setting make that fact visible to each other, ratify it, elaborate it, and so on…”\textsuperscript{81} Such insights are applicable to my Tibetan medical sources on women.

Present-day Tibetan medical writers who integrate biomedical notions of “hormones” with their system anchor their collective bearing in the authoritative literature of the Tibetan tradition, namely the \textit{Four Treatises} and its commentarial literature. Methodologically, they typically first quote from an authoritative source, then explain and summarize its “intended meaning” (\textit{dgongs don})—often by quoting from other authoritative sources—before presenting their own interpretation, including biomedical ideas and how these fit within the Tibetan system. I posit that, in the intellectual space opened through such writings on Tibetan medicine, medical writers promote Tibetan culture and its national (and ethnic) knowledge systems as authoritative. Significantly, aside from a not uncommon lament that some other present-day doctors “don’t even understand the grammar of the authoritative medical texts and so make careless interpretations”,\textsuperscript{82} authors tend not to directly engage with or quote from each other; instead they engage almost exclusively with what they consider authoritative medical, Buddhist and Tantric literature. They also position new sources for medical authority, including Chinese communist thinkers and Tibetan modern national heroes such as Gendun Chöphel (Dge `dun chos ‘phel, 1903 – 1951). Although it is obvious that the authors read one another’s works, for political, social, religious, nationalist and moral reasons, they do not challenge and discredit one another, but rather collectively build the Tibetan system up, establishing its authoritative status and continued necessity for not only Tibetans, but people throughout the world.


\textsuperscript{81} Ibid., 58.

\textsuperscript{82} \textit{sman gzhung lta ci yi ge’i brda dag tsam yang legs par ma go ba’i skyon du zad de}. Thub bstan phun tshogs, \textit{Gso bya lus kyi rnam bshad} (Beijing: Mi rigs dpe skrun khang, 1999), 42.
Tibetan writers are keenly aware of the relations among language, text and power. Their collective emphasis on establishing the uniqueness and authority of the Tibetan medical tradition through textual research and the reinvention of medical-Buddhist-biomedical language underscores the biggest perceived threat to present-day Tibetan medicine, which is the authority of biomedicine and its marginalizing effects on traditional healing traditions. The dominance of biomedicine throughout the world has been explored by a number of Western scholars. For example, in her study of “Traditional Birth Attendants” in Nepal, Stacy Leigh Pigg explores “how words organize actions” in the literature surrounding development and its impact on women’s lives. She examines how the language of development, which tends to de-contextualize, simplify and obscure what the World Health Organization (WHO) refers to as “traditional medicine”, positions biomedicine as authoritative at the expense of local knowledge and social practices. Pigg argues that “traditional healers” are portrayed in development literature as a homogenous group, and their specific local practices surrounding birth, which varies considerably in Nepal, are viewed and treated patronizingly as either “harmful” or “not harmful”. Moreover, as a result of “mistranslations”, local women are often portrayed as ignorant and in need of further developmental aid, perpetuating the de-value of their knowledge, practices and experience. In this way, in both the texts and practices of maternal development in Nepal, the role of language is instrumental in the distribution of social power, and is central as to how medical authority is constituted.83

The existential threat of biomedical authority is implicit in the present-day Tibetan medical sources, and is countered by reinventing the Tibetan tradition, and in particular through the reinterpretation of Tibetan medical and Buddhist language. I suggest that rather than displacing the authority of Tibetan medicine, the discourse of biomedical hormones are integrated and positioned in such a way to validate and fortify the authority of the Tibetan system. In multiple and reinforcing ways, in their process of translating biomedicine, Tibetan writers maintain their knowledge as primary, highlighting how language can indeed empower

and produce authority, and not necessarily to the disadvantage of so-called, ‘traditional medicine.’

Such a perspective is supported in other studies of contemporary traditional healing communities. For example, Jean Langford’s study of the contemporary practice of Āyurvedic medicine in post-colonial India shows that faced with the necessity to confront biomedicine and the resulting marginalization of their own native traditions, traditional healers often turn this situation “into an opportunity to (re)invent” their traditions.84 Similar to the Tibetan case, Āyurvedic doctors often articulate the view that they are recovering the “true essence” of their ancient Indian medical tradition. Also like Tibetan medical writers, Indian doctor-scholars base their present-day interpretations of Āyurveda on classic texts of the tradition that predate the modern era by several hundred years. This reinterpreting and reshaping of the authoritative classical texts by modern authors, according to Langford, is inextricably linked to the recovery of Indian culture and the rise of Indian nationalism in a post-colonial India. She writes: “The inclusion of Āyurveda in the nationalist program exemplifies that peculiar ambiguity of nationalism, the contradictory need to fashion institutions commensurable with those of other nations while simultaneously constructing a unique national-cultural identity.” Further, as is common in the contemporary Tibetan system, this has led Indian doctors and medical scholars to “create a medicine that was not only parallel to modern medicine, but also in contrast to it.”85 As such, she argues, the construal of medical authority itself is also being reinterpreted and reshaped. This insight is crucial in understanding the Tibetan case; not just in the statements made about the tradition as a whole, but throughout the sources on women’s bodies. In these works the integration of hormones is clearly taken as an opportunity to reinvent the Tibetan medical tradition in a way that shows itself to be both parallel to biomedicine, yet uniquely Tibetan. In other words biomedical knowledge is often used to prop up the cultural and scientific authority of the medical and Buddhist works that inform the modern Tibetan medical institutions like QTMH.


85 Ibid., 7.
The integration of Tibetan and biomedical notions of “hormones” is arguably one of the most significant scholarly issues in the history of Tibetan gynaecology. It is the central intersection where Tibetan medicine and biomedicine are integrated in the contemporary literature concerning women's bodies. Herein, I take the view that both the biomedical and Tibetan medical systems describe a category of substances that are known in Western biomedicine as “hormones”—microscopic but potent secretions that originate from the brain and travel to various sites of action throughout the body, including the ovaries and testes where these are crucial to reproduction. Essentially, Tibetan and biomedical research communities are working with the same basic sets of questions about very subtle but profound processes in the body, but they explore these within their own cultural and social specificity. This is a central point of the present-day Tibetan medical writers; they maintain that the authoritative works of their tradition have long established that substances originating from the brain govern many of the body’s essential functions, including sex differences and the reproductive abilities of men and women. They do not articulate biomedical hormones as something unheard of, or foreign to, the Tibetan system. Quite to the contrary, they assert that ‘modern’ biomedical knowledge about “hormones” is already present in the Tibetan system, and therefore, their integration is mutually beneficial. In order to demonstrate this, the work of the contemporary Tibetan researcher is to interpret the “intended meanings” of the authoritative sources with an eye towards their relation to biomedicine. In this way, they hope to show both the uniqueness and universalism of the Tibetan medical tradition.

The word “hormone” has no direct equivalent in Tibetan, and may be found variously translated in that language. Significantly, contemporary writers turn to the conceptual language of the medical and Buddhist texts of the Indo-Tibetan intellectual traditions to create new terms and phrases to name and describe hormones in the body. In particular, Tantric ideas of the body have become a creative and innovative resource for Tibetan medical experts to think about and articulate biomedical ideas of hormones. Furthermore, such ideas and terms are popular and are being re-vitalized in today’s political, social and religious climate of reform in China. It can be said that for all of my sources, because hormones are debated using Tibetan language and are being interpreted through reference to Tibet’s authoritative body of medical (and Buddhist)
literature, biomedical ideas are positioned in a way to bolster and support the central claims of Tibetan medicine, rather than detract from or disprove them. In many cases, Tantric texts and biomedical ideas are both used to substantiate the Tibetan medical understanding of the female body, which itself is fundamentally rooted in shared Buddhist and medical notions of gender. This in turn can maintain or sometimes challenge Tibetan gender norms. “Hormones” are far from being a threat to the integrity of the Tibetan system whose authoritative knowledge has been taken up by researchers and writers as a crucially strategic way to strengthen the authority of Tibetan medicine and to promote its use and importance in Chinese Tibet. The language of the debates surrounding hormones speaks to the ways that medicine and science are never separate from their social, religious, economic and political worlds, but mirror the concerns, anxieties, hopes and ideals of their worlds.

Therefore, one of the core assumptions of this thesis in regards to medical authority is that all medical systems, including the now world-dominant biomedical model, invoke the social world to give expression to their scientific outlook. Evelyn Fox Keller, a scientist who writes on scientific language and gender indicates that science is “useful” or “right” when it meets particular social expectations. Or, in other words, the questions that scientists ask, how they are answered and how that information or knowledge is used in practice, teaching, and in dissemination reveals that “choices can be seen to be made that are social even as they are cognitive and experimental.”86 One of the aims of this thesis is to show how the biomedical and/ or Tibetan medical study of women (gynaecology; mo nad), and in particular the research on hormones in women (and men) implicates social, religious and political norms of gender. I am not suggesting that there aren’t bodily or physical material which hormones describe; certainly, scientists all over the world are working with real material processes in the body and their systems of examining and testing are not arbitrary, but achieved through detailed study, trial, error and sometimes fortuitous accident. I am continually astounded by the creativity and ingenuity in understanding the material world as displayed by my medical colleagues.87 I am


87 I am much indebted to my scientist mentors and fellow graduate students at the University of Toronto’s Collaborative Program in Women’s Health in the Dalla Lana Public Health Department.
interested in the material questions that scientists ask and endeavour to understand—but for now, this thesis looks at how Tibetan medical experts write about the materiality of the female body. To do this, I focus on the language, idioms, arguments and overall discussion surrounding the inclusion (or non-inclusion) of biomedical hormones in contemporary Tibetan medical literature.

0.5 An Intellectual History of “Hormones” in Western Biomedical Thought

The following section on “hormones” in Western biomedical thought is meant to serve primarily as a comparative lens into the Tibetan system of “hormones.” My position is that both the biomedical and the Tibetan medical systems describe a category of substances that are known in English as “hormones.” However, while the studies of “hormones” within both traditions implicate the most profound and fundamental ideas of sex, gender, the origins and the development of human life, neither of these scientific traditions can be viewed as imitations of the other. Most contemporary Tibetan medical writers state that they have knowledge of biomedicine, and are therefore either able to incorporate, or at least compare, their system with biomedical thought, the bulk of their arguments are textual analyses that show “hormones” as being already present in the Indo-Tibetan medical tradition. Clearly, the authority of biomedicine looms large in contemporary medical research in Chinese Tibet, and in showing the Tibetan perspective of “hormones” writers are clearly responding to, and dovetailing with biomedical thought.

Hence, in placing this section on biomedical views of hormones into the introduction I am enlisting a comparative method so as to show that the history of “hormones” in Western biomedical thought reveals itself to be constituted by its own cultural context well within the borders of its languages and cultures. In other words, the history of hormones in Western thought reveals that biomedical ‘knowledge’ is not an objective science that is outside of language and culture.88

Emerging in Euro-American culture around the turn of the nineteenth-century, the study of “hormones” investigated sex differences in the brain, reproductive organs, and sexual behaviour. The term, “hormone,” is derived from the Greek word “hormaein,” so as to imply “an agent that can excite, arouse, or stir.” Known today as belonging to the field of endocrinology, the study of hormones in biomedicine implicates a number of medical branches. These medical branches include the study of behaviour, the biochemistry and molecular biology of steroid hormones, neurophysiology, neuroanatomy and neuroendocrinology. According to Western medical thought today, “hormones” are microscopic but powerful secretions that are metabolized in the endocrine glands—the major ones being the pituitary, pineal, hypothalamus, thyroid, and adrenal glands, as well as the pancreas, testes and ovaries—and transmitted via the blood to their various sites of action in the body. Although hormones are perhaps most associated with sexual differentiation and reproduction, several classes of hormones are necessary for numerous and diverse physiological processes such as “feeding and body weight regulation, pain, memory, mood, anxiety, reward pathways, arousal, and sleep/wake cycles.”

Initially, the study of hormones in the Western biomedical sciences was focused on internal and external triggers in the physiology and reproductive lives of animals, with only a speculative eye towards human beings. In large part this was because then, as it is today, most experiments investigating hormones were conducted on animals. For example, based on their studies using vertebrates and invertebrates in the 1920s, neuroendocrinology pioneers, Ernst and Berta Scharrer worked on the idea of “neurosecretion,” that is, the creation and release of 


92 Working as a team, the couple divided the animal kingdom such that Berta would study invertebrates and Ernst, vertebrates. After Ernst’s death in 1965, Berta continued “to interpret the role of neurosecretory cells in the central nervous system,” and “was one of the early defenders of the unifying concept of a diffuse neuroendocrine system.” In the last decade and half of her life and work, she shifted her focus to neuroimmunology, that is, the relation of the endocrine and immune systems. Andreas Oksche, “Ernst and Berta Scharrer—Pioneers in Neuroendocrinology,” In *Neuroendocrinology: Retrospect and Perspectives*, eds., Horst-Werner Korf and Klaus-Henning Usadel, (Berlin Heidelberg: Springer, 1997), 1–4.
hormones by neurons of the brain, which then spread in the blood and transmit messages to other parts of the body. They mused that it “is certainly strange that cells as highly specialized as nerve cells should also have the faculty of acting as gland cells, and many aspects of neurosecretion, particularly as it concerns animals and man, are still obscure.”

From the very beginning, a key element of endocrinological research has been that whatever can be postulated and inferred from experimental data comes from experiments with animals that most often entails their sacrifice and dissection. There have been studies on human cadavers, but for obvious reasons, central physiological avenues of research are limited with humans. Nonetheless, the endocrinological field has been been resourceful in devising ways to learn about the role of hormones in humans.

In the 1940s, Frank A. Beach and Priscilla Rasquin’s experiments using male and female lab rats worked to establish the relations among hormones, brain structures and copulatory behaviour. Some of their experiments involved castrating or ovariectomizing rats and/or injecting them with testosterone propionate, and then stimulating and observing their sexual behaviours. Beach and Rasquin found that some female rats would mount like male rats, and conversely they observed male rats showing lordosis and allowing themselves to be mounted. One of their conclusions was that sexual behaviour appeared as a continuum, rather than strictly being either male or female. They also noted that the behaviour, in part, seemed to depend on hormones. What this early work demonstrated, according to Gillian Einstein, is the “individuality” in rodents, leading to Beach’s “perception that has been lost in the literature—that just like primate behavior, rodent behavior depends on environment and circumstances.”

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95 See: Frank A. Beach, “Female Mating Behavior Shown by Male Rats after Administration of Testosterone Propionate,” Endocrinology 29 (1941): 409–12, and; Frank A. Beach and Priscilla Rasquin, “Masculine Copulatory Behavior in Intact and Castrated Female Rats,” Endocrinology 31 (1942): 393–409.

96 Einstein, ed. Sex and the Brain, 2.
Contemporaneously to Beach and Rasquin, Geoffrey Harris helped to establish the hypothalamus-pituitary connection showing that hypothalamic neurons in the brain secrete hormones that regulate the anterior pituitary gland, which itself regulates the secretions of hormones into other parts of the body. According to Geoffrey Raisman, Harris’ work solidified in the field of endocrinology the “view that the brain controls the endocrine system by an exquisitely regulated pattern of synthesis and release of individual members of a family of peptide hormones.” Significant to Western endocrinology, Harris’s research demonstrated how hypothalamic hormones found in vertebrates, including humans “are essential for all aspects of reproduction—courtship, mating, pregnancy and young rearing—and they are responsible for the seasonal regulation of breeding.” Insofar as being part of the larger endocrine system, Harris’ work established that some hypothalamic hormones specifically regulate the secretion of pituitary growth hormones, while others control the functions of the thyroid and adrenal glands. Moreover, the secretion of the hypothalamic hormones is itself “regulated by the feedback of the target gland hormones (such as estrogen and progesterone), which concurrently act on the brain to elicit appropriate behaviour patterns.” Therefore, from the onset, the field of endocrinology has not been a study of ‘closed’ bodies, but rather an investigation into how various factors of the external environment, social behaviours, and mating patterns interact with the functions, mechanisms, and timings of a ‘permeable’ body.

The study of hormones in Western culture presents us with a material-based experimental lens of investigating the interactions and feedback mechanisms among material physiological substances inside the body, our (un)natural environments, and human (and animal) social worlds. Significantly, early Euro-American studies on hormones were open to sexual, and what today we think of as ‘gender’ diversity—while scientists were looking specifically for physical markers of sex, they were actually discovering its fluidity. As the field progressed, incredible technological

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99 Ibid., 533.

100 Ibid., 533.
advancements allowed researchers to see, measure and quantify ever-increasingly minute particles of animal and human bodies, advancing research into the early insights of endocrinology’s pioneers.

By the 1980s, Western researchers had come to focus on the concept of sex differentiation which considers how the male and female phenotype develop into two recognizably distinct sexes. Einstein writes that this step in the history of hormones was to ask: “if female and male sexual behaviors differ, and behavior is mediated by the brain via the endocrine system, “how does it get that way?” How does the brain differentiate into one of two sexes?” One of the leading hypotheses was that “hormones, circulating early in embryonic development, move the fetal nervous system toward a male or female phenotype.” Accordingly, if nothing had gone amiss during development, the brain and endocrine glands, bodily phenotype and the male and female chromosomes (the XY and XX for male and female respectively), would necessarily be aligned in either a male or female person, or an animal. Related to this, the “organization” and “activation” hypotheses, postulated in the early days of Beach, Harris and others, became established in the field. The former hypothesis refers to the way in which prenatal and postnatal hormones organize the very structure of the brain and the sexed body during the critical development stages. The latter “activation” hypothesis points to the ability of hormones to trigger or to suppress, that is to ‘activate,’ specific actions in a developed adult body.

The study of the biochemistry and actions of steroid hormones became another important arm in Western endocrine research. The focus of this sub-field is the study of how sex steroids

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102 Einstein, ed. Sex and the Brain, 3.

103 Ibid., 3.

are metabolized and converted into other, more specific hormones. According to Western biomedical researchers, all steroids first originate from cholesterol. Pregnenolone is first synthesized from the cholesterol. The androgen, dehydroepiandrosterone (DHEA) and progesterone is then produced. On one pathway, progesterone is metabolized to androstenedion which can further metabolize to become either testosterone or estrone. On the other pathway, DHEA transforms to androstenediol, which is converted to testosterone, and then to dihydrotestosterone. Estrogen, in this system, is metabolized from androgens, but its pathways are far less known. It is in these successive series of syntheses that the steroid hormones of testosterone and estrogen are produced.

One of the important insights gained from this field is that these hormones are specifically neither male nor female. And it possibly could be the case that “it is estrogen not testosterone itself that “masculinizes” the developing brain.” Although in Western culture, steroid hormones are oftentimes characterized as masculine or feminine, no such hormone is exclusively male or female; the production of androgens is required to produce estrogens, and conversely, androgens which have been produced can be converted into estrogens. Yet, despite their non-exclusivity or lack of unique maleness or femaleness, it is the orchestrated actions of hormones and their receptors, especially during the critical periods of (pre-and post natal) development that are thought to direct the embryo towards being either male or female. A second major notion in the study of the biochemistry of steroid hormones is that “although not exclusively, steroid hormones have their major effects by their synthesis in endocrine organs and delivery to sites of actions via the blood. They acquire their specificity of action through being

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106 Einstein, ed. Sex and the Brain, 4.

107 Ibid., 4.

108 Ibid., 4.
sequestered and amplified by receptors." The receptors become activated by binding to the steroid hormones. Because both androgen and estrogen receptors belong to the larger class of the steroid/thyroid receptor super family, those hormones have many bodily functions outside of reproduction, and again, are not exclusive to either sex.

Despite the early findings that indicated that hormones are not ‘sexed’ as uniquely male or female, the model of sexual dimorphism guided the assumptions of many in the field of Western endocrinological research. There are a few reasons for this. One of the problems is that the male body is still often taken as the normative human body and the female body is vastly understudied; sex differences are simply not investigated in most research studies and clinical trials. Or, often when they are researched, anatomical size, density and volume are measured and commonly regarded as evidence for meaningful sexual differences—assuming that size matters. Still today in the West, male pathways and triggers in the brain, the role of sperm versus the female egg, the switches of the XY chromosome and so on, are far better understood than such processes in females.

Perhaps the most telling example of this lack of research into female bodies, and the normalization of equating the male body with the human one can be found in the research into the SRY, at the time (1980s – 90s), the so called ‘sex-determining gene.’ The SRY gene, located in a region on the Y chromosome, “turns on the differentiation of the testes and hence, the synthesis of testosterone.” In the absence of SRY, a female phenotype will be born. Initially, the search for SRY was inspired by the assumption that there exists a single “master gene” that directs the development of the whole human organism; finding it represented the “holy grail of

\[\text{\textsuperscript{109}} \text{Ibid., 4.}\]

\[\text{\textsuperscript{110}} \text{Ibid., 3.}\]
When researchers ‘discovered’ and confirmed the SRY gene, that is, the gene that ‘makes a man a man,’ scientists and media outlets such as the *New York Times* characterized the finding rather androcentrically. The male SRY pathway was taken as the normative sex-determining factor, and the female pathway was labeled as the “default.” In other words, the male was thought of as ‘active’ and the female, as ‘passive’ default, and without her own active pathways to becoming female.

Gender-critical scientists such as Anne Fausto-Sterling, Jennifer Graves and Roger Short, who also worked in the endocrinological field, pointed to several problems with the prevailing view of the SRY gene. Sarah Richardson writes that the main argument of Fausto-Sterling’s article, “Life in the XY Corral” was three-fold:

First, by equating the genetics of testis determination with the genetics of sex-determination, researchers had neglected parallel investigation into the genetics of ovarian development. Second, researchers had privileged male over female processes by accepting a highly resonant metaphor of “male as presence and female as absence.” Male processes of sexual development were deemed a more interesting, complex, and dynamic object of investigation than female processes. Third, researchers had assumed that sex organizes into a “clearcut” binary such that it can be unambiguously determined by genetic assay.

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Richardson’s observations draw attention to the underlying biases in Western culture which within the study of “hormones” deeply implicates gendered norms and the respective valuing of males and females. As a result, many gender-critical scholars have examined how cultural, religious and societal views of women and men became crystallized in endocrinological research.  

Many of these studies examine the persistent idea among researchers that hormones are ‘sexed’ and produce ‘masculinity’ and ‘femininity’ in men and women. The role of language, and the conceptual thinking it entails, is as central in many of these arguments as it is in mine. It is the site where scholars often locate the intersection between science and society. Today, many humanities scholars who study science and gender seriously challenge any objective, non-social, non-linguistic approach to ‘science’, arguing that the medical view of sexed bodies is always foremost informed by social expectations. Judith Butler, a philosopher of linguistics and psychology, definitively ushered in the present era where many Western gender studies scholars question the distinction between sex and gender altogether. Butler contends that anything said about ‘biological sex’ is first necessarily signified by ideas of ‘gender.’ Since language and linguistic signs are inherently social it is not possible to isolate a pre-social biological ‘sex.’ In other words, the distinction between biological sex and social gender is a false one that masks the ways that the inequalities of heteronormative culture are maintained and perpetuated.


According to Carole Worthman, a common problem among humanities perspectives of medical research is that:

These studies dissect the scientific production and interpretation of knowledge but rarely provide sustained analysis of how scientific terms and data are selectively appropriated, distorted, and recast by nonscientists, or “folk,” in the social construction of sex and sex differences… Such critics of science thus eschew the opportunity for yet more subtle analysis of social constructions of reality and of the power struggles involved in those constructions, in favor of simplified readings of science as hegemonic, monolithic, and unreflexive.\(^\text{118}\)

While such criticism appears to ignore the wider point of humanities scholars, namely, that science can never be separated from the social world, regardless of how much non-scientists may bungle scientific literature—the lack of attention to the realities of scientific research sometimes reflected in social studies of science is understandably distressing to scientists. Today, it is generally the case that Western scientists who ‘actually work with hormones’ agree that estrogen and testosterone are not exclusive to either sex, and further, that the ‘sexing’ of male and female hormones is a popular public myth, rather than an accepted notion circulating in (peer-reviewed) scientific thought. However, researchers concede that pervasive views about gender can contribute to biases at every stage of their work, and that they consistently grapple with the ‘nature vs. nurture’ debate in the course of their research.\(^\text{119}\) Western endocrinology is a field that must explicitly consider the role of social gender norms in thinking about human biology. The gender critical approach taken up by scientists and humanities scholars is pushing endocrinology into the direction of studying ‘gender’ as a part of ‘sex’ difference. Sarah Richardson argues that since roughly the 2000s, gender critical research has become “normalized” in the field of sex-determination genetics.\(^\text{120}\)

The study of “hormones” in Euro-American culture is complicated and involves many areas and methods of research. It is a study that unravels and disrupts strict sexual binaries,

\(^{118}\) Wothman, “Hormones, Sex and Gender,” 596.

\(^{119}\) For example, Kelly Evans, “Testosterone and Cognition,” Collaborative Program in Women’s Health,” Sidney Smith Hall, University of Toronto, April 15, 2015.

showing instead a continuum, and yet at the same time, it examines how hormones are involved in the developmental organization and activation of dimorphic male and female bodies. It is also a field that is reaching ever further into other research branches, and few researchers of the human body can ignore the enormous influence of “hormones” in human and animal bodies, and in the environment. As we look through the Tibetan sources that speak to “hormones,” it will become clear that they are considering the same sorts of questions as Western endocrinologists and are responding to the biomedical system of hormones, albeit within a Tibetan framework. Hence, I suggest that while we think of “hormones” as being something materially ‘real’ and tangible, we must also understand their study and explication as within cultural and historical dimensions.

The first chapter of this dissertation provides a general description of my primary sources, and medical writing and publishing in Qinghai Province, China. After this, I examine the methods by which medical authority is established, and the ways in which women’s bodies, according to the Four Treatises, are interpreted in present-day medical works. Lastly, I provide a brief overview of the Tantric, or vajra, body of Tibetan Buddhism. In the Second chapter, I examine “hormones” in two book-length commentaries, Thupten Püntsok’s Knowledge of the Body in Tibetan Medicine,¹²¹ and Mingji Cuomu’s Clinical Experience in Treating Obstetric Diseases.¹²² From these two works, I present a basic framework of Tibetan understandings of the human, and in particular, female body. In the third chapter, I analyze two present-day Tibetan medical articles, “Study of Menstruation within the Body of Tibetan Medicine”¹²³ by Lhamokyi, and “A Brief Discussion on the Connection between Reproductive Fluid, Marrow, the Brain and the Ovaries/Testes”¹²⁴ by Gönpokyap. In this chapter, I pay special attention to the Tibetan argument that the biomedical understandings of hormones and the endocrine system can be established in the authoritative and classical literature of the Indo-Tibetan medical and Buddhist tradition. In the fourth chapter, I examine two home reference works that specialize in women

¹²¹ Thub bstan phun tshogs, Gso bya lus kyi rnam bshad.
¹²² Sman skyi mtsho mo, Mo nad phal pa’i nad la zhib ’jug dang gso bcos kyi nyams yig.
¹²³ Lha mo skyid, Zla mtshan gyi rnam par bshad pa blo chung byis pa’i mgul rgyan.
¹²⁴ Mgon po skyabs, Khu ba dang rkang klad pa bsam bse’u bcas kyi ’brel ba’i skor phran tsam gleng ba.
and teenage girl’s health, Wangyel’s *Knowledge on Maintaining the Health of Mother and Child,*125 and Palzang Gyatso’s *Some Common Knowledge about Protecting the Health of Women.*126 In my analysis of “hormones” in these two works, I focus on how political, social and religious attitudes and perspectives towards women become ‘medicalized.’ In my concluding remarks, I explore the intersection of religion, gender, and medicine in the contemporary Tibetan medical literature that speaks to “hormones.”

The way that I have decided to translate and present the Tibetan picture of hormones is by paying close attention to the language and context of two related but distinct types of contemporary Tibetan medical works that speak to hormones in women’s bodies, what I call professional works, and home healthcare references. The first type of works, taking up Chapters Two and Three, are intended for a medical, or at least, a university educated Tibetan audience. The book-length works of the second chapter were chosen for their ability to lay out and explain the Tibetan medical and Tantric body for the uninitiated reader. They also present us first with an earlier work showing a somewhat tentative speculation on the relation of biomedical notions of hormones and Tibetan medical thought, and decade-later work which directly integrates Tibetan medical and Chinese biomedical terms for hormones. The two articles of the third chapter are technical works that focus on a significant debate within the Tibetan professional sources involving the key endocrinological relation between the brain, ovaries, testes, and reproductive fluids. Both of these articles contribute to an emerging trend in the Tibetan sources, deliberating whether or not the authoritative Tibetan medical, Buddhist, and Tantric sources demonstrated some knowledge of these endocrinological relationships before gaining some awareness of biomedical hormones. The fourth chapter, which concentrates on home health reference works for women and girls, presents a language of hormones as these relate to ideas of women, gender, and Tibetan nationalism. In this way, we can study the Tibetan view of hormones from a range of perspectives, target audiences, and methodological approaches.


126 Dpal bzang rgya mtsho, *Bud med bde srung skor gyi rgyun shes phran bu bzhugs.*
1. Contemporary Tibetan Medical Literature on Women: The Primary Sources in Context

The purpose of this chapter is to examine the origins and orientations of the primary sources for this thesis before exploring what they say about hormones. Therefore, this chapter will outline a general description of the primary works, followed by their relation to Tibetan medical research and publishing in Chinese Tibet, specifically within Xining and Qinghai Province. In the following section, I examine how contemporary Tibetan medical researchers who write about women’s bodies and hormones establish themselves and their traditional system of knowledge as authoritative. Included in this is an examination of the Tibetan response to biomedicine and how that response is established and positioned in relation to the authority of their traditional system of knowledge. Following this, I focus on the descriptions of women’s bodies as found in the *Four Treatises*, the premier authoritative medical treatise among contemporary writers. Lastly, the relation of Tibetan medical and Tantric Buddhist bodies in authoritative and present-day medical writings is examined in the final section.

1.1 General Description of Primary Sources

The primary sources herein are contemporary Tibetan language medical works that incorporate biomedical notions of hormones with Tibetan medicine. I focus on a small selection of *gso ba rig pa* works that represent a variety of forms of modern Tibetan medical publishing: journal articles, books on women, books on the whole human body, gynaecology textbooks, and home reference books for women and girls. The primary sources of these present-day works are the classic authoritative texts of the Tibetan medical and Buddhist traditions, principally the *Four Treatises* and its commentarial tradition. Because of this, I give something of the history, authorship and context of the authoritative literature and how these are relevant in the present-day works.

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127 All translations from Tibetan to English in this thesis are my own. On numerous occasions I kindly received advice on the interpreting and translating these texts by various Tibetan friends and interlocutors in Toronto, India, Nepal and Tibet. Nonetheless, any and all errors—I have no doubt that there are many—are my own. Suggestions and alternative readings are welcome.
Many of my sources are published by the major Tibetan publishing houses in the eastern or Amdo and Khams regions, which are: Xining (Qinghai), Lanzhou (Gansu), Dechen (Yunnan) and Chengdu (Sichuan). A few of my primary sources are published by the Lhasa People’s Publishing House (TAR), and the Tibetan Publishing House in Beijing, but their authors also have connections to eastern Tibet in various ways, and sometimes have their works published by the bigger houses in Beijing and Lhasa.

Nearly all of my primary sources that examine hormones are published after 2000, although some sources date from the mid to late 1990s. Because I have limited my range of primary sources to the last two decades or so, I am unable to comment upon when or in what ways biomedical notions of hormones in Tibetan medical thought have developed over the last century. From my own observations, there appears to be a significant interest in demonstrating Tibetan medical notions of hormones, and comparing and incorporating them with biomedical ideas. Among my primary sources, works from the mid to late 1990s are cursory in their comparisons with biomedical hormones. For example, Thubten Phunstok’s 1999 book, *Knowledge of the Medical Body* touches on hormones a number of times, but more so in a cursory, exploratory way, noting that these come from the ovary. He also suggests that a tentative relationship exists between the *channels* and *cakras* of the Tibetan medical-Tantric body and the Western notion of glands and hormones. In his book, Thubten Phunstok writes that “…if we examine carefully the nature of the relationship between this and “hormones,” which are taught in relation to “glands” in the Western system of medicine, I think beneficial fruits will naturally emerge.” Similarly, in the home health book, *Means of Preventing and Curing Women’s...

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129 For example, the Qinghai Tibetan Medical College’s textbook series is published in Beijing.

130 Thub bstan phun tshogs, *Gso bya lus kyi rnam bshad*.

131 … nub phyogs pa’i gso rig lugs kyi rmen bu la brten nas ‘babs pa’i ho’o mo’u (Hormone) zhes pa de gnyis ’brel ba gang yod legs par brtag na rang gzhan gnyis ka la phan pa’i ’bras bu zhig ’byung bar sms, ibid., 125.
Disorders according to the Authoritative Literature of Tibetan Medicine, by Palden Thinley and published in 1996, the author mentions the role of the endocrine system and hormones, but presents this more as information that is in addition to Tibetan medicine, rather than integrating ideas from both traditions. Yet he also provides a full colour and very detailed biomedical-style anatomical illustration with Tibetan language labels.

By the 2000s, Tibetan authors appear confident in their assertion that biomedical ideas of “hormones” are not only compatible with, but already have been known and written about in the authoritative literature of Tibetan medicine (and Tantra). As a result, a number of key points of consensus about “hormones” in the authoritative sources have been established among contemporary writers. These key points include the relations among sexual difference, the brain, and the reproductive fluids (the white and the red elements), the connection between digestion and quintessential or “hormonal” substances, and the relation between “glands” and “hormones.” Moreover, Chinese biomedical terms began appear as direct correlates to Tibetan words and ideas. For example, Clinical Experience in Treating Obstetric Diseases by Mingji Cuomu, and a 2010 health handbook for rural Tibetans, The Body and How it Works produced by the Xining-based Jinpa Project provide Tibetan-language medical illustrations accompanied with integrated Tibetan and biomedical explanations of the glands, hormones, and their relations to reproduction.

Other non-specialist works also published after 2000 and directed at young women, such as Wang Gyal’s Knowledge on Maintaining the Health of Mother and Child, and Palzang Dpal ldan ’phrin las, Bod lugs gso rig gi rgyun mthong mo nad ’gog bcos bya thabs (Lhasa: Bod ljongs mi dmangs dpe skrun khang, 1996).

132 Dpal ldan ’phrin las, Bod lugs gso rig gi rgyun mthong mo nad ’gog bcos bya thabs (Lhasa: Bod ljongs mi dmangs dpe skrun khang, 1996).

133 Sman skyid mtsho mo, Mo nad phal pa’i nad la zhib ’jug dang gso bcos kyi nyams yig.

134 The Jinpa Project, Mi lus grub tshul dang byed las (Xining: Mtsho sngon mi rigs dpe skrun khang, 2010).

135 The Jinpa Project is a NGO grassroots Tibetan-run charity that focuses on improving the lives of rural Tibetans, and has produced a total of eight health handbooks, including one focussed on the reproductive health of women. For more on the Jinpa Project see their website: http://www.jinpa.org, Last accessed May 25, 2015.

136 Dbang rgyal, Ma bu bde srung gi rgyun shes.
Gyatso’s *General Knowledge on the Health of Women*\(^{137}\) also directly refer to joined Tibetan and biomedical notions of hormones and their relation to the glands, ovulation, menstruation and pregnancy. Among my primary sources, it can be said that the compatibility of Tibetan medical and biomedical thought in regards to the relations among glands, hormones and reproduction is assumed, and medical researchers are increasingly focusing their attention on establishing *Tibetan* knowledge of hormones in the authoritative literature. A key way that they do this is through positioning biomedical knowledge in such a way as to confirm and develop Tibetan knowledge.

While the majority of new Tibetan medical works on women say something on biomedical notions of hormones and their relation to Tibetan medical ideas, there are exceptions. Significantly, a core gynaecology textbook used by the Qinghai Tibetan Medical University, Jampa Dolkar’s *Healing Women’s Disorders*\(^{138}\) (quoted in the introduction) focusses on a fusion of Tibetan and Āyurvedic medicine and makes no mention of biomedicine in any of its contents. The fact that the work belongs to a series of medical textbooks, in part titled “the Standard of Tibetan Medicine in the Twenty-first Century” (*dus rabs 21 pa’i bod lugs gso rig dngos tshan*) perhaps makes it more striking that biomedical notions of hormones are completely absent. Yet, clearly for Jampa Dolkar the standard study and explication of authoritative literature, rather than the integration or comparison with biomedical ideas, is one way to maintain the authority of Tibetan medicine. Jampa Dolkar’s textbook outlines, and explains in thorough detail Tibetan gynaecological knowledge—if the aim is to provide an unadulterated standard textbook of *Tibetan* medicine as a core basis of education for medical students, then her book achieves that goal.

Other works, such as Dorje Rigzin’s home reference book, *Excellent Practices of Tibetan Medicine: Easy to Understand for Intelligent People*,\(^{139}\) follow similar suit insofar as exclusively adhering to the *Gso ba rig pa*-Āyurvedic medical model, and not including biomedical ideas of

\(^{137}\) Dpal bzung rgya mtsho, *Bud med bde srung skor gyi rgyun shes phran bu bzhugs*.

\(^{138}\) Byams pa sgrol dkar, *Mo nad gso ba*.

\(^{139}\) Rdo rje rig ’dzin, *Gso rig go bde ’i rnam bshad blo gsal dgyes pa ’i lam bzad* (Xining: Mtsho sngon mi rigs dpe skrun khang, 2008).
hormones. As I stated in the Introduction, some Tibetan researchers argue that the best way to conduct research into and preserve the Tibetan tradition is through re-publishing the authoritative sources so as to establish the primacy of textual scholarship. Hence, some present-day medical works make little to no mention of biomedicine in relation to Tibetan medicine, and do no integrate hormones into their configurations of the female body.

These examples highlight a striking difference between Tibetan writers that write about “hormones” and the few who do not. While the former group places great emphasis on locating the relations among the brain, quintessences and reproductive fluids in the Tibetan authoritative literature, this triad is largely absent in the works of the latter group. This difference in perspectives demonstrates just how much contemporary medical researchers who are speaking to “hormones” are re-interpreting and re-thinking their tradition in relation to modern biomedicine.

In spite of the exceptions, nearly all of the contemporary Tibetan medical sources on women incorporate and debate the biomedical notions of hormones. The most glaring of these debates is the naming of hormones. Although there is some overlap, and common conceptual language, authors use a variety of phrases and terms to describe and name “hormones.” To get at the heart of this and other debates, I look again to the Tibetan geo-political context, and religious and social perspectives of sex and gender. Hence, starting with medical practice and publishing in contemporary Chinese Tibet, the remainder of this chapter provides more detail as to the context of my primary sources.

1.2 Medical Practice and Publishing in Qinghai Province

Up until the Chinese incorporation of Tibet, medical colleges in what is now Qinghai province were limited to the monasteries, the main one being the Kumbum (sku ‘bum) monastery in Rusar (Ru gsar) (Huangzhong) County. After the Chinese takeover, and owing largely to the destruction and dismantling of the Tibetan Buddhist monastic system as it had existed, Tibetan medicine moved from the monasteries into more secular institutional settings such as medical clinics. By 1978, there were several of these clinics, including Tibetan medical divisions within larger Chinese biomedical hospitals. Beginning in the 1980s, during the “reform and opening up” (gaige kaifang) period under the leadership of Deng Xiaoping (1904-97), roughly a thousand
doctors were graduated from two medical courses, the Medical School of Huangnan Tibetan Nationality Autonomous Prefecture (Huangnan Zangzu Zizhizhou Weisheng Xuexiao) and the Society of Tibetan Medicine of Qinghai Province. The Qinghai College of Tibetan Medicine was established in 1987, and has since become one of the leading centres of Tibetan medicine, drawing students from across China.\(^{140}\)

Today, Qinghai Tibetan Medical Hospital (QTMH) and its related facilities, located in Xining, serve as the central medical hub for eastern Tibet. QTMH is partly supported by the Arura Medical Group, which funds five interrelated branches: College of Tibetan Medicine, Tibetan Hospital, Arura Research Division, Museum of Tibetan Medicine, and Arura Tibetan Pharmaceutical Factory.\(^{141}\) From within its research division, the Arura group is at the heart of medical publishing in eastern Tibet, investing heavily in textual research and the re-printing of Tibet’s authoritative medical literature, in addition to publishing contemporary commentaries. The Arura medical group also works with other local and regional researchers, and is closely tied to the Lhasa Menstikhang, with medical students, doctors and researchers often spending time at each centre.\(^{142}\) QTMH is considered a primary care facility for many of its patients, who are mostly Tibetan. Not infrequently, Han, Huie, and Uigyur peoples consult Tibetan medical doctors. I am not aware of any published data showing the ethnicity or place of residence of QTMH’s patients, but I would gander (from dress and dialect) that the majority of the Tibetan patients are rural, and also as well, that a number of urban Xining Tibetans use the QTMH’s facilities. Being a large city, there are number of Chinese biomedical hospitals and Traditional Chinese Medicine (TCM) medical centres in addition to the QTMH.

The “gynaecology department” (mo nad tshan khag) of QTMH consists of in and outpatient divisions located in separate buildings. The hospital has no birthing facilities, although many women consult Tibetan gynaecologists as part of their pre-natal and post-natal care. According to their brochure (and as I witnessed), the doctors who work in the Gynaecology Division use a “balance” (cha snyoms) of the “traditional practices of the Tibetan system of

\(^{140}\) Hua, “The Diffusion of Tibetan Medicine in China,” 96.

\(^{141}\) Adams, Dongzhu and Le, “Translating Science,” 112.

\(^{142}\) Personnel communication, QTMH, 2011.
medicine” (bod lugs gso rig gi phyag len rgyun ‘dzin) with the “new methods” (thabs gsar pa) investigated by its research arm. The doctor under whom I studied is one of the full-time gynaecology specialists. As advertised in a brochure, just published before I left in 2011, she has experience treating: “aggravated blood and aggravated wind disorders” (khrag tshabs dang rlung tshabs), “uterine parasites/infections” (mngal srin), “uterine growths” (mngal skran), “menstrual problems” (mngal ‘byams pa), “infertility” (ro tsa gso ba), and other “various female disorders” (mo nad sna tshogs). While I studied there and travelled around the villages and towns outside of Xining, such as Rebkong (Reb kong; Ch. Tongren), it became evident that she was quite renowned for her skill in treating women’s disorders, which seemed supported by her status as the daughter of a famous lineage doctor. So well-regarded, and despite being a specialist in gynaecology, not infrequently she had male patients including monks. On one occasion when I was present, a Chinese policeman (with his mother, sister and wife accompanying him) was there looking for a remedy for his acne. Although the hospital is largely organized along biomedical style departments and categories, patients not infrequently ‘cross’ departmental lines and seek whichever doctor they feel would yield the most benefit.

A central reason that I highlight clinical practice at QTMH and the specialist under whom I studied is because it demonstrates the importance of the relation between practice and publishing in Chinese Tibet. Having experience as a medical practitioner in addition to having textual knowledge is a key way Tibetan medical writers establish their authority. By being experienced with patients, the writers can make claims about having in-depth knowledge, that is, they have fully integrated the experience of having experience in practical medicine. Similar to the biomedical researcher, Tibetan medical researchers need to be competent in the literature of their field. Dissimilarly, biomedical researchers do not have to work directly with patients to gain the experience that is so necessary for establishing the authority of Tibetan medical writers. In other words, the outcome of clinical trials are not normally thought to be affected by whether or

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143 Mtsho sngon zhing chen bod sman khang, “Mo nad tshan khag,” 2011.

144 Ibid.

not the researcher is a practicing doctor. The next section deals more specifically with how Tibetan medical researchers and doctors position their system of knowledge as authoritative and on equal scientific footing with biomedical thought.

1.3 The Past Becomes Present: Establishing the Authority of Tibetan Medical and Buddhist Literature

Establishing the authoritative basis of Tibetan medical knowledge in both the past and the present is an important element of contemporary medical writing. Emphasizing critical and empirical methods, present-day medical researchers are keen to demonstrate Tibetan medicine to be a system based on observations of the human body and its various conditions. The common assertion that Tibetan medicine is a “gem” among the world’s medical traditions, is based on the axiom that Tibetan medicine is on the same scientific footing as biomedicine insofar as both disciplines can tell us certain ‘truths’ about the body. This assertion also points to the argument that biomedicine is not (or should not be) the only authoritative medical system in the world, but that other national systems of medical knowledge possess equally valid ways of approaching the human body.

As we shall see in the following chapters, the sources that integrate Tibetan medical and biomedical notions of hormones equalize the scientific footing of both systems to such an extent that biomedicine is strategically positioned to substantiate and validate the claims of Tibetan medicine. Even the most esoteric and subtle anatomical features of Tantric Buddhism are made more substantially material in their use as a way to speak to the topic of “hormones.”

In this section, I examine two inter-related arguments that Tibetans researchers address in their construing of the Tibetan system as an authoritative source of knowledge. The first point is that Tibetan medicine (and Buddhism) is and always has been scientific insofar as it is founded upon experiential and empirical observations. The second point is that Tibetan medicine is a system open to new and foreign knowledge that blends the most useful parts of any tradition from the evidence-based point of view. I observe that in positioning Tibetan medicine as authoritative medical knowledge, Tibetan researchers achieve their larger aim of promoting Tibet’s cultural and religious national identity.
A good example supporting the view that I am describing can be found in Gönpokyap’s essay, “Brief Discourse Regarding the Necessity to Continually Focus Research on the Unique Features of the Human Body”\textsuperscript{146} which is found in his volume of essays, *Moonbeam of Delightful Jasmine: Collected Essays on Tibetan Medicine*. Gönpokyap writes:

In general, the system of Tibetan medical science is founded on a thorough examination of the parts of the human body such that during the reign of the tenth Tibetan King Esho Leg, flawed bone could be cut out and damaged flesh could be sewn back together. Knowledge on sewing up skin is clearly expanded upon in Shentön Yeshé Lodrö of Darding’s text, *The Instructional Water that Revives the Dying through the Treatment of Wounds*. And especially, during the time of the eighth-century. His eminence, Yuthok the Senior composed the text, *Essence of Nectar* and surgically replaced the skull fragment of the Muslim king’s minister, Sengé Bépa, which is today difficult to imagine.\textsuperscript{147}

In this short passage Gönpokyap name-drops some of the most important figures in Tibet’s early medical history, dating back to before and during the appearance of Buddhism in Tibet. The first example of ‘Tibetan empiricism,’ “the sewing up of flesh wounds during the time of the tenth Tibetan king,” harkens back to Tibet’s imperial and militaristic era from which works on healing battle wounds and animal husbandry constituted the bulk of known medical writings.\textsuperscript{148} Moreover, by referring to the time when the Tibetan empire was so powerful and vast that it ruled parts of China, Gönpokyap is in keeping with the wider nationalist discourse surrounding Tibet’s pre-Chinese geopolitical identity.

The second example, *The Instructional Water that Revives the Dying through the Treatment of Wounds*, was written by the renowned fourteenth-century Tibetan medical doctor

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\textsuperscript{146} grub pa lus kyi thun mong ma yin pa’i khyadchos dam ’dzin byas te mu mthud du ‘phel rgyas su gtong dgos pa’i skor phran tsam gleng ba, Mgon po skyabs, Gso rig dpyad rtsom kundan dgyes pa’i zla zer (Beijing: Mi rigs dpe skrun khang, 2008), 126–35.

\textsuperscript{147} spyir bod lugs gso rig dbu brnyes pa dang lhan du mi’i lus kyi grub char zhib ‘jug legs por gnang ba ma zad bod rgyal bcu ba e sho legs kyi skabs su rus skyon bcad cing sha skyon gshugs pa dang / pags ral btsems pa bcas kyi phyag len rgya cher spel ba ni dar lding gi gshen ston ye shes blo gros kyis mdzad pa’i rna bcos ‘chi sos la chu’i zhal gdams las gsal zhing / lhag par dus rabs brgyad pa’inang skyabs rje g.yu thog rnying ma chen mos bdud rtsi snying po’i gzhung mdzad cing kha che rgyal bo’i blon po seng ge shab pa’i mgo bor rus tshab gzhugs pa ni nye lam ngo tsho’i rmi lam du ’byung dka’ ba’i ‘char snang zhig tu gda’, ibid., 130–1.

and writer, Shentön Yeshé Lodrö (Gshen ston ye shes blo gros). Significantly, his works constitute some of the earliest known sources on Bön, a set of religious practices predating Buddhism in Tibet, which emphasized ritual, symbolic language and cosmogenic narrations. While historically the Bönpos’ were looked down upon by Buddhists, today’s Bön tradition constitutes a vital part of Tibetan identity and operates ecumenically with the schools of Buddhism. Moreover, a number of present day medical writers draw from Bön works, not only in a historical narrative sense like here with Gönpokyap, but in how they position authoritative sources in contemporary medical thought. Significantly, in both examples so far, it is by virtue of being Tibetan, rather than necessarily being Buddhist, that counts in the contemporary construing of authoritative Tibetan medical knowledge.

The third reference, “Yuthok the Senior,” refers to Yuthok Yönten Gönpo (G.yu thog yon tan mgon po, 708 – 833), a central founding figure in Tibetan medicine, who is accredited with composing an early version of the Four Treatises, to which Gönpokyap refers by the alternate title, Essence of Nectar. Posthumously considered an emanation of the Medicine Buddha and one of Tibet’s national treasures today, Yuthok Yönten Gönpo was the renowned court physician of Trisong Deutsen (Khri srong lde’u bstan, 755 – 797 CE). Yuthok Yönten Gönpo, being especially gifted, was said to have learned Sanskrit from Padmasambhava, the famous adept

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149 Shentön Yeshé Lodrö is mentioned among a list of “Renowned Tibetan Physicians” in Desi Sangyé Gyatso’s the Mirror of Beryl; see: Sangs rgyas rgya mtsho, Mirror of Beryl: A Historical Introduction to Tibetan Medicine, trans., Gavin Kilty (Boston: Wisdom Publications: In association with the Institute of Tibetan Classics, 2010), 271. For more on Bön and medicine in ancient Tibet see: Namkhai Norbu, Drung, Deu and Bön: Narrations, Symbolic Languages and the Bön Tradition in Ancient Tibet, trans. Adriano Clemente and Andrew Lukianowicz (Dharamsala, India: Library of Tibetan Works and Archives, 1995), 133–45.

150 Namkhai Norbu, Drung, Deu and Bön: Narrations, Symbolic Languages and the Bön Tradition in Ancient Tibet.

151 An English biography of Yuthok Yönten Gönpo can be found in: Rechung Rinpoche and Jampal Kunzang, Tibetan Medicine: Illustrated in Original Texts, (London: Wellcome Institute of the History of Medicine, 1973), 141–326.

152 Essence of Nectar (Bdud rtsi snying bo) is the shorter version of the longer, full title of the Four Treatises, The Essence of Nectar: The Manual of the Secret Teachings of the Eight Branches (Bdud rtsi snying po yan lag brgyud pa gsang ba man ngag gi rgyud ces bya ba bzhugs so; Amṛṭahṛdayāṣṭāṅgagaḥuṇopadeśa). It appears that in using the title, The Essence of Nectar, Gönpokyap is referring to an older abbreviated title of the Four Treatises that is specific to Yuthok the Senior’s version.

153 King Trisong Deutsen is considered the second of three “dharma kings” (chos rgyal) who converted Tibet to Buddhism, and supported the massive translation of Buddhist thought and literature into Tibetan.
from Urgyan who subdued the gods and demons of the Tibetan landscape barring any obstacles to Buddhism taking root. According to medical histories, at the request of the king, Yuthok Yönten Gönpo travelled to and studied the medical traditions of China and India extensively so that he could appreciate and incorporate the useful aspects of each tradition. According to some narratives, which are recounted today to show Tibetan medicine’s openness to new and foreign medical knowledge, he is said to have represented Tibet in the ‘First International Conference of Tibetan Medicine’ where he debated with the eminent physicians of the three ‘great medical traditions’ representing modern-day India, China and Persia. After the conference Yuthok the Senior is said to have composed the *Four Treatises* based on the best parts of each tradition. Hence, the early history of Yuthok Yönten Gönpo and the *Four Treatises* underscores the Tibetan penchant for debate, innovation and integrating Tibetan and foreign medical knowledge. The example of Yuthok the Senior “surgically replacing skull fragment of the Muslim king’s minister” emphasizes a cosmopolitan and empirical spirit underlying the Tibetan tradition that contemporary Tibetan medical writers like Gönpokyap want to emphasize as they integrate biomedical ideas.

Gönpokyap, like his contemporaries, also wants to establish a degree of medical authority in well-known Buddhist figures and works. For example, continuing from the previous passage, Gönpokyap writes:

After that, one of the ten great Tibetan thinkers, Machik Labdron, from visiting many cremation grounds, was easily able to gain a clear realization of the condition of the parts

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154 Padmasambhava (*Padma ‘byung gnas*, eighth-century) is equally famous for being the progenitor of the “hidden treasure” (*gter ma*) tradition in Tibet whereby manifestations of his teachings, so-called treasure texts and objects, which had been previously hidden during a ‘dark times’ are ‘revealed’ at the appropriate time by reincarnations of the disciples. By some accounts, the *Four Treatises* is said to be a hidden treasure text. The hidden treasure tradition and its religious and cultural narrative is still active today, and will likely continue into the future considering the countless religious objects and texts hidden since the Chinese annexation of Tibet. For more on Padmasambhava and the treasure tradition see: Herbert V. Guenther, *The Teachings of Padmasambhava* (New York: E.J. Brill, 1996), and; Janet Gyatso, *Apparitions of the Self: The Secret Autobiographies of a Tibetan Visionary* (Delhi: Motilal Banarsidass Publishers, 2001).
and aggregates of the body [and based on this] the text, *Machik’s Complete Explanation*\(^{155}\) was composed [by her students].\(^{156}\)

Machik Labdron (Ma gcig labs sgron, 1055 – 1149) is one of the few preeminent female Tibetan religious teachers, who is known primarily for propagating the practice of *Chöd (gcod)*, meaning “cutting” or “severing.” This non-sectarian practice, which is a uniquely Tibetan mix of *Mahāyāna* and *Vajrayāna* (or Tantric) Buddhism, is a series of rituals, prayers, and meditative exercises wherein the practitioner visualizes giving away parts of their bodies to suffering sentient beings, thereby severing their attachment to their bodies. In this way too, they are ultimately severing themselves from “*saṃsāra*” (*’khor ba*), the endless cycle of rebirth and suffering.\(^{157}\) Hence, through the practice of contemplating the body and its severing, one can gain Buddhist realization, something that lends considerable credibility to Machik Labdron’s medical authority insofar as what she says about the nature of human bodies. Importantly for Gönpokyap, Machik Labdron is a popular Buddhist figure who knew about the body from *experience*, allowing him to craft a *Buddhist* identity in relation to medicine. For present-day writers, demonstrating the commensurability of Buddhist and medical knowledge in regards to the body is crucial for supporting the modern *Tibetan* medical tradition as a whole. It is also at the intersection of Buddhist and medical ideas where biomedical ideas enter the picture, as is the case for “hormones.”

In their construing of Tibetan medicine as an authoritative and scientific medical system, contemporary authors also point to, and quote from, the works of popular political figures, such as the monk-scholar-regent, Desi Sangyê Gyatso (Sde srid sangs rgyas rgya mtsho, 1653 – 1705) who is largely responsible for the version of the *Four Treatises* that we have today. In the

\(^{155}\) The full title of this text is *Phung po gzan skyur gyi rnam bshad gcod kyi don gsal byed*. Although Machik Labdron is accredited with the contents of the work, the text has been edited from and compiled by multiple sources and authors, and contains a biography of Machik. See: Ma gcig lab sgron, *Machik’s Complete Explanation: Clarifying the Meaning of Chöd: A Complete Explanation of Casting out the Body as Food*, ed., and trans., Sarah Harding (Ithaca, New York: Snow Lion Publication, 2003).

\(^{156}\) *de’i rjes bod kyi bsam blo ba chen mo buc’i ya gyal ma gcig lab kyi sgron ma dur khrod mang por zhabs kyis bcags nas mi’i phung bo’i grub cha’i gnas lugs la gom gang mdun spos kyis gcsl riogs thub pas phung bo zan bsksyur gyi rnam bshad ces pa’i bka’rtsom mzdaz* Dgon po skyabs, Gso rig dpjad rtsom kunda dgyes pa’i zla zer, 131.

present-day Tibetan medical works, Desi Sangye Gyatso’s works are frequently cited because he is an authoritative figure *par excellence*. As the powerful regent to the Great Fifth Dalai Lama, Ngawang Lobzang Gyatso (Ngag dbang blo bzang rgya mtsho, 1617 – 1682) he was a key figure in the political and religious unification of all the Tibetan regions. Because he oversaw one of the most vibrant periods of Tibetan Buddhist culture,\(^{158}\) he has become a strategic choice to further present-day nationalist feelings. Continuing with Gönpokyap’s historical account of Tibetan medicine, he writes:

> Furthermore in the seventeenth-century, the famous Buddhist scholar, Desi Sangye Gyatso, having consulted earlier medical [texts] and illustrations of the human body, had commissioned seventy-nine new medical paintings connected with the inner meaning and theory of the authoritative medical texts.\(^ {159}\)

The joining of medical illustrations with the “inner meaning of the authoritative medical texts,” a phrase found throughout the contemporary sources that integrate hormones, is a further emphasis of the empirical and therefore, ‘scientific’ nature of Tibetan knowledge. Key to present-day debates for the scientific underpinning of Tibetan medicine is that the authoritative literature, especially the *Four Treatises*, is based on observation, evidence and the scrutiny of time, or “the discriminating wisdom from the minds of our ancestors.”\(^ {160}\)

Crucially, the *Four Treatises* is considered in important respects to be Buddha-word, that is, the direct teachings of the Buddha. In this case, the teachings are in the form of a conversation between the mind and speech manifestations of the Medicine Buddha in a celestial medicinal paradise. The Buddha-word status of the *Four Treatises* is thought to have historically lent to its


\(^{159}\) lhag par du dus rabs bcu bdun pa’i nang mi dbang pa nida ta sde srid mchog gis sngar yod sman dang ro bkra i ’dra dpe rnams ’shol bsdu byas mthar bod sman gzhung hril bo ’i nang don dand ’brel ba’i sman thang don dgu gsar bzheng gnang. Mgon po skyabs, Gso rig dpyad rtsom kundan dgyes pa ’i zla zer, 131.

\(^{160}\) mes po dran dbang rnams kyi rnam dpyod kyi shes rab, Lha mo skyid, “Zla mtshan gyi rnam par bshad pa blo chung byis pa’i mgul rgyan,” (*Krung go’i bod kyi gso rig*, no. 1, 2007), 111.
authoritative position, and its perceived infallibility. Other Western scholars have closely examined the Buddhist dimensions of the *Four Treatises* and the authority of Buddha-word in Tibetan culture, so that will not be explored here.

It is important to note that typically, present-day authors do not directly express the notion that the *Four Treatises* is authoritative because it is Buddha-word. Instead they point to the ways that it is scientific, and do hold it, at least strategically, as an ultimate source of perfected knowledge, in much the same way as is Buddhist knowledge. For example, Garrett and Adams observe that in the contemporary article, “A Clear Explanation of the Principle Structure and Location of the Circulatory Channels as Illustrated in the Medical Paintings,” its author Tsurltrim Gyaltse, argues “that the presentation of the body found in Tantric texts describe the ultimately true condition of the body, and that the Tibetan medical texts are in full agreement with that presentation.” The sources that address “hormones” in biomedical and Tibetan medical thought likewise appear to agree with such an assertion of medicine and Tantra. In fact, the Tantric body is often evoked to describe the body’s most subtle features, and is therefore useful in discussing “hormones.”

The implicit assumption underlying the discussions for various ways of integrating biomedical thought and interpreting the authoritative literature to do so, is that the *Four Treatises* and its commentarial tradition are already ‘completed’ and ‘perfected,’ and in no way erroneous. The conclusion of Gönpokeyap’s historical narrative gives some insight into this position and why

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162 For example, see the third chapter, “Word of the Buddha” in Gyatso’s *Being Human in a Buddhist World*.

163 Although traditional Tibetan medical paintings—Menthang (*sman thang*)—of the Medicine Buddha can be found throughout the doctors offices at QTMH, including the office of the gynaecology specialist.


it is vital for the overall aim, which is to position Tibetan medicine as an indispensable treasure of Tibetan culture and national identity, even though it is under threat of possible extinction. He writes:

These mentioned above are recorded in the history books because they made wondrous, unsurpassable contributions in previous generations, and this is our unique cultural treasure. However, in regards to the words of the authoritative texts, a few of the younger generation, not having a common way of interpreting them, have interpreted them in many different ways. Or, alternatively, many of those interpretations are not in keeping with the original meaning [of the authoritative treatises] and remain various. Furthermore, there are several interpretations of those authoritative texts that count seventy-seven blood channels, which from looking at illustrations of the body and the human body itself cannot be identified. This is a very serious situation which, if it continues, the Four Treatises will become waste-paper. Therefore, in regards to the constitution of the body, we need to be able to label each body part and specifically be able to refer to any part of the body.  

Although not explicitly stated, the “original meaning” of the text is that it is as unerring and as perfect as Buddhist knowledge. This position is quite different from the normative biomedical or Western scientific perspective. The problem of there being various interpretations of the texts, and inconsistencies between what is observable and what is not (at least with the naked eye) is a problem of the younger generation misunderstanding the real intentions of the text. Although there is not a single case where a specific author or work is named, the problem of ‘not knowing grammar’ and ‘misreading’ the authoritative literature is routinely expressed in many of my primary sources and serves as the only place where scholars criticize each other. As a rhetorical device, it also underlies a strategic assumption fundamental to the authority of Tibetan medical texts (over and above other kinds of research), which is that their original or intended meaning is correct and any contradictions between the text and reality is really a problem of interpretation. In this way, both Buddhist and medical forms of knowledge can be argued as being in harmony.

166 gong gi ‘di dag ni kha sang gi lo rgyus deb ther ngos su bkod pa’i bla med rlabs chen gyi mdzad rjes dang rjes rabs nga tshor bzhag pa’i mdzad med kyi bee rya’i nor bu lta bu ru zad mod / rgyud tshig ‘ga’ shes la rjes ‘jug pa’i lta bar gcig mthun ma byung bar ‘grel tshul tha dad du byung ba’am / yang na rgyud du grangs tsam bkod par ‘grel b rnams su grangs ka de dag re re’i ngos ma bzung bar rang sor grangs tsam bkod nas bzhag / yang na gzhung ‘grel rnams su gnas sogs legs par bkod pa’i gtar rsa don bdun po’ng da lta ro bkra dang mi’i lus sieng nas tshang ma ngos ‘dzin mkhan med pa’i gnas su gyur ’dug pas ‘di lta bu’i gnas tshul mang du lhag the dpal ldang rgyud bzhis yang shog bu’i phung po zhig tu ‘gyur nyen che de na grub pa lus kyi skabs ‘dir nga tshor nye bar mkho ba zhig ni mi’i lus kyi cha shes rnams la ming re btags nas mdzub mo ri ston gyi tshul tu gتان la dbab rgyu de yin, Mgon po skyabs, Gso rig dpyad rtsom kundan dgyes pa’i zla zer, 131–2.
with one another, and that they are both empirical, that is, based on experience, as well as textual expertise.

The problem of synthesizing and agreeing upon “standard” (tshad ldan) Tibetan definitions is a major issue in other present-day sources on women. For example, in Clinical Experience in Treating Obstetric Diseases, Mingji Cuomu writes:

Up until now our medical system, like other traditional medical systems, does not have a clear synthesis to precisely measure the beneficial results [of treating] illnesses at their core. Because of this, the advantages of this extraordinary medicine remain slightly hidden, and therefore as [Tibetan medicine] spreads to the many regions of the world, it is not accepted as a standard medicine. Moreover, [the future form of Tibetan medicine] depends upon various internal and external conditions. Insofar as outer conditions, the situation in the regions of central Tibet, the historical context, and the system governing medical policy are all relevant. Internal conditions arise from different underlying orientations of the knowledges of the authoritative literature. Because the unique features of the texts of each and every one of the bodies of knowledge is different, they have distinct ways to make evident their conclusions.167

For Mingji Cumo, as well as other present-day writers, it appears important to make cohesive the differing “conclusions” of Tibet’s Buddhist and medical traditions, as part of the project of standardizing Tibetan medicine. Yet, the importance of fundamental Tibetan medical notions and practices, such as the individual-focused basis of diagnosis and treatment are also retained and emphasized.

Also, we should keep in mind that biomedicine is not entirely a standard system either, and that diagnoses and treatments are increasingly becoming individualized (for example in chemotherapy). Moreover, an analysis of the enormous body of biomedical literature (in English alone) does not demonstrate a cohesive, uniform or standard system at all, and so in many ways, the Tibetan medical and biomedical systems are similar. Hence, standardization means particular

167 ‘on kyang / rang re’i gso rig ‘di nyid la da bar srol rgyun gso rig gshang dang ‘dra bar nad thog phan ‘bras la grangs tshad nges gtan gyi phyogs sdom gsal po zhig med stabs / thun min gyi sman bcos dge mtshan rnams cung zad lkgog gyur gyi rnam bar gnas shing da cha ‘dzam gling yul gru mang dag cig tu yongs khyab ngang tshad ldan gyi gso rig gi gras su ngos len thob med / de yang phyi nang rkyen sna tshogs la rags las yod de phyi i rkyen la cha bzhag na bod ljongs kyi sa cha ’i gnas bab dang / lo rgyus rgyab ljongs / sman srid do dam lam lugs sogs dang ‘bral ba yod pa dang / nang rkyen ni rig pa ‘i gzhung lugs kyi dgon gzhis gzhis mi ‘dra bar brten nas byung ba zhig yin / de yang shes rig thams cad so so’i rig gzhung gi khyad chos mi ‘drar brten nas mjug ‘bras thon tshul tha dad yin pa, Smin skyid mtsho mo, Mo nad phal pa’i nad la zhib ‘jig dang gso bcos bays pa’i nyams yig, 3–4.
things to each writer and, what ought to be standardized are important debates in contemporary Tibetan medicine. What is centrally important is that both Buddhist and medical knowledge can be considered authoritative, and therefore continue to constitute the framework of Tibetan medicine as a national (and ethnic) tradition. This is further evident in the way that Mingji Cuomo points to what is unique about Tibetan medicine, while at the same time appealing to a notion of universal or global knowledge. She writes:

All over the globe, knowledge of science and technology, and likewise, the general economy is developing like a waxing moon. Especially since travel is easy between different countries [allowing for the meeting of] people of different ethnicities, the spreading of new knowledge is increasing. Owing to these positive conditions, research knowledge is developing and ways of doing research are likewise increasing. The possibility to research and disseminate knowledge is successively becoming like that. [...] In terms of getting at the core of illness, Western medicine is not able to determine what kind of treatment to give for chronic illnesses (diseases of a slow nature), whereas Tibetan medicine not only can identify and cure these, but also with little side effects. That traditional knowledge known as the science of Tibetan medicine is one among the treasury of world medicine, a priceless and amazing gem that is equally famous in the ten directions for emanating the radiance of happiness and benefit. My hope, similar to a thirsty person wanting water, is that these medical cures will be a huge benefit for many patients inside and outside [Tibet] as it has become a subject of interest of many domestic and foreign medical scholars.168

Like this example shows, Mingji Cuomo attempts to establish a middle ground between what may seem like occupying two positions. On the one hand, she argues that being able to regulate and standardize Tibetan medicine in a way similar to biomedicine is necessary so that it is accepted as scientific throughout the world. For example, she uses a hybrid of Tibetan and Chinese biomedical terms to name and describe male and female hormones, thereby asserting a

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168 go la ’i khyon du tshan rig shes bya dang / lag rtsal / de bzhin spyi tshogs kyi dpal ’byor dang sgrig gzhi sogs yan ngo ’i zla ltar gong ’phel du phyin yod la / lhag par du rgyal khab dang mi rigs mi gcig pa ’i bar ’grim ’grul stabs bde dang / gnas ’phrin brgyud sprod bya lam je mang du song ba sogs kyi mthun rkyen la bren nas / shes rig zhib ’jug dang khyab spel bya thabs la yang de bzhin du ’gyur ba thebs yod de / dper na / yul lung mi gcig pa ’i zhib ’jug pa rnam rang rang gi zhib ’jugs khyab khongs ltar dpyad ’bras bgro gleng gyi go skabs je mang dang khyab ishad je cher phyin yod pa ni mthong chos chu grub / ... / nad thog dngos kyi thog tu ’ng rub phyogs gsa rig sogs kyi thag cgd ma thub pa ’i gcong nad (dal ba ’i rang bzhin nad) khag cig la bod sman gyis bcso bskyed nus pa thon pa ma zad / zhor skyon chung ba ’i khyad chos ldan pas / bod kyi gso ba rig pa zhes pa ’i srol rgyun gyi gso rig ’di nyid ’dzam gling gso rig bang mdzod nang rin thang gzhal du med ba ’i khyad ’phags kyi nor bu zhig dang mtshungs par phan bde ’i gzi ’od phyogs bceu ’phros nas / phyi nang rgya che ’i gso bya mang po ’i sman bcos kyi re ba skom pa chu ’dod ltar yod pa de skong bzhin yod pa ma zad / rgyal phyi rgyal nang du yod pa ’i gso rig mkhas pa du ma ’i do snang byed yul du gyur yod, ibid., 2–3.
cross-conceptual and importantly, standard Tibetan translation that points to the same thing across Tibetan medicine and Chinese biomedicine. On the other hand, she asserts that because the Tibetan system treats illness according to the unique constitution of each individual, two people with the same illness will not necessarily or likely receive the same treatments. Thus, she concludes that it is the inability to be completely standardized that is its unique strength of the Tibetan medical system.

Few authors echo the Chinese biomedical sources so closely in their explanation and naming of hormones Mingji Cuomu does, but she does not in any way discredit Buddhist knowledge. For example, she presents the Tibetan view of reincarnation as part of her medical explanation of reproduction, as would befit Tibetan obstetrics. In the Second Chapter, where I more closely examine her integration of “hormones,” I point to how Mingji Cuomu incorporates biomedical knowledge in such a way as to bolster (her interpretation of) some of the most central claims of the Tibetan Buddhist world. Her work highlights the fine and subtle art of balancing standardization with retaining that which is unique to Tibetan medicine. Indeed this tension is evident throughout contemporary Tibetan textual-focused research writings.

Again, I suggest that such a tension reflects the two poles of glocalization, wherein both the unique and universal characteristics are emphasized to carve out particular national identities. It appears that Tibetan authors agree that some elements of Tibetan medicine ought to be standardized in a similar way to biomedicine, but done so in a way that is appropriate to the tradition of Tibetan medicine. In Mingji Cuomu’s work, like many of my primary sources, the ideals of progress and development are coupled with maintaining the fundamentals of the Tibetan tradition. Or in other words, it is through research of the authoritative Tibetan sources that they will be shown to be ‘correct,’ and through development, such knowledge can be confirmed and expanded upon. For example, Mingji Cuomu writes that research into the Tibetan medical scholarly tradition needs to be in keeping with modern times “for the reason of accomplishing the aim of developing our own ancestral scholarly medical tradition.”

A basic assumption underlying her argument is that Tibetan medicine can be developed to be in keeping with modern times.

\[\text{rang gi rig gzhung rgyud ’dzin dang gong ’phel gtong rgyu’i re smon sgrub pa’i phyir, ibid., 51.}\]
with contemporary society and environment, and by doing so they are enriching, or making more comprehensive Tibetan medical knowledge. Using this method, fundamental notions of the Tibetan medical model provide the framework on which debate and innovation, the hallmarks of progress, are based.

As I have been showing with various examples from my primary sources that write on hormones in women, Tibetan medical researches do not appear to be purging Tibetan medical thought of Buddhism, but rather they tend to embrace it and both implicitly and explicitly argue for its empirical and scientific merits. For example, as already mentioned, in virtually all of the contemporary Tibetan medical writings on women and reproduction, things which might be considered religious, such as the consciousness of bardo beings and the logistics of reincarnation are considered and presented as materially-based and scientific. Gönpokyap argues this point explicitly, where he writes:

How the body is constituted is according to the texts of modern medicine, solely by the flawless semen and blood of the father and mother. And yet, in the land of snows [Tibet], according to our texts of the Tibetan medical system, it is said that the meeting of the father's semen, the mother's red element and the consciousness of the bardo being is necessary. After having been liberated [by the Chinese], at the time it was said that the consciousness was considered superstitious, and all of the wisdom of the Buddhist teachings were labelled as superstitious and remained that way until the end of the 1980s. At the end of the 1980s and beginning of the 1990s Buddhist teachings were considered to contain some authentic scientific elements, and not only this, by the beginning of the twenty-first century [Buddhist teachings] began to be taught at the universities. This situation gives reason to be happy. The necessity of confirming everything by empirical observation is also a sign that [we should] begin to abandon superstitious [thinking].

Directly following this, Gönpokyap quotes from a small number of famous Chinese thinkers who, he claims, have written that Buddhism has a scientific and materialist basis. Among these are, Song Jiaoren (Sung krung hran; 1882 – 1913), a republican revolutionary

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leader who was instrumental in the overthrow of the Qing dynasty and forming the Kuomintang or, Chinese Nationalist Party together with Sun Yat-sen, and Lu Xun, a revered Chinese revolutionary intellectual and writer. Gönpokyap also finds support for his argument that Buddhism is ‘scientific’ in the writings of one of the architects of communist thought, Friedrich Engels (1820-1895), who along with Karl Marx (1818 – 1883) wrote *The Communist Manifesto*, the blueprint of communist thought. Gönpokyap writes:

> Just because there are things that are not understood by science doesn’t mean that they should necessarily be considered superstitious. The knowledge spoken of in our Buddhist teachings comes from the times of ancient society. In present times, people are unable to interpret these and say that a deity created the world, or even go as far as to say that our karma is a creation of god. But this is nothing but foolish chatter, and trusting in material origins is the sophisticated scientific viewpoint of Chinese revolutionaries and intellectuals. […] Engels, speaking on an explanation of dialectical reasoning writes:

> The unique feature of the Buddhist religion is that it has reached a very high level of dialectical reasoning. The Buddhist world-view does not accept a wondrous or unrivalled deity. [But rather], all phenomenon, from beginning to end, is based on the web of cause and effect.

> Being said like this, it is easy to see that the teachings of our Buddhist knowledge are wish-fulfilling, having been born from a scientific materialist foundation. The subject I am writing on relates to this in the following way: According to the authoritative texts of our Tibetan medical tradition, for pregnancy to occur the joining of the semen, blood and consciousness is necessary. It is precisely because the consciousness is an extremely hidden phenomenon that it can't be pointed to, and so forth, and because of that from the the materialistic point of view, the so-called consciousness is not accepted. In reality, sometimes when we see someone laughing, we also involuntarily laugh, and similarly, when we see people cry we cannot help but feel like crying. During the thirty-eight weeks that our body is in the process of being created, the consciousness, together with the function of thirty-two different winds are the support for the growth and development of the body. It is precisely this knowledge that modern science is not able to accept as scientific; even if you circle the globe three times it would be difficult to find. Because of

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171 The activities of these figures can be found in several parts of: Jonathan D. Spence, *The Search for Modern China* (New York: W.W. Norton, 1999).

172 That is, it occurs even though there is no visible cause for it to occur.
that we need to zealously pursue the unique and uncommon features of our [medical tradition].

Far from being erased, like we see here in Gönpokyap, Buddhist knowledge is both explicitly and implicitly promoted throughout the contemporary sources that integrate Tibetan medical and biomedical notions of hormones. Yet also, like this example shows, arguments for materialist interpretations of Buddhist teachings go hand-in-hand with the narrative of a “liberated” Tibet. Moreover, these works speak to the present socio-political and religious context of Chinese Tibet. The nod to Chinese revolutionaries and communist thinkers like Mao (in another section of the book) and Engels, paint a particular narrative that draws from politically acceptable sources of authority. In this way too, Tibetan writers are strategic in their choice of authoritative sources from their tradition. Collectively, they tend to point to many of the same authoritative Tibetan medical and Buddhist texts, thereby establishing a coherent Tibetan body of knowledge.

Like the examples in this section show, present-day Tibetan medical researcher-writers appear to share the perspective that Tibetan medicine always has been and always will be a legitimate and authoritative system of knowledge alongside biomedicine and other systems.

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173 tshan rig gis ma rtogs pa tshang ma rmongs dad la ye nas brtsi mi rung / rang re’i nang bstan du gsungs pa’i shes bya rnam gdo ma’i spyi tshogs kyi skabs nas da lta’i yun mi rnam kyi’is ‘grel ma thub pa’i rigs la lhas bsbrun pa red zer ba’m tha na mi’i las dbang yang ‘gran bral gyi lhas bkod ‘doms byed pa red zer ba’i rmongs gtam zhig min par dngos don gyi bgyi bar gzhi bcol nas ches mtho sa’i tshan rig gi lta ba zhig yin pa ni krung go’i gsar brje ba dang bsam blo ba / […] gzhon en ke si yis rang byung rtson sgbrub smra ba ru bshad don / sangs rgyaschos lugs kyi khyad chos ni mi’i rigs kyi rtson sgbrub rig lam gyi cung mtho sar slesb ‘dug /’jig rten lta bar sangs rgyaschos lugs kyi ches rabs chen ‘gran bral gyi lha zhes khas mi len pa dang / bya dngos la mgo dang mjha’ bcas med par rgyu ‘bras kyi dra bar gnas ‘dug” / ces gsungs pa dag gis rang re’i nang bstan shes rig ni tshan rig gi zhing sa nas ‘khrungs pa’i bla med dgos ‘dod kun byung zhig yin pa rtogs sla / bdag gis ‘di ltar brjod don ni rang re’i bod lugs gsu rigs gzhung du lus chags pa’i rgyur khu khrag sems gsum ‘dzoms dgos / rnam shes ni ches ikog gyur zhig yin pas ‘di zhes ston rgyu med pa sogs kyi rkyen pas dngos gtso’i lta bas rnam shes pa zhig yod par khas mi len / don ngo mar nga tsho dgod pa’i gdong la blos nas dgod pa dang / ngu ba’i bzhin la blos nas ngu la lta bu’i kha phyogs med pa zhig gtan nas byed mi rung / nga tsho’i grub pa lus kyi skabs su bkod pa’i rnam shes dang bdun phrag so brgyad por rlung mi ‘dra ba so gnys kyi byed las su brten nas lus ‘phel zhing rgyas pa’i rig pa’i da lta’i tshan rig gis rtogs ma thub pa’i tshan rig cig yin pas / go la zlum po ‘dir len gsungs bsbrun ba brgyab kyang rnyed dka’ / de’i rkyen gyis rang nyid kyi thun mong ma yin pa’i khyad chos ‘di dag dam ‘dzin byed dgos. Mgon po skyabs, Gso rig dpyad risom kun dan dgyes pa’i zla zer, 128–9.

Explicitly, or methodologically, they assert that it is through comparison with other empirically based medical systems that Tibetan medicine can ‘progress,’ and that the development of their medical system can come about through the exchange of ideas and adoption of new information. The underlying message among my primary present-day sources is that Tibetan medicine has always been an empirical and cosmopolitan tradition. Therefore, researchers can reinterpret and find new and expanded meanings within the authoritative sources of their medical tradition in order to be in accordance with the present context of Chinese Tibet.

1.4 Contemporary Interpretations of Women and their Disorders according to the *Four Treatises*

The *Four Treatises* forms the bedrock of contemporary Tibetan medical writing. Among my sources on women’s bodies, no other text is quoted from as frequently or held in the same utmost regard. However, in the present-day sources, medical writers most often avoid using the text’s overtly negative statements on women. For example, according to the *Four Treatises* (and much of its commentarial literature), women are defined as beings manifesting “lesser merit [or] virtue” (*bsod nams dman pa*).\(^{175}\) Such assertion reflects the shared position of both the Tibetan medical and Buddhist traditions, that is, that bodies reflect their karmic (or ethical) virtue. These traditions view the body to be an ongoing effect or fruit of previous causes and conditions, and that the acquisition of female body is the result of previous deeds generating lesser karmic merit. In the present-day sources, this line defining women as manifesting lesser karmic virtue is mostly omitted. Medical writers display a concern for women’s equality, and attempt to purge the current Tibetan medical system of its less than generous appraisal of women arising from the earlier (pre-Chinese) Tibetan society and its “old ways of thinking” (*bsam blo rnying pa*).\(^{176}\) What contemporary readings of the *Four Treatises* tell us is that notions of gender and the construing of male and female bodies can be interpreted, edited and selected, so as to reflect the current socio-political and religious climates.

\(^{175}\) G.yu thog yon tan mgon po, *Dud rtsi snying po*, 375.

\(^{176}\) Dpal ldan ’phrin las, *Bod lugs gso rig gi rgyun mthong mo nad ’gog bcos bya thabs*, 77.
In this section, I first outline the contents of the *Four Treatises*, and in particular the chapters that speak to women’s bodies. Following this, I offer a translation and brief analysis of key passages from the *Four Treatises*’ gynaecology chapters. In my analysis, I point to how some of these passages are prominent in the present-day medical writings on women, while others are omitted.

The *Four Treatises* consists of four parts:

I. The *Root Treatise* (*rtsa rgyud*) introduces the contents of the four parts and outlines the basic theory of the three dynamics.

II. The second part, *Explanatory Treatise* (*bshad rgyud*), contains chapters on such topics as embryology, descriptions of the human body, classifications and causes of disorder, food and diet, and the requirement for being a good and virtuous doctor.

III. The third part, *Instruction Treatise* (*man ngag rgyud*), contains descriptions of a large number of specific disorders, including three chapters on women’s disorders (*mo nad*).

IV. Lastly, the fourth part, *Auxiliary Treatise* (*phyi ma rgyud*) contains chapters of various diagnostic and healing techniques, such as pulse and urine diagnosis, the ingredients and making of a variety of medicinal substances, such as pills and powders, and the use of therapies such as blood-letting and cauterization.177

Attention to women’s reproductive bodies is found in a handful of places in the *Four Treatises*, including the chapter on “embryology” (*grub pa lus kyi gnas*), the “virility” (*ro tsa bar bya ba*) and “fertility” (*bu med pa brtal ba*) chapters as well as the three gynaecology chapters, seventy-four to seventy-six, which are devoted exclusively to women’s disorders. In the narrative at the beginning of the seventy-fourth chapter the topic of gynaecology in general is

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introduced (through a conversation between the medicine Buddhas’ mind and speech emanations) as the “means of curing female disorders” (mo nad gso ba).179

The three chapters on women’s disorders are:

I. “Treatment of Root and Universal Female Disorders” (mo nad gtso bo spyi bcos pa),

II. “Treatment of Particular Female Disorders” (mo nad bye brag), and

III. “Treatment of General Female Disorders” (mo nad phal pa gso ba).

Counted together, the three gynaecology chapters take up ten pages in the 2006 Lhasa edition.180 This is a significant amount, considering how densely the Four Treaties is written. Combined, the three chapters outline what is unique about women’s bodies, the different disorders that can harm them, and how (or whether) such maladies can be treated.

The description of the origins of male and female bodies together with the specific characteristics that define women are outlined at the beginning of the seventy-fourth chapter of the Four Treatises:

The body which is made of the three poisons and the four elements manifest as male and female by the influence of previous karma and desire. By having less merit one obtains the female body. The distinguishing characteristics of [women’s bodies] are the breasts, uterus and menstruation, as well as the two, white and red reproductive fluids which are the essence of the [seven] bodily constituents. Upon reaching the age of twelve, the red [element], menstruation, comes out. The inside of the uterus grasps [and] holds the reproductive fluid and grows the flesh [of the fetus]. The white [element causes] the breasts to fill and expand [becoming breast milk].181

The “three poisons” of ignorance, desire and anger, and the “four elements” of water, fire, earth and wind are explained in more detail in the subsequent chapter. Here, I focus on what the Four

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179 G.yu thog yon tan mgon po, Dud rtsi snying po yan lag brgyad pa gsang ba man ngag gi rgyud ces bya ba bznhugs so, 375.

180 Ibid., 375–384

181 dug gsum 'byung ba bzhi las grub pa'i lus // sngon las 'dod chags dbang gis pho mor snang // bsod nams dman pas za ma mo lus thob // nu ma mngal dang zla mtshan khyad par lhag // lus zungs phyi ma khu ba dkar' damar gnyis // zla mtshan dmar po bcu gnyis lon nas 'dzag // mngal nang khu ba 'dzin zhing sha lus skyed // dkar po nu ma la rgyas gso su 'gyur, ibid., 375.
Treatises’ passage says about women’s defining characteristics according to contemporary assertions among medical doctors and researchers.

The statement that the male and female bodies manifest as such “by the influence of previous karma and desire” (sngon las ‘dod chags dbang gis pho mor snang) appears to be interpreted in two main ways. Many of my Tibetan interlocutors understood the passage as referring to the prevalent Buddhist notion that women are bound by ‘stronger’ sexual desire than men. According to this logic, stronger sexual desire and previous karma manifest as the extra features of women, that is, the uterus, menstruation and breasts, which themselves hinder meritorious Buddhist behaviours. While the text itself does not appear to indicate explicitly that women have stronger sexual desire than men, the quite common claim by many present-day Tibetan medical experts is that this is the passage’s implicit meaning.

Others argue that the ‘stronger sexual desire’ interpretation ‘just isn’t in the text’ and that the verse simply refers to common Tibetan embryological ideas found in the Buddhist Abhidharma182 and Tantric literature. In these Buddhist gestational accounts, the migrating consciousness of the “in-between” bardo being is witness to their future parents copulating. If the bardo being is attracted to their mother and feels hatred towards their father, they become a male. Conversely, if they feel sexual attraction to the father and hatred for their mother the bardo being will be born a female. Proponents of this interpretation suggest this to be the meaning of “previous karma and desire.” Oftentimes however, Tibetan doctors and researchers assert that both interpretations are in effect, suggesting that in this instance, the text is operating on both the implied and the explicit levels.

The line “By having less merit one obtains the female body (bsod nams dman pas za ma mo lus thob)” is explicit in its relative valuing of male and female bodies. Taken literally, the

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182 The body of literature known as the Abhidharma is one of the three principal kinds of Buddhist writings attributed to sayings of the Buddha Shakyamuni. It describes the material existence of human beings and the universe. The Abhidharma’s history and contents are discussed in more depth in the Second Chapter in relation to the constitutive parts of human beings in Tibetan medicine.
term for woman here is za ma mo.\textsuperscript{183} “za” means “to eat.” This is followed by the negative marker, “ma.” In conjunction with the feminine ending “mo,” a non-sensical noun-phrase is created that could mean ‘a female being who doesn’t eat.’ Overwhelmingly, within its social, cultural and religious context, the phrase is interpreted to show women to be in contrast to, and to be inferior to men.

One such present-day reading of za ma mo was offered by a female medical intern with whom I worked. She noted that a woman is ‘fed by a man,’ because she cannot ‘feed herself’ meaning that a woman relies on a man for her sustenance and livelihood. She suggested that this understanding is supported by the Abhidharma where this phrase means that men must go out and hunt for meat, and so they can feed themselves. On the other hand, women depend on meat being brought to them and therefore, ‘cannot feed themselves.’ A male intern suggested that the phrase has sexual connotations. Having a penis, a man can ‘eat,’ that is ‘go out,’ and have sex whenever he desires. But women, having a vagina, cannot ‘go out’ and ‘eat.’ In any case, despite being key to the definition of “women” in the Four Treatises, and being set within the most widely quoted verses from which contemporary authors quote, these lines regarding women as manifesting lesser karmic merit than men and not being able to feed themselves are omitted in all of my primary sources comparing Tibetan medical and biomedical notions of hormones.

The next line in the Four Treatises, introduces the idea of the “white and red elements” (khams dkar dmar) in female bodies, and the related notion of the “seven bodily constituents” (lus zungs bdun). According to Tibetan medical thought, the white and red elements are the product of consumed foods and drinks, which are ultimately the material basis of the bodily constituents, or more simply, the body. The notion of the white and red elements is a chief point of intersection between Tibetan medicine and Tantra, and in the present-day sources on “hormones” in women’s bodies. This is because in all of my primary present-day sources, the red element holds, or has at its core (or root) the quintessential growth-propelling substances known as “hormones.” Because the elements are at the heart of modern Tibetan medical thought

\textsuperscript{183} Not to be confused with the class of people, known in sanskrit as sandha who can’t join the monastic order of monks and nuns because of “sexual irregularities.” See Gyatso, “One Plus One Equals Three,” 113, fn. 76.
surrounding hormones, we will go into considerable depth as to their mechanics and properties in the chapters that follow. For now, I will continue with the framework of Tibetan gynaecology, summarized and outlined in the first few passages of the seventy-fourth chapter of the *Four Treatises*.

Following from the passage above, the disorders particular to women are outlined. According to the *Four Treatises*,

By the influence of previous karma, diet, behaviour and demons there are forty disorders of women: five uterine disorders, sixteen channel disorders, nine tumour disorders, and two types of disorders caused by parasites [tiny insects]. That makes thirty-two major disorders of women, plus the eight common disorders together totals forty. Because of their inferior birth women have these extra disorders.¹⁸⁴

Here, although women have their own category of disorders, as do children and the elderly, it is explicitly because of their inferior birth, and by that, it is because they possess breasts, menstruation and the uterus, that they are susceptible to the forty additional disorders of those three features. The *Four Treatises* also considers karma, demons, diet and behaviour (that is whether one exercises, or has sex at appropriate times) are also considered factors of health.

According to the *Four Treatises*, the initial cause of all female disorders is problematic menstruation, which if left untreated, can progress to the more serious disorders. Following from above:

The first cause is because of the arising of menstruation. If it is a new disorder, it is known as “excessive blood.” By becoming chronic, it joins with the wind, becoming “excessive wind.” The symptoms of minor excessive blood are characterized by boiling-like pain in the bones of the lower back, the lower intestines feel very hot, and there is great pain in the back of the diaphragm at the back. The pulse is rapid, and small blisters and pimples arise. Too much uterine blood comes out or it does not come out and becomes pus. “Excessive wind” feels like the bones are being boiled and the mind-heart is anxious. The head is dizzy and the bones of the head feel cold and there is a ringing sound. The entire body is

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cold, and there is pain in the lower body. The skin shivers, the upper part of the body is numb, the eyesight is diminished, and one is crazy and forgetful.\footnote{de rgyu dang po zla mtshan las byung phyir // gsar ba’i dus na khrag tshabs zhes bya ste // rnying nas rlung dang bsdongs pas rlung tshabs // de rtags khrag tshabs spyi yi mtshan nyid ni // rked so man chad rus pa ‘khol zning na // rgyu zhaps tsha ’brab ro rgyab mchin dri gzer // rtsa rnams tsha ‘khyug shu ba ‘brum phran 'ong // mngal khrag ‘dzag gam ‘khyil dang rnag tu ‘gyur // rlung tshabs rus pa ‘khos zning sning ni bde // mgo ’khor mgo yi rus pa grang til byed // lus kun grang zning sha mthang bar du na // sha rnams gyi zning sbo la sbrid pa dang // mig ‘grib smyo ‘am ‘bog gam brjed pa ngas, ibid., 375–6.}

Here, as is characteristic of Tibetan medicine, mental, emotional and physical factors are all considered crucial to the understanding and diagnosing of disorders of the mind and body. Considering the perception that women are constituted by lesser karmic merit in the \textit{Four Treatises}, one should perhaps take some of the comments on women’s minds and emotions with a grain of salt. On the other hand, one can see that medical writers were interested in understanding and treating specific women’s disorders based on observation and experience.

Following from the passage above, and for the remainder of the gynaecology chapters each of the forty types of women’s disorders, including its symptoms and treatment are outlined. The three chapters on gynaecology are important because they trace much more than just disorders of the uterus, menstruation and the breasts. These chapters define “woman” herself, and in particular a Tibetan Buddhist-medico vision that provides a rich resource for present-day medical writers. Today’s authors being selective and strategic with the material abstracted largely omit passages that deem women as inferior to men and manifesting low merit. They clearly want to align the contemporary Tibetan medical tradition with modern ideas about women’s equality. Hence, although the \textit{Four Treatises} is held as the definitive authoritative source of Tibetan medical knowledge on women for present-day medical writers, they are discriminate between the parts they use, and those which they omit.

\section*{1.5 The Tantric Body in Tibetan Buddhism}

Given that Tibetan medicine and Buddhism grew up together in Tibet, Buddhist and particularly Tantric ideas of the body and gender have been enormously influential in the medical construing of women and men. In the language and research behind “hormones” in contemporary Tibetan medical thought, Tantric ideas of “winds” (\textit{rlung}; Skt. \textit{prāṇa}), “channels” (\textit{rtsa}; Skt.
nāḍī), “drops” (thig le; Skt. bindu), as well as ultra purified “quintessences” (bcud and bdud rtsi) often play a prominent role. Therefore, it is quite useful to say a few things about Tibetan Tantric Buddhism, particularly as it relates to human bodies. In this section, I first make some general comments about Tantric Buddhism, followed by a description of basic Tantric human anatomy. Following this, I give a short overview of the medical perspective of the Tantric body and suggest why this subtle anatomy appeals to medical writers who are researching Tibetan medical and biomedical notions of “hormones.”

Tantric (also known as Vajrayāna and ‘secret mantra’) Buddhism refers to meditative and ritual practices that aim to transform and enlighten the practitioner. “Tantras” (rgyud), which form a substantial arm of Buddhist literature in Tibet, are esoteric religious texts that give instruction and guidance on Tantric practices. Originating in India, the texts and practices of Tantra were well established by the seventh-century C.E. From there, they spread to different parts of Asia, and especially taking root and becoming prominent among Tibetans who themselves composed Buddhist Tantras as well as large numbers of commentaries.

Tantras are typically devoted to a single deity or buddha known as a “yidam” (yi dam; Skt. iṣṭadevatā), or to a “yabyum” (yab yum), meaning “father and mother” or “husband and wife” typically depicted as a male and female deity couple in sexual embrace. In these configurations, the male symbolizes “skillful means” (thabs; Skt. upāya), and the female is associated with “insight” or “wisdom” (shes rab; Skt. prajñā). Their sexual union symbolizes the inseparability of these two principles as necessary in order to gain Buddhist realization. In advanced Tantras, the practice of visualizing and then becoming the deity is known as “deity yoga” (lha’i rnal ‘byor). In these, the Tantric practitioner propitiates and then assumes the

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identity and characteristics of these deities as an instructive path towards Buddhist realization of the true ultimate nature of reality, “emptiness” (stong pa nyid; Skt. śūyatā).

Deity yoga practices, being the most advanced of Tibetan Buddhist ritual and meditative practices, belong to the “Highest Yoga” (Bla med; Skt. Anuttarayoga) Tantras, which are considered the highest of Tibet’s fourfold classification of Buddhist Tantra. According to their Gelukpa proponents, Highest Yoga Tantras187 are distinguishable from other Tantras by nature of being able to bring about enlightenment in a single lifetime, and therefore their practices “involves the most esoteric of the esoteric, the most complex of Tantric contemplative and ritual practices.”188

Highest Yoga Practices are divided into two stages. The first part, known as the “creation” or “generation stage” (bskyed rim; Skt. utpattikrama) prepares the meditator’s mental perceptions for the even more advanced practices of the second part, the “completion” or “perfection stage” (rdzog rim; Skt. sampannakrama), also known as the “path of methods” (thabs lam). Perfection stage practices involve controlling and directing the “vajra body” (rdo rje lus) of the winds, channels and drops. It is this vajra body where medicine and Tantra chiefly intersect, both in past and in present medical texts.

Generally, the Tantric, or vajra body, is conceived as being so extremely subtle that it is imperceptible to the naked eye. It is manifested through meditative visualization of the internal Tantric body of the yidam or yabyum. Although descriptions and specific details vary, the Tantric body is generally conceived as being made up of three channels: the “middle” or “central” (dbu ma; avadhūtī), the “left” or “solitary” (rkang ma; Skt. lananā), and the “right” or “flavour” (ro ma; Skt. rasanā).

These channels are imagined as tubes running vertically through the middle of the body. The central channel is thought to extend from the crown at the head to the sex organs, and from its lower end, semen is emitted. The right and left channels run alongside the central channel, and

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187 For more on the Highest Yoga Tantras, see: Daniel Cozort, Highest Yoga Tantra: An Introduction to the Esoteric Buddhism of Tibet (Ithaca, N.Y.: Snow Lion Publications, 2005).

188 Garrett, Religion, Medicine and the Human Embryo in Tibet, 112.
are said to be the reverse in females. The solitary channel is white and faces downwards, and the flavour channel is red and faces upwards. The upper ends of the right and left channels are at the nostrils, and are therefore thought to control ordinary breathing. At the lower ends they are responsible for the emitting of wastes, such as feces, urine and menstrual blood. In advanced completion stage meditative practices, the right and left channels have a role in allowing vital winds to enter the central channel.

Along the central channel there are “channel wheels” (rtsa ‘khor lo; Skt. cakra), the number of which can vary from Tantra to Tantra. The number of cakras, can range from four to seven, but are generally located at the head, throat, heart, navel, and the groin. Each cakra has a number of ‘petals’ or ‘spokes’ that branch to smaller channels and minor cakras throughout the body. Individual cakras along the central channel are associated with a specific “seed syllable” (yi ge; Skt. bija), such as Aa and Hum, which are associated with the material and psychic origins and workings of the universe, or in other words, they are the “essence and origin of all.”

Within the cakras are drops which are ultra reified quintessences. In Tantric thought, the drops are considered the material stuff of bodhicitta or “buddha-nature,” that is, the (potential) mind of enlightenment. The drops are said to originate from the white and red reproductive fluids of the father and mother respectively. In many Tantras, the white drop, which is symbolized as the moon is imagined as the white upside down Ham seed syllable that resides at the cakra at the crown of the head. The red drop, symbolizing the sun, resides at the cakra at the lower end, normally at the pelvis. The two right and left channels intersect at various points along the central channel to form “knots” that block the flow of winds in the central channels. Advanced Tantric practitioners aim to ‘untie’ these knots in order to allow wind to move to the central channel, and thereby open the cakras. In advanced Tantric practices, such as “inner heat” (gtum mo) the meditator works to cause the lower drop, the blazing sun, to melt the moon drop at the

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crown, allowing them to meet at the heart centre in the middle, thereby generating bliss and emptiness (bde stong), the hallmarks of Buddhist enlightenment.

The main role of the channels is to carry the “winds” (rlung; Skt. vāyu) which includes “breath” (rtsol; Skt. prāṇa), as well as the “life-force” (srog; Skt. jīva), both of which are essential for life. Moreover, in Tibetan Tantric thought the consciousness is thought to ‘ride’ on these internal winds, hence gaining mastery of the body’s system of winds, channels and drops are said to bring equilbrium to one’s thoughts and emotions.

As for highest yoga practices, specifically deity yoga, in general, the meditator first visualizes a particular scene, usually a mandala (dkyil ‘khor), which is a circular diagram containing images of deities and their retinues within a celestial surrounding. The mandala is thought to be a powerful meditative tool, symbolizing and leading one to internalize the nature of reality and the universe, as well as the enlightened mind. It is here in the visualized mandala that the practitioner imagines their ordinary selves as dissolving into emptiness, and from this emptiness, a seed syllable forms which gives rise to the body of the deity. After creating a mental image of the yidam or yabyum and their ritual instruments, the practitioner assumes their identity, merging with, and then becoming the buddha or bodhisattva, thus enacting a transformation of the self from an ordinary samsaric being into a fully enlightened Buddha. It is here that completion stage practices, involving the skillful manipulation of the internalized deities’ body of winds, channels and drops are developed. At the practices’ conclusion, the meditator causes the deity to dissolve back into emptiness, which is the ultimate reality from which it arose.

Included among the completion stage practices of High Yoga Tantras are the ritual and meditative practices that utilize sexual passion as a method. Because all Tantric practices are aimed at transforming the ordinary individual into an enlightened being, one must employ methods that shatter the illusion of self and other, pure and impure. This requires a “non-dualistic attitude towards spiritual development.” Therefore, “[i]nstead of rejecting certain “impure” aspects of human existence…[the] tātrika, or Tantric practitioner, is supposed to accept everything…[and] he or she should use everything.”

worldly pursuit that chains one to the endless cycle of rebirth and suffering, and therefore should be avoided and suppressed in the serious Buddhist follower, such as the case for celibate monastics. However, the sexual yoga Tantras take the opposite view. Instead of expending a great deal of energy keeping desire at bay, Tantric practitioners harness that sexual passion as a means “to redirect the force of desire by utilizing it in the spiritual path, so that desire itself becomes a means to overcome desire.” Therefore, in sexual yoga texts, the vajra body and in particular its system of sexual fluids, drops channels and winds becomes the central focus of meditation. This genre of Tantra also provides a rich conceptual and linguistic resource, as we shall see, for contemporary Tibetan medical writers in their debates surrounding Tibetan medical and biomedical notions of “hormones.”

Throughout the history of Tibetan medicine, writers have debated whether certain Tantric ideas of the subtle body such as the white and red drops, the cakras and the central, left and right channels could be understood and incorporated medically without contradicting the Four Treatises. At the heart of the problem, of course, is that the channels and cakras cannot be seen or physically located in the body. But given the Buddhist underpinning of medicine in wider society, Tantric anatomies and ideas are often argued to be compatible with medical ones. This co-existence has been ambivalent. For the most part, Tibetan medical writers, past and present have shown allegiance to the Tantric system chiefly because they neither would want to disprove, nor to argue against, the ‘word of Buddha,’ which the authentic Tantric texts including the Four Treatises are purported to be. As a result of their devotion to Buddhist ideas, “the world of Tantric discourse, imagination, and even soteriology remained fundamental to the conceptual universe of all of the Tibetan medical writers.” Therefore, medical writers have often argued that although the three channels and other Tantric anatomies can’t be empirically seen, evidence for their real existence is the fruition of Tantric practice wherein these channels have been manipulated to produce soteriological outcomes.

191 John Powers, Introduction to Tibetan Buddhism, 225.
According to Garrett and Adams, contemporary medical writer Tsultrim Gyaltsen’s viewpoint is that the medical and Tantric traditions are “ultimately in agreement on the existence of the three channels in the human body.”¹⁹⁴ The explanation for this is that because the medical tradition focuses on understanding and healing the material body, the subtle Tantric body is only “alluded to” whereas it is the central focus of Tantric texts, which describe “the ultimately true condition of the body.” Therefore, he asserts, the medical tradition does not contradict the Tantric position of the human body, but rather is in “full agreement” with it.¹⁹⁵ Moreover, as Janet Gyatso observes of Tibetan medical literature, “tantric theorizations of subtle matter helped medical description on a number of occasions to talk about imperceptible functions in the body.”¹⁹⁶ This insight is especially true in the contemporary sources that speak to “hormones” using Tantric ideas and language.

Tantric Buddhism, and especially the vajra body of the Highest Yoga Tantras continues to be a valued and valuable body of knowledge for Tibetan medical writers. Contemporary writers debating hormones often refer to Tantric ideas of the subtle body to name, describe and explain the microscopic workings of “hormones.” Indeed, Tantra is a crucial avenue for medical writers to argue for native (or pre-modern) Indo-Tibetan understandings of substances that resemble (or are equivalent to) biomedical notions of hormones. Present-day authors emphasize that the Tantras do not contradict the Four Treatises and other authoritative medical texts, and vice versa. Rather, the medical texts allude to the existence of the vajra body as the subtle and basic underpinning of the material body that medicine concerns itself with. Moreover, Tantra can explain the imperceptible aspects of the body which modern technology brings to light, demonstrating a considerable ability of the Tibetan tradition to ascertain the causes from the effects of previously invisible events. In this way the tradition seems ultimately true in its timelessness, and seemingly buddha-like omniscient ability to get at the heart of the matter. From a wider perspective, the use of Tantra to help establish “hormones” in the Tibetan medical

¹⁹⁶ Ibid., 93.
tradition ensures that Tibetan Buddhist ideas of the body remain prominent in not only the medical tradition, but in Tibet’s wider intellectual and national consciousness.

In this chapter I examine two book-length works which are best described as contemporary commentaries on the *Four Treatises* and the *gso ba rig pa* tradition. The first book is Thupten Püntsok’s *Knowledge of the Body in Tibetan Medicine*¹⁹⁷ published in 1999, and the second is Mingji Cuomu’s *Clinical Experience in Treating Obstetric Diseases*¹⁹⁸ published ten years later. These two works are similar insofar as they present biomedical thought as a verifying supplement to Tibetan medical knowledge. Even when they integrate new information and propose new terminology to describe biomedical ideas, these innovations are placed within the overarching framework of Tibetan medicine. Another crucial way in which they are similar is through their allegiance and devotion to the Tibetan Buddhist tradition. Both authors refer to several Buddhist sources throughout their works, and present Buddhist thought as a rich resource of knowledge about the body.

Thupten Püntsok’s book, *Knowledge of the Body in Tibetan Medicine*, is concerned with the whole human body but focuses on causes for conception, neonatal development and (briefly) normal functioning of the matured adult body. The work is notable for its lengthy discourse on the Tantric body in relation to the medical one, presenting both as two sides of a largely unified system. The topic of reproduction and the reproductive bodies of women come to the forefront in a number of sections. Although Thupten Püntsok is primarily explaining a Tibetan view of the body, he also integrates biomedical notions and terms, albeit briefly, and among these are hormones. Unlike my later sources, his referencing of hormones and their relation to the Tibetan medical body is preliminary and exploratory. Yet, his work clearly points to some of the key questions about hormones that constitute the debate surrounding their inclusion.

Mingji Cuomu’s work, *Clinical Experience in Treating Obstetric Diseases*, is focused on women’s reproductive abilities and their obstetric care. She also explores, at considerable length, the relation of Tibetan medicine to biomedicine in terms of new research and the trajectory of

¹⁹⁷ Thub bstan phun tshogs, *Gso bya las kyi rnam bshad*.

¹⁹⁸ Sman skyi mtsho mo, *Mo nad phal pa’i nad la zhib ’jug dang gso bcos kyi nyams yig*.
current textual research as part of the contemporary tradition. Her stated overall aim is to research and develop the Tibetan medical tradition in order to educate doctors and women, and thereby contribute to social progress. As does Frances Garrett in her study of Tibetan embryology,\(^{199}\) she points out that Tibetan medicine did not really develop obstetrical care in the same way as conceived in the West. Although there is some mention of care for pregnant women in some of the authoritative Tibetan sources, and the emotional thoughts of women during pregnancy is considered to be important, little has been written about the women’s obstetrical health, and far less about the actual process of birthing a child. Mingji Cuomu's central aim is to ameliorate this situation and to develop a Tibetan tradition of obstetrics.

I introduce Thupten Pünsok’s work first from among my primary sources because his book focuses on how the body is formed and how it functions, allowing us to examine the basics of the Tibetan medical body before moving into the more complex topic of how Tibetan medical and biomedical notions of “hormones” are integrated, as is the case with Mingji Cuomu’s book. Hence, I use his work to outline the Tibetan medical body, and to show, albeit in a cursory way, one way that biomedical and Tibetan medical ideas of hormones have been integrated. Also, we will have the opportunity to look at descriptions of Tantric anatomies since his work is explicit in its incorporation of these details.

Given that all present-day medical accounts of women begin with menstruation, Chapter Two begins with Thupten Pünstok’s description of menstruation. Following this, I look at his explanation of Tibetan embryology, which is an area where Thupten Pünsok explicitly points to the tension between ‘modern science’ and the Buddhist-medico Tibetan account of the body. In the two sections that follow, I examine Thupten Pünsok’s explanation of the Tibetan account of the human body as a whole, beginning with its constituent parts, extending to its subtle Tantric aspects and concluding with his interpretations of biomedical hormones in relation to the Tibetan system. Afterwards, I examine “hormones” in Mingji Cuomu’s book, focusing on the sources she employs and her interpretive strategies.

2.1 Menstruation: A Fundamental Condition of Womanhood

Thupten Püntsok’s explanation of women’s bodies begins with “menstruation” (zla mtshan), a topic most authors describe as the “fundamental nature” (chos nyid) of women’s bodies. This is based on a common understanding of the Four Treatises that all of women’s disorders initially stem from problems surrounding menstruation. Hence, before any discussion of women can take place, authors explain the causes and conditions of healthy menstruation, and its relation to reproduction. The correct way of viewing the nature and causes of menstruation and its relation to conception is the focus of the first section, “Explanation on the causes and conditions for the body” from the fourth chapter, “Explanation on How the Body is Formed.”

Thupten Püntsok begins this section with an oft-cited passage of the Four Treatises regarding a crucial element of conception: “The initial [cause for pregnancy are the] flawless semen and blood of the parents.” Having established the exact phrasing of the primary authoritative source of his work, he points to what he sees as a common misinterpretation of this passage in relation to menstrual blood: “It is said [by some] that this passage indicates that women possess [both] blood and menstruation [and therefore they] understand women’s uterine blood as being different from menstrual [blood]. But this system is not in keeping with the meaning of the Four Treatises.” The principle cause for a fetus to arise, clarifies Thupten Püntsok is the “seed” (sa bon) of the parents: the seed of the father is the “semen” or “reproductive fluid” (khu ba) of the “white element” (khams dkar), and the seed of the mother, known commonly as menstruation, is classified as being a product of the “red element” (khams

200 lus chags pa'i rgyu rkyen bshad pa, Thub bstan phun tshogs, Gso bya lus kyi rnam bshad, 40.
201 lus chags tshul bshad pa, ibid., 39.
202 dang po pha ma'i kha phrag skyon med pa, ibid., 40.
203 zhes pa'i kha phrag dang / zla mtshan ldan pa skyes pa 'dod pa'i rtags / zhes pa'i zla mtshan gnyis bud med kyi mngal phrag tu go nas 'grel bshad byas pa mi 'thad pa'i tshul bshad par, ibid., 40.
204 Khu ba can refer to both male and female reproductive fluids; in women, blood or the red element is also called reproductive fluid, and in many cases the three terms are synonymous.
Here, in the case of medicine, Thupten Pûntsok establishes the male and female reproductive fluids as the white and red elements respectively.\textsuperscript{205}

Thupten Pûntsok continues by explaining that part of the confusion over the identity and nature of menstrual blood and its relation to the red element arises from a conflation of Buddhist and medical ideas. He explains that such misunderstandings surrounding the blood and the seed arise from the mistaken notion that during menstruation, the uterine blood that comes out each and every month is merely “refuse” (snying ma), and therefore not the reproductive seed of the female. Hence, Thupten Pûntsok argues, that saying this menstrual blood is the red element, as understood in the \textit{Four Treatises}, is incorrect because in medical language, unlike Buddhist understandings, the red element is not just the blood that comes out every month but the entire sequence of events which takes place during each month of which the uterine blood coming out as “menstruation” is but one part. More concisely, the red element, which is present as a feminine principle in Buddhism, in medicine refers to the entirety of the menstrual cycle, and not just the “red blood” that comes out for a few days. In this way, the menstrual blood is the seed, albeit, one that hasn’t been fertilized.

Thupten Pûntsok further explains that according to “the specific conventions of medical literature, the meaning of menstruation refers to the essence of food and drink that has gathered in the ovaries for the purpose of grasping the seed in the uterus.”\textsuperscript{206} He continues, “Every month those essences gathered in the ovaries descend to the uterus by way of two tubes to the right and left [of the uterus], eventually becoming what is known as menstruation.”\textsuperscript{207} Then, “if the causes

\textsuperscript{205} This question of identifying “menstrual blood” and “ovum” is addressed in \textit{Ayurvedic} medicine as well. See for instance, Rahul Peter Das, \textit{The Origin of the Life of a Human Being: Conception and the Female according to Ancient Indian Medical and Sexological Literature} (Delhi: Motilal Banarsidass Publishers, 2003).

\textsuperscript{206} \textit{zla mtshan zhes pa gso ba rig pa’i gzhung gi ched spyod tha snyad cig ste / de’ai don ni kha zas kyi dwangs ma bsam se‘u ru bsags pa de mngal ‘dzin pa’i sa bon byed pa’i ched du, Thub bstan phun tshogs, gSo bya lus kyi rnam bshad, 41.}

\textsuperscript{207} \textit{dus las mi yol ba zla ba re re bzhin bsam se‘u yi rtsa lam g.yas g.yon gnyis brgyud nas bu snod du ‘bab bzhin yod pa des na zla mtshan zhes zer, ibid., 41.}
and conditions for pregnancy are not present”\textsuperscript{208} (usually meaning that sexual intercourse hasn’t transpired), the refuse inside the uterus becomes blood and comes out through the cervix.

After this interpretation, he emphasizes that if we consider only the uterine blood to be “menstruation,” then this is not in keeping with the meaning of the \textit{Four Treatises}, and furthermore, in Tibetan medical literature, the red element has many meanings related to the whole process of menstruation. He continues that part of the confusion comes from varieties in local dialect and “common [misunderstandings] among the majority of Tibetan people who are not medical doctors or experts,”\textsuperscript{209} and so do not know what is meant by “menstruation,” and that “the majority of those who have knowledge [of the texts]”\textsuperscript{210} know the correct meaning of the passage from the \textit{Four Treatises} regarding the “flawless blood” and “menstruation.”

This point about clarifying the medical and Buddhist understandings of the red element appears as a significant entry into the topic of women and menstruation, not only in Thupten Püntsok’s work, but in the other sources as well. As we do here, we shall see in other present-day works that the “red element” is the fundamental basis or foundation of any medical research on women,\textsuperscript{211} and identifying its nature and how it functions is not only considered key to understanding the “inherent nature” (chos nyid) of women’s bodies, but is increasingly the central locus or site where “hormones,” and how they function, are researched.

The assertion that some people “mistakenly” consider the “red element” to be \textit{solely} the menstrual blood is an opening into the examination of what it is that constitutes the red element. From a medical perspective, it is a fundamental condition of womanhood, and its mechanics, particularly in light of biomedical insights into hormones, is at the heart of contemporary

\textsuperscript{208} \textit{de nyid mngal ‘dzin pa’i rgyu rkyen ma tshogs pa’i tshe na}, ibid., 41.

\textsuperscript{209} \textit{spyi rtsang sman pa dang yon tan can ma yin pa’i bod mi mang che ba}, ibid., 41.

\textsuperscript{210} \textit{shes mkhan phal cher yod pa}, ibid, 41.

\textsuperscript{211} This emphasis on menstruation is noticeably absent in Western biomedicine, wherein the menstrual cycle, with the exception of birth control, is virtually never taken into account in medical or pharmaceutical research. In fact, it is \textit{because} women menstruate that they are considered to be not ‘good’ test subjects. It is not surprising then that women suffer more reverse side effects from drugs which have only been tested on male bodies. Including the menstrual cycle at every level of medical research would dramatically change the biomedical landscape.
medical debates. Moreover, to call out mistaken interpretations seems in some ways a rhetorical statement. A few authors point to this same misunderstanding that Thupten Püntsok does, yet I have not come across a single source that ‘makes’ this mistake, and so I am not sure as to who or to which text they are responding. It could be that they are responding to an earlier source that I have not consulted. It also could also be that this is a writing strategy to get at the heart of medical thinking of women, which principally relates to the red element and its proper connection to menstruation. I am also inclined to suggest the latter possibility because these ‘others’ are not directly cited, nor are sources provided. Moreover, at the end of this section Thupten Püntsok seems to suggest that mistaken interpretations are made by ‘lay’ or non-medical readers (although it wouldn’t be common for lay people to be reading medical texts like the Four Treatises) and that properly trained “doctors” would know better. In any case, the clear distinction being made between Buddhist and medical understandings of menstruation and the red element may also remind us of the separation of medicine from Buddhism. On the other hand, in the following sections of his work on the human body, Thupten Püntsok refers to Tantric anatomies of winds, channels and drops, and works to show how they are harmonious with medical views of the body. Certainly, in Thupten Püntsok’s work Buddhist and medical understandings of the body are related in some ways, but their differences need also be clarified.

2.2 Establishing the Reproductive Fluids in the Authoritative Literature

In the next section, Thupten Püntsok establishes the development, movement and functions of the reproductive fluids, and does so by referring to the Four Treatises, and two of its most influential commentaries which are still widely used today.

The first is Zurkar Lodrö Gyalpo’s (Zur mkhar blo gros rgyal po, 1509 – 1579)\textsuperscript{212} Ancestral Advice (Mes po ’i zhal lung),\textsuperscript{213} written between 1560 – 1570 and later revised and


\textsuperscript{213} Zur mkhar pa blo gros rgyal po, Rgyud bzhi ’i ’grel pa mes po ’i zhal lung (Beijing: Krung go’i bod kyi shes rig dpe skrun khang, 1989).
completed in the seventeenth-century by two doctor-writers\textsuperscript{214} at the request of the ‘Great’ Fifth Dalai lama. Ancestral Advice is used throughout the present-day medical sources on women. One reason for this is articulated by Mingji Cuomu who writes that Zurkar Lodrö Gyalpo’s Ancestral Advice outlines a four-point approach to healing, which is a hallmark of Tibetan medicine:

To identify the medical ingredients to be used; to diagnose the disease to which the medicine should be applied; to discover how to use medicines through the practice of formulating a remedy by combining the ingredients; and finally to make sure that the proper formulation ensures the quality of the remedy.\textsuperscript{215}

Further, she maintains that these four factors “are a useful starting point for thinking about how to create a new paradigm for Tibetan medical research” and such “historical suggestions have contemporary salience.”\textsuperscript{216}

The second commentary used prominently in Thupten Püntsok’s section on the reproductive fluids is Desi Sangyé Gyatso’s Blue Beryl,\textsuperscript{217} also an enormously influential treatise on Tibetan medicine commonly used today in the sources on women and hormones. Its author is the already mentioned, powerful regent to the Fifth Dalai Lama, who wrote a number of highly influential works on numerous topics spanning religion, government and science.

It is notable that both of these commentarial works were completed in the seventeenth-century, the hey-day of Tibetan civilization according to modern scholars, and that both are connected to the emblematic figures of that time, the much celebrated ‘Great Fifth’ Dalai Lama and his regent, Desi Sangyé Gyatso. Today both of these figures are seen by many Tibetans as nationalist heroes, who unified Tibet on religious, cultural, intellectual as well as geographic

\textsuperscript{214} These two doctors are Darmo Menrampa Lozang Chodrak (Dar mo sman rams pa blo bzang chos grags, 1638-1710) and Namling Panchen Konchog Chodrak (Rnam gling paNchen dkon mchog chos grags, 1646-1718).
\textsuperscript{216} Ibid., 261.
\textsuperscript{217} Sde srid sangs rgyas rgya mtsho, Rgyud bzhi’i gsal byed baidürya sngon po, 2 vols, Bod kyi gso ba rig pa’i gna’ dpe phyogs bsgrigs dpe tshogs 018 (Beijing: Mi rigs dpe skrun khang, 2005).
levels. Consequently, their use as authoritative sources in contemporary Tibetan medical research is significant.

Returning to the reproductive fluid, Thupten Püntsok begins this section by again quoting from the *Explanatory Tantra*: “The reproductive fluid, which is the last of the seven bodily constituents separates into two: essence (*dwangs ma*) and refuse (*snying ma*). The essence becomes quintessence, and the refuse creates the seed for conception.” According to Thupten Püntsok, those who mistake the uterine blood for refuse, or in other words say that the refuse is the blood and not the seed, misunderstand grammar, and so make careless misinterpretations. He writes that according to all of the authoritative commentaries to the *Four Treatises*, such as *Ancestral Advice* and the *Blue Beryl*, “the refuse of reproductive fluid is that which trickles downwards, and becomes, by stages, the seed for conception.” He then problematizes this claim by admitting that a reasonable cause of confusion could be that some “older commentaries” (*rgyud ‘grel rnying pa*) do in fact state that the essence becomes the seed for conception, rather than the refuse. Thupten Püntsok asserts that this seeming contradiction in meaning arises from two different ways of identifying the essence and refuse, which relate to notions of “thick” (*sra ba*) and “thin” (*sla ba*). These ideas of thick and thin reappear again in debates about hormones and technically this is a crucial point. He writes that it is customary that the essence is thin and the refuse is hard and solid, by giving the decidedly Tibetan examples of “butter” (*mar*) and “beer” (*chang*):

For example, by churning milk to take out the butter, the refuse is the milk which is a thin liquid, and the essence is identified as the butter, which is solid. Similarly, reproductive fluid is like the taking out of the refuse of beer, wherein the fibrous part is solid and [is considered] the refuse, and likewise, the beer, being thin, is identified as the essence.  

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218 *lus zungs bdun gyi tham khu ba de dwangs snyigs gnyis su phyes pa’i dwangs mas lus kyi mdangs dang // snyigs ma mngal ‘dzin pa’i sa bon byed ces bshad pa de*. Thub bstan phun tshogs, *Gso bya lus kyi rnam bshad*, 42.

219 *khu ba’i snyigs ma ni thur du ’dzag ste mngal ‘dzin pa’i sa bon du rim par ‘gyur ba yin no*, ibid., 42.

220 *dper na / ʼo ma dkrogs nas mar bton zin pa’i rjes su sla ba’i cha ʼo ma la snyigs ma dang / ril po mar la dwangs ma ngos ʼdzin pa dang / yang / chang gi snying khu bton zin pa’i rjes su sla ba’i cha sbang ma la snyigs ma dang / sla ba chang la dwangs ma ngos ʼdzin byed srol yod pa ltar red*, ibid., 42–3.
Accordingly, he suggests that there are two types of reproductive fluid, one being thick and the other being thin, and that calling them either essence or refuse points to the same process and is therefore not contradictory. He writes, “from mixing together [the reproductive fluid] with blood, the constituents take the form of thin water, and this becomes the bodily constituents, and the thick liquid trickles downwards by way of the channels from the ovaries and becomes the seed for conception in the uterus.” In this way, Thupten Püntsok is able to make an interpretation on a variety of texts without contradicting the “meaning” (don) of the *Four Treatises*.

Like we see in Thupten Püntsok, the insistence that there are “no contradictions” among older authoritative sources is the normative position of my primary sources. Instead of disputing, or showing the seminal medical texts to be even slightly ‘wrong’ or ‘dated,’ they are presented as timeless in their flexibility to contemporary interpretations. In this manner the Tibetan system is also open to incorporating foreign medical knowledge, in a way that does not discredit any of its fundamental assumptions. That appears to be the case where, having clarified the root text and countered any discrepancy with the relevant commentaries, (and immediately following the passage above) Thupten Püntsok concludes this section on Tibetan knowledge of the reproductive fluids by offering his own interpretation of how the biomedical system of hormones is related:

In the modern texts of Western medicine, that which comes out from the ovaries is [called] ‘hormones.’ They mix with the blood to make up the bodily constituents. And, through pathways from the ovaries, the egg-seed of conception descends, becoming the seed [in the uterus]. Hence, the [Tibetan] explanation and Western medical one is conceived in roughly a similar manner.

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221 'dir khu bar ska sla gnyis su bye ba'i sla ba chu'i rnam pa can de zungs khrag dang lhan du 'dres nas lus zungs byed pa dang / ska ba'i cha de bsam se'u yi rtsa lam brgyud thur du 'dzags te mngal 'dzin pa'i sa bon byed tshul bshad pa ni, ibid., 43.

222 Here the author finishes the previous sentence with the particle, *ni* - a grammatical marker that indicates that which follows is a kind of definition or explanation of what came before. In this way, the explanation of the perspective of the authoritative Tibetan texts agrees with, defines, or is perhaps describing the same processes as what biomedicine calls “hormones.”

223 deng dus nub phyogs pa'i gso rig gezhung du bsam se'u nas ho'o mo'u (Hormone) babs te khrag dang lhan du lus zungs byed pa'i tshul dang / yang / bsam se'i nas mngal 'dzin pa'i sa bon sgo nga de nyid bsam se'u yi rtsa lam du babs nas mngal 'dzin pa'i sa bon byed tshul bshad pa dang phyogs tsam mtshungs par snang, ibid., 43.
Although cursory and seemingly tentative in here, Thupten Püntsok’s assertion that hormones and the “essence of food and drink” are conceived in a similar manner is taken up, greatly expanded upon, and debated by later writers. The straightforward connections among nutrition, essences, wastes, the menstrual cycle and hormones form the crucial nexus in Thupten Püntsok’s assertion. That biomedical notions of “hormones” are equivalent to the very refined essences, or quintessence, of food and drink, and specifically of the white and red elements, is an idea found to be central in the other primary sources. It is also noteworthy that Thupten Püntsok is the only author among my sources who uses the English term, “hormone,” as well as its Tibetan transliteration of ho’o mo’u. Although he spills considerable ink on the close connection between the Tibetan medical and the Buddhist body, unlike the later medical writers, he does not use Tantric language to name “hormones.”

We also see in this section a pattern common among the sources on women and hormones, which is to first quote the Four Treatises, clarify any interpretations not in keeping with the “intended meaning,” posit a correct understanding (which is often where innovation occurs, or where one puts forth their own explanation), followed by comparison with biomedical knowledge. Thupten Püntsok’s statement of equivalency, namely that the red element is “roughly conceived in a similar manner” in biomedicine—speaks to the argument that Tibetan medicine is a ‘world medicine.’ Because it is based on empirical and ‘scientific’ evidence and experience, it can point to the same processes in the body that biomedicine does, albeit differently named and uniquely understood.

Lastly, one notices here and in other contemporary sources, that biomedicine is strategically used as a way to support the Tibetan system, and more widely Tibetan knowledge and culture—rather than as a means to offer a contrasting account. Biomedicine, it seems, confirms the findings of Tibetan medicine which is made known by experience and the authoritative textual sources. This stance has its hiccups, as becomes evident in the following section where Thupten Püntsok outlines the Tibetan perspective of embryology.
2.3 Problems in Tibetan Embryology: Strategies of Ignoring the Modern Evidence

Contemporary medical writers like Thupten Püntsok typically emphasize a harmony between Tibetan medicine and religion, even though this relation has its tensions and ambiguities. We can see an example of this discord in his next section, “Causes and conditions for the formation of the body” (lus chags pa’i rgyu rkyen). Thupten Püntsok gives an explanation of his understanding of Tibetan “embryology,” suggesting significant discrepancies not only among Tibetan medical texts and illustrations, but also with the visual evidence of ultrasounds and modern medicine.

In *Religion, Medicine and the Human Embryo in Tibet*, Frances Garrett explores the shared history of medical and Buddhist thought surrounding Tibetan embryology. Hence, using her work as a reference, I will speak only briefly about this branch of Tibetan medicine because it plays an important part in present-day works on women and hormones. Furthermore, the biomedical literature on hormones is also very much engaged with embryology, the field known as development, owing to the fact that hormones are thought to be instrumental in the organization of the male and female embryo. In both cases, a large part of research into “hormones” necessarily involves attention to prenatal development or embryology.

Embryology, the account of how the fetus is conceived and gestated, has been a fertile topic in the intellectual history of Tibet, and can be found in a broad range of Buddhist and medical literature. In the eleventh and twelfth centuries Tibetans inherited and translated numerous Indian medical (Āyurveda) and Buddhist texts (Sūtras and Tantras) on embryology, and its closely related topic, the reproductive bodies of women. They also produced a staggering number of such texts throughout the following centuries. Garrett indicates that part of the reason embryological narratives gained such popularity and pervasiveness in Tibetan literature was due to the proliferation of commentarial literature, from roughly the thirteenth-century onwards, that

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224 Ibid, 43.

225 As Frances Garrett points out, the term, “embryology” is a product of Euro-American thought, and there is “no direct terminological or conceptual correlative in Tibetan.” *Religion, Medicine and the Human Embryo in Tibet*, 12–3 (author’s emphasis). What we typically call Tibetan “embryology” is commonly known as “how the body is formed” (lus chags pa’i rgyu) in Tibetan literature.
imagined Buddhist soteriology to be a graded path, giving rise to a wide genre of writing and practice known as “stages of the path” (lam rim).

In Mahāyāna Buddhist writings, such as the Entering the Womb sūtra and its commentaries, the embryological narrative, which is chiefly concerned with how ‘ordinary beings come into existence,’ explains doctrinal understandings of karma, inter-dependence and rebirth. Beyond being intellectually instructional, by contemplating the embryological narrative, explaining the gradual and causative steps by which one gains a material body, a Buddhist adept can realize deeper soteriological ‘truths,’ such as impermanence and emptiness, the pervasiveness of suffering, and more importantly, the means to be reborn as a fully enlightened being.

In Tantric writings such as the Indian Kālacakra Tantra and its vast Tibetan commentarial tradition which continues in Buddhist and medical writings today, the embryological account serves as an especially fruitful metaphor for the Buddhist meditator and/or the gradual stages of Buddhist insight that lead to liberation. In these texts, increasingly elaborate and intricate meditative practices, mostly based on a subtle Tantric anatomy of winds, channels, and drops, are vividly presented by way of human physiology in the process of conception, gestation and birth, allowing the advanced contemplative to experientially know how one is born with a human body, and also, how one can be liberated from ordinary rebirth. As in Tibet’s medical history, Buddhist Mahāyāna and Tantric ideas of fetal development are present in the contemporary sources, such as Thupten Püntsok’s.

Thupten Püntsok’s account of embryology is based primarily on the Four Treatises and Ancestral Advice. It should be noted that the embryological details vary amongst authoritative and present-day commentaries, and as Garrett points out, these details, reflecting the social, political, religious, and cultural worlds of their origin, were “controversial” in their time, and “[e]xamining this controversy will tell us a great deal about intellectual history in Tibet, much as debates over embryology are a mirror into our own history.”

226 Ibid., 9.
section (continuing directly following the last translated section ending on hormones) contains
the basic requirements for conception present in Tibet’s intellectual traditions. He writes,

The causes and conditions for the formation of the body are the flawless wind, and so forth
of the father’s semen and the mother’s menstrual [blood], and the consciousness of a bardo
being, of whose karmic merit, whether virtuous or non-virtuous is suitable [with the
parents]. It is by the arousal of the “passion winds,” (nyon mongs pa’i rlung; Skt. kleśa)
ignorance and so forth that the three—semen, blood and mind—together with the five
elements suitably gather and assemble, becoming the cause for the formation of a child in
the uterus.227

While the reproductive fluids appear safely ‘medical’ to a Western reader, the latter requirement
for human life, a consciousness of a bardo being would appear more overtly Buddhist. Tibetan
Buddhist views surrounding the bardo consciousness, like we saw in Gönpo Kyap’s argument for
the Buddhism’s materialist basis, are asserted throughout present-day Tibetan sources on
women’s bodies and reproduction. Thupten Pünstok does not so much explain or define what a
bardo being is, but instead continues to outline the main points on embryology found in the Four
Treatises and Ancestral Advice.

Following from above, Thupten Pünstok writes about how the “five elements” (’byung Inga)—“earth” (sa), “fire” (me), “water” (chu), “wind” (rlung) and “space” (nam mkha’)—
interact to form the fetus’ body, and which parts are formed by the father’s semen and the
mother’s blood—both significant debates in Tibetan and Āyurvedic medicine. In terms of the
ovulatory cycle, he writes about which days are the most fertile for women, and makes
comparisons with the biomedical system, showing it is similar to Tibetan medicine. He also
outlines the process of “digestion” (’ju ba) and the making of the seven bodily constituents
through the gestative process, something largely absent in sūtrakīrtana and Tantric sources, but of great
importance in many medical sources.

Notably, Thupten Pünstok concludes the first half of the fourth chapter by pointing to
possible discrepancies between Tibetan and biomedical embryological understandings:

227 lus chags pa’i rgyu rkyen ni / pha’i khu ba dang ma’i zla mtshan la rlung la sogs pa rnam pa gyur
pa’i nad kyi skyon med pa de la / bar do’i rnam pa shes pa de nyid dge mi dge gang rung gi las dang / ma
rig pa la sogs pa’i nyon mongs pa’i rlung gis nye bar bskul nas khu khrag sens gsun gyi ’byung ba Inga
po lhan cig tu tshogs shing ’dus pa rung ba ni mngal du bu la sogs pa chags par ’gyur ba’i rgyu yin.
Thub bstan phun tshogs, Gso bya lus kyi rnam bshad, 43.
The clear and precise manner of the development [of the fetus] according to each and every specific week is clearly outlined in the *Explanatory Treatise*. Yet, my impression is that the literal meanings of the words of the *Explanatory Treatise* have not been analyzed carefully, and because of that many mistakes and errors arise in the commentaries. In the Lhasa Tibetan hospital, there is a medical painting that illustrates the manner of how the fetus’ body is formed, which if you match it against the precise meaning of the words of the *Explanatory Treatise*, is very different. These days, ultrasounds are able to investigate the stages of fetal growth through visual images and again, they are different [from the Tibetan accounts]. Nevertheless, with respect to that, there is no need at this time to elaborate on the discrepancies, and [we will] put [the issue] aside. Here, I provide a summary of the way the fetus’ body is formed from the point of view of the literal meaning of the root words of the *Explanatory Tantra*.²²⁸

Although Thupten Püntsok points to clear contradictions, for the latter part of the fourth chapter he presents a detailed summary of each month of gestation relying on the *Explanatory Treatise* of the *Four Treatises* and *Ancestral Advice*. For example, he writes that it is in the fourth week of pregnancy, after the male and female seeds have properly joined and formed an embryo, and the fetus’ own “existence wind” (srog rlung) has taken root that the indicators of gender arise. He writes,

> During the fourth week, the wind [causes the fetus’ body] to form into the same shape and consistency as a thick yogurt, from which it can be determined whether the [child] will have the mark of a male or female. As for this indication of sex, if the form of the fetus is round shaped and has the quality of being hard and dense, it will be a boy. If it is oval shaped and its form has the aspect of being thin and subtle, it will be a girl. If it is an elongated shape and its form takes the aspect of being a bit thick, it will be a neuter [child].²²⁹

It is not likely that these details would hold up either to biomedical scrutiny, or to biomedical views regarding how and when one’s ‘sex’ is established, or whether this can be changed by

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²²⁸ *bye brag bdun phrag re re bzhin ‘phel ba’i tshul gsal zhing zhib pa bshad rgyud du gsal yang / ‘grel pa rnams su bshad rgyud kyi tshig don la zhib tu ma dpyad par rang gi ‘char snang ltar ‘grel bas nor ‘chug mang po byung yod stabs / lha sa sman rtsis khang gi lus chags tshul gyi dpe ris bris pa’i thang ka de ni / bshad rgyud kyi tshig don dang zhib tu sbyar na ha cang mi mthun zhing / deng dus tshan rig gi ‘phrul chas kyis brtags nas rtogs pa’i lus chags tshul gyi par ris dang de bas kyang mi mthun / ‘on kyang de la dgag gzhag gi spros pa’i dgos gal ma mthong bas re zhig bzhag nas / ‘dir lus chags tshul bshad rgyud kyi rtsa ba’i tshig don ji bzhin mdor bsdu pa’i sgo nas ‘grel bar, ibid., 49–50.

²²⁹ *bdun phrag bzhi pa’i skabs su rab tu byed pa zhes bya ba’i rlung gis lus dhyibs rags pa zho’i rnam pa lta bu chags pa de la pho mo gang yin gyi mthun ma gtan ‘khel bar byed cing yod pa ste / de’ng mthshan ma’i rtags su gor gor po ste cung zad sra zhing ‘dril ba’i rnam pa chags na pho dang / mer mer po ste sla ba’i rnam pa chags na bu mo dang / nar nar po ste cung zad ska ba’i rnam pa chags na ning du ‘gyur bar bshad, ibid., 52.*
ritual, behaviour or some other means. These are long-standing ambiguities in Tibetan medicine. Notably, biological sex is not strictly binary in the Tibetan medical (or Buddhist) system, and a ‘third gender’ which is neither male nor female, is recognized by medical and Buddhist writers.\textsuperscript{230} Also, it is significant that Thupten Püntsok does not show the \textit{Four Treatises} either to be contradicted or to be shown ‘false’ because of the evidence of modern ultrasounds and the discrepancies among Tibetan texts. Rather, he clearly maintains the \textit{Four Treatises}’ medical authority in terms of fetal development. He suggests in the passage quoted earlier, and throughout his work, that there are other ways to interpret or ‘read’ the texts such that they are ‘correct or ‘true’ in some ways.

\section*{2.3 The Body’s Constituents: A Tibetan Medical and Buddhist Framework for Life}

In the fourth chapter dealing with embryology, Thupten Püntsok explained how the body is conceived and gestated. In the fifth chapter, “Explanation of the Characteristics of the Body,”\textsuperscript{231} he shifts to precisely \textit{what} it is that constitutes the body. In this chapter, Thupten Püntsok begins with an outline of the basic and essential building blocks of the body, gradually moving towards a more complex and multidimensional body. In this section I look at the terms and ideas that describe what the body is most ‘basically’ made up of: aggregates, elements, the seven bodily constituents and the three dynamics.

Thupten Püntsok explains that according to Tibetan medicine the “body” (\textit{lus}) is essentially made up of “aggregates” (\textit{phungs po}; Skt. \textit{skandha}) which are the assembly of two spheres of “material elements” (\textit{khams}; Skt. \textit{dhatu}). The first sphere consists of the “material elements of the body’s constituents” (\textit{lus zungs kyi khams}), which are the “object[s] of harm” (\textit{gnod bya}). The second sphere is the material elements of the “three dynamics” (\textit{nyes pa}; Skt. \textit{dośa}) of “wind” (\textit{rlung}; Skt. \textit{vāta}), “bile” (\textit{mkhris pa}; Skt. \textit{pitta}), and “phlegm” (\textit{bad kan}; Skt. \textit{kapha}), which are the “objects that harm” (\textit{gnod byed}). He also adds that the bodily constituents, (or more basically, the ‘body,’ also understood as \textit{khams}) are the ‘objects’ (or the

\begin{footnotesize}
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\item \textsuperscript{230} Janet Gyatso examines the ‘three genders’ of Tibetan Buddhism in: “One Plus One Makes Three: Buddhist Gender, Monasticism, and the Law of the Non-Excluded Middle,” 89–115.
\item \textsuperscript{231} \textit{lus kyi mtshan nyid bshad pa}, Thub bstan phun tshogs, \textit{Gso bya lus kyi rnam bshad}, 63.
\end{itemize}
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body itself as the object) that can be ‘harmed’ by nature of being subject to the changeability of
the three dynamics or ‘faults.’ To unpack this understanding of the body, it helps to understand
the wider religious context that informs Thupten Püntsok’s medical perspective.

The concept of “aggregates,” which Thupten Püntsok identifies as that which makes up
the human body in the Tibetan system of medicine, is deeply informed by philosophical ideas
dating back to the early days of Indian Buddhism. Ideas about the aggregates, also known as the
“heaps” or “piles” that make up impermanent things such as humans, are found throughout the
various genres of Buddhist literature from the Theravada, Mahāyāna and Vajrayāna traditions.

In the early Buddhist literature, the aggregates of human (and cosmological) existence is
treated extensively in two of the three “baskets” of the the Tripiṭaka (sde snod; Pāli. Tipiṭaka Skt.
pitakas). These texts of the Buddhist Pāli cannon are considered to be the ‘word of the Buddha.’
Two of these groups of texts are the “sūtras” (mdo; Pāli. sutta), the “discourses of the
Buddha,” and “Higher Knowledge” (chos mngon pa; Pāli. Abhidamma) (known chiefly in
Western scholarship by its Sanskrit title, Abhidharma). The Abhidharma contains a system of
classifying and understanding all phenomena. A commentarial tradition based on the sūtras
and the Abhidharma flourished in Tibet from the ninth-century, and the topics contained in these
works are still considered foundational philosophical topics in Buddhist (particularly monastic),
education. Mahāyāna and Vajrayāna Buddhism adopted and elaborated upon these earlier
Buddhist views of the body. Hence, in the wider Tibetan Buddhist and medical traditions, notions

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232 Ibid., 63.

233 The third ‘basket’ of the Pāli cannon is the Vinaya (‘dul ba)—the rules of the Buddhist monastic
community.


of the aggregates as constituent parts of human beings, as well as the three dynamics and the elements, is normative.

According to the Tibetan Buddhist tradition, there are five psychosomatic aggregates that make up the human being, or more accurately, the false sense of ‘ego’ or ‘I’ that is said to be an illusion. These aggregates are 1) “form” (gzugs; Skt. rūpa); 2) “feeling” (tshor ba; Skt. vedanā); 3) “perception” (‘du shes; Skt. samjñā); 4) “compositional factors” (‘du byed; Skt. saṃskāra), and; 5) “consciousness” (rnam shes; Skt. vijñāna). Together, these aggregates constitute the entirety of the physical, mental and emotional parts of human embodiment. Therefore, these parts are said to constitute experience itself. Accordingly, the experience of our body, feelings, and thoughts, appears to us as an unitary and coherent ‘self’ or ‘I’ when in reality it is only an illusory notion. The erroneous belief in our ‘self’ causes us much suffering. When one thinks of themselves as unique and separate from others, the thoughts give rise to human problems such as greed, jealousy, hatred, and anger. In Buddhist terms, this false ego is both produced by and is the cause for ignorance, the first of the ‘three poisons’ that cause an individual to suffer continuously throughout their successive lifetimes. A part of Buddhist enlightenment is the realization that this so-called self is “empty” (ston byid; Skt. śūnyata), meaning impermanent, changeable, transitory, and made up of parts.

Thupten Püntsok’s description of the body tells us that these aggregates are made up of two kinds of “material elements” (khams). Khams is a wide-ranging term imbued with a host of social, religious and medical meanings in Tibetan culture. Interpreting how the term khams is being used often depends on the context. Generally speaking, khams can refer to region, realm, land or domain. It can also refer to ideas similar to the English, ‘element,’ insofar as being something that is “material” (ngo bo) that is found in, or makes up the nature and characteristics of the external world and the body. In Tibetan medical and Buddhist cosmological thought, the five “external elements” (phyi khams) of wind, water, fire, earth and space exists in or make up the “inner elements” (nang khams) of the body. Khams can also refer to the “attributes” of

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237 The “three poisons” (dug gsum) and their relation to the “dynamics” (nyes pa) will discussed further in this chapter.
human existence, our nature, character, abilities and propensities, as described in Abhidharmic literature. In Buddhist Mahāyāna and Tantric philosophy, this understanding of *khams* extends to one’s inherent “buddha nature” (*de bzhin gshegs pa'i snying po*; Skt. *tathāgatagarbha*).

In medicine, *khams* can refer to one’s state of health, to the body itself, or to its parts or constituents. In medical literature concerning human reproduction, *khams* signifies the two, “white and red elements” (*khams dkar dmar*), effectively the ‘white’ semen of the male and the ‘red’ menstrual blood of the female which result from the process of digestion. Thupten Püntsok speaks to several of these meanings in his fifth chapter on the characteristics of the body, and in the subsequent chapters describing his vision of a harmonized Tantric-medical body of winds, channels and drops. Throughout our exploration of contemporary medical sources on women, it is this last meaning of *khams* that is most prevalent, particularly in relation to Tibetan notions of “hormones”.

In Thupten Püntsok’s description of the Tibetan medical body, his first usage of *khams* refers to the “material elements of the body’s constituents” (*lus zungs kyi khams*). This understanding of *khams* denotes the process of digestion and the making of the “seven bodily constituents” (*lus zungs bdun*). The digestive process and its relation to menstruation and conception are central in all of my sources that speak about hormones. The details of their interrelation takes up a considerable part of the medical debates concerning biomedicine and women’s bodies. I will introduce the topic of digestion here by way of Thupten Püntsok’s summary of the Tibetan medical perspective.

According to Thupten Püntsok’s presentation of Tibetan medical thought, the body consists in “seven bodily constituents” that are initially produced through the consumption of “food and drink” (*kha zas*). In order of their emergence, these seven constituents are: “essence” or “nutrition” of the food and drink (*dwangs ma* and sometimes *bcud*), “blood” (*khrag*), “flesh” or “meat” (*sha*), 238 “fat” (*tshil bu*), “bone” (*rus pa*), “marrow” (*rkang mar*) and “reproductive

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238 *Sha* can be difficult to translate since this term can have one of several meanings such as “flesh,” “meat” or “muscle.” A similar problem exists in Greek medicine surrounding the notion of ‘muscle.’ For example, see Shigehisa Kuriyama, *The Expressiveness of the Body and the Divergence of Greek and Chinese Medicine*, (New York: Zone Books, 1999).
fluid” (*khu ba*). In this system, it takes seven days for the essence of consumed food and drink to be digested, becoming on the second day blood, on the third day, flesh, and so on.

During the process of digestion, the “refuse” (*snyigs ma*) is separated from the essence. The refuse refers to waste products expelled from the body such as urine, feces, sweat, and mucus. The “essence” (*dwangs ma*) is that which moves to become the following bodily constituent, wherein again, through the digestive processes of the body, specifically the body’s “heats” (*me drod*), the refuse is separated out, leaving the essence. For example, the refuse of the first bodily constituent, consumed foods and drink (or other comestibles), is feces and urine. The essence of the essence of consumed foods is that nutrition which, having been absorbed by the body, becomes blood. In this way, stage by stage, the seven bodily constituents are made. Many intricate processes are involved in this, including the workings of the three dynamics, four (or five) elements, environment, season, diet, and one’s life situation.

The reproductive fluid, considered to be the most refined of the bodily constituents, is the seventh bodily constituent. It is divided into the “white element” (*khams dkar*) and the “red element” (*khams dmar*). These elements are normally considered to be present in both men and women but function differently in male and female bodies. (Tibetan medical students explained to me that there is some debate as to whether men do have the red element, and if so, what would be its function.) In men, the essence of the white reproductive fluid, and in women, the essence of the red reproductive fluid, are separated further into essence and refuse. Among contemporary writers, the refuse of the reproductive fluid in women is generally agreed to be menstrual blood. In both men and women, the essence of the essence of the reproductive fluids, the seventh bodily constituent, becomes the “quintessence” (*mdangs*). In some of the more Tibetan medico-Tantric envisioned anatomies (like Thupten Püntsok’s), the essence of the essence of the reproductive fluids becomes the “drops” (*thig le*) that reside in the central channel of the vajra body. As we shall see in the present-day medical works, many authors assert that the “quintessences,” which are produced from nutrition, can be understood as substances similar to, or the same as, biomedically understood “hormones.”
The second kind of *khams* that Thupten Püntsok identifies are the “material elements of the three dynamics” (*nyes pa kham*). As a Buddhist term, the “faults” or “blemishes” (*nyes pa*) refer to the three mental and emotional afflictions, also known in Buddhism as the “three poisons” (*dug gsum*; Skt. *triviṣa*) of “desire/passion/greed” (*‘dod chags*; Skt. *rāga*), “anger/aggression/hatred” (*zhe sdang*; Skt. *dveṣa*), and “ignorance/confusion/delusion” (*gti mug*; Skt. *moha*). In Tibetan medical thought, these three afflictions become materially embodied as the “three dynamics” (*nyes pa gsum*; Skt. *doṣa*) of wind (*rlung*; Skt. *vāta*), bile (*mkhris pa*; Skt. *pitta*) and phlegm (*bad kan*; Skt. *kapha*) respectively. It should be noted that the English translations of wind, bile and phlegm, do not adequately correspond to their Tibetan meanings.

The three dynamics are “the basic principles of Tibetan medical physiology that are embedded within the larger cosmology of the five elements which considers these to be water, fire, earth, wind and space.” As such, each dynamic shares in the qualities of the elements. The wind dynamic is dominated by wind, the bile dynamic is dominated by fire, and the phlegm dynamic is dominated by earth and water. As such, wind is responsible for the function of movement, bile moderates the body’s temperature and digests food, and phlegm lubricate joints, forms the soft tissue and “gives stability” to the whole body.

Each of the three dynamics has a predominant ‘seat’ in the body. For example, the predominant seat of wind is the lower body and pelvis, based on its relation to desire. Each of the three dynamics is further divided into five specific kinds which are related to their function and location in the body. For example, the five kinds of wind, quoting Thupten Püntsok’s summary from the fifth chapter, are

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241 Ibid., 84.
1) The ‘life-sustaining wind’ which is the root condition that compels the body to be formed. The root of all the winds, the life-sustaining wind resides at the crown of the head in the region of the brain. Its pathway for movement is the windpipe and chest. Its function is to cause the swallowing of food, inhalation and exhalation of breath, expelling of spit, and sneezing. It clarifies the intellect and consciousness. In terms of the senses, [when the life-sustaining wind] moves to the eye sense power it causes forms to be clear; [when it] moves to the ear sense power, sounds are clarified; [when it] moves to the nose, smells are clarified; [when it] moves to the tongue tastes are clarified, and; [when it] moves to the body, the experience of feeling tangible objects, etc., is clarified.242

2) The ‘upward-moving wind’ is located is the chest. Its pathways for movement are the nose, tongue, and throat. Its function is to compel the coming out of sounds and speech, to increase the strength of the body and give it lustre, to give the skin its complexion, to generate perseverance and energy, and to clarify the memory.243

3) The ‘all-pervading wind’ is located at the heart. Its pathways for movement are the inner, outer, upper and lower parts of the entire body. Its function is to lift and move the legs, straighten and bend the limbs, opening and closing the [body’s] orifices. Any movement of the body is primarily dependent upon this wind.244

4) The ‘fire-accompanying wind’ is located in the stomach, and more specifically, in the large intestine… The pathway for its movement is through all of the internal organs, such as the small intestines. Its function is to digest food, separate the essence and the refuse, and mature the bodily constituents.245

5) The ‘downward expelling wind’ is located in the pelvis. The pathways for its movement are the large intestine, bladder, genitals and the inner thighs. Its function is to control the emission and retention of men and women’s reproductive fluids at the climactic moment of...
blissful love-making. [It also retains and emits] menstrual fluids, feces, urine, and the fetus. 

As one can see from this summary, the wind dynamic, like bile and phlegm, is involved in a wide range of bodily activities. Like all of the dynamics, wind has a predominant seat, but also concentrates in other locations, and ultimately pervades the entire body. It is for these reasons that in the contemporary sources, the winds are what move the “hormones” allowing them to pervade the entire body, as well as to have a key role in many of the bodily processes.

2.4 The Body’s System of Channels: The Movers

Moving from the fifth chapter which outlined digestion, the seven bodily constituents and the three dynamics, Thupten Püntsok’s sixth chapter, “Explanation of the System of Establishing the Body’s Channels” maps a human body using Tibetan medical and Buddhist thought, which in the end, is compared with and confirmed by biomedical ideas. Thupten Püntsok’s presentation of the Tibetan medico-Buddhist body is immensely sophisticated, and cannot be easily summarized, and here I will focus mostly on notions surrounding “hormones.” In this section, I begin with the end by presenting Thupten Püntsok’s concluding remarks on the possible relation between the Tibetan Tantric-medico body and biomedical hormones. Afterwards, tracing his conclusion backwards, I focus on a number of key terms from the sixth and seventh chapters which feature prominently in contemporary medical literature on hormones.

In his concluding summary of the medical and Tantric understandings of the winds, channels and drops described in his sixth and seventh chapters, Thupten Püntsok briefly suggests that the seed syllables located at the “locations of the life-force” (bla gnas) within the body’s circuits of channels might be the “glands” (rmen bu) that transmit the “hormones” (ho’o mo’u) of Western medicine. He writes:

\[\text{thur sel gyi rlung gi gnas sa’i yul gzhang / rgyu ba’i lam long dang / lgang pa / gsang gnas / brla’i nang bcas so / byed las ni ‘khrig pa’i bde ba rtser son pa’i skabs su ‘byung ba’i pho mo’i khu ba dang / mngal khrag / bshang ba dang / gcin pa / mngal nang / gi bu la sogs pa rnams ‘byin sdom byed cing yod pa red, ibid., 73.}\]

\[\text{lus kyi rtsa’i gnas lugs skor bshad pa, ibid., 80.}\]
The statements made in texts such as *Ancestral Advice* and so forth, which indicate the “location of the daily migration” (*bla gnas*) of the “life-force” (*bla*) and where it takes the form of such syllables as the *Ah* and *Ee* in each of the individual channels, should be examined in detail in order to determine whether the meaning of these is “channel” (*rtsa*) or “gland” (*rmen bu*). If we examine carefully the nature of the relationship between this and “Hormones,” which are taught in relation to glands in the Western system of medicine, I think beneficial fruits will naturally emerge.

There are a number of things to explain in order to understand Thupten Püntsok’s claim that the seed syllables at the *bla gnas*, or even possibly the *cakras* of the central channel of the vajra body, could be considered equivalent to the endocrinological glands of biomedicine. First, I will briefly explain the Tibetan idea of the “life-force” (*bla*) and following this, examine the term Thupten Püntsok uses for “gland,” *rmen bu*. Afterwards I will look at Thupten Püntsok’s sixth chapter which focuses on the “channels” (*rtsa*).

The so-called “life-force” (*bla*) ought to be understood in relation to two other key terms that describe ‘life,’ namely, the “life-length” (*tshe*) and the “life-energy” (*srog*). Although they each function slightly differently, together, the so-called “trinity of life” (*tshe srog bla gsum*) are considered the necessary supports for life to exist. A common Tibetan way of explaining these is through the metaphor of a lamp. The life-length is like the lamp’s oil in that it underpins the length of one’s life. The life-force is said to be like the wick insofar as providing the physical mechanisms and conditions necessary for life. The life-energy is said to be like the flame, meaning that it is the spark that initiates and maintains the potential for life to exist. According to Gerke,

> *Srog* is life itself. It indicates the key vitality of a person… Its decline leads to a loss of *tshe*; its loss leads to death… *Bla* in the astrological and medical contexts is a subtle life-

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248 Note that in the original, Thupten Püntsok first gives the English to Tibetan transliteration, *ho’o mo’u*, followed by the English word, “Hormones” in brackets.

249 ‘*dir nyin re bzhin bla gnas ’pho ba’i yul rtsa’i gnas so sor yi ge Aa dang Ai sogz kyi dbyibs su yod pa mes po’i shal lung sogz su gsungs pa’i dag don du rtsa’m rmen bu gang yin zhib tu dpyad dgos pa zhip dang / ‘di dang nub phyogs pa’i gso rig lugs kyi rmen bu la brten nas ’babs pa’i ho’o mo’u (Hormone) zhes pa de gnyis ’brel ba gang yod legs par brtag na rang gzhon gnyis ka la phan pa’i ’bras bu zhip ‘byung bar sens*, ibid., 125.

essence that supports srog… Bla can be lost through shocks and accidents or stolen by
demons… The loss of bla weakens srog and if untreated cuts short tshe.\textsuperscript{251}

There is a constellation of Buddhist, medical and popular ideas about bla that are related, but
should not be necessarily conflated into any single understanding.

In Tibetan medicine, the life-force, bla, is postulated as travelling around the body
according to daily, monthly, seasonal, and yearly patterns, which are predicated on the lunar
cycle. The locations of to where the life-force migrates are known as “places of the life-
force” (bla gnas). In men, the life-force travels from the toe on the right side of the body, to the
crown of the head, and then down the left side of the body. This travel direction is the reverse in
women. Tibetan medical scholars sometimes disagree on whether or not this sex-opposite
dualism is really the case in material bodies (as opposed to the vajra body) since women’s and
men’s pulses are often read on opposite wrists due to the differently sexed cycles of life-force.
Because a sudden shock or accident can cause life-force to be lost, this sex-opposite dualism
provides Tibetan doctors the means to determine the life-force’s migration and place in the body.
It is also noted that Tibetan doctors will not perform surgery over the bla gnas when the bla is
present.\textsuperscript{252}

According to Gerke, both Ancestral Advice and the Blue Beryl state that the medical
understandings of the bla gnas are “certainly in conformity with the principal meanings
elucidated in the Kālacratantra.”\textsuperscript{253} In both texts, thirty points of the bla gnas are identified on
a temporal map of the body. As we saw in Thupten Püntsok, at each of these points of bla gnas, a
seed syllable arises and the bla “takes the form of such syllables as the Ah and Ee.” These
syllables are postulated as possibly drawing from Hindu numerology and systems of classifying
time. In the Kālacakra Tantra, the syllables are also associated with different locations and
characteristics of the body, but they are also located at the cakras of the channels of the Tantric
body.\textsuperscript{254}

\textsuperscript{251} Ibid., 7–8.
\textsuperscript{252} Ibid., 137–147.
\textsuperscript{253} Ibid., 143.
\textsuperscript{254} Ibid 143–4.
By the seventeenth-century, Tibetan medical painters illustrated the *blas gnas* together with the three channels and five *cakras* of the Tantric tradition. These paintings show that during the waxing moon the *bla* moves in the right side of men and the in left side of women, and during the waning moon the *bla* moves in the left side of men and in the right side of women. Gerke writes that according to the *Blue Beryl*, the reason for “the female cycle moving from right to left, and the male from left to right is that masculinity is represented by the left white channel (*rkyang ma*), and femininity by the right, red channel (*ro ma*).” This idea is present in Thupten Püntsok’s explanation of the *bla* and its daily migration through the body.

The term for “gland,” *rmen bu* (and a related new term, *gsher rmen* which will be discussed in relation to Mingji Cuomu’s work) appears in a number of contemporary Chinese-Tibetan medical sources on women’s bodies as equivalent to the “glands” of the biomedical endocrine system. Yet, in wider Tibetan medical literature, including English translations and writings of Tibetan medicine, the *rmen bu* (Skt. *granthi*) can also be found to refer to cysts, ulcers, swellings, tumours, and most commonly, the lymph nodes of the lymphatic system. The sixty-seventh chapter of the *Four Treatises*, “Treating the *rmen bu*” (*rmen bu bcos pa*), is devoted to treating disorders of the *rmen bu*. It reads that by “having powerful causes and conditions [disorders of the *rmen bu* results] in pain and disturbs wind and blood, and there is a swelling in the *rmen bu*.” It further lists some of the locations of these *rmen bu*, such as at the “centre of the neck” (*ske mjing*) and the “corners of the eyes” (*mig zur*) but indicates that they are throughout the body. There are eight kinds of disorders of the *rmen bu* which point to a variety of symptoms and locations in and parts of the body. There are disorders of the “fatty tissue” (*tshil rmen*), “muscle tissue” (*sha rmen*) and “veins” (*rtsa rmen*). Other *rmen bu* disorders affect the three dynamics: “wind” (*rlung rmen*), “bile” (*mkhris rmen*) and “phlegm” (*bad kan*).

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257 Ibid., 356.
The other two disorders of the *rmen bu* are the “blood” (*khrag rmen*) and “tumour” or “cancer” (*bras rmen*).²⁵⁸

Many contemporary Tibetan-English sources identify the *rmen bu* as being the lymphatic glands or nodes and their disorders. Barry Clark defines *rmen bu* in the *Four Treatises* as “lymph-caused cancer-like tumors in the form of lumps and swellings in the glands.”²⁵⁹ Gavin Kilty translates *rmen bu* in Sangyé Gyatso’s *Mirror of Beryl* as “lymph caused tumors and glandular swellings.”²⁶⁰ The contemporary Indian-exile Tibetan doctor and scholar, Yeshi Donden translates *rmen bu* as “cyst,” “subcutaneous nodule,” “lipoma,” and “nodule mass.”²⁶¹ Similarly, Christa Kletter and Monika Kriechbaum define *rmen bu’i nad* as disorders of the lymph nodes. They write, “according to the medical texts, the lymph nodes develop from blood, muscle tissue and fatty tissue. The nodes are lumpy and oval in shape. They are located near the ears and around the neck and in other parts of the body such as the armpits and groin.”²⁶² In similar fashion, the Tibetan-English dictionary of Tibetan medicine and astrology by Tsering Thakchoe Drungtso and Tsering Dolma Drungsto translates the *rmen bu* as a “lymph node” and “nodule mass.” These two authors translate *rmen bu’i nad* as “lymphadenopathy” which is “a disease which affects the lymph nodes and is characterized by swelling of the lymph nodes. It generally occurs near the ears, in the neck, armpits and groin.” They also list and describe each of the “eight kinds of lymph disorders,” as outlined in the *Four Treatises*. Their final entry for *rmen* is *rmen bu’i rman bzhag*, which they translate as “the endocrine system.”²⁶³ Lastly, *The New Tibetan-English Dictionary of Modern Tibetan*, edited by Melvyn Goldstein defines *rmen* 

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bu simply as “lymph nodes.” Other interpretations, not related to the modern biomedical idea of the lymphatic system appear as well. For example, according to Garrett, among children’s disorders, rmen bu’i nad refers to “skin ulcers.” The Encyclopedia of Tibetan Medicine edited by Vaidya Bhagwan Dash translates the sixty-seventh chapter of the Four Treatises as the “treatment of tumours.” In this chapter, both Thupten Püntsok and Mingji Cuomu use rmen bu to refer specifically to biomedical ideas. Thupten Püntsok uses rmen bu to refer to what in English biomedical thought is considered “nodes,” as understood as the “nodes of the lymphatic system” (chu ser rgyu lam gyi rmen bu) as well as “glands,” as in the “system of glands that moves hormones” (ho’o mo’u (mdangs) rgyu ba’i rmen bu’i rigs), or more simply, the “endocrine system.” Hence, in the present-day Tibetan sources, rmen bu is used as a more wide-ranging term than what are considered their biomedical equivalents.

The variety of meanings given to the Tibetan notion of the rmen bu in the above examples makes it clear that this term has flexible connotations within its various contemporary interpretations. Hence, Thupten Püntsok’s quote at the beginning of this section is essentially asking whether or not the “places where the life-force travels” (blas gnas) ought to be understood as “channels” (rtsa) or “glands” (rmen bu) in relation to biomedical understandings of the pathways that move “hormones.” Similarly to biomedical endocrinology, the key to understanding hormones in the Tibetan system, according to Thupten Püntsok, is researching how substances move through ‘channels’ and how they perform their function through ‘glands,’ which are body parts that receive, transform and produce other substances that have their effects

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267 Thub bstan phun tshogs, Gso bya las kyi rnam bshad, 145.

268 Ibid., 146.
in the body. This question is better understood in Thupten Püntsok’s sixth chapter containing his account of the channels in the Tibetan medical and Tantric systems.

Thupten Püntsok’s sixth chapter, “Explanation of the System of Establishing the Body’s Channels” is structured around various understandings of rtsa, a multivalent and allusive term variously translated into English as “channel,” “pulse,” “vein,” “artery” and “nerve.” Thupten Püntsok states that the various kinds of rtsa arise in the body and become the support which “moves” or “circulates” wind, blood, and other motile substances. Thupten Püntsok’s introductory paragraph on rtsa begins with the following passage from the Explanatory Treatise: “That which reveals the fundamental nature of the ‘channels of connection’ are the four: ‘channels of formation,’ ‘channels of existence,’ ‘channels of connections,’ and the ‘vitality channel.’” Further, the types of channels of the human body can also be divided into the two, “blood channels” (khrag rtsa) and “white” or “water channels” (rtsa dkar ram chu rtsa). Thupten Püntsok then writes that blood channels can be further divided into: “phar rtsa (artery) and sdod rtsa (vein).” Here, Thupten Püntsok’s correlation between the blood channels of Tibetan medicine and the arteries and veins of biomedicine is common enough in the contemporary sources. Although, he does little to further unpack the English biomedical terms he uses their presence seems to confirm, empirically at least, the Tibetan system of rtsa.


270 Tibetan medical and Buddhist notions of ‘circulation’ are not necessarily the same as biomedical understandings and likewise, have changed over time. Barbara Gerke cautions us against imagining the channels of classical medical literature, especially the ‘connecting channels’ as being a ‘circulatory channel’ in the same way that biomedicine posits ‘closed circulatory pathways.’ However, Gerke also motions towards a shift in contemporary understandings of rtsa in Tibetan medicine noting that present-day Dharmasala (India) based Men-Tsee-Khang textbooks include illustrations and explanations of biomedical notions of blood circulation. (“On the ‘Subtle Body’ and ‘Circulation’ in Tibetan Medicine,” 2013).

271 Brel pa rtsa yi gnas lugs bstan pa ni // chags srid ’brel pa tshe yi rtsa dang bzhis, Thub bstan phun tshogs, Gso bya lus kyi rnam bshad, 80.

272 Ibid., 80.
After the introductory paragraph, Thupten Püntsok methodically sets out to explain the body’s system of channels and dynamics as they develop in the fetus. Embryology in his sixth chapter is focused on the fetal channels and winds which become the supports for life. This presentation differs in focus from his earlier presentation in the fourth chapter where he writes about embryology in terms of the necessary conditions for conception, and the growth of the fetus’ body in relation to the three dynamics and five winds. In the earlier presentation, which is based on the “literal meaning of the root words” (rtsa ba’i tshig don ji bzhin)\(^{273}\) of the Four Treatises and Ancestral Advice, the embryological narrative is more closely aligned with the ‘stages of the path’ literature of both Mahāyāna and Vajrayāna Buddhism,\(^ {274}\) resulting in some ‘discrepancies’ among texts and with the evidence of ultrasounds.

In the introductory paragraph, Thupten Püntsok writes that among the “channels of connection” (brel pa rtsa) that first arise in the fetus, there are four types: “channels of formation” (chags pa’i rtsa), “channels of existence” (srid yi rtsa), “channels of connections” (brel yi rtsa) and the “vitality channel” (tshe yi rtsa). The first, the “channel of formation” is the initial support for the “existence wind” (srog rlung) that forms the fetus’s body. It is also from the channel of formation that the three channels—white (water), blood and wind—emerge.

According to Thupten Püntsok, the first channel, the “white channel” (rtsa dkar po) extends upwards, and from it, the brain is formed. The fault of ignorance, dwelling in the brain, produces phlegm which is predominantly located in the upper body. This channel moves the “water or moon elements” (chu’am zla ba’i khams) through the direction of the left side of the body, and gathers at the “wheel centres” (‘khhor lo; chakras) in the central channel at the “heart opening” (snying kha), throat, and crown of the head. For these reasons, the problems of delusory thinking, mental heaviness, and depression predominantly arise from the head. Therefore, as Thupten Püntsok quotes from Ancestral Advice, “from ignorance phlegm is

\(^{273}\) Thub bstan phun tshogs, Gso bya lus kyi rnam bshad, 50.

\(^{274}\) For more on ‘stages of the path’ and the embryological narrative see: Garrett, Religion, Medicine and the Human Embryo in Tibet, 43–4.
produced, which is located—with its causes, immediate conditions and effects—in the upper part of the body.”

The “blood channel” (khrag rtsa) moves to the middle of the body and forms the “central life channel” (srog rtsa chags), which is often correlated with the “central channel” (dbu ma; suṣumnā) of Tantra. Blood is said to be the “substantial cause” (nyer len) and “cooperative condition” (lhan cig byed rkyen) for anger, and the fault of anger, dwelling in the “life blood channel” (srog rtsa khrag), produces the bile dynamic.

Thupten Püntsok writes that the “wind channel” (rlung rtsa) descends to the pelvis and, from it, the genitals are formed. Furthermore, the fault of desire, by residing in the male and female genitals, produces wind which is located in the lower regions of the body. In this way, the reproductive fluid is considered the substantial cause and cooperative condition for both desire and wind. Wind disorders, he writes, are produced by the desire that secretly abides in the genitals. Therefore, the cause (the reproductive fluid), conditions (the fault of desire) and the effects, or fruit (wind disorders), are all located in the lower part of the body.

Following this explanation of the three channels of formation, Thupten Püntsok then directly links these to the three channels of Tantric anatomy, the middle (dbu ma), the left (rkang ma), and the right (ro ma). It is evident that, in his initial explanation of the major channels that first develop in the fetus, Thupten Püntsok presents a deeply intertwined Buddhist and medical vision of the human body.

In here, it is not feasible to go through each of the four channels of connection and their sub-divisions. Instead I will focus on the fourth channel, the vitality channel, because this is where Thupten Püntsok outlines the relations among digestion, the reproductive fluids, and the migrations of the life-force which, he suggests, might be related to the biomedically understood endocrine glands (as we noted in his conclusion).

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275 gti mug de las bad kan skyed pas na rgyu rkyen ‘bras bu gsum ka stod na gnas par grub pa yin no, ibid., 81.

276 Ibid., 80–2.
Thupten Püntsok begins his discussion of the vitality channel (from the fourth section of his sixth chapter) with a quote from the *Explanatory Treatise*:\(^{277}\)

The human being has three types of “vitality channels” (*tshe yi rtsa*).\(^{278}\) One exists pervading the head and entire body. One moves by accompanying respiration. One is [one that] wanders [and] is the same as the “life-force” (*bla*).\(^{279}\)

Thupten Püntsok clarifies the meaning of “life-length” (*tshe*) in the context of *tshe yi rtsa*, and writes that in this instance, *tshe* refers to general expressions of time, such as “the life of beings” (*’gro ba’i tshe*), and “long or short life” (*tshe ring thung*). In this sense, it means how long one’s “life-force” (*srog*) is going to stay (*gnas*) in the body.

Thupten Püntsok then writes: “Further, the “channel of abiding” (*srog gnas pa’i gnas*)\(^{280}\) is the three: [1] the essence of the reproductive fluid, the quintessence of the body, [2] the movement of the breath, and [3] the digestive fire of the body.”\(^{281}\) Because these three are the basis of embodied life, once they become exhausted through old age or sickness, the person dies. Hence, the “vitality” or “abiding” channel literally can point to how long one’s life will last.

Thupten Püntsok first explains the body’s “digestive fire” (*me drod*) and its role in digestion. Quoting first from the *Four Treatises*, followed by a passage from the Buddhist Abhidharma, which reads: “life’s duration is dependant upon digestive heat and the consciousness,”\(^{282}\) Thupten Püntsok writes:

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\(^{277}\) I am grateful to Frances Garrett for sharing her unpublished translation of this section of text.

\(^{278}\) The ‘vitality channel,’ is discussed most recently in Gerke, “On the ‘Subtle Body’ and ‘Circulation’ in Tibetan Medicine,” 92–4.


\(^{280}\) Note that the “channel of abiding” is synonymous with the “vitality channel,” and both are considered in many texts correlated to the Tantric “middle channel.”

\(^{281}\) *de yang khu ba’i dwangs ma lus kyi mdangs dang / dbugs kyi rgyu ba / lus kyi me drod gsum po ni srog gnas pa’i rtsa ba yin pa*, ibid., 102.

\(^{282}\) *srog ni tshe yin drod dang ni // rnam shes rten gang yin pa’o*, quoting from the Abhidharma, ibid. 102.
The digestive fire is the main cause for increasing the “quintessence” (mdangs) and power of the body. When one becomes old, the bodily heat diminishes and the quintessence leaves [the body]. The main base of the digestive bile is the stomach, but beyond this, [it exists] as a part of each of the seven bodily constituents, in particular the blood and blood channels. [Both] the essence and refuse of the bodily constituents are separated, causing the quintessence to increase, and because this supports the existence of life, it is known as the ‘vitality channel.’

By using both a medical and a Buddhist classic text, Thupten Püntsok points to their shared understanding of key concepts of the body. Essentially for one’s ‘life to abide,’ its duration depends on having a consciousness and the ability to digest food and increase one’s quintessence. Hence, the process of digestion is vitally important in propelling, growing, sustaining, and diminishing one’s life (srog).

According to the Four Treatises, the second type of vitality channel is one that moves the breath. Thupten Püntsok writes that this is “known as the wisdom wind, which moves together with the breath or as the essence of wind.” He supports that assertion with another quote from Ancestral Advice:

Moreover, karmic wind is explained as that very breath which moves always in the nostrils from the pathways of the right and left channels. The wisdom wind from the pathway of the central channel, separates into two parts. One part generates the ability of the internal “existence wind” (srog rlung), and the other part moves by mixing with the karmic wind.

Thupten Püntsok’s citation from Ancestral Advice shows how the life duration of the physical body, as understood by medicine is interdependent with the very subtle karmic material that Buddhism envisions as underpinning the consciousness. His account accords with the pan-Buddhist notion of reincarnation, and in particular the Tibetan notion of a bardo being whose

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283 me drod ni lus kyi stobs dang gzi mdangs 'phel bar byed pa'i rgyu gtso bo yin la / rgas pa'i dus su lus drod nyams zheg mdangs zad 'gro zhing yod pa red / me drod de'i rten gtso bo pho ba dang / gzhan yang lus zungs bdun po so so 'i cha dang / khyad par khrag dang lhan du khrag rtsa rnams la brten nas / lus zungs so so 'i dwangs snyigs 'byed cing / gzi mdangs 'phel ba dang / tshe srog brten par byed pa'i cha nas ishe yi rtsa zhes ming btags pa yin no, ibid., 102–3.

284 dbugs dang lhan cig tu rgyu ba'i ye shes kyi rlung ngam / rlung gi dwangs ma de la zer te, ibid., 103.

285 de yang las kyi rlung ni ro rkyang gi lam nas sna'i sgor rtag tu rgyu ba'i dbugs 'di nyid la bshad cing / ye shes kyi rlung ni dbu ma'i lam nas bryud de '/di la cha gnyis su phye ba'i geig gis nang du srog rlung gi nus pa bskyed cing / geig ni las kyi rlung dang 'dres pa'i ishul gyis rgyu ba yin la, ibid., 103.
stores of very subtle karmic materials influence its rebirth. He also points to the breath as being the source of life, without which the body perishes. As we have already seen, the “existence wind” (srog rlung), in both the Tibetan medical and Buddhist traditions is the wind or breath which is necessary for life.

Thupten Püntsok then goes into some detail outlining the numbers and locations of the body’s system of channels, concluding that the vitality channel is the structural basis for the life-force. He writes: “That very wisdom wind or essence of the wind, which moves with the breath, by nature of being supported by the channels and forming the basis of life, it is called the vitality channel.”

According to Four Treatises, the third type of vitality channel is “a wanderer that is similar to the life-force” (gcig ni bla dang ’dra ste ’khyams pa yin). Thupten Püntsok describes it as follows:

The essence of the reproductive fluid produces the strength and quintessence of the body. That is, it is that kind of material stuff which makes the essence of all the elements, the bodhicitta element, increase. Also, that very part of the essence of the male and female—the white and red elements—moves along the pathways of the right and left channels, and proceeds daily through the upper and lower parts of the body. This is what is called the body’s life [force] support. Also, in terms of it supporting life, it is called a vitality channel because it depends on the channels and blood, and is the essence of the elements.

The “bodhicitta” element (byang chub kyi sens) is translated into English as the “mind of enlightenment” or the “altruistic aspiration to enlightenment” and refers to the Mahāyāna Buddhist bodhisattva ideal of vowing to seek enlightenment for the sake of all sentient beings. According to Mahāyāna and Tantric Buddhism, although covered over or clouded by the poisons of ignorance, desire and anger, every sentient being possesses the bodhicitta mind, that is, the potential to realize enlightenment. In Mahāyāna thought, a central way of uncovering the

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286 dbugs dang lhan cig tu rgyu ba’i ye shes kyi rlung ngam rlung gi dwangs ma de nyid rtsa la brten nas srog brten par byed pa’i cha nas tshe yi rsta zhes ming btags pa yin, ibid., 103.

287 khu ba’i dwangs ma lus kyi stobs dang mdangs byed pa ste / ngo bo ‘byung ba thams cad kyi dwangs ma khangs byang chub kyi sens rgyas ’gyur gyi rigs de nyid yin / de yang pho mo’i khangs dkar dmar gyi dwangs ma’i cha de nyid ro rkyang gi rtsa lam bryud nas lus kyi stod smad du nyin re bzhin ’pho nas ’gro ba de la lus kyi bla gnas zhes zer / ’di’ang khangs kyi dwangs ma de nyid khrag dang rtsa la brten nas srog brten par byed pa’i cha nas tshe yi rtsa zhes ming btags pa yin no, ibid., 103–4.
bodhicitta mind is through cultivating compassion and loving-kindness towards all sentient beings as though they have been one’s own mother. In Tantric Buddhism, the bodhicitta element is further imagined as a drop (thig le) made up of the quintessence of the essences of the white and red elements residing in the central channel of the vajra body. Before Thupten Püntsok presents his understanding of the Tantric notion of the drops, he outlines the daily migration of the life-force.

In his explanation of the daily migration of the life-force, Thupten Püntsok points to how various medical and religious texts and genres have different emphasis and interests in their treatment of life-force but that they are mutually supportive and do not contradict one another. He writes:

If you ask about the locations where [the life-force] migrates, there are many systems of explanation. There are those that belong to the Tantra class, such as the Kalachakra, as well as the treasure traditions’ system, Zurkar’s system, astrological systems, and so forth... [Generally], the bodhicatta element of the man starts on the left side, because it is compelled by the power of the left channel. The bodhicitta of the woman starts on the right side because it is compelled by the left channel.

Interestingly, throughout these Buddhist and medical systems, symbolic gendered dualisms are maintained and used as an example of the fundamental (Buddhist) unity among Tibet’s knowledge traditions. Like many of his contemporaries, Thupten Püntsok maintains the Tibetan Buddhist system of ordering universal principles through the use of gendered pairs. Even when adherence to a gendered pairings can be difficult to show empirically, they are often sustained in the medical literature, as was shown in the case of embryology in the fourth chapter. This would demonstrate that in works like Thupten Püntsok’s, Buddhism is not being effaced from Tibetan medical thought.

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288 Here, Thupten Püntsok is referring to Zurkar Lodrö Gyalpo’. See fn 191.

289 gnas gang du ’pho zhe na / ’di la dus ‘khor la sogs rgyud sde’i lugs dang / gter ma’i lugs dang / zur mkhar b’i lugs dang / gtsug lag rtsi kyi lugs sogs mang du yod pa las /... / skyes pa’i khams byang chub kyi sens ni rkyang ma’i dbang las ‘byung ba’i phyir g.yon phyogs dang / bud med kyi byang sems ni ro ma’i dbang gis ‘byung ba’i phyir na g.was phyogs nas thog ma rtsom pa yin gvi, ibid., 105.
Thupten Püntsok concludes his explanation of the daily migration of the life-force in the body’s system of channels, making a somewhat bold, but well-travelled claim that the three vitality channels are the same as the three Tantric channels:

Therefore, if we identify the vitality channels as the three—the body’s digestive heat, wisdom wind, and the essence of the elements—then these are the same characteristics as those of the three vitality channels that are taught in the Tantras, and according to the real situation of embodiment.\(^{290}\)

It is important for Thupten Püntsok to show that Tibet’s medical model is in keeping with its religious model of the body, both being based on the “real situation of embodiment” (lus kyi gnas lugs). Despite the fact that the relation between the medical and Buddhist descriptions of the body’s system of channels have been controversial and debated in Tibetan history,\(^{291}\) for him, like other contemporary writers, maintaining the authority of the Tantras is an important part of the present-day medical tradition.

The final section of the sixth chapter on the body’s system of channels turns on “channels of the meditative system according to the Secret Tantras of [Nāropa’s] Six Yogas”\(^{292}\) which refers to exemplary Buddhist Tantric practices that seek to cultivate realized enlightenment in a single life time. The Indian Buddhist “Great Adept” (Grub thob chen po; Mahāsiddha), Nāropa (Na ro pa; 1016-1100) is one of the most important figures of the Indian (and later Tibetan, especially Kagyu) Buddhist world. As a Great Adept, that is, one who has accomplished the siddhis (dngos grub) or “powers” born from advanced meditative techniques that manipulate the subtle body, Nāropa’s teachings on the nature of human embodiment are authoritative in Buddhist Tibet. One of his most famous works outlining these practices is the Six Yogas of Nāropa.\(^{293}\) Thupten

\(^{290}\) de ltar lus kyi me drod dang / ye shes kyi rlung / kham kyi dwangs ma gsum po la tshe yi rtsa zhes ngos ’dzin byas na rgyud du bstan pa ’i tshe ’i rtsa gsum po ’i so so ’i khyad chos dang mthun la / lus kyi gnas lugs dang yang mthun pa zhig red, ibid., 105.


\(^{292}\) sgom lugs kyi rtsa zhes pa chos drug la sogs gsang sngags kyi rgyud, Thub bstan phun tshogs, Gso bya lus kyi rnam bshad, 106.

Püntsok references that work both here and again in the seventh chapter where he explains the drops and their relation to the channels and winds.

The last section of the sixth chapter on the body’s system of channels is Thupten Püntsok’s summary of the Tantric body as described by Nāropa. Thupten Püntsok has also imported into this chapter several several ideas and terms that speak to Tibetan notions of “hormones” both by himself and his contemporaries. Indeed, making sense of the Tibetan Tantric body is key to understanding the central debates surrounding the incorporation of biomedical notions of hormones. The main reason for this, I argue, is that Tantras lend not only cultural authority, but also are a rich resource to think about and to speak of hormones in relation to male and female bodies.

Thupten Püntsok elucidates Nāropa’s and other Tantric meditative systems starting with the three channels of the vajra body and their relation to male and female bodies according to medicine. These relationships may be summarized as follows. The “left channel” (rkyang ma) is described as white coloured, residing on the left side of the body, and facing downwards. The “right channel” (ro ma) is described as being red in colour, residing on the right side of the body, and facing upwards. The “central channel” (dbu ma) runs through the middle of the body at the locations of the cakras. The upper tips of both the right and left channels are connected to the two nostrils, and in their form of bending upwards, they become the two “brain nail” (klad pa’i gzer) channels.²⁹⁴ Bending downwards, the right and left channels “spiral” (lu gu rgyud) at the six cakras, first at the armpits and breasts before shifting forwards to above the kidneys, the “mouth of the central channel” (dbu ma’i kha) and proceeding downwards, ending at the bottom tip of the central channel. The distance between the top of the head and the genitals is thirteen “units of measurements” (rang sor) roughly the width of one’s fingers.²⁹⁵ At the two channels’ lower tips, their “extension” (nar ba), in both males and females allows urine to pass. In women, at the tip of the right channel there is an extension, and because of this once the elements become

²⁹⁴ This term, “brain nail” (klad pa’i gzer) comes up again in other sources where it is more explicitly tied to the pituitary gland of biomedicine, although here Thupten Püntsok is describing Tantric anatomy.

²⁹⁵ Ives Waldo, s.v. “rang sor.” We shall see this measurement of thirteen rang sor again in Gönpokyap’s article.
fully “ripened” or “completed” (*rdzogs*), menstruation occurs, glossed here in Tantric language as the “monthly moon falling as the sun” (*zla ba re la nyi ma ‘bab*).

Making extensive use of *Ancestral Advice*, Thupten Püntsok also describes how the right and left channels are identified with the black (blood) and white (water) channels mentioned earlier in discussion of the dynamics, and that these are organized along gender lines. The primary ‘dwellers’ that move inside of the white/left and black/right channels are respectively, the male and the female, white and red elements. Further, he writes, the black life channel generates all the major and minor blood channels of the body, “like the trunk of a tree.” From the left channel’s upper tip, the brain is formed generating all the white channels in the body. This basic outline of the meditative body shows a sex-differentiated vision of the human body that, for Thupten Püntsok, is reflected at both the subtle Tantric level, and also the grosser levels of the body that principally concern medicine.

Thupten Püntsok augments his description of the three medico-Tantric channels by detailing how such an anatomy functions during Buddhist meditation. Near the end of this section, summarizing his view of the meditating subtle body, he states that the central channel of medicine and Tantra is the place where the life-wind moves, and that it is known as the channel wherein the “very essential elements of the winds” move in conjunction with the breath. Thupten Püntsok then concludes:

Therefore, the so-called ‘central channel’ is called the pulse channel or the red channel of wind (artery), and; the left channel is called the water channel or white channel (nerve), and; the right channel is called the blood channel or the black staying channel (vein).

Here, Thupten Püntsok directly correlates Tibetan medical, Tantric and English biomedical terms in such a way so as to say that they are all pointing to the same ‘material thing’ (in the *ngo bo*...
sense). He does not unpack the English terminology, but does include biomedical ideas which both validate Tibetan perspectives of the body and show their place among the world’s ‘standard’ medical traditions.

It is compelling that Thupten Püntsok makes such seamless connections among the channels of Tibetan medicine, Tantra, and biomedical notions of veins and arteries. Like many contemporary medical writers from Chinese Tibet, Thupten Püntsok shows that biomedical knowledge and Tibetan knowledge are equal and potentially compatible, even when each system understands the body differently. Given the political expediency to ‘modernize’ Tibetan medicine in China, it is not surprising to witness among my primary sources the trend to view biomedicine and Tibetan medicine as something that can be successfully integrated together, mainly because both systems are pointing to the ‘same’ or ‘roughly equivalent’ phenomena in the body. Herein, we also see signs, similar to the other present-day sources, that effectively demonstrate biomedicine to be firmly positioned as the authoritative interlocutor with Tibetan medicine.

2.5 The Relationship between the Vajra Body of Winds, Channels, and Drops and the Medical Body of Hormones and Reproductive Fluids

In the seventh chapter, “Explanation of the Wind and the Drops,” Thupten Püntsok delves deeper into the Tantric and Tibetan medical ideas of the most subtle parts of the body. He refers extensively to the Four Treatises and authoritative medical literature in relation to the “vajra body” (rdo rje lus) according to the system of the “secret Tantras” (gsang sngags), and in particular, the Six Yogas of Nāropa and Secret Vajra Body. The conclusion to his section on the drops is where we began in the previous section, that is, where we saw Thupten Püntsok suggest that Tibetan conceptions of “channels” and “glands,” as well as the migration of the life-force through the locations of the seed syllables, are comparable to the “hormones” and the endocrine glands of Western medicine. To understand how Thupten Püntsok comes to this conclusion requires some discussion of the “drops” (thig le). His seventh chapter is extremely detailed, and here, I only focus on the parts that most directly relate to hormones.

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300 rlung dang thig le ’i skor bshad pa, ibid., 113.
Beginning from the seventh chapter’s second section, entitled, “Explanation of the Drops”\textsuperscript{301} Thupten Püntsok writes:

In general, among the so-called channels, winds and drops, the drops are defined as the last of the seven bodily constituents, the reproductive fluid, of which the “essence” (\textit{dwangs ma}) of the two, white and red elements, becomes “quintessence” (\textit{mdangs}). They are sometimes called the white part and red part. According to the \textit{Explanatory Treatise}, “From the final bodily constituent, reproductive fluid, the most excellent quintessence resides in the heart and pervades the entire body, and provides the most resplendent radiance for life.”\textsuperscript{302}

In this passage, Thupten Püntsok explains the Tibetan medical point of view of the drops, describing them as the quintessence of the essence of the white and red reproductive fluids. In other words, the drops are the result of the process of digestion, whereby the refuse, having continually been expelled, leaves only an entirely (or completely) purified form which moves to the heart and pervades the entire body.

Following this, Thupten Püntsok provides a Tantric account of the drops and their relation to the reproductive fluids. He writes:

According to the secret mantras, the drops are essentially divided into two: the “root unconditioned drop” (\textit{spros bral gyi thig le}) and the “drop of delusion and ignorance” (\textit{’khrul pa me rig pa’i thig le}), which is further divided into the “antidote drop” (\textit{gnyin po’i thig le}). In reality, they are identified as having the potencies and functions as the quintessence, or the two, white and red parts. Also, according to the \textit{Lamp Illuminating the Practices of the Six Doctrines of Nāropa},\textsuperscript{303} “first, the unconditioned drop

\begin{footnotesize}
\begin{itemize}
  \item \textsuperscript{301} \textit{thig le’i skor bshad pa}, ibid., 118.
  \item \textsuperscript{302} \textit{spyir rtsa rlung thig le zhes pa’i thig le’i mtshan gzhi ni / lus zungs hdun gyi phyi ma khu ba’iam khams dkar dmar gnyis kyi dwangs ma’i cha ste mdangs sam / dkar cha dang dmar cha zhes pa de yin zhing / de yang bshad rgyud las / lus zungs khu ba’i mthar phyin mdangs mchog ste // snying la gnas kyang lus kun khyab pa dang // tshe gnas gzi mdangs b brag dang ldan par byed // ces gsungs so}, ibid., 118.
  \item \textsuperscript{303} Zla ba grags pa (Chanrakirti), “Sgron ma gsal bar byed pa zhes bya ba’i rgya cher bshad pa (Pradipoddoyotana-nama-tika),” in \textit{Bstan ’gyur (dpe bsdur ma)}, trans., Rin chen bzang po (Beijing: Krung go’i bod rig pa’i dpe skrun khang, 1994), 15:850–1355.
\end{itemize}
\end{footnotesize}
is the “primordial wisdom” (ye shes) of one’s intrinsic mind. The residing place of this drop is the life-sustaining wind.” This therefore, is the basis of purification.\textsuperscript{304}

Thupten Püntsok’s explanation of the drops according to the “secret mantras” (gsang sngags)—another term for Tantra that indicates one of its central methods—points to the notion of bodhicitta mentioned earlier, that is, that there exists an already realized Buddha-nature inherent in every sentient being, but that it is covered by our ignorance, desire and anger. According to Thupten Püntsok, in Tantra, such as that of Nāropa’s, the “primordial wisdom of one’s intrinsic mind” or one’s “buddha-nature” is imagined as a drop of ultra refined quintessence that is covered or made impure by the “drop of delusion” which carries within it the “antidote drop.” The “antidote drop” has the ability to purify the “drop of delusion” in order to restore the “primordial wisdom” of the “unconditioned drop,” which is, of course, Buddhist realization.\textsuperscript{305}

Significantly, Thupten Püntsok asserts that the drops that reside in the central channel of the vajra body have the same “potencies and functions” (nus pa dang byed las rnams) of the “quintessence” (mdangs) of the white and red reproductive fluids that medicine principally describes. In both the medical and Tantric systems, the quintessence of the reproductive fluids and the quintessence that resides as a drop in the central channel are related through taking the form of “white and red parts” (dkar dmar gyi cha). The gendered pairing of the white semen of the male and the red menstrual blood of the female is a key way for many contemporary writers who research “hormones” of connecting the Tantric body of literature and thought with the Tibetan medical one.

Thupten Püntsok continues to explain the function of the drops in relation to the vajra body. He writes:

The ‘drop of delusion and ignorance’ comes from falling into the confusion of “dualistic perceptions” (gzung ’dzin gnyis) which arise from not being able to recognize one’s own ‘unconditional drop.’ Within that ‘drop of delusion and ignorance’ are two essences, as

\textsuperscript{304} gsang sngags kyi rgyud sde rnams las / rtsa ba spros bral gyi thig le / ‘khrul pa ma rig pa’i thig le / de’i gnyin po’i thig le becas kyi dbyes bar phyis yod kyang don du mdangs sam dkar dmar gyi cha gnyis po’i nus pa dang byed las rnams la ngos ’dzin gnang ’dug ste / chos drug nyams ln gsal ba’i sgron me las dang po spros bral gyi thig le ni // rang sms lhan cig skyes pa’i ye shes yin la // gnas sa ni srog ’dzin thig le // zhes gsungs pa de ni sbyong gzhis yin no, Thub bstan phun tshogs, Gso bya lus kyi nram bshad, 119

\textsuperscript{305} Ibid., 119–20.
well as the refuse of the body, the thirty-six elements. From those, the two essences are the objects that are to be purified.  

Here, ‘dualistic perceptions’ refers, in part, to the false perception of self and other, which leads to the mental, emotional and physical poisons which manifest as afflictions of the body. At the root of this distorted dual-minded perception of reality is an attachment to a false sense of self or ‘I’ (bdag; ätman) that all methods of Buddhist practice are meant to dispel.

Enlightenment is itself the realization of the non-dual mind and the indivisibility of existence, in other words, the recognition that the world and self are both “empty” (ston) of a permanent form. Hence, in Buddhism, the materials of the body and universe are momentary and in flux. And, in Tantric thought, according to Thupten Püntsok, dualistic thinking distorts our perceptions of reality, making us unable to recognize that a drop of delusion and ignorance covers an unconditioned drop.

Thupten Püntsok relates the Buddhist understanding of the drops to the medical body by telling us that within the drop of delusion and ignorance are the “essences” (dwangs ma), “refuse” (snyigs ma) and “thirty-six unclean elements” (mi gtsang ba’i khams so drug po). Here, the thirty-six unclean elements refers to an early Buddhist, as well as Hindu, notion that the thirty-six elements are the body; that is, the body is inherently dirty and made up of thirty-six unclean parts—as well as the refuse and essence. Among these, the essences are the parts of the drops that need to be purified.

Next, Thupten Püntsok describes the white and red essences that are the objects to be purified. He writes:

First, the white part abides as the self-arising seed syllable, Ham at the upper tip of the central channel at the crown of the head. The red part abides as the self-arising small Ah at the meeting point of the three channels below the navel. Between these two, the ‘basis for

306 ‘khrul pa ma rig pa’i thig le ni / spros bral gyi thig le de rang ngo ma shes nas gzung ‘dzin gnyis kyi ‘khrul pa shar ba ni ‘khrul pa ma rig pa’i thig le ste / de la dwangs ma gnyis dang / zungs kyi snyigs ma / khams so drug bcas so / de las dwangs ma gnyis ni sbyong bya ste, ibid., 119.

all’ and the ‘existence wind’ (srog rlung) are supported. When one with a body dies, because the white part goes downwards, and the red part goes upwards, the life wind [no longer being supported], disperses, and the consciousness is made to go elsewhere. When one is alive those two form the basis of the existence wind and the “consciousness” (rnam par shes pa).

Here, Thupten Püntsok describes the white and red drops as manifesting as the seed syllables at the cakras of the central channel of the Tantric body. The term, “basis for all” (kun gzhi; Skt. alaya), is variously translated as “basis of all,” “all-ground,” “foundation of all things,” and “storehouse of all consciousness.” As the basis of everything in existence, the ‘basis for all’ is said to be the foundation of nirvana and samsara, and pure and impure phenomena. Therefore, that which is impure is able to be purified, which is the function of the antidote drop.

Thupten Püntsok asserts that, in Tantra, Buddhist realization of non-duality and emptiness can be accomplished through meditative and yogic practices that manipulate the subtle body of winds, channels and drops. This is because the antidote drop resides within the drop of delusion and ignorance. He writes:

The ‘antidote drop’ is the method by which one purifies the channels and holds the winds, gradually purifying the impure parts of the mind, the perceptions of afflictive emotions, as well as the impure parts of the body, the thirty-six unclean elements. Lastly, it is the method by which one’s body becomes a “rainbow body” (ja’lus) and the mind becomes the “truth body” (chos sku; Skt. dharmakaya). The “rainbow body” and the “truth body,” refer to the outcomes of advanced Buddhist realization born from Tantric practices. The rainbow body is achieved through a Dzogchen

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308 If we recall from Thupten Püntsok’s sixth chapter on the body’s system of channels, soon after conception, the first ‘channel of formation’ is the initial support of the “existence wind,” (srog rlung) which is essential for life.


310 Rangjung Yeshe, s.v. “kun gzhi.”

311 gnyen po’i thig le ni / rtsa sbyong zhi khang lung bzungs ste sams kyi ma dag pa’i cha nyon mongs pa’i rtag pa rnams dang / lus kyi ma dag pa’i cha mi gtsang ba’i kham so drug po rnams rim bzhin sbyong zhi btag par byas te mthar lus ‘ja’lus dang / semschos skor bsgyur bar byed pa’i thabs so, Thub bstan phun tshogs, Gso bya lus kyi rnam bshad, 120.
technique known as trekchö (khregs chod), meaning “cutting through,” which results in being able to dissolve the body into rainbow light upon death.\(^{312}\) This method is coupled with the “body of light” (‘od sku), which is achieved through tôgyel (thod rgyal) practices, meaning “direct crossing,” and refers to an even more advanced set of practices involving manipulating “light” in order to quickly or more directly obtain Buddhist realization.\(^{313}\) The truth body or dharma-kaya,\(^{314}\) is in some contexts, synonymous with kun gzhi, the “basis of all,” referring to the true, ‘unconditioned’ nature of reality once impurities, via advanced Buddhist practices, have been removed from the mind and body. Thupten Püntsok tells us that “in order to know these methods, one must look to the Six Yogas of Nāropa and other secret Tantras.”\(^{315}\)

Following this, Thupten Püntsok turns specifically to methods of manipulating the vajra body, focusing in particular on “inner heat” (gtum mo) practices, one of the six yogas of Nāropa. According to Thupten Püntsok, tummo or inner heat practices are a “way of generating the unconditioned bliss and emptiness of the blazing and dripping tummo, which holds the antidote drop.”\(^{316}\) He describes the tummo itself by quoting from the Secret Union (Gsang ba ‘dus pa; Guhyasamāja), an early and extremely influential tantra which is classified as belonging to the ‘Unexcelled Yoga Tantra’ (Rnal ‘byor bla med rgyud; Anuttarayoga) class of the Buddhist Tantras.\(^{317}\) According to the Secret Union:

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\(^{313}\) Rigpa Shedra, s.v. “tögyel.”

\(^{314}\) Rangjung Yeshe, s.v. “chos sku.”

\(^{315}\) de’i thabs rgyas pa chos drug sogs sngags kyi rgyud sde rnams las shes par bya dgos kyang, Thub bstan phun tshogs, *Gso bya lus kyi rnam bshad*, 120.

\(^{316}\) gnyen po’i thig le ‘chang zhing gtum mo ‘bar ‘dzag gi zag med kyi bde stong bskyped tshul, ibid., 120.

\(^{317}\) *The Secret Union (Guhyasamāja)* has been republished in the Beijing Tengyur: “gsang ba ‘dus pa,” in *Bka’ gyur (dpe bsdur ma)* (Beijing: Krung go’i bod rig pa’i dpe skrun khang, 2006), 81:289–441. On the content and title of this work, Francesca Fremantle writes: “The fundamental concept of the Tantras is unity: the integrating of the conflicting elements in the nature of living beings, the oneness of all forms of existence, and the identity of samsāra with nirvāṇa. All these aspects are implied in the title of this Tantra, which may be simply translated as ‘The Secret Union,’ but which in its full form is ‘The Union (or assembly) of the Secret Body, Speech and Mind of all Tathāgatas.’” Fremantle, “A Critical Study of the Guhyasamāja Tantra” (PhD diss. University of London, 1971), 15.
In actual reality, the _tummo_ is merely pin-sized. The clear red [part] blazes upwards, and the _Ham_ syllable, its triangular head facing downwards, melts into bright light, [causing] sixteen _bodhicitta_ drops to drip. In respect to that, the way that great bliss is generated is by [the drips] falling from the middle of the “brain centre” (_klad dkyil_). Half of those, eight [drops], drip to the throat, and in that way the joy of excelled bliss is generated. Half of those, four [drops], drip to the heart, generating the joy of transcendent bliss and emptiness. Half of those, two [drops] drip to the navel generating a joy that feels like having no body—this is the most awesome of the blisses, the indivisible bliss and emptiness generates the joy of innate primordial wisdom of which the experience of is inexpressible.\(^{318}\)

Here, Thupten Püntsok speaks specifically to the Tantric understanding of the drops and the inner heat practices meant to cause them to melt and drip. The drops are located at the _cakras_ along the middle channel, and it is through their ‘opening’ or ‘untying of their knots’ that Buddhist realizations of bliss and emptiness are experienced by the Tantric virtuoso.

Thupten Püntsok explains that “parts of this very drop or the white and red element” (_thig le’ m khams dkar dmar gyi cha de nyid_) circulate throughout the body in yearly, monthly and daily cycles that are in accordance with the laws of the motion of the sun, moon, and space. Therefore, the external universe, which shares in the same elements as the white and red parts, corresponds with the “manner of cycling of the town of the internal vajra body” (_nang rdo rje’i lus kyi grong khyer la ‘khor ba’i tshul_).\(^{319}\)

Thupten Püntsok gives an account of the manner of the cycling of the drops according to Yangönpa Gyeltsen Pel’s (Yang dgon pa rgyal mtshan dpal, 1213 – 1258) _Secret Vajra body_.\(^{320}\)

This text is the focus of Willa Miller’s dissertation, “Secrets of the Vajra Body: Dngos po’i gnas lugs and the Apotheosis of the Body in the work of Rgyal ba Yang dgon pa.”\(^{321}\) In her study,

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\(^{318}\) _don du gtum mo rgya khab tsam // dmar gsal gyen du ‘bar ba yi ham mgo thur la bstan pa de // ‘od du ltems kyis bzhugs nas kyang // byang sms thig le bcu drug ‘dzag // de la bde chen skyes tshul ni // klad dkyil babs pas dga’ ba skyes // de phyed mgrin par brygyad ‘dzag pas // de yis bde ba mchog dga’ skyes // de phyed snying khar bzhis ‘dzag pas // dga’ bral bde stong dga’ ba skyes // de phyed lte bar gnyis ‘dzag pas // lus med mnyam pa’i dga’ ba skyes // bde stong dbyer med bde ba i mchog // lhan cig ye shes dga’ ba skyes de nyams ‘di’ dra smra mi shes, Thub bstan phun tshogs, Gso bya lus kyi rnam bshad, 120.

\(^{319}\) Ibid., 120–1.


Miller’s central argument is that the Secret Vajra Body is unique in that it posits the body as the means and basis of Buddhist salvation. In her own words, the text is “an outstanding attempt in Buddhist history to theorize the role and status of the body as the prime focus of soteriological discourse.” Miller suggests that it is more than likely that this Tantric work, the Secret Vajra Body, was influential in medicine. This is certainly the case in the contemporary Tibetan medical works that speak about “hormones.” In fact, in other sources besides Thupten Püntsok’s, such as Mingji Cuomu’s Clinical Experience in Treating Obstetric Diseases, and Lhamokyi’s Study of Menstruation, the Secret Vajra Body is specifically used to support the argument that notions of “hormones” are already present in Tibetan thought.

According to Thupten Püntsok, in Tantric works like the Secret Vajra Body, the “drops” (thig le), that is, the quintessence of the essence of the body’s nutrition that is divided into white and red parts, are what migrates within the vajra body (akin to the migration of the life-force (bla) as explained earlier in relation to the channels). The daily migration of ‘parts of the white and red drops’ can be divided into twelve time periods of two hours each (amounting to twenty-four hours) which correspond with the positions of the sun and moon in both the sky and the internal vajra body. Also, the locations of where the parts of the drops travel are identified with the locations of the cakras, again, akin to the bla gnas.

As for the migration of the drops, according to Thupten Püntsok’s citation of the Secret Vajra Body, “at around eight in the morning [when they are at the big toe] the strength [of the elements] of fire and wind increase, outside becomes hot, and whatever food has been consumed is able to be digested.” Then, “around the period of ten in the morning, because [parts of the drops] reach the navel, desire and attachment are born. Because of cause and effect, on the outside [people] show the appearance of desire by singing, dancing and joking.” After that, “around noontime, because they reach the heart, the consciousness becomes a little dull… [and]

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322 Ibid., 1.

323 nyi ma ’char / me rlung stobs ’phel / phyi rol du drod g.yo / zas gang zos ’ju, Thub bstan phun tshogs, Gso bya lus kyi rnam bshad, 121.

324 nyi ma dros pa na lte bar slibs pas ’dod chags skye / phyi rten ’brel du glu gar dang bzhad bgad sogs ’dod chags kyi rnam ’gyur ston / tshor ba bde ba shas che, ibid., 121.
sleepiness, heat and fogginess predominate.”\textsuperscript{325} Next, “at around two in the afternoon, because [parts of the drops] reach the throat, a feeling of sadness [and] weariness emerges…”\textsuperscript{326} Then, “at four in the afternoon, because they reach the crown of the head, the body is cold, it is difficult to digest food and the potency of [the elements of] fire and wind decrease.”\textsuperscript{327}

During the evening and early morning hours, the drops are described as dripping or falling as they migrate from the crown of the head, and back down the right or left side of the body (depending on whether one is male or female). Continuing, “at six in the evening, the drops are melted by the heat of the fire”\textsuperscript{328} and because of that “at eight o’clock, sixteen parts of the drops go to the bodily constituents—the sixteen drops fall to the throat. The sharpness and brilliance of the moon and the stars becomes greater. Internally, the “elements” (\textit{dwangs ma}) inside the channels move and gather together, and for this reason, outside, the \textit{dakas} and \textit{dakinis} gather only at night, and all of the evil spirits also gather. The other drops of the body are weak. \textsuperscript{329} For that reason, “at ten in the evening, terrifying experiences occur. Then, eight parts of the drops go to the bodily constituents—eight fall to the heart.”\textsuperscript{330} Next, “at midnight, one falls into a deep sleep.”\textsuperscript{331} Then, “at two in the morning, four parts of the drops go to the bodily constituents—four fall to the navel.”\textsuperscript{332} Next, “at four in the morning, one feels the cold more. Two parts [of the drops] go into the bodily constituents. Because two fall to the genitals, it is at dawn that the drops of meditators drip.\textsuperscript{333} The vajra organ is aroused. It is at this time that ordinary lay people

\textsuperscript{325} \textit{nyi ma phyed na snying khar slebs pas cung zad shes pa lei /…/ gnyid dro rmug pa shas che}, ibid., 121.

\textsuperscript{326} \textit{phyed yol mgrin par slebs pas skyo shas skye / snying mi dga’}, ibid., 121.

\textsuperscript{327} \textit{dgong phyogs spyi bor slebs pas lus grang / zas ‘ju dka’ / me rlung gi nus pa zad}, ibid., 121.

\textsuperscript{328} \textit{nyi rgas dus su me’i drod kyis thig le zhu nas.}, ibid., 121.

\textsuperscript{329} \textit{mun srod la thig le’i cha bcu drug lus zungs su song / cha bcu drug mgrin par babs / zla ba dang skar ma’i bkrag mdangs rgyas / nang du rtsa nang gi khams dwangs ma rnams g.yo zhirg ‘du bas phyi rol du dpa’ bo mkha’ ‘gro ma rnams mtshan mo kho na ‘du zhing gdon thams cad kyang ‘du ba yin no / lus kyi thig le gzhan rnams stobs chung bas}, ibid., 121.

\textsuperscript{330} \textit{srod ‘khor la ‘jigs skrag gi snang ba ‘ong / de nasthig le’i cha brgyad lus zungs su song / brgyad snying khar babs}, ibid., 121–122.

\textsuperscript{331} \textit{nam phyed tshes bco lnga’i zla ba nam gyi dkyil slebs / gnyid mthug por log}, ibid., 122.

\textsuperscript{332} \textit{nam phyed yol la thig le’i cha bzhi lus zungs su song / bzhi lte bar babs}, ibid., 122.

\textsuperscript{333} This is a reference to nocturnal emissions.
enjoy sexual relations.” Finally, “at around six in the morning, those two drops arouse the power of the red drops at the genitals, making tomorrow’s sun rise. This is why people have a good complexion in the morning and a bad complexion at night.”

After presenting the twelve locations of the daily migration of the drops, Thupten Püntsok summarizes a general Tantric perspective of the monthly cycling of the drops. Referring to the ‘inner heat practices’ attributed to Nāropa, the Secret Vajra Body, Ancestral Advice and Chanting the Names of Mañjuśrī, he writes,

The drops, or the essence of all the elements, are the very type [of thing] which causes the bodhicitta elements to increase. From the first day of the waxing moon, starting from the man’s left big toe and from the woman’s right big toe, [the drops] abide in the form of the seed syllable, Ah. On the second day of the month, [the drops] abide in the form of [the seed syllable] Om. It goes on like this. These are known as the ‘locations of the life-force.’

Here, Thupten Püntsok connects together the lunar cycle of the drops with the sacred syllables that manifest at the cakras. He identifies the cakras as being at the same locations of the ‘places of the life-force.’ He also maintains the Tantric system of gendered opposites. Hence, he builds a bridge between the medical and Tantric understandings of the body through the notion of internal cycling, and the confluence of the “drops” (thig le) and the “life-force” (bla), as well as the cakras and “places of the life-force” (bla gnas).

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334 tho rangs grang ba ’i reg bya che / de nas cha gnyis lus zungs su ’gro / gnyis gsang gnas su babs pas tho rangs sgom chen rnams kyi thig le ’dzag / rdo rje las su rung / tha mal pa rnams chags pa spyod do, ibid., 122.

335 nam langs par thig le gnyis po des gsang gnas kyi thig le dmar po ’i nus pa skye bas nang pa nyi ma ’char te mi rnams snga dro ’i dus na mdog bzang ba dang / dgong mo ’i dus na mdog ngan pa ’i rgyu mthon yang de yin no, ibid., 122.

336 Ye shes rgyal mtshan, ’Jam dpal mtshan brjod kyi ’grel pa bstod sprin gyi sgra dbyangs (Lhasa: Ser gtsug nang bstan dpe rnying ’tshol bsdu phyogs sgrig khang, 2010).

337 thig le ’em ’byung ba thams cad kyi dwangs ma khams byang chub kyi sems rgyas ’gyur gyi rigs de nyid / zla ba yar ngo ’i tshes gcig nas skyes pa ’i rkang mthe g.yon dang / bud med kyi g.yas nas ’go brtsams te yi ge a’i gzugs su gnas pa dang / tshe gnyis byin par aom ’i gzugs su gnas pa sogs yongs grags su bla gnas zhes pa de yin la, Thub bstan phun tshogs, Gso bya lus kyi rnam bshad, 124.
As we saw earlier, Thupten Püntsok concluded his summary of the winds, channels and drops of both the Tibetan Tantric and medical traditions by making reference to biomedical thought. He suggested that the very same cakras described in the Tantric system, the bla gnas of the medical tradition, are also the “glands” of the biomedical tradition. Therefore, he suggests that more research is needed to determine whether or not the ‘places of bla’ or (in Tantric terms) the ‘cakras,’ should be understood as “channels” (rtsa) or “glands” (rmen bu). He further implies that if they are found (through examination of medical texts) to be glands, and they are therefore pointing to the same “glands” of biomedicine, then the “drops,” that is, the quintessence of the essences of food and drink, could be the “hormones” of the biomedical system. According to Thupten Püntsok’s presentation, in the Tibetan medical, the Tantric and the biomedical systems, the cakras, bla gnas and glands are all understood as particular ‘organs’ or ‘centres of activity’ that are located along cyclical pathways that move very subtle material substances that are extremely potent, effecting extraordinary effects on the body, mind and emotions.

Thupten Püntsok’s assertion that the “hormones” of biomedical thought could be equivalent to Tibetan notions of the “quintessence” (mdangs) and “glands” (rmen) is solidified by way of a Tibetan-biomedical hybrid illustration entitled, “Types of glands that move the hormones (quintessence).” The illustration is a basic sketch of a nude woman, wherein the following Tibetan-biomedical terms are indicated: klad rmen (pituitary gland), aig rmen (thyroid), brang rmen (thymus gland), gsher rmen (pancreas), mkhal rmen (adrenal gland), and bsam se ’u (ovaries or testicles). Here, in a relatively simple illustration, Thupten Püntsok assumes that the “glands” of biomedical thought are the same as the “glands” of Tibetan medicine.

Compared against the development of hormones and endocrine research in Western thought, Thupten Püntsok’s work draws on several important parallels. He points to the relationship among hormones, the brain, the endocrine glands, and the reproductive system, a relationship further elaborated elaborated in the following chapter of this dissertation.

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338 ho ’o mo’u (mdangs) rgyu ba’i rmen bu’i rigs, ibid., 146.
Similarly to biomedical endocrine research, Thupten Püntsok views embryonic
development and its organizing (or structuring) effects on the embryo as being mediated by the
hormones, which he understands as being core quintessences of the white and red elements.
Hence, we can see hints, developed by other writers, that Tibetan medical thought could perceive
the white and red elements as having organizational and activating effects on the body which
direct a person towards a male or female bodily phenotype, gender identity and reproductive
behaviour. We also can see the view that hormones are potent and purified (and possibly
fundamental) quintessences that have gone through successive stages of refinement; possibly
analogous to the biochemical and molecular structure of steroid hormones, whereby the
production of evermore specific hormones are produced from other hormones. Lastly, as in so
many biomedical studies, Thupten Püntsok presents a sexually dimorphic system in which
hormones, like the white and red elements organize and activate the male and female sex and all
of the activities which that entails. In this way, we see a trend that becomes more solidified in the
other contemporary sources, namely, that the white and red elements and hormones guarantee
and maintain the inherent nature of males and females.

However tentative, Thupten Püntsok’s ideas about the relation between biomedical
hormones and Tibetan understandings of the body do serve a number of functions. Firstly, and
foremost they support Tibetan knowledge claims, rather than discredit them. Secondly, they
promote a Tibetan national identity. By arguing that the endocrine system and hormones are
conceived in a roughly equivalent manner in Tibetan medicine, Thupten Püntsok asserts that
Tibetan medicine and Western biomedicine are on an equal scientific footing. Concentrating on
the relation of Tibetan Buddhist and medical knowledge about the body, he nevertheless
includes, and to some degree, integrates biomedical ideas. Although he admits to being merely
speculative in their relation, the postulation that the cakras and the blas gnas could be
understood as the endocrine glands serves to underscore Tibetan knowledge about the body as
well as to point out future avenues of research.

This strategy validates his research method. By researching and re-interpreting
authoritative sources, biomedical ideas as well as modern disorders can be understood and
incorporated into the Tibetan system. In this way, not only can Tibetan medicine be updated, but
it can also remain loyal to its authoritative knowledge roots thus helping to promote a Tibetan Buddhist national, intellectual, and cultural identity.

2.6 Women’s Reproductive Bodies in Mingji Cuomu

Mingji Cuomu’s work, Clinical Experience in Treating Obstetric Disease, written ten years later than Thupten Püntsok’s, is far more assertive in relating hormones to Tibetan medical thought. She maps Chinese biomedical terms directly onto Tibetan medical nomenclatures, by illustrating the Chinese characters for specific biomedical terms for “hormones” and endocrinological anatomy. This neither implies nor suggests that Tibetan medical thought in regards to reproduction has been replaced by biomedical notions. Shared medical and Buddhist concepts like the white and red elements, quintessences, drops and the bardo being are maintained and emphasized as being compatible with biomedical thought. Mingji Cuomu is persuasive in explaining how the earliest authoritative sources of the Tibetan medical and Tantric traditions had their own understanding of what are today known to be “hormones.” Therefore, in these sections examining Mingji Cuomu’s work, I briefly outline her basis of the reproductive, and as such, the endocrinological body. Then I centre on her discussions and direct translations of Tibetan and Chinese biomedical terms of that body.

Mingji Cuomu’s Clinical Experience in Treating Obstetric Disease consists of three parts. The first part, some of whose pages were discussed above, is an introduction of approximately forty pages in length. The second part is titled “Preliminary remarks: On the method of developing research into Tibetan medicine” and amounts to about the first fifty pages of the work. The third part, taking up the remaining one hundred pages, forms the “actual main topic.”

The “actual main topic” is organized into seven chapters, each containing several sections and sub-sections. The first chapter exclusively details the Buddhist perspective of the nature of human birth, rebirth, and the contrasting roles of male and female bodies. Building from this

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339 sngon ‘gro’i gtam / bod kyi gso rig zhib ‘jug gi las don spel thabs skor, Sman skyid mtsho mo, Mo nad phal pa’i nad la zhib ‘jug dang gso bcos kyi nyams yig, 2–48.

340 dngos gzhi’idon ston pa, ibid., 49–152.
framework, Mingji Cuomu’s second chapter, “Dissemination of the precise meanings regarding the connection between the body’s material constituents and the topic of birth,” that discusses “hormones.” The second chapter consists of two sections, with the latter being further organized into six subsections. In the following pages I highlight parts of the second chapter, narrowing in on the fourth and fifth sub-sections of the second chapter where “hormones” are the central focus.

The first section of the second chapter, “The nature of the universal four channels of existence” is where Mingji Cuomu lays the foundation for comparing Tibetan and biomedical perspectives of human reproductive physiology and material substances known in English as “hormones.” She begins this section on the general topic of reproduction, and how it is made possible by “channels” that circulate the essence of digested food and drink throughout the body. She writes:

In order for the seven bodily constituents to be continually circulated, and also for each of them to become ripened, they must depend on the activities of the universal four channels of existence. As for explaining the nature of how those channels manifest, [we must] start from the very beginning, from the Explanatory Tantra:

The ‘great existence channel’ is four—
the channel which perceives the objects of the senses circulates via five hundred subtle existence channels in the brain.
The channel which clarifies the memory circulates via five hundred subtle channels in the heart.
The channel which creates the aggregates of the body circulate via five hundred subtle channels at the navel.
The channel which increases the lineage of sons circulates via five hundred subtle channels at the genitals.
Mingji Cuomu writes that this passage outlines how “the aggregates of the body are created, maintained and have the ability to continually propagate the ancestral lineage of children and grandchildren.”\footnote{lus kyi phung po chags shing gnas par byed pa / bu dang tsha bo sogs pha mes kyi rigs rgyud de rgyun mi chad par spel ba, ibid., 61.} Hence, for Mingji Cuomu a starting point for discussing the place of “hormones” in Tibetan medical thought begins with the origins and functioning of the four channels of existence together with the seven bodily constituents according to the \textit{Four Treatises}. She establishes that it is through the successive ripening and circulation of the seven bodily constituents throughout the body that reproduction is possible. One notes the close resemblance of this medical body with a general Tantric perspective of the channels, \textit{cakras} (or wheel centres) and drops.

Mingji Cuomu writes that the four channels of existence are organized into three parts of the body: the upper, middle and lower. Continuing from above, she further explains the passage from the \textit{Four Treatises}:

Furthermore, if it is explained little by little, that wheel channel, which [enables] each of the five “sense faculties” (\textit{dbang rten}) to perceive their object, exists in the ‘white channel’ of the brain. [It] performs its functions by being like a root that projects downwards.\footnote{de yang re re bzhin ‘chad na dbang po lnga rang rang gi yul la ‘char bar byed pa ‘i rtsa ‘khor ni / klad par gnas pa ‘i rtsa dkar rtsa ba lla bu thur du zug pa dag gis byed pa, ibid., 62.}

The wheel channel [at the heart] clarifies the memory, and separates the two, the wind and the blood. [Being the wheel channel] that possesses the root of the branches, [it is where wind and blood] gather as a heart beat, and spread outwards from the heart. The heart, by becoming the support of the entire life-force and the mind, make possible the clarity of memory.\footnote{yid kyi dran pa gsal bar byed pa ‘i rtsa ‘khor ni / snying nas gyes pa ‘i rlung khrag gnyis ‘doms kyi ‘phar rtsa yan lag dang bcas pa rtsa ba snying nas gyes shing / snying ni tshe srog sms kun gyi rten du gyur pas dran pa gsal ba ‘i nus pa yod pa, ibid., 62.}

The wheel centre that creates the aggregates of the body is located at the middle, or at the navel. [Being the wheel channel] that possesses branches and limbs, through a root vein extending from the liver, the “essence” (\textit{bcud}) of consumed food and drink is broken down and digested. In separating the essence from the refuse, [the wheel centre at the navel] creates the source for the basis of the essence of the body. When an aggregate is first
created, the nourishment from the mother’s body, travelling through a path to the navel of the child, becomes the root basis of the earth [element].

The wheel centre that performs the function of increasing the lineage of sons is that which causes the propagation of the ancestral lineage [and depends upon] the ripening, gathering [and] movement of the white and red drops (which, possessing the potency of internal drips) move through the sense organs and [internal] pathways. The special characteristics of the male and female body, especially the genitals, function to propagate the lineage of children.

Here, Mingji Cuomu explains how the “wheel channels” (rtsa ’khor) at the brain, heart, navel and genitals function together with the essences of the seven bodily constituents to create, develop, maintain and reproduce the human body. The body is imagined as being similar to a tree, beginning with its ‘root’ projecting downwards from the wheel centre at the brain. The brain is that which ‘thinks,’ in that it allows the mind and body to interpret and interact with the world. The ‘root of the branches’ is at the heart wheel centre. The heart pumps blood and wind (or breath) throughout the body. The ‘branches and limbs’ are imagined at the wheel centre at the navel, where a root vein extending from the liver separates the wastes (or refuse) from the essence of digested foods, thereby producing the foundational essence for the body. Here, Mingji Cuomu points to the “umbilical cord” that allows for the mother’s nourishment to pass to her child. The part of the tree which is the wheel centre at the genitals is not specifically named, but is implied as the ‘seed’ that allows for reproduction.

It is in her elaboration of the wheel channel at the genitals that Mingji Cuomu alludes to “hormones,” using the phrase, “those internal drips which are emitted out” (nang gi gzags ‘don). She writes that it is through “the sense organs” (dbang rten)—which are “the physical sense...
organ that supports the inner subtle sense faculty,”— that the “white and red drops” (thig le dkar dmar) possess the “potency” (nus pa) of the internal drips.

Although Mingju Cuomu’s innovative term “internal drips” appears to be a neutral and non-specific term for a category of potent substances that are emitted from the white and red drops, it is clearly an implicit nod towards the biomedical notion of “hormones.” It is here, in using this term that Mingju Cuomu begins to establish the argument that Western ideas of “hormones” have already been known and written about in the authoritative works of the Tibetan tradition. Further evidence that “internal drips” is a kind of placeholder for native Tibetan ideas of “hormones” can be found later in her second chapter, where Mingji Cuomu uses the term skul rgyu as an explicit translation of Chinese biomedical terms for “hormones.” Hence, the use of “internal drips” is a sort of ‘in-between’ term that points to substances that are known about in both the Tibetan medical and biomedical systems.

In Mingji Cuomu’s account so far, the white and red drops, which form the essence of the essence of digested foodstuff, are the key bridge between biomedical and Tibetan medical thought on “hormones.” She also points to how the brain influences the white and red reproductive elements (or the drops) through the “sense organs.” Here, the brain, being the support and director for the other processes in the body, allows the white and red drops to contain the potency of the “internal drips” or “hormones.” Hence, Mingji Cuomu effectively establishes two of the central axis of biomedical endocrinology which are the causative role of the brain in reproduction, and its role in circulating very subtle yet potent substances throughout the body. Hence, biomedical understandings of “hormones” are established as equivalent to the white and red elements, or at least, as pointing to the same material substances. Lastly, Mingji Cuomu establishes that the white and red elements of Tibetan medicine, like the biomedical notions of “hormones,” are viewed as necessary for human growth, development, sexual dimorphism, and reproduction.

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349 Ranjung Yeshe, s.v. “dbang rten.”
In the next section Mingji Cuomu elaborates upon shared Tibetan Tantric and medical ideas of conception, specifically the relations among the brain, the essence of the elements and the reproductive drops.

2.7 Establishing the Relations Among the Seeds, the Drops, and Hormones in Tibetan Medical and Buddhist Literature

The second section, “Examination of the white and red drops: The innermost essence of the seven bodily constituents that cause rebirth,” of Mingji Cuomu’s second chapter, is in two main parts. The first part titled, “The characteristic features of the universal male and female genitals which are born from the self-nature of means and wisdom” establishes the Tantric perspective of sex and conception by citing a passage from Yangönpa Gyeltser Pel’s Secret Vajra Body. The second part titled, “Detailed examination of the system of how the white and red drops cause conception,” explains Tibetan medicine in relation to biomedical notions of “hormones” and the larger endocrinological system. And it is in this section that Mingji Cuomu introduces the directly corresponding Tibetan translations of Chinese biomedical terms. In Section 2.7 of this thesis, I present both of these parts of Mingji Cuomu’s second chapter.

In “The characteristic features of the universal male and female genitals which are born from the self-nature of means and wisdom,” Mingji Cuomu concentrates on human conception and sexual dimorphism from a shared Tibetan medical and Buddhist perspective. Her larger aim is to show that the points of convergence between the medical and Tantric body underscore a single coherent system of Tibetan knowledge about the body.

On the topic of birth, Mingji Cuomu writes:

Being a product of its own self-nature and belonging to the six realms of birth, the human body establishes the separate body’s of wisdom and means. Among all sentient beings, the [human] branch is the most excellent. The man, whose self-nature is method [possesses the] mark which can reproduce. And, the woman, whose self-nature is wisdom [possesses

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350 khyad par skye ba’i rgyu lus zungs bdun gyi yang snying thig le dkar dmar la dpyad pa, Sman skyid mtsho mo, Mo nad phal pa’i nad la zhib ’jug dang gso bcos kyi nyams yig., ibid., 63.

351 thabs dang shes rab kyi rang bzhin du gyur pa’i pho mo’i mtshan ma’i spyi’i khyad chos, ibid., 63.

352 mngal sbrum pa’i rgyu thig le dkar dmar gyi rnam gzhag la rgyas par dpyad pa, ibid., 64.
the] mark which can reproduce. Whichever body, whether the [genitals] are on display or hidden, their difference lies in the way of establishing their respective activities. The white and red elements, which grow and increase inside the genitals and cause the creation of the [fetal] body, are emitted through the downward-clearing wind. The special feature of women is their power to become pregnant.353

Then, Mingji Cuomu repeats a common Tibetan Buddhist tenet to the effect that among the six realms of possible rebirth, the human one is the most excellent because the respective bodies of men and women manifest as the means and wisdom needed both for reproduction and Buddhist enlightenment. She uses the term, rang bzhin, meaning, something’s “own way of arising,” “self” or “intrinsic nature,” or “essence.”354

Rang bzhin is an important term throughout this thesis because it is used frequently in all of my primary sources. Primarily, the term is used to define attribute features from material substances and forms, to masculinity and femininity and even the nature of the vajra body.355 In the above Mingji Cuomu uses rang bzhin, “self-nature,” to establish the origins of the physical attributes of male and female genitals and their ability to yield reproductive seeds. In the following chapter of this thesis we shall examine this term again but in relation to a similar and sometimes synonymous term, gnas lugs, meaning something’s “way of abiding.”

Despite being clearly Buddhist in orientation, her description of how the reproductive seeds are made in and emitted from the body is presented as medical knowledge. In so doing, she demonstrates how Tibetan Buddhist and medical ideas on reproduction support one another without contradiction. For Mingji Cuomu, the essential thrust of this first section establishes the co-referential relation of the Tantric understandings of the “drops” with the reproductive “seeds” as understood in medicine.

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353 skye kham drug dang ldan pa ’i mi yi lus rtten ‘di nyid bskyed bya’i rang bzhin nyid kyis thabs dang shes rab lus rtten tha dad du grub pa ma zad / de’i yan lag kyang sems can gzhon las phun sum tshogs pa yod pa ste / skyes pa la thabs kyi rang bzhin gyi skye ‘phel mtshun ma dang / bud med la shes rab rang bzhin gyi skye ‘phel mtshun ma grub yod / gang yin rang lus phung gi phyir mngon pa dang mi mngon pa las bya byed sgrub tshul tha dad yin te / nang gi skye ‘phel mtshun mas lus khams chags pa ’i rgyu khams dkar dmars grub cing thur du sel ba ’i rlung gis phyir phyug ba dang / bud med la khyad par mngal sbrum pa ’i nus pa yod, ibid., 63.

354 Rangjung Yeshi s.v. “rang bzhin.”

355 For example, Thupten Püntsok uses rang bzhin to describe the self-arising nature of the seed syllables at the cakras and the places of bla. See footnote 279.
It is here that Mingji Cuomu turns to the *Secret Vajra Body*, quoting a passage that outlines the “five inner awakenings” (*nang gi mngon byang lnga*; Skt. *abhisambodhi*) which are meditative visualizations associated with one of each of the five *chakras* along the central channel of the body. Both Mingji Cuomu and Willa Miller quote and translate this passage from the *Secret Vajra Body*, clearly showing its relevance in contemporary Buddhist scholarship and medical research. Because one can consult a full Tibetan and English version of this passage in these two works, I will only cite its beginning for purposes of demonstrating the connections that Mingji Cuomu is establishing between the medical and the vajra body of Tibetan thought.

From the *Secret Vajra Body*:

If one wants to consider the “five inner awakenings” then according to the High Yoga Tantras, first [the consciousness of the bardo being] enters father’s anus, and comes to abide in the penis beneath the navel, and from there the father’s drop is emitted. This is an awakening through the moon, mirror-like wisdom. Then, if it comes to abide in the womb of the mother, it is wrapped in the essence of menstruation. Here, we see that the *Secret Vajra Body* presents a strikingly unified or holistic understanding of conception, from its most physical and ‘gross’ elements, to its most subtle. Both the vajra and the actual human reproductive bodies are intertwined and mutually reinforcing. The reason for this envisaging is that Yangönpa GyeltSEN Pel’s work was meant to provide practical instruction on a meditative practice that uses the body as its imaginative and soteriological basis. Also noteworthy, Yangönpa GyeltSEN Pel implies that “menstruation” includes the activities of the essence and refuse, and does not merely refer to the blood that comes from the uterus. The remainder of the passage from *Secret Vajra Body* (taking up half of the section) outlines

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356 Mingjo Cuomu writes that she is quoting from “the Shakyapa, GyeltSEN PalZang,” (*Sa skya ba rgyal mtshan dpal bzang*) who compiled the *Secret Vajra Body*, but the author is in reality Yangönpa GyeltSEN Pel.

357 Rangjung Yeshi, s.v. “*nang gi mngon byang lnga*.”


359 The “awakening through the moon, mirror-like wisdom” is the first of the five awakenings, and is located at the crown of the head.

360 *rnal ’byor chen mo ’i rgyud kyi rjes su brang pa nang gi mngon byang lnga dang shyar na dang po pho ’i bshang lam nas zhugs te lte ba ’i og rdo rje lam na gnas pa la pha ’i thig le ’phul te ’ongs pa ni zla ba me long lta bu ye shes mngon par byang chub pa / de ma ’i skye gnas su phyin pas na ra ka ta ’i dwangs ma phyi, Sman skyid mtsho mo, Mo nad phal pa ’i nad la zhib ’jug dang gso bcos kyi nyams yig, 63–4.*
conception and the stages of the fetus’ gestation, speaking to both the vajra body of cakras and meditative visualizations, and the physical body of concern to medicine.

Mingji Cuomu establishes Secret Vajra Body as her primary Tantric source in the sections that follow and lead up to “hormones.” One can imagine why she would find such a work, that places the flesh and blood body at the soteriological heart of Tantric yogic practices, useful within her explanation of contemporary Tibetan knowledge of conception and rebirth. It is a work that lays out the connections between the physical body and the vajra body, and in so doing, provides a rich resource for the interpretation and support of “hormones” in the Tibetan medical system.

In the second chapter’s second part, “detailed examination of the system of how the white and red drops cause conception,” Mingji Cuomu moves to explain how the process of digestion produces the white and red elements and, by stages, the seed and egg that conceive a child. Like her contemporaries, showing the origins and nature of the white and red elements as they manifest in various ways in the body is a necessary step in connecting them to biomedical ideas of hormones.

The title of the first sub-section of the second part of the second chapter is “the origins of the white and red elements” (khams dkar dmar ‘byung khung). In this section Mingji Cuomu turns to the Four Treatises and three enormously important treatises to explain the Tibetan medical view of the white and red elements. These are the Heart of the Eight Branches (Yan lag brgyad pa’i snying po bsdus pa; Skt. Aṣṭāṅgaḥṛdayasamhitā), Ancestral Advice (already encountered in Thupten Püntsok) and Medicine of the Moon King (Sman dpyad zla ba’i rgal po; Skt. Somarajaḥaisajyasadhana), which is known in Western scholarship as the Somarāja.

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361 mngal sbrum pa’i rgyu thig le dkar dmar gyi rnam gzhag la rgyas par dpyad pa, ibid., 64.
363 Klu sgrub (Nāgārjuna), Sman dpyad zla ba’i rgyal po, trans., Ma ha ya na, Bai ro tsa na, and Tsan pa shi la (Beijing: Mi rigs dpe skrun khang, 2006).
These three works were early sources of the Tibetan medical tradition, and are used in a number of the present-day sources that integrate Tibetan and biomedical notions of hormones. I will briefly describe them and their summary by Mingji Cuomu.

The first, the *Eight Branches* (Also known as the *Heart of Medicine Compendium*), is written by Vāgbhaṭa (Pha khol; seventh-century), a principal scholar of classical Āyurveda. The *Eight Branches* is considered a masterful synthesis of Indian medical systems, and was to become immensely influential in the development of medicine in Tibet and throughout south and central Asia. The text is also said to have served as a guide for Yuthok Yönten Gönpo before he ‘received,’ and made known, the *Four Treatises*.

The translator of the *Eight Branches* from Sanskrit into Tibetan, Rinchen Zangpo (Rin chen bzang po, 957 – 1055), was enormously influential in what is known as the “later spread” (phyi dar) of Buddhism in Tibet. He translated, from Sanskrit, several important texts of the Tibetan Buddhist cannon, among them the *Secret Union* and *The Discourse of Śrī Heruka* (*Bde mchog ’khor lo; Cakrasamvara*) Tantras. He also translated Āyurvedic texts, including the *Eight Branches* and its extremely important and still oft-cited commentary, *Moonlight: A Commentary on the Eight Branches* (*Yan lag brgyad pa'i snying po'i rnam 'grel tshig don zla zer; Padārthacandrikāprabhāsanāma-aṣṭāṅgahṛtti*) by Candranandana (Zla ba mngon dga’). It


366 Ibid., 25.


370 Kha che zla ba mngon dga’, *Yan lag brgyad pa’i snying po’i rnam ‘grel tshig don zla zer*. 2 vols. bod kyi gso ba rig pa’i gna’ dpe phyogs dpe tshogs 026 (Beijing: Mi rigs dpe skrun khang, 2006).
is significant that all of these sources are cited throughout the contemporary Tibetan medical works, thereby forming the authoritative basis of the Tibetan medical system.

According to Garrett, despite the fact that the Eight Branches has been widely quoted throughout Tibetan medical literature, in terms of reproduction, pregnancy and fetal development, key parts have been ignored by Tibetan writers, most notably, the attention to women’s bodies. Garrett writes that the Eight Branches places a central “emphasis on pregnancy and the experience of the woman” but that this “is all but lost” in later Tibetan embryological accounts. Furthermore, she writes: “This omission becomes more striking over time, as centuries of Buddhist cultural authority replace the concerns of Indian medicine with those of Buddhist literature in which women are marginalized at best, or, at worst, ostracized or even eliminated.”

It is interesting then, that this same work would be so central to Mingji Cuomu’s explanation of reproduction.

The origins of Mingji Cuomu’s second source, Somarāja, is unclear. It is said in Tibetan histories to be Chinese in origin, having been translated by the Chinese monk scholar Mahāyāna (Hwa shang ma hA ya na) and Vairocana (Bai ro tsa na) in the seventh-century at the request of king Tri Songdetsen (Khri srong lde btsan, 742 – 798), who reigned at the height of the Tibetan empire. Other scholars attribute the work to Nāgārjuna, including the publishers of the 2006 Beijing edition (cited above) who also accredit the Chinese monk translator and Vairocana for having translated it from the Sanskrit and its Chinese version.

Mingji Cuomu endeavours to define “the origins of the white and red elements,” first within the Four Treatises, and then in the Eight Branches. Paraphrasing her citation of the Four Treatises, “digestive heats” (me drod) create and sustain each of the seven bodily constituents by

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373 khams dkar dmar gyi ‘byung khungs, Sman skyid mtsho mo, Mo nad phal pa ’i nad la zhib ’jug dang gso bcos kyi nyams yig, 64.
separating the essence from the refuse, ripening the white and red elements and thus producing the reproductive seeds in the testicles and ovaries. The essence of the seventh bodily constituent is “the most superior of quintessences of the final perfected state of the bodily constituent of the reproductive fluid. It abides at the heart, and also spreads throughout the body, imbuing the body with radiance and lustre.”\(^\text{374}\) Similarly, according to the *Eight Branches*, “the bodily constituents are the essence (bcud) of consumed foods, which [move throughout the body] in a circular way.”\(^\text{375}\)

Summarizing the *Four Treatises* and *Eight Branches*, Mingji Cuomu writes:

The ‘three digestive heats,’ by decomposing and digesting food, separate the essence and refuse, functionally establishing, as was explained earlier, the support and supported, of the five vital organs and the six hollow organs. The essence of the five elements is the support of the five vital organs. The refuse of [those five elements] accumulates in the six hollow organs. The last of the seven bodily constituents, the reproductive fluid, is connected with the left kidney, the uterus and the ovaries. The essence [of the seventh bodily constituent], ripens into its fullest possible radiance and resides at the heart. The refuse are the white and red elements that gather in the ovaries [or testes].\(^\text{376}\)

Hence, we see in here Mingji Cuomu establishing the connections among the digestion of nutriments, the circulation of the essences of the seven bodily constituents, and the functioning of the body’s internal organs, before moving more specifically to the reproductive fluid and its relation to the organs of reproductive anatomy. She explains how the process of digestion creates and is maintained by the body's organs, such as the heart, liver, kidneys, and ovaries. Mingji Cuomu’s statement to the effect that the essence of reproductive fluid gathers at the heart from where it is pumped throughout the body becoming its “radiance” (gzi mdangs) and “lustre” (bkrag) is noteworthy. As we shall see further in this and other works, this kind of core essence or quintessence that gives the body its look of health and vitality is connected with

\(^{374}\) lus zungs khu ba’i mthar phyin mdangs mchog te // snying la gnas kyang lus kun khyab par byed // tshe gnas gzi mdangs bkrag dang ldan par byed, ibid., 65.

\(^{375}\) lus zungs ni zas kyi bcud // ‘khor lo lta bu yongs su ‘khor, ibid., 65.

\(^{376}\) me drod rnam gsum gvis zas skom dag myag bzhu dwangs snyigs ‘byed pa’i byed las de don lnga dang snod drug tu rten dang bren pa’i tshul gvis sgrub te / ’byung ba lnga dwangs ma’i rten don lnga dang / de’i snyigs ma gsog snod snob drug yin pa dang / lus zungs bdun gyi mtha’ ma khu ba ni don mdkal ma g.yon dang snod bsam se’u ’brel ’byor gvis dwangs ma mdangs mchog tu smin te snying la gnas pa dang / de’i snyigs ma khams dkar dmar yin te bsam se’ur gsog pa, ibid., 65.
biomedical ideas of hormones. Further, Mingji Cuomu’s assertion that the left kidney is functionally connected with the ovaries and uterus preludes its comparison with the adrenal glands attached to the kidneys, as understood in Western endocrinology.

After this, Mingji Cuomu continues to establish the “origins” (‘byung khungs) of the white and red elements, by first quoting from the Four Treatises, followed then by the Somarāja and Ancestral Advice. Using these references as supporting sources, she then moves towards explaining the role of the “brain marrow,” (klad gzhung) the sixth bodily constituent, from which reproductive fluid is made.

Quoting this passage from the Oral Instructions Tantra: “The brain marrow ripens the two, white and red seeds,” Mingji Cuomu states that the ability for the brain marrow to ripen the white and red elements depends upon the activities of the phlegm dynamic. Her statement is supported in this line found in the Explanatory Tantra: “The satisfying phlegm, residing at the head, is the controlling power of the “sense faculties” (dbang po).”

Mingji Cuomu further expands on the role of the brain in emitting reproductive fluids. Her support is found in the following from Somarāja: “That which gathers at the crown of the head is [moved] by the winds to [the organ] that grasps the seeds of the body. The cakra at the chamber of Brahma’ is the “channel” (rtsa) for [producing] the body’s reproductive seed.

The “cakra at the chamber of Brahma” (tshangs pa dung gi ‘khor lo; Skt. brahmarandra) refers to a version of the hindu Tantric body wherein the God Brahma is envisioned as manifesting at the cakra in the centre of the head, that is, at the brain. Hence, Mingji Cuomu asserts that according to the Somarāja, it is a function of the brain to plant the reproductive seeds in the ovary. She writes that:

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377 klad gzhung sa bon dkar dmar gnyis su smin., ibid, 65.
378 tshim byed mgor gnas dbang po tshim par byed., ibid., 65.
379 spyi bo dag tu ’dus pa ni // rlung gis lus kyi sa bon bzung // tshangs pa dung ‘khor lo ste // lus zungs sa bon rtsa yin no, ibid., 65.
380 Ives Waldo, s.v. “tshangs pa dung gi ‘khor lo.”
It is the power of the satisfying phlegm, which resides at the crown of the head, that sharpens the ability of the five senses of sight, sound, smell, taste, and touch to comprehend their objects. The power of the sense of touch allows for the experience of the pleasurable sensation created by the bliss of the sexual embrace of means and wisdom. This in turn, ripens the four primordial elements of the white and red elements. Because of this, [the ripening of the reproductive seed] is closely connected with the activities of the satisfying phlegm.\footnote{bad kan tshim byed mgor gnas shing / dbang po lnga dag yul gzugs sgra dri ro reg bya sog la 'jug pa'i skabs tshim par byed nus pa bzhin / lus dbang gi bde ba thabs shes zung du sbyor ba'i bde ba yang de nas smin pas / khams dkar dmar gyi thog ma'i 'byung gzhi de nyid bad kan tshim byed kyi byed las dang nye bar 'brel, Sman skyid mtsho mo, Mo nad phal pa'i nad la zhib 'jug dang gso bcos kyi nyams yig, 66.}

Mingji Cuomu’s point is that because the satisfying phlegm resides at the brain, its central function there is to sharpen its workings, that is, to aid the brain to act as the central interpreter of all of the body’s sensory input. Sexual pleasure, being made possible through the body’s senses, is therefore necessarily mediated by the brain and, by receiving and processing such pleasure, ripens the material elements of the reproductive seeds in the ovaries and testes. Since it is the cakra located at the “channel” (or possibly “gland”) (rtsa) of the brain that ripens the reproductive seeds, according to the Somarāja, it is possible to see how biomedical notions of “hormones” easily fit within this picture.

Lastly, to substantiate this view, she quotes the following from Ancestral Advice: “The essences of the elements, through causes and conditions, spread everywhere in the body, going to the internal organs—but mostly, it is explained, as going to reside in the ovaries [or testes].”\footnote{khams kyi dwangs ma lus zungs thams cad la rgyu rkyen gyi tshul du khyab pas don snod de la'ng gnas mod lhag par bsam se'u nang du gnas par bshad, ibid., 66.} This final note leads to the topic of the nature of ovary as a vessel of the reproductive seed. That subject is found in the following section of her second chapter.

In this section, Mingji Cuomu explains the “white and red drops to be the innermost essence of the seven bodily constituents that cause rebirth.”\footnote{khyad par skye ba'i rgyu lus zungs bdun gyi yang snying thig le dkar dmar la dpyad pa, ibid., 63.} In the first, and shorter part, she establishes the Tibetan perspective on the origins of the male and female reproductive bodies through the Tantric text, the Secret Vajra Body by Yangönpa Gyeltsen Pel. Through this work she outlines the Tibetan conception of rebirth, embryology, and the functioning human body through
the lens of the vajra body of winds, channels, drops and cakras. What she establishes is that men and women have inherent “self-natures” (rang bzhin) that manifest the separate but interconnecting male and female genitals and reproductive organs. It is through the meeting of these genitals, which she euphemizes through the Buddhist symbol of means and wisdom, that human beings can reproduce. Importantly, she uses a Tantric text as an authoritative source on the material human body to show that the subtle body of Tantra has relevance in modern-day Tibetan medicine.

In the next, and longer section, Mingji Cuomu draws on these four authoritative medical sources, *Four Treatises, Eight Branches, Somarāja* and *Ancestral Advice*, in order to illuminate the white and red drops, where they originate, their composition, how they produce changes in the body, and their role in reproduction. Through these authoritative works, she enables a teaching of the system of digestion, wherein the separation of refuse from the essence produces and maintains the seven bodily constituents.

According to the authoritative sources the seventh bodily constituent is the reproductive fluid. The fluid is derived from the “brain marrow” or the “brain [understood as] marrow” (klad gzhung) which itself is derived from the marrow forming the the sixth bodily constituent. Here, Mingji Cuomu implicates the role of the brain as a causal factor in the creation of the reproductive seeds and their ability to conceive a baby.

Also implicated by the brain, Mingji Cuomu asserts, is the central role of the satisfying phlegm in affecting the reproductive drops. She writes that the satisfying phlegm, which aids the brain in apprehending objects of the five senses, allows for the pleasurable sensations brought about by sexual activities, which in turn, ripen the reproductive seeds. She also finds support for the role of the brain in producing the reproductive seeds in the vajra body, specifically the cakra at the ‘chamber of Brahma’ located at the crown of the head.

Her last point, from *Ancestral Advice*, summarizes the section well, stating that the essence of the elements of consumed food and drink spread everywhere in the body, most notably, to the ovary, the focus of the following section.
2.8 The Function of the Ovary in Relation to the Reproductive Seed

This part of the thesis examines the second and third segments of the second section of the second chapter. The second segment is titled “Examination of the definition of the ovary” and the third is titled, “Way of identifying the bsam se’u (testes and ovaries) as a sense faculty by researching each of its functions.” The second segments deals exclusively with the Tibetan description of the ovary and its functions. The third segment directly translates biomedical terms involving hormones and provides the concomitant Chinese characters in several places. This is also where she gives details of specific hormones and glands and how they function to impact the ovary.

In Tibetan medical thought, the term bsam se’u can refer to either the female ovaries or the male testes. In the general description below, Mingji Cuomu implies the reproductive vessels of both sexes. However, in the third segment, she narrows in on their specifically separate functions. At the beginning the second segment, Mingji Cuomu describes briefly the Tibetan medical understanding of the “ovary [and] testes” (bsam se’u):

> Generally speaking, the so-called ‘ovary [and] testes’ is one of the six hollow organs. It ripens the white and red elements and is also able to directly ‘grasp’ owing to its being an accumulating vessel. The constant circulation of the seven bodily constituents is what allows the white and red drops to ripen. Whether or not [the drops] have the opportunity to accumulate depends upon the transformations of their function. For example, by the time ordinary men and women pass the age of fifty, the “vital essence” (bcud) of the bodily constituents is finishing, and by becoming exhausted there isn’t the opportunity for the gathering of the white and red elements, and the capacity to ripen is diminished.

Owing to the constant replenishing process of digestion, the essences of the seven bodily constituents circulate throughout the body and cause the ripening of the reproductive fluids.

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384 bsam se’u yi nges tshig la dpyad pa, ibid., 66.
385 dbang rten so so’i byed las la dpyad nas bsam se’u yis ngos ‘dzin bya tshul, ibid., 67.
386 spyir na bsam se’u zhes pa snod drug gi ya gyal zhih yin te / khams dkar dmar smin zhih gsog snod dngos la ngos ‘dzin chog kyang / lus zungs bdun gyi ‘khor bskyod las thig le dkar dmar gnyis smin zhih gsog par byed pa’i skabs yod med dang yang na byed las la ’gyur ba phyin yod med dang bs’tun dgos te / dper na / skyes pa’i bud med na ma son pa’i lo na lnga bcu las yol tshe lus kyi zungs bcud yongs su ma rdzogs pa’i nyams par gyur paskhams dkar dmar gsog pa’i skabs med pa’i smin par byed pa’i nus pa nyams pa dang, ibid., 66.
These fluids reside in the reproductive “vessels” (*snod*) of both sexes. The ovary (and testes) ‘grasps’ and ‘ripens’ the seed (whereas, the uterus ‘grasps’ and ‘grows’ or ‘ripens’ the fetus). Whether or not someone has the ability to reproduce depends upon the ability of the digestive system to produce “vital essence” (*bcud*) from the essences of the body’s constituents. Hence, the first requirement of men and women is that they need to be of reproductive age to conceive a child, but other factors, such as nutrition also play a role.

Mingji Cuomu continues her description of the *bsam se’u* by closing in on the ovary and its ability to cause the monthly transformations of the menstrual cycle, or in other words, to ripen or prepare the egg for conception. She writes:

In the case of women’s bodies, after grasping the seed for the body, the “innermost essences” (*nying bcud*) of the body necessarily nurture and grow the child, and the circulation of the seven bodily constituents gradually comes into being. And, although it seems a bit odd, if the ovary is identified as being one and the same as a “sense faculty” (*dbang rten*), it is owing to its being the causal reason for planting the transformations that result from the [cyclical process of] gathering and accumulation of the red element before the pregnancy.\(^{387}\)

The reason that Mingji Cuomu suggests that it “might seem a bit odd” (*cung ‘tshams po med par mthong*) to call the ovary or testicle a “sense faculty” (*dbang rten*) is because according to Tibetan Buddhist and medical thought, this term normally refers to the five sense “organs” or “faculties” that underlie the ability to see, hear, smell, touch, and taste. In some accounts, there are six sense faculties if one were to include the “consciousness” (*rnam par shes ba*), that is, the thinking mind that interprets the information being absorbed by the other five faculties. Normally, the ovary and testes would not be considered as one among these sense faculties, but Mingji Cuomu argues in the next few pages that they ought to be considered as being functionally a sense organ, if not in name.

Mingji Cuomu explains that the category of “sense faculty” applies to the ovaries and testes is because they are a unique vessel of the body:

\(^{387}\) *yang na bud med kyi lus la las kyi sa bon ’dzin rjes lus lkyi nying bcud dag gis byis pa gso skyed byed dgos pas / lus zungs bdun gvi ’khor ba la ’gyur ba rim can hyung zhdng / khams dmar smin gsog gi bgyud rim de sbrum ldan gvi gnas stangs las ’gyur ba thebs pa bcas kyi rgyu mtshan la gzhigs nas dbang rt en gcig kho nar mtha’ gcig tu bsam se’u la ngos ’dzin byas na cung ’tshams po med par mthong, ibid., 66–67.*
The so-called *bsam se’u* possesses special characteristics that make it particularly unique from other vessels. The white and red elements are the principal elemental sources that ripen [in the ovary] dependent upon the power of the wind dynamic. The power of that wind naturally changes in accordance with the necessities of the body, and likewise, according to the activities of the ovary. [The wind] is the cause for the transmigratory being to be transferred [into the womb] (at the time when a woman is pregnant). Because of these reasons, the ovary could be considered to be the same as a ‘sense faculty,’ but according to scripture and reason it would be considered a little bit unacceptable, and owing to that, the conventional label of *bsam se’u*, that is, through the perspective of its function [and activities], is asserted.  

According to Mingji Cuomu there are a few reasons that the testes and ovary can be considered a unique kind of vessel. The testes and ovaries ripen the white and red reproductive seeds which contain all of the “principal elemental sources” (*gtso bo ’byung ba*), meaning the elements of earth, water, fire, wind and space—that make up the child’s material body. This is all made possible by the wind dynamic, which moves and circulates the body’s substances throughout all the parts of the body.

The wind is the motile mechanism that allows the ovary to gradually transform and ripen the egg. It is also the wind that carries the consciousness of the transmigrating *bardo* being to the fertilized egg. Because the ovary and testes are both the support and mechanism by which the essence of the white and red elements become matured, they provide the principal elemental sources for the fetus should conception occur. Therefore, the testes and ovary support the ripening of the elements of life, which underlie the other sense faculties. Hence, Mingji Cuomu asserts that the testes and ovary functionally can be considered as being the same as the normative Buddhist understanding of the five (or six) sense faculties.

Here too, Mingji Cuomu makes a rare concession that the Buddhist sources disagree with the medical understanding of the body in relation to the above. Although identifying the testes and ovaries as a sense faculty seems a bit odd in Tibetan Buddhist thought, she argues that we should understand the *bsam se’u* to be as such. In the next passage she asserts that the etymology

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388 *bsam se’u* zhes pa ‘di snod gzhan dang mi ‘dra ba’i dmigs bsal gyi khyad chos ldan te / khaps okar dmar gnyis ni gtso bo byung ba rlung gi nus pa la brten nas smin gyi yod pa dang / rlung nus de yang zungs kyi dgos mkho ltar ’pho ’gyur ’gro yi yod cing bsam se’u yi byed las yang de dang bstun nas ’phos (bud med sbrum ldan skabs) ’gro ba’i rgyu mtshan gyi / dbang rten gcig kho na la bsam se’u rgyos ’dzin byas na lung rig gnyis ka nas mi ‘thad pa’i rgyu mtshan la gzhigs nas bsam se’u zhes pa’i tha snyad de byed las kyi sgo nas btags par ’dod, ibid., 67.
of the term itself reveals that functionally speaking, it is a sense faculty even if it is known conventionally as “testes and ovaries” (*bsam se’u*). She concludes the second segment by writing:

The term, ‘*bsam*’ signifies that it produces the elemental nature of the six senses of the consciousness. And, the term, *se’u*, means something that is small. Each person’s rebirth in samsara is owing to the power of previous lives, and therefore, [such a rebirth is] connected with the ability to propagate the family lineage. Hence, [it is worthwhile to] consider designating the *bsam se’u* as one of the sense faculties based on its function to gather and ripen the white and red elements, which are the innermost essences of the seven bodily constituents.”

Thus, Mingji Cuomu asserts that the term for the ovary and testes itself defines their function as one of the body’s sense organs. In the cases of the ovaries and testicles, their name “*bsam se’u*” means that they are small vessels that ripen and produce the elemental nature of the “six sense consciousness,” or the “six aggregates of consciousness” (*rnam par shes pa tshogs drug*).

Consequently, Mingji Cuomu reasons that because the *bsam se’u* ripen and mature the elemental nature, and are vital in producing the consciousness, the ovaries and testes should be considered as one of the sense organs.

The third segment, “Way of identifying the testes and ovaries as a sense faculty/endocrine gland by researching each of its functions” is divided into five short pieces. These are: “The main and subsidiary branches of the virility [organs] in men” (*skyes pa’i skye ‘phel ma lag*), “The main and subsidiary branches of the fertility [organs] in women” (*bud med kyi skye ‘phel ma lag*), “Examination of the connections among the sense organs/endocrine glands” (*’brel yod dbang rten bzhon la dpyad*), “The special changes that occur during pregnancy” (*sbrum ldan gyi gnas skabs su dmigs bsal gyi ‘gyur ba*), and lastly, “Summary in regards to the definition of the ovary” (*bsam se’u yi ngos ‘dzin skor mjug bsdu ba*).
The first two pieces examine the anatomical and functional features of the male and female reproductive organs respectively. The third piece looks at the system of endocrinological glands. The fourth piece outlines the unique anatomical, functional and endocrinological features of the pregnant body, and within this, includes a large portion that is subtitled, “That which is infused with the inner secretions” (nang gi zags thon nus pa ldan pa) in which the so-called pregnancy hormones are discussed. In the last piece, Mingji Cuomu summarizes her account of reproduction according to the authoritative sources of her native tradition.

Combining Tibetan medical and Chinese biomedical thought, the first piece, “The main and subsidiary branches of the virility [organs] in men,” presents male reproductive anatomy. Together, they give a more detailed picture of the testicle and its primary function which is to ripen the white element, and emit the ‘masculine’ hormone. Notably, this is a rare instance where male anatomy in relation to endocrinology is examined. (Normally, women are the subject of research into hormones in Tibetan medical works on human reproduction.) The following passage is the first piece in its entirety:

The body parts of the man’s genitals have two divisions: displayed and hidden. The ‘invisible’ or ‘inner growth’ parts are principally the testicles and the circulatory paths [that facilitate the movement] of the white element, and, connected to these, three glands.

The “testicle” (睾丸) has the power to establish the white element, and emit the hormone, “androgen” (雄激素), which causes the arousal of the self-nature of method [masculinity]. The ability to store [and] protect the white element, as well as to completely ripen and become that very core nutrition [of the fetus’ body] is allowed by the combined activities of the three: the “epididymis” (附睾) which is the circulatory path for the white element, the “sperm duct” [also known as the “vas deferens”] (輸精管) and the “ejaculatory duct” (射精管). Together, the sperm duct and the ejaculatory duct have the ability to give vent to the white element. Connected to these are the three chief glands: the “gland of

\[\text{In this and every instance in this thesis, the Chinese characters brackets are used in the original source.}\]

\[\text{According to biomedicine, the epididymis is a whitish mass of tightly coiled tubes cupped against the testicles. It acts as maturation and storage space for sperm before they pass into the vas deferens (also known as the sperm duct) that carry sperm to the ampullary gland and prostatic ducts.}\]

\[\text{There is a variation in spelling for the sperm duct: khams ‘dren sbu gu and, in the second instance: khams drangs sbu gu. Their difference lies in the temporal aspect of the verb to ‘draw’, ‘pull’ or ‘induce’ or ‘offer.’ Further, in the following section on women’s reproductive organs, khams ‘dren sbu gu is used to refer to the oviducts.}\]
the seminal vesicle” (精囊腺), the “prostate gland” (前列腺),394 and the “bulbourethral gland” (尿道球腺), which together with “[seminal] alkaline” (碱性) establishes the reproductive fluid of men from the mixing of the white element with the emissions of the of the reproductive hormones. The outer marks of virility are chiefly the two, the penis and the scrotum, as they are commonly known.395

There are a number of important points worth mentioning about Mingji Cuomu’s shared Tibetan medical and biomedical description of the testicle.

According to Mingji Cuomu, the “testicle” (sgong 'bras) performs two functions. The first is to “establish,” “accomplish” or “cultivate” (sgrub)396 the white element, meaning to prepare the white seed to go out and fertilize the female seed. The second function is to emit “androgen,” a biomedical hormone thought to produce and maintain the masculine, “method” (thabs), features of the male body, including the development and ‘management’ of the genitalia. As such, the testicle is understood as one of the organs of the endocrine system in that it produces and transmits a specific hormone which causes transformations at various sites of action throughout the body, including within the organ itself.

Mingji Cuomu indicates and describes the ‘male hormone’ in the following way: “thabs kyi rang bzhin gyi skul rgyu (雄激素) zags 'don bya.” Thabs means “method,” and in this specific context, implies the masculine element, in reference to the Buddhist symbolic pairing of wisdom

394 According to biomedical thought, the prostate gland’s function is to add vital nutrients and fluid to sperm.

395 skyes pa'i skye 'phel mtshan ma la lus kham dkyi phyir mgon pa dang mi mgon pa'i dbyar ba gnyis / phyir mi mgon pa'm nag gi skye 'phel mtshan ma la gtso bo sgong 'bras dang / kham dkar rgyu lam / 'brel yod gsher rmen bcas gsum / sgong 'bras (睾丸) su kham dkar grub nus shing thabs kyi rang bzhin gyi skul rgyu (雄激素) zags 'don bya’o / kham dkar rgyu lam la sgong zur (附睾) dang / kham d'ren sбу gu (输精管) / kham dbyang sбу gu (射精管) bcas gsum du dbyar ba las sgong zur du kham dkar nyar tshags bya nus shing de nyste bcud can du gyur nas legs par smin bcug pa / kham dhang sбу gu dang kham dbyang sбу gu bcas kyi kham dkar phyir 'byin par nus so / 'brel yod gsher rmen la gtso bo gsum yod de / kham dkar snod kyi gsher rmen (精囊腺) dang / ndun chags rmen bu (前列腺) / gcin lam gsher rmen (尿道球腺) bcas gsum las cung zad bul shas (碱性) Idan pa'i gsher khu zags don bya ba de kham dkar dang 'dres nas skyes pa'i khu ba grub bo / phy'i skye 'phel dbang po la gtso bo pho mtshan dang gsgang sgre gnyis yod pa kun gyi shes gsal ltar yin, ibid., 68–9.

(women) and method or means (men). Rang bzhin (like we have seen) refers to something’s or someone’s inherent or definitional “self-nature.” Mingji Cuomu’s noun phrase, skul rgyu, is an innovative term which she translates as “hormones.” Skul is a verb which means to “arouse,” “entreat” and “incite,”\(^{397}\) and coupled with rgyu, meaning to “cause” implies “causing to arouse” or “incite.” Hence, Mingji Cuomu’s word for “hormones”—“that which causes to arouse [changes]”—focuses on their ability to act as chemical messengers that cause other organs and parts of the body to function in particular ways.

The Chinese characters, 雄激素 indicate that the specific hormone, “androgen” is meant. Mingji Cuomu does not translate androgen into Tibetan. Zags means to “dissipate,” “drop,” “leak” or “flow downwards”\(^{398}\) and ‘don translates to “elicit,” cause to emerge” and “eject.”\(^{399}\) Bya is a wide-ranging verb generally meaning “to do,” “to make” or “to perform.” Therefore, Mingji Cuomu’s phrasing to indicate “hormones” in relation to the testicle is that “the testicle emits the hormone androgen, which causes the arousal of the self-nature of method.” Significantly, she writes that it is androgen that compels or causes to emerge the “self-nature of method” (thabs kyi rang bzhin), or in other words, androgen is implicitly a ‘male hormone.’

In the case of male reproductive anatomy, Mingji Cuomu uses both the Chinese biomedical terms (in brackets) and Tibetan terms, many of which are being used in innovative ways or are new medical terms entirely. For example, Mingji Cuomu uses the term, gsher rmen to refer to biomedical understandings of the “glands,” such as the “gland of the vessel that holds the white element” or the “seminal vessel” (khams dkar snod kyi gsher rmen), and the “bulbourethral gland” (gcin lam gsher rmen). The term gsher rmen, while having antecedents in Tibetan medical thought, is a contemporary idea. The first part, gsher translates into English as either “moisture,” “liquid” or “wetness.”\(^{400}\) Rmen bu, while present in the Four Treatises, has a modern usage that typically

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397 Ranjung Yeshi, s.v. “skul.”
398 Ranjung Yeshi, s.v. “zags.”
399 Ranjung Yeshi, s.v. “‘don.”
400 Ranjung Yeshi, s.v. “gsher.”
indicates the “glands” or “nodes.” The term, *gsher rmen*, literally meaning something like the “wet glands” is (as far as I know) a contemporary innovation that specifically identifies certain glands of the reproductive and endocrine system. She also uses the term *rmen bu*, to name the “prostate gland” (*mdun chags rmen bu*), which once again is a contemporary Tibetan medical term used to describe a specific biomedical idea.

Lastly, Mingji Cuomu uses another term, *gsher khu* to indicate the “reproductive” (*khu*) hormones of the “endocrine glands” (*gsher*). Like her earlier term for hormones, *skul rgyu*, she uses similar phrasing to describe the actions of the hormones: *gsher khu zags don bya ba*, that is, “the emission of the endocrine (or reproductive) hormones.” She asserts that the mixing together of the white element with hormones, together with the male reproductive glands and anatomy establishes the reproductive fluid in men. Mingji Cuomu does not elaborate on the outer marks of the male, that is, the penis and scrotum, because they don’t necessitate a discussion of hormones.

Mingji Cuomu then writes about female reproductive anatomy in the following segment:

The inner reproductive anatomy includes the two ‘great channels to the right and left of the uterus,’ together with their related gland, the “ovary” (*卵巢*), the “oviduct” (*输卵管*), “uterus” (*子宫*) and the “vagina” (*阴道*). The source of the red element is the gland related to the two, right and left fallopian tubes. Having the self-nature of wisdom, the hormone “estrogen” (*雌激素*) is emitted [from the ovary]. The oviduct gives vent to the red element and is the path that grasps the white element. The uterus is the support of pregnancy, and likewise is the place where menstruation comes from. The vagina is the pathway for the fetus, and the pathway for menstruation.

Here, the “two large channels to the right and left of the uterus” (*bu snod rtsa chen g.yas g.yon gnyis*) is most likely referring to the “fallopian tubes” as understood in modern biomedicine.

However the precise meaning of the expression is unclear and has been a source of debate

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401 Curiously, the general Tibetan word for the ovary or testes, *bsam se ’u*, is not given, but only the Chinese character, which specifies the “ovary” in brackets.

402 *nang gi skye ‘phel mtshan ma la bu snod rtsa chen g.yas g.yon gnyis dang ’brel ba ’i gsher rmen dang (卵巢) / khaps ’dren sru gu (输输卵管) bu snod (子宫) / mtshan lam (阴道) bcas so / bu snod rtsa chen g.yas g.yon gnyis dang ’brel ba ’i gsher rmen las khams dmar ’byung zhing / shes rab rang bzhin gyi skul rgyu (雌激素) zags ’don byed pa dang / khaps ’dren sru gus khams dmar phyir ’byin pa dang khams dkar ’dzin pa ’i rgyu lam yin pa / bu snod kyis mngal ’dzin skyong bya zhi gling dus babs ltar zla mtshan ’bab pa / mtshan lam ni phru gu skye lam dang zla mtshan ’bab lam yin pa, Sman skyid mtsho mo, Mo nad phal pa ’i nad la zhib ’jug dang gso bcos kyi nyams yig, 69.*
amongst Tibetan medical scholars since the tradition’s early days. In other contexts, including further in this second chapter of Mingji Cuomu’s work, the ‘two great channels’ refer to the pathways between the adrenal glands on top of the kidneys and the ovaries.

Mingji Cuomu uses the same term for “hormone,” skul rgyu, as she did earlier in the section on male bodies. The word for “estrogen” is indicated by its Chinese characters and is not translated into Tibetan. She also indicates that the ovary is a gland of the endocrine system, even though its descriptors rmen bu and gsher rmen are not used to make such a connection.

Mingji Cuomu then explains that the ‘outer mark’ of the man has the self-nature to fit with the ‘inner mark’ of the woman. The ‘inner mark’ of the woman is her physical self-nature. In other words, the penis and vagina manifest to fit one another.

Mingji Cuomu concludes the second segment with the reiterated observation that “both of these, [the ovary and the testicle] possess the ability to directly mature and gather the white and red elements.”

In the third part, “Examination of the connections among the sense organs/endocrine glands” (‘brel yod dbang rten bzhan la dpyad), Mingji Cuomu begins as follows:

Furthermore, for all that to occur, about which I have been writing, it is [made possible] by the power of being connected with the solid organs, which are the adrenal glands (腎上腺) on the top of each of the right and left kidneys. It is from the adrenal glands that the male and female hormones are emitted. Those hormones are able to have the effect of supplementing the maturation of the white and red elements.

Here, Mingji Cuomu points to the connection between the adrenal glands (of the endocrine system) that rest on the solid or vital organ of the kidneys, and the reproductive fluids. She writes that it is from these glands, that the “male and female hormones” (pho mo’i skul rgyu) are

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403 See: Gyatso, Being Human in a Buddhist World, 315–16.

404 ‘di gnyis su kham dkar dmar dngos su smin zhing gsog pa’i nus pa ldan pa’i phyir ro, Sman skyid mtsho mo, Mo nad phal pa’i nad la zhib ’jug dang gso bcos kyi nyams yig, 70.

405 gong gi ngos ‘dzin phud g’zan yang don snod gyi ’brel ‘byor dbang gis mkhal ma g’yas g.yon gnyis kyi steng du gsher rmen (腎上腺) re yod pa dang / de dag las pho mo’i skul rgyu zags don byed cing / skul rgyu de yis kham dkar dmar smin par ram ‘degs kyi nus pa thon thub, ibid., 70.
emitted. Further, it is these male and female hormones that “supplement” (ram ’degs) the maturation of the white and red elements. Like her contemporaries, Mingji Cuomu asserts that hormones are related in some way to the white and red elements. For her, hormones both mix with and act upon the white and red elements. The hormones are not, as other researchers suggest, equivalent to or the same as the white and red elements.

Here too, it is clearer that Mingji Cuomu intends to align the “endocrine glands” (gsher rmen; rmen bu) of the biomedical system with Tibetan understandings of the ovaries and the testes understood as “sense organs” (dbang rten). Mingji Cuomu asserts that the functions of the ovaries and testes are to mature the white and red elements, and thereby produce the reproductive seed which becomes the basis for life, that is, the underlying elemental and organizational grid for the other sense organs. Dove-tailing with biomedical thought, her presentation of hormones is that they act as a kind of chemical messenger that causes other organs and glands to perform their functions. “Hormones” incite and support many of the necessary functions for life, and most importantly, reproduction. It would make sense then, to view the “ovaries and testes” (bsam se ’u), understood as the endocrine glands of biomedicine, as being in function, if not in name, a kind of “sense organ” (dbang rten). As we shall see, she summarizes her viewpoint on this at the conclusion of these parts.

Continuing, Mingji Cuomu makes the case that the biomedical notion that the adrenal glands produce hormones that affect the maturation of the reproductive fluids can also be found in the authoritative works of the Tibetan medical system. She demonstrates this primarily through the Four Treatises and Somarāja. She writes:

From page four hundred and thirty four of the Oral Instruction Tantra: “There are fourteen upper and lower joints surrounding the ovary.” Based on those measurements then, there are thirteen joints underneath the kidney, and the glands on the top of each of the kidneys are the upper boundary. It is this gland (which does the function of emitting the hormones which have the self-nature of wisdom) that by producing the auxiliary power to ripen the white and red drops, makes them suitable to be grasped by the ovary. From the Somarāja:
The activity of the so-called ovary is to be a vessel into which drops drip. Its size depends upon its distension. [The one that] coils to the left of the navel is connected to the left kidney.\(^{406}\)

Mingji Cuomu asserts that long before twentieth-century science established the relations among the adrenal glands on the tops of the kidneys, the thirteen “joints” beneath them, and the ovaries, the *Four Treatises*, *Somarāja* and presumably other authoritative works, *implicitly knew* of this connection. For this reason, research into biomedical understandings of the “hormones” and their links to the endocrine glands can only serve to confirm and enhance Tibetan medical knowledge about the reproductive body.

The fourth segment is concerned specifically with the changes that occur in the woman’s body to accommodate and develop the fetus during pregnancy. The first half details Tibetan understandings of these processes. The second half, sub-titled “Power of inner secretions” (*nang gi zags thon nus pa*),\(^{407}\) targets the biomedically understood hormones as integrated within an overall Tibetan framework of the white and red elements. Beginning from the second half, Mingji Cuomu writes:

Early pregnancy is successively supported by secretions from the “chorion membrane” (绒毛膜) through the “trophoblast cells” (滋养层细胞) which have their origins in the glands [that affect] growth and development. For this reason, the glands which are connected with the big channels to the right and left of the uterus [that is, the ovaries], continually influence the ‘yellow sac,’ the “corpus luteum” (黄体) that is produced inside of them. All of these are able to continue and maintain the pregnancy. Another aspect which successively supports [the pregnancy] is the hormone “estrogen” (雌激素) which has the self-nature of wisdom, and as a pregnancy hormone, directly causes the thickening of the

\(^{406}\) *man ngag rgyud shog grangs 434 nang / bсан se'u tshigs pa bju bzhi'i mtho dman mtshams su gnas yod la / de'i steng gi thosh dam tshigs pa bcu gsum gyi 'og na mkhal ma'i steng du gsher rmen re yod pa de'i gnas mtshams yin pa dang / gsher rmen (shes rab rang bzhin gyi skul rgyu zags 'don bya ba) 'dir yang thig le dkar dmar smin par ram 'degs kyi nus pas thon gyi yod pas bсан se'ur ngo s 'dzin byed rung ste / sman dpyad zla ba'i rgyal bo las / bсан se'u zhes bya'i 'dzag snod de / che chung byed pa skrangs pa' 'dra / lite ba dag nas g.yon du 'khyil / mkhal ma g.yon pa dag dang 'brel, ibid., 70.\(^{407}\)  Ibid., 73.
“decidua” (脱膜) on the inside of the uterus thus becoming the support for the pregnancy.\footnote{sbrum ldan snga dus su ‘tsho skyong rim can phra phung (滋养层细胞) nas spu phran phyi lpags (绒毛膜) zags thon byas te skye ‘phel gsher rmen byung ba dang des bu snod rtsa chen gyas gyon dang ’brel ba i gsher rmen nas byung ba i nang gi ser gzungs (黄体) mu mthud gnas par shugs rkyen thebs pa / de dag gis mu mthud sbrum ldan du gnas par srung ‘dzin dang rgyun khyongs thub pa / gzan yang ‘tsho skyong rim can phra phung nas shes rab rang bzhin skal rgyu (雌激素) dang sbrum rgyu zags don byed pa ma zad bu snod kyi nang lpags (脱膜) mu mthud mthug tu ‘gro rgyu dang sbrum ldan du gnas par ’gan srung byed pa, ibid., 73.}

In this description of the reproductive body during pregnancy, Mingji Cuomu refers almost entirely to biomedical understandings of the hormones, cells, and glands. In this passage, her only direct mention of the Tibetan system is her re-assertion that estrogen is the “hormone with the self-nature of wisdom” (shes rab rang bzhin skul rgyu). As in the earlier sections on reproductive anatomy, Mingji Cuomu uses the term skul rgyu as a general biomedical term for “hormones,” and gsher rmen for “glands.” And, as in other places, Mingji Cuomu does not fully translate biomedical terms. She provides a general Tibetan word, usually a new term or re-interpretation of an old one, for a category of things, such as “hormones” or “glands,” and uses Chinese biomedical characters to specify exactly which one is meant. For example, as seen in the above, she translates “cells” into the Tibetan “phra phung” but specifies, solely through the Chinese characters, that these cells are “trophoblast cells.” The word for “cells” is a contemporary term that re-interprets or expands Tibetan medical ideas. Phra refers to something very fine and subtle, and phung is short for phung po, an “aggregate.” Hence, the Tibetan translation of the biomedical term for “cells” literally means “a very fine or small aggregate.” Similarly, “yellow sac” (ser gzungs) is a modern term that is meant to correspond to the biomedical idea of the “corpus luteum.” The “corpus luteum” is the hormone-secreting sac that develops the egg and gradually perishes after the egg is released from the ovary and moves through the fallopian tubes.

As is evident in the above passages, Mingji Cuomu addresses two important objectives. The first intention is that of integrating Tibetan medical and biomedical knowledge about the body. The second goal is to show that Tibetan medical texts demonstrate knowledge similar to modern biomedicine.
Mingji Cuomu asserts that knowledge about “hormones” and the “glands” of the endocrine system can be established in a range of medical and Buddhist texts, and concludes this part with the following:

It is clearly evident from what has been written that the principal source of the [nutritional] essence for the fetus is the placenta. Moreover, the connection between the white and red drops and the glands [that cause] their growth and development is through the secretions of the hormones that have the self nature of wisdom; by having all of these factors explained, [it is clear that] during pregnancy, the ovary influences the development of the uterus. The authoritative texts of our tradition are capable of establishing and showing similar knowledge.  

In the above summary, Mingji Cuomu indicates that it is the secretions of the hormones that cause the glands to ripen and to develop the red and white elements. She further reasons that during pregnancy, secretions of hormones acting on the ovary cause the changes that the uterus undergoes to grow the fetus. Clearly, she views estrogen as a female hormone, phrasing it as that hormone which manifests the self-nature of wisdom. Finally, she points to the overarching assertion and goal of her work as a whole, which is to show that the authoritative literature of Tibetan medicine (and Buddhism) both show and predate similar insights of modern medicine. Therefore, she asserts that research into the scholarly texts of Tibetan medicine and Tantra yield a reliable source of ‘scientific’ knowledge about the body.

In the final part of this chapter, “Summary in regards to the definition of the ovary” (bsam se’u yi ngos ‘dzin skor mjug bsdu ba) Mingji Cuomu quotes extensively from the Somarāja to show the relations among the ovary, uterus and the “root quintessence of the seed” (sa bon bcud kyi rtsa). Her summary of this final part ties together her assertion that the Tibetan tradition can demonstrate the relations among the glands, the hormones, the reproductive organs and the reproductive seeds. She writes:

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409 zhes bkod ‘dug / gong gi ‘grel bshad las mngal gnas kyi dwangs ma’i ‘byung khungs gsos bo sha ma yin pa gsal bar ‘grel yod cing / lhag par du thig le dkar dmar dang ‘brel ba’i skye ‘phel gyi gsheg rmen rang bzhin shes rab rang bzhin gyi skul rgyu zags ‘don byed pa sogs kyi rgyu mtshan dag la brten nas sbrum ldan gnas skabs su bsam se’u yi nus pa bu snod du ‘phos yod pa de rang re’i gzhung lugs su bstan pa bzhin rig pas sgrub thub pa’o, ibid., 73–4.

410 Referencing an article by Lhamokyi, the expression, “sa bon bcud kyi rtsa” will be examined in more detail in the following chapter of this thesis.
Within its normally understood context, the meaning of what has been written [in Somarāja] is this: In human beings, the egg is recognized as being connected to the gland at the top of the kidneys. In women, the gathering of the root quintessences of the seed at the thirteenth joint is connected with the female genitals. This means that the glands that are connected with the large channels to the right and left of the uterus are understood as the glands at the top of the kidneys.

In this summary, Mingji Cuomu asserts that the “large channels connected to the right and left of the uterus” can be understood as the adrenal glands which, according to biomedical thought, produce the androgens that respectively can be converted into estrogen and testosterone in the ovaries and testes. Therefore, she is showing how the Tibetan texts can establish the endocrinological connections among the adrenal glands, ovaries, testes, and the egg and the sperm.

Mingji Cuomu further summarizes and concludes that according to the authoritative texts of the Tibetan tradition, it can be established that the ovary and the testes have the power to gather and ripen the white and red elements by nature of their being connected to the “endocrine glands” (skul gsher), which she asserts could be understood as being the same in function as the Tibetan medical and buddhist notion of the “sense organs” (dbang rten). She reiterates that the particular changes that happen to the uterus before and during pregnancy, that is, the regular menstrual cycle versus gestating a fetus, depend upon the secretions of the hormones from the ovaries. She writes: “The so-called ovaries and testes are connected to the sense organs and glands by nature of possessing the ability to gather and ripen the white and red elements according to their fluctuations.” Lastly, she writes that this conclusion is in keeping with the “quintessential teachings of scripture and reason” (lung rig man ngag).

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411 Keep in mind, the “thirteenth joint” is the “adrenal gland,” according to Mingji Cuomu.

412 zhes gsungs pa’i don las rgyun ldan gnas skabs su skyes pa la sngon ’bras dang mkhal ma’i steng gi gsher rmen la ngos ’dzin zhing / bud med la tshigs pa bcu gsum pa nas sa bon beud kyi rtsa rnams ’dus nas mo yi mtshan mar ’brel ba de win par gsungs pa las bu snod g.yas g.yon gi rtsa chen dang ’brel ba’i gsher rmen dang mkhal ma’i steng gi gsher rmen du ngos ’dzin / mdor na rang re’i gzhung lugs su bsam se’u yi ngos ’dzin ni / kham dkar dmar gi gryu tshul la gzhigs nas de nyid smin gsog gi nus pa ldan pa’i ’brel yod dbang rten nam gsher rmen dag la bsam se’u zhes brjod pa, 74–5.

413 kham dkar dmar gyi gryu tshul la gzhigs nas de nyid smin gsog gi nus pa ldan pa’i ’brel yod dbang rten nam gsher rmen dag la bsam se’u zhes…, ibid., 75.

414 Ibid., 75.
2.9 Final Remarks on Thupten Püntsok’s and Mingji Cuomu’s Works

Thupten Püntsok’s *Knowledge of the Body in Tibetan Medicine* and Mingji Cuomu’s *Clinical Experience in Treating Obstetric Diseases* have much in common. Central to this study, both works employ textual research to integrate Tibetan medical and biomedical notions of “hormones” and the system of “glands” that produce, synthesize and emit them. In this last section of my second chapter, I highlight some of the similarities between these two works, and conclude that for both authors, biomedicine and Tibetan medicine can establish independent insights into the substances known in English as “hormones.”

In their presentation of ‘modern’ Tibetan medicine, both authors are as dedicated to establishing the authority of Buddhist religious knowledge as they are to adhering to the ‘universal’ tenets of ‘science.’ Thupten Püntsok and Mingji Cuomu both indicate that Buddhism and medical science share many of the same fundamental truths about the body. This is evident by their extensive use of both medical and Buddhist (particularly Tantric) texts to establish contemporary interpretations of the Tibetan medical body. Assertions made about the transmigrating *bardo* being, the locations of the *cakras* and the places of the life-force, and the gendered pairings of wisdom and means, are but a few examples of the explicitly Buddhist ideas making their way into Thupten Püntsok’s and Mingji Cuomu’s works. For them, to be modern and scientific does not mean to be non-religious, and Buddhist thought is a key component in their books.

Thupten Püntsok and Mingji Cuomu assert that the authoritative Tibetan medical (and Buddhist) literature can account for (or show similar knowledge to) biomedical perspectives of the body. They claim that the Tibetan medical tradition has independently established insights into the material substances known today in English as “hormones,” and the “endocrine glands” that emit them.

In their books, Tibetan Buddhism and medicine are shown to be without significant contradiction. Also, biomedicine is presented in such a way as to confirm and to augment the claims of Tibetan medical literature. It may be said that while biomedicine appears to have been
recruited into a supporting role, nevertheless and especially in Mingji Cuomu’s work, biomedicine occupies the central position as the world arbiter of truths about the body. Clearly, biomedicine is an over-reaching authoritative voice in Thupten Püntsok’s and Mingji Cuomu’s works. For Tibetan medical experts, credibility and authority is gained by showing that Tibetan medical and Buddhist knowledge can be seen in ‘modern’ biomedicine. These insights also contribute to their arguments that Tibetan medicine is a ‘world medicine.’

Both authors agree on certain ‘facts’ integrating Tibetan medical and modern biomedical reproductive anatomy and functioning. Similar to other contemporary Tibetan sources, “hormones” are located within the white and red elements (or drops). The white and red reproductive fluids are established as the seventh bodily constituent, and both Mingji Cuomu and Thupten Püntsok state that they emerge from the sixth bodily constituent, “marrow,” understood in its expanded sense as “brain marrow” (klad rkang). Both argue that the textual evidence on brain marrow points to Tibetan knowledge of the “endocrine glands” in the centre of the brain, and their relation to the reproductive organs, fluids and cycles. They both agree that the ovaries (and testicles) mature and emit the reproductive seeds, and further, that the ovary (and testicle) is a gland of the endocrine system that synthesizes and emits hormones which cause other changes in the body. Hence, both authors tap into the central pillars of Western endocrinology, the relationships found among the brain, the endocrine glands, the reproductive organs, the sperm, the egg, and the hormones, which form the microscopic substances that tie these elements altogether.

Mingji Cuomu explicitly asserts that hormones, just like the white and red reproductive elements, organize and activate the masculine and feminine features that manifest in men and women. According to her, testosterone is the ‘male hormone’ and estrogen is the ‘female hormone.’ This trend of perceiving the hormones as producing and maintaining the gender-specific bodies of men and women continues in the other sources of this thesis. Thupten Püntsok is less specific in this regard. Unlike Mingji Cuomu he does not name specific hormones. Nonetheless, like all contemporary Tibetan authors, he adheres to the functional organization of the white and red elements in the bodies of men and women. Both authors remain close to the traditional Tibetan medical view of women’s bodies.
Present-day authors like Mingji Cuomu and Thupten Püntsok find Tantric works that focus on the vajra body to be quite useful in thinking about biomedical ideas of hormones and the endocrine system. One reason is that the language and ideas surrounding “hormones” can be more easily comparable to the vajra body which is described as being activated by very subtle, microscopic, but powerful essences (or materials), that are organized along the gendered lines of the white and red drops. Another reason is that Tantric texts speak to the gender-specific bodies of men and women, and to the sexual activity between those bodies, which is really at the heart of reproduction. Here, Bernard Faure’s insights into the relations among gender, purity, and desire in Buddhism are particularly useful. He argues that the Western scholarly notion of ‘gender’ as an “analytical mode tends to become overly purified, epistemologically but also morally, severed from its rowdier elements, turning at times into a rather aseptic notion…” He further writes that it “may have been necessary to detach gender from sex, but the oblivion or obliteration of sexuality has its own dangers, when the real need is to connect the two (or more) discourses on women/gender and on sex/sexuality.”415 The contemporary Tibetan medical sources on women are in large part, although it is normally implicit, about sexuality and the sexual relations between men and women. Therefore, by looking at the descriptions of hormones and women’s bodies we are looking not only at the “heart of the differentiating process” in terms of ‘gender,’ but also at the sexual (and social) relations between genders.

Given that the study of hormones in the West is also heavily invested in the study of sex (understood as bodies and activities), the Tibetan appeal to Tantric literature that speaks to these topics is not surprising given Tantra’s sexual elements. Hence, this is why it is important for contemporary writers like Mingji Cuomu and Thupten Püntsok to position Buddhist Tantric thought as an authoritative source on the material body. Lastly, as has been noted earlier, throughout Tibetan medical history, Tantric ideas of the vajra body have frequently been enlisted to weigh in on medical debates over ambiguous and unclear texts and their interpretations. Thus, it is perhaps no surprise that notions of the vajra body are a rich resource in today’s debate as to the nature of “hormones” in the Tibetan system.

Lastly, we can see in these two works, ten years apart, how the research into the endocrine system has become more developed in the Tibetan system. While Thupten Püntsok’s work is somewhat tentative in its inclusion of biomedical ideas of “hormones,” Mingji Cuomu’s work makes direct Tibetan translations of biomedical words and includes Chinese characters to specifically name hormones. Yet, neither author ever diverts from the fundamental Tibetan medical framework of gender-specific male and female bodies or the overall Tibetan Buddhist world (and universe) view of the origins of human life. Biomedical ideas fit onto the Tibetan picture in both their works. Both authors present biomedical descriptions of hormones and the reproductive systems in men and women as within the Tibetan blueprint of the seven bodily constituents, the white and red elements, and the body’s system of winds, channels and drops. We will see this trend continue in all of the present-day Tibetan sources.

In the next chapter, I examine two article length works that focus even more narrowly on how hormones are produced from the relations among the brain marrow, digestion and the seven bodily constituents, and the reproductive fluids.
3. Brain Marrow and Reproductive Fluids: A Case for Interpreting Hormones in Authoritative Medical Literature

In this chapter I closely examine two present-day Tibetan medical articles that advance the argument that the Tibetan medical tradition has its own independently established insights into, and knowledge of, the “hormones” that concern Western endocrinology. The two articles are premised on textual research and are technical works that extensively reference a range of authoritative Tibetan medical and Buddhist works. The first article, “Study of Menstruation within the Body of Tibetan Medicine”¹⁴¹⁶ is published by the Arura medical journal, Chinese Tibetan Medicine, and written by Lhamokyi. The second article, “Brief Discussion on the Connection between Reproductive Fluid, Marrow, the Brain and the Ovaries/Testes”¹⁴¹⁷ is by Gönpokyap from his book of essays, Moonbeam of Delightful Jasmine. This chapter will examine how each author constructs the Tibetan medical picture of “hormones” through the authoritative sources of their tradition.

3.1 Lhamokyi on Menstruation

Lhamokyi’s article covers the topic of “menstruation” (zla mtshan) as it is understood in Tibetan medicine. Although her article contains practical knowledge and advice of the mundane day-to-day aspects of the menstrual cycle, including the time of its first onset, intimate care and the appropriate times for sex, Lhamokyi is foremost in making the case that Tibet’s body of authoritative medical literature can be shown to demonstrate knowledge equivalent to, and preceding, biomedical notions of “hormones.” Hence, Lhamokyi presents her interpretation of “hormones” in Tibetan medicine thought through the extensive use of citations from authoritative sources, starting with the fundamental Tibetan definitions of “menstruation.”

Lhamokyi prefaces her article by defining the term “menstruation” (zla mtshan) and why it is important for study. She writes:

¹⁴¹⁶ Zla mtshan gyi rnam par bshad pa blo chung byis pa'i mgul rgyan, Lha mo skyid, 103.

¹⁴¹⁷ Khu ba dang rkang klad pa bsam bse'u bcas kyi 'brel ba'i skor phran tsam gleng ba, Mgon po skyabs, 238.
Menstruation is not only a fundamental condition of mature women’s bodies, but it is also the root and origin of all female disorders such as uterine disease. Because of that, there is an important need to develop a clear understanding and knowledge of menstruation.\footnote{Lhamokyi’s definition of menstruation as being a “fundamental condition” (\textit{gnas lugs}; Skt. \textit{tathātva}/\textit{tathātā}) for women is a common starting place among the present-day Tibetan sources that introduce the topic of women’s bodies. The term, \textit{gnas lugs}, variously meaning “fundamental nature,” “natural condition,” “way of abiding,” “actual situation,” “nature,” “essence” or “truth”\footnote{Tibetan Himalayan Library, s.v. “\textit{gnas lugs}.”} is polysemous in that it allows for a host of possible meanings.}

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\end{quote}

We have already seen in Thupten Püntsok and Mingji Cuomu’s works that the term \textit{gnas lugs} is often used in contemporary sources as a way of describing and defining bodies and their attributes. Herein I examine the term’s historical and philological context because it will help us to better understand how Tibetan ideas of the basic nature of sexed bodies are aligned with the notion of male and female sex hormones.

\begin{quote}
\textit{Gnas lugs} has both medical and Buddhist meanings and is often found as a compound or in conjunction with other terms. For example, \textit{gnas lugs} appears in the title of the immensely influential Buddhist poetic work, \textit{Treasury of the Way of Abiding (Gnas lugs mdzod)}\footnote{Dri med ’od zer, “Yid bzhin mdzod dang gnas lugs mdzod,” in \textit{The Collected Writings (Gsung ’bum) of Dri med ’od zer}, Beijing: Bod ljongs mi dmangs dpe skrun khang, (2009), 14:339–61.} by Longchenpa (also known as Drimé Özer) (Klong chen rab ‘byams pa dri med ‘od zer; 1308 – 1364). He was a seminal teacher of the advanced Tantric practices known as “Great Perfection” (\textit{rdzogs chen}) in the \textit{Nyingma} school of Tibetan Buddhism.\footnote{For more on the author Longchenpa and \textit{The Treasury on the Way of Abiding} see: Gregory A. Hills, “The Rhetoric of Naturalness: A Critical Study of the Gnas Lugs Mdzod” (PhD diss. University of Virginia, 2003); and, David Germano, “Poetic Thought, the Intelligent Universe, and the Mystery of Self: The Tantric Synthesis of rDzogs Chen in Fourteenth Century Tibet” (PhD diss. University of Wisconsin, 1992).} In this text, \textit{gnas lugs} refers to a quality of “suchness” or “thusness” that describes an enduring existence of a buddha “nature” or “essence.” This idea is related to a common Sanskrit epithet for the Buddha,
\end{quote}

\footnote{\textit{zla mtshan ni nar son pa ’i bud med rnam la dmigs su mchis pa ’i lus kyi gnas lugs shig yin pa mad zad / mngal nad sogs mo nad thams cad kyi rtsa ba’ m ’byung gzhi yang yin stabs ’di la rgyus mnga’ dang shes rtogs gsal bo zhig byung rgyu ni shin tu gal ’gangs che, Lha mo skyid, Zla mtshan gyi rnam par bshad, 103.}
Tathāgata, meaning “Thus Gone” or “Thus Come,” which refers to an enlightened being who has transcended samsāra, the cyclical rounds of rebirth and suffering. This idea is further related to the crucial notion of “buddha nature” (de bzin gshegs pa’i snying po; Skt. tathāgatagarbha), which is both the general name for an influential Mahāyāna sūtra and its commentarial tradition, as well as a philosophical idea that has a number of closely related understandings.

According to one reading, the Sanskrit term garbha can be interpreted as referring to either the “womb” or the “embryo,” rendering the expression either, the “embryonic buddha” or the “buddha to be,” hence the “cause” for the buddha’s arising. Conversely, a second interpretation of garbha is that it is the “womb of the buddha,” meaning a being who already possesses the essential attributes of a fully realized buddha, hence the “fruit” of the buddha.422 Another similar interpretation of the phrase, “buddha nature” points to the notions of ‘pure’ and ‘impure’ insofar as the term, garbha can point to the way the womb “covers” or “conceals” one’s buddha-nature.423

Brian Edward Brown suggests that the Tibetan translation of garbha, that is, snying po, which normally means “heart” in Tibetan does not properly refer to the “womb” (usually rendered as mngal). He notes that according to David Seyfort Ruegg’s analysis of the Ratnagotravibhāga, refers to an “embryonic essence,” “kernel,” or “heart.”424 According to this reading, the point is that there exists a buddha “essence,” “nature” or “seed” that is carried by, and exists at the “heart” of all living beings. Hence, in the Treasury on the Way of Abiding, one could say that gnas lugs refers to the ‘suchness’ or ‘way of being’ of the enduring reality of buddha-nature at the seed, kernel, or heart of all sentient beings.

The concept of gnas lugs as referring to an enduring and indestructible Buddha-nature is taken up by Tantra via the Tantric physiology of drops. It is the red and white drops, symbolized

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in Tantra as the male and female principles and their non-dual union, that carry the very subtle quintessence of the body, that is, one’s Buddha-nature. This idea is exemplified in the important twelfth-century Tantric work of which gnas lugs appears in the title, *Nature of the Vajra Body* (*rdo rje lus kyi gnas lugs*) by Phagmo Drupa Dorje Gyalpo (Phag mo gru pa rdo rje rgyal po, 1110 – 1170). In this work, gnas lugs can also generally be said to signify an enduring, quintessential, indestructible and inherent nature of human beings, an underlying Buddha-nature covered by impurities of the mind and body.

*Gnas lugs* also often appears in conjunction with *dngos po* (Skt. vāstu or bhāva), an important Buddhist and medical term denoting something “material” and “substantial” to form *dngos po’i gnas lugs*. It also has a related, often synonymous term, *dngos po’i rang bzhin*, wherein *rang bzhin*, as we have already seen, refers to one’s “self nature,” or “inherent nature.” The terms, *gnas lugs*, *ngo bo* and *rang bzhin* frequently appear either in combination or their own in the contemporary Tibetan medical works on women.

According to Willa Miller, the only work of Indian origin in the Tibetan Buddhist canon to have *dngos po’i gnas lugs* appear in the title is *Training in the Nature of Things* (*Dngos po’i gnas lugs bsgom pa*; Skt. *Mūlaprakṛṭistha-bhāvanād*) by the Paṇḍita Sukhavajra (Nor bu gling pa bde ba’i rdo rje). The Sanskrit original of this work is still extant, and is thought to be a “possible conceptual/linguistic precedent for *dngos po’i gnas lugs*” in later Tibetan Buddhist writings. Paṇḍita Sukhavajra’s works belong to the Sāṃkhya school of Indian philosophy that


427 If we recall, the term *rang bzhin* has already appeared several times in both Mingjo Cuomu and Thupten Püntsok’s works. Mingji Cuomu uses the term to describe the ‘self-nature’ of men’s and women’s bodies and male and female hormones, among other things. Thupten Püntsok uses *rang bzhin* in a number of places as well, such as where he describes the self-arising nature of the seed syllables at the *cakras* and the places of *bla*.

428 Rangjung Yeshi, s.v. “*dngos po’i gnas lugs bsgom pa*.”

429 Bde ba’i rdo rje, “*dngos po’i gnas lugs bsgom pa*,” in Bstan ’gyur (dpe bsdur ma), (Beijing: Krung go’i bod rig pa’i dpe skrun khang, 1994) 26:1570–83.

developed in the early centuries CE in India, and that had close ties to the Indic Tantric tradition. In her analysis of this text, Miller suggests that *dngos po’i gnas lugs* could be translated as “an essential nature that underlies the physical human body.”\(^{431}\) She further suggests that early Indian understandings of terms like *dngos po’i gnas lugs*, despite their distance in time and space, were to become important in the thinking about the body in the Tibetan Buddhist tradition, specifically, the works of Yanggönpa Gyaltsen Pel and his disciples. As noted earlier, Miller also tantalizingly hints that in spite of the fact that texts like the *Training in the Nature of Things* and Tibetan Buddhist compositions on the body were also influential in the development of Tibetan medicine, but research into this area is still lacking.

The use of the term *gnas lugs* in Lhamokyi and others to describe the physical features and attributes of women, and in particular the ability to menstruate, conceive and lactate, tells us a few things. In all of the instances outlined above, *gnas lugs* refers to a fundamental and enduring essence, nature or condition that underlies one’s being. It can refer to the subtlest and most esoteric parts of humans, such as the drops residing in the central channel, and also, it can refer explicitly to the material and substantial things, such as menstruation.

In Lhamokyi and other present-day Tibetan sources, the ability to menstruate is the *gnas lugs*, that is, the fundamental nature of women. Without menstruation, one is *not* a woman. This condition for being a woman is somewhat different from the Western endocrinological view that a woman *normally* has a female phenotype, an XX chromosome, and a ‘feminine’ sexual expression.\(^{432}\) This is not to say, however, that menstruation is not a central topic, and a key site of controlled normacy in biomedicine since the inability to menstruate is considered a medical problem in people deemed biologically female. In the Tibetan sources, the ability to menstruate is explicitly linked to the ability to conceive and gestate a child. Thus, to say that these reproductive abilities are the fundamental nature of women, may perhaps portray a view of women in their roles as mothers and sexual partners. Lastly, as this examination of the Indian and


\(^{432}\) This does not refer to sexual orientation, but rather to sexual behaviours such as ‘mounting’ versus being ‘mounted.’ As noted earlier, sexual expression in animals and humans is actually various and doesn’t necessarily follow strict ‘gender’ or ‘sex’ divisions.
Tibetan precedents of *gnas lugs* shows, the use of this term as a way of describing menstruation as a fundamental condition or the fundamental nature of being a woman can evoke not only medical meanings, but also religious and symbolic ones.

Following the preface, the first section of Lhamokyi’s article is titled “The defining characteristics of menstruation” (*zla mtshan gyi mtshan nyid*). Here, she writes that it is by the action of the downward-clearing wind that, every month for a few days, the “refuse [which is] uterine blood” (*mngal khrag snyigs ma*) is emitted in the form of blood out of the cervix and vagina. She continues that the term “moon” (*zla*), which can also mean “month,” signifies its “monthly occurrence” (*dus kyi zla ba re re*), while “mark” (*mtshan*) refers to that as being a “sign” (*rtags*), or “characteristic” (*mtshan ma*), of a physically mature woman.\(^{433}\)

Lhamokyi supports this definition of menstruation with quotations from two authoritative sources of the Indo-Tibetan tradition. First, she quotes Tagtshang Sherab Rinchen (Stag tshang shes rab rin chen; 1404 – 1477), the influential Sakya scholar-saint who wrote numerous works ranging from Buddhist philosophy, Tantra, to medicine.\(^{434}\) A large number of these works have recently have been republished in Chinese Tibet, making his works politically safe and available to modern writers. Lhamokyi quotes the following from the “Translator Tagtshang:”\(^{435}\)

Like the time of the new moon every month a characteristic sign is the opening of the cervix. The force of wind causes the uterine blood, which is the refuse to trickle out, and that is known as menstruation.\(^{436}\)

In her second reference, Lhamokyi quotes the following from *Moonlight* (a text we have already encountered):

\(^{433}\) Lha mo skyid, *Zla mtshan gyi rnam par bshad*, 103.

\(^{434}\) TBRC: P79.

\(^{435}\) Lhamokyi simply writes *Stag tshang lo tsa’ ba* without the name of the text.

\(^{436}\) *zla ba re bzhin dkar phyogs dus // mngal kha ‘byed pa ’i rtags mtshan du // mngal khrag snyigs ma rlung stobs kyis // ’dzag pa zla mtshan zhes su bshad*, Lha mo skyid, *Zla mtshan gyi rnam par bshad*, 103.
Reproductive fluid is reproductive water. Blood is that which is produced in intervals. Because of this, it is the blood known as menstruation.437

Using these citations, Lhamokyi establishes the terminology and foundation of what “menstruation” is according to her interpretation of the Tibetan sources. In doing so, she points to the important Tibetan concept of someone or something’s “inherent” or “fundamental nature” (chos nyid). Summarizing and explaining her use of these two authoritative sources, Lhamokyi writes:

Generally speaking, at the time of the new moon every month, by virtue of possessing the inherent nature of being a physically mature woman, for three, four or five days, and so forth, the refuse blood which has gathered inside the uterus trickles out.438

Lhamokyi, like her contemporaries, understands that the ability to menstruate is a defining feature of women’s “inherent nature” (chos nyid; Skt. dharmatā). The term chos nyid is polysemous, and its meanings include, “inherent,” “intrinsic” or “innate nature,” a “quality,” “law,” “ultimate nature,” or “suchness.”439 This expression, and its synonymous term “self-nature” (rang bzhin) (also mentioned earlier), are used throughout this and other sources to define the category and characteristics of women’s bodies, particularly in relation to menstruation and “hormones.”

The philosophical view of the term chos nyid is debated in many classes of Indo-Tibetan Buddhist literature. Generally, chos nyid refers to something’s or someone’s intrinsic, inherent and necessary feature. For example, the chos nyid of fire is heat. The chos nyid of water is wetness; without wetness, water ceases to be water.440 Again, this meaning indicates a Buddhist understanding of an essential, inherent and unconditioned nature of reality that cannot be destroyed or reduced into further parts. This is further related to the ‘mind of the Buddha,’ which unobstructed by defilements, and realizing emptiness and non-duality, is cognizant of the true

437 khu ba ni khu chu’o // khrag ni dus tshigs su byung bas zla mtshan zhes bya ba’i khrag go, ibid., 103.

438 nar son pa’i bud med phal mo cher zla ba re re’i dkar phyogs kyi dus la chos nyid ldan pa’i sgo nas nyin gsun mam bzhi lnga sogs la mngal du bsags pa’i khrag snyigs de phyir ’dzag pa la, ibid., 103.

439 Rangjung Yeshi, s.v. “chos nyid.”

nature of existence, which is Buddhist enlightenment. While a discussion of *chos nyid* and similar terms could lead deeply into the “ultimate reality” (*don dam pa*; Skt. *paramārtha*) of Buddhist philosophy, the term also carries more mundane and “relative” (*kun rdzob*; Skt. *saṃvṛti*) medical uses.

In the passage quoted above, Lhamokyi writes that the “inherent nature” of a woman is her ability to menstruate. If that ability is somehow obstructed (and she is female and not a third-gendered person), then medical or perhaps other kinds of cures will be needed to remedy and establish a healthy menstrual cycle. A crucial point here is that despite their disparate aims, in both medical and Buddhist works, both *chos nyid* and *gnas lugs* point to an ‘inherent,’ ‘essential,’ and ‘enduring essence’ or ‘nature’ that defines a being or thing. In using these terms Lhamokyi likewise claims that there is an underlying essential nature of women’s bodies. For her, the menstrual cycle, being, a key element defining the female embodiment, has a primary role in regulating and being regulated by an “inherent nature” intrinsic in female bodies.

Lhamokyi concludes this section, which sets out to define “menstruation,” by naming synonymous terms for the “mark of women” (*bud med kyi mtshan ma*), “lotus menses” (*pad ma rdul*), “lotus flower” (*pad ma’i me tog*), “uterine blood” (*mngal khrag*), “monthly blood” (*zla khrag*), “monthly drop” (*zla zags*), and “uterine vermillion” (*mngal mtshal dag*).

The central aim of this section, which is to define “menstruation,” is accomplished through clarifying the language and meanings of important authoritative sources. Central to the process of defining menstruation is the concept of the essential or intrinsic material nature of women. In her article’s next section, she asserts that the mixing together of the red element with “hormones,” regulates, maintains, and establishes women’s inherent or essential nature.

3.2 Digestion, Menstruation and “Supreme Quintessences”

In the above, Lhamokyi defined menstruation. She now turns her attention to the “The system of becoming menstruation” (*zla mtshan ‘gyur tshul*) by outlining the role of digestion and the making of the white and red elements according to Tibetan medicine. It is also in this

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441 Lha mo skyid, *Zla mtshan gyi rnam par bshad*, 103.
442 Ibid., 104.
section that she lays the groundwork for the central claim of her article, that the core nutrition of
the red element of Tibetan medicine and the “hormones” of biomedicine are describing the same
material substances and physiological phenomenon. Like other contemporary Tibetan medical
sources on women’s bodies, Lhamokyi asserts that menstruation occurs through the process of
digestion, and the system of the “seven bodily constituents” (lus zungs bdun). The role of
digestion, and in particular the relations among the brain, ovaries, marrow, and reproductive
fluids, is central in her comparison of Tibetan medical and biomedical notions of substances
known in English as “hormones.” The following presents Lhamokyi’s discussion of digestion,
which is quite detailed and technical owing to the fact that it is so central to her account of
hormones.

Initially, Lhamokyi describes how foods and drinks of the “six tastes” (ro drug) travel
to the stomach, are broken down into essence and refuse, and move to the liver, becoming the
second bodily constituent, “blood” (khrag). She writes:

Whatever food and drink of the six tastes are consumed, they go to the stomach where the
three digestive heats gradually break down the nutrients and separate the essence from the
refuse. From there [the stomach], the essences travel to the liver through secondary
channels on the surface of the stomach and the intestines. Then, the three heats that
circulate in the liver decompose and digest that essence of the initial food and drink, and
from that, by [further] separating the essence from the refuse, the action of the colour
changing bile transforms the essence into blood.

As Lhamokyi writes, according to the Tibetan system, after the food has been properly digested
in the stomach, its essence, having been shed of the refuse, moves from the stomach to the liver
through a network of channels. There, “the three digestive heats” (me drod gsum) in the liver,
again, break down and separate the refuse from the essence, transforming it into blood. The
“three digestive heats” refers to the three dynamic factors needed to digest food which are the

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443 According to the Four Treatises, the six “tastes” (ro) are “sweet” (mngar), “sour” (skyur),
“salty” (lan tshva) “bitter” (kha), “pungent” (tsha) and “astringent” (bska), G.yu thog yon tan mgon po,
‘Dud rtsi snying po, 63.

444 ro drug khongs su gtogs pa ’i zas skom gang zos pa rnams pho ba ’i gnas su slehs pa ’i tshe pho ba
na gnas pa ’i gtsos bo ’i me drod gsum gyis rim bzhi myag bzhi dwangs nying phyes ba las dwangs ma
rnams pho ba dang rgyu ma ’i ldebs kyi rtsa phran rnams la bgyud nas mchön pa ’i gnas su song / de nas
mchön pa na gnas pa ’i ’khor gyi me drod gsum gyis zas skom gyi thogs ma ’i dwangs ma de myag bzhu
dwangs nying phyes nas dwangs ma de mdangs sgyur mkhris pa ’i byed las kyis khrag tu gyur pa, Lha mo
skyid, Zla mtshan gyi rnam par bshad, 104.
digestive bile, the decomposing phlegm and the fire-accompanying wind. According to the *Four Treatises*, “digestive heat is the basis of all of the digestive system” (*me drod cis bya ’ju ba ’i gZhi yin*).\(^{445}\)

Lhamokyi then describes the network of channels by which the blood moves from the liver to the heart, and from there, is moved throughout the body. She quotes from three authoritative, and somewhat diverse sources. The first is the influential *Eighteen Additional Practices*,\(^{446}\) a collection of writings attributed to Yuthok Yönten Gönpo (twelfth-century) and his students. It contains some of the earliest indigenous Tibetan works still extant, including a history of early Tibetan medicine which, according to Garrett, emphasizes “a presentation of medicine as an essential and original component of Buddhism.”\(^{447}\) The section from *Eighteen Additional Practices* that Lhamokyi quotes concerns the making and dissemination of blood. The passage reads,

Rising upwards in front of the black life channel, the upper ends of the liver and the diaphragm are connected at the place where the heart and the lungs are rooted.\(^{448}\)

Summarizing this, Lhamokyi writes,

Just as it is written [in the *Eighteen Additional Practices*], the strength-producing blood that resides in the liver goes to the heart by means of the black central life channel. The pervasive wind at the heart, by ‘opening and closing,’ continuously pumps the strength-producing blood through the channels, eventually spreading [blood] everywhere in the body.\(^{449}\)

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\(^{446}\) This work has been republished as part of the Arura series: Yon tan mgon po, *Cha lag bco brgyad*, Bod kyi gso ba rig pa ’i gna’ dpe phyogs bsgrigs dpe tshogs, 25 (Beijing: Mi rigs dpe skrun khang, 2005).


\(^{448}\) *srog rtsa nag po de mdun nas yar rgyu ste mchun pa dang mchun dri ‘brel nas yar sna snying dang glo bu gnyis su zug*, Lha mo skyid, *Zla mishan gyi rnam par bshad*, 104.

\(^{449}\) *ces gsungs pa bzhiin mchun par gnas pa ’i zungs khrag rnam srog rtsa nag po brgyud nas snying la song / snying du gnas pa ’i khyab byed rlung gi ’byed ‘dzun byed ps zungs khrag rnamgs rgyun mi chad par rsta ’i nang ’bud pas lus yongs la gtor ba ste*, ibid., 104.
Her second authoritative source on the matter is *A Canopy over a Precious Cloud*, attributed to the fifteenth Karmapa, Khakyab Dorje (Mkha’ khyab rdo rje, 1870/71 – 1921/22), a prominent Buddhist figure in the “non-sectarian” (*ris med*) movement that spread across Tibet beginning in the nineteenth-century. He writes,

> The pervasive wind located at the heart opens and closes the heart’s aperture. And by that action, moves the essences throughout the body. Just like going around in a circle, they [the pervasive winds] spread through the hollow channels.

Lastly, she quotes from the *The Crystal Mirror*, written by Deumar Tenzin Püntshok (De’ dmar dge bshes bstan ‘dzin phun tshogs, 1672 –?), a polymath of the Bön tradition who also has an immense body of Buddhist and medical works attributed to him, many of which have been republished in China. The passage Lhamokyi quotes from his work reads,

> Beneath the throat cavity and above the lower navel spans the pulsating channel [that pumps] the wind and blood that reside there. Connected with the heart are the actions of the life channels, and inside of them, the black life channels circulate the blood, spreading it through very small channels [until it] fully pervades all of the parts of the body. For

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450 *Rin chen sprin gyi lding khang*. I have been unable to verify this source in a Chinese Tibetan copy, however Khakyab Dorje’s collected works have been republished in India. The full title of this work, according to the Indian source is *Mchod phreng nam mkha’ mdzod kyi ’khor lo ’i drwa ba me tog sprin gyi lding khang*.


452 *khyab byed rlung ni snying la gnas // snying gi bu ga ’byed ’dzum byed // de tshe lus kyi dwangs ma’i rgyun // ’khor lo ’khor ltar rtsa sbubs gtor, Lha mo skyid, Zla mtshan gyi rnam par bshad, 104.*

453 *Shel dkar me long*. I have not been able to locate a Chinese publication of this particular text, however at least three of his medical works have been republished in Chinese Tibet, one in Xining. His well-known medical work, *Shel gong shel phreng* has been republished in India, China and the U.S. According to Mona Schrempf, the *Crystal Mirror* is well-known among Bön lineage doctors in Nagchu prefecture, TAR, China (Schrempf, “Bon Lineage Doctors and the Local Transmission of Knowing Medical Practice in Nagchu,” 119.) There is an Indian reprint of *Crystal Mirror* which was reproduced from a manuscript held in the Library of Sog Tsandan dgon. The full title of this work is *me bsta’i gdam pa rgyas spros shel dkar me lon*—see the bibliography for more details.

example, just like a canal draws water from a lake, each and every essence is led to its respective place.\(^{455}\)

The major point that Lhamokyi is making is that several Tibetan sources—from wide-ranging times, places, and religious affiliations—agree as to the nature of how blood moves from the liver to the heart, and then is pumped throughout the rest of the body. Like her contemporaries, Lhamokyi consistently works to show that there are no contradictions amongst the authoritative medical and Buddhist sources of the Tibet’s intellectual way of discerning the body. In this way, Tibet’s medical knowledge appears timeless and without error and thus, its ‘correctness’ (or usefulness) depends on research and new interpretations.

From the production and movement of blood throughout the body, Lhamokyi summarizes how the remaining bodily constituents are made, and narrows her focus onto the reproductive fluid, the seventh and final bodily constituent. She writes:

Just as it is written, the system of how the ‘strength-producing blood’ spreads throughout the entire body is clearly established. From there, the digestive heats that abide in each and every individual body part, gradually, by means of decomposition and digestion separate the essence from the refuse and by this system mature and develop the latter parts of the body.

The *Four Treatises* and its authoritative commentaries very clearly explain [the digestive process], and here, although the explanation is brief, for the time being it is established [by the authoritative literature]. As [it is written in these works], once the reproductive fluid, the last of the bodily constituents, has become totally ripened through gradual stages, its essence and refuse are separated. The essence becomes the body's quintessence and, the refuse, from having gathered in the ovaries, becomes the cause for the seed of conception.\(^{456}\)

\(^{455}\) *ske stong man dang lite ‘og yan bar du // gnas pa’i rlung khrag gnyis ‘dom ‘phar rtsa de // snying dang ‘brel nas srog gnas rtsa byed cing // nang du khrag rgyu srog rtsa nag po bshad // de las gyes pa’i khrag rtsa phra mo yis // stod smad phyi nang kun tu rab khyab nas // dper na rdzing chu yur bur drangs pa ltar // dwangs ma rang rang gnas su ‘dren par byed, Lha mo skyid, Zla mtshan gyi rnam par bshad, 104.*

\(^{456}\) *ces zungs khrag lus kun la khyab tshul gsal kh gtod ‘dug / de nas lus zungs rang rang gi cha na gnas pa’i me drod kyis myag bzhu dwangs snyigs phyre ba las rim bzhin lus zungs phyi ma rnam s’phel zhing smin par ‘gyur tshul rgyud dang gzhung ‘grel khag tu ha cang gsal bor gsungs yod pas ‘dir yig tshogs bskyungs phyir re zhig btag snyoms su bzhag go / de ltar rnam par smin zhung rim gyis gyur nas mthar lus zungs phyi ma khu ba de nyid dwangs snyigs phyre nas dwangs ma lus kyi mdangs dang snyigs ma bsa m se’u yi gnas su bsdu bar byas nas mngal ’dzin sa bon gyi rgyu gyur, ibid., 104.*
This passage says that the digestive heat operating in each of the bodily constituents causes the maturation and separation of the essence and refuse. Lhamokyi’s next statement, that the “essence” (dwangs ma) of reproductive fluid becomes the “quintessence” (mdangs) for the body, and the refuse becomes the reproductive seed is, as we have already seen, a much debated question among contemporary medical writers. Researchers are interested in whether or not the reproductive seed is produced from the essence or from the refuse of the seventh bodily constituent, and how that transformation actually occurs.

Lhamokyi next elaborates on the reproductive seed. At this point she introduces the term “bcud chen po,” meaning “great” or “supreme” “essence,” or “quintessence,” that she alone uses among my primary sources. This phrase, which I translate as “supreme quintessence,” is Lhamokyi’s way of identifying very subtle (or microscopic) substances written about in Tibet’s authoritative literature that are called “hormones” in modern biomedicine. Like Mingji Cumou who uses the phrases, “inner secretions” (nang gi gzags or gzags ‘don) as a general Tibetan derived term alluding to biomedical “hormones,” and “skul rgyu” plus the Chinese biomedical term to name specific hormones, Lhamokyi uses bcud chen po to name a general Tibetan category of ‘hormone-like substances’ and, as we shall see further on, “mo skul rtsi,” literally meaning, “female-arousing nectar” to specify the hormone estrogen. She writes,

Furthermore, in regards to the outer elements, during the time that occurs every month from the sixteenth day of the month, up until and including the thirtieth day, the power of the sun increases. The root quintessence of the seed at the heart of the brain, together with the “supreme quintessence,” establish the materiality of the body’s vital nutrition. The actions of the downward-clearing wind and the pervasive wind cause the brain’s subtle nerve channels and blood channels to transmit and plant the causal power of the white and

457 There could be two interpretations for wording for “heart of the brain” (klad snying) in this instance: in the first, which I think is more likely, she is pointing to the pituitary-hypothalamus complex which is located in the near centre of the brain. Secondly, klad snying is often translated into biomedicine as referring to the cerebellum, the area of the brain where it meets with the spinal cord. Because it is made of two hemispheres and is necessary for much of the bodies key motor functions it is known in biomedicine as the ‘little brain.’ Clearly here though, this is not what Lhamokyi is referring to.
red elements inside the ovaries and testes, wherein they successively increase and ripen becoming either the reproductive seed or the red element.\footnote{de’ng zla ba re re’i hor zla’i tshes bcu drug nas gnas gang gi bar du phyi’i ‘hyung kham nyi ma’i stobs lhag par ‘phel ba’i skabs ‘di rnams la / klad snying sa bon bcud kyi rtsar gnas shing zungs bcud kyi ngo bo grub pa’i bcud chen po de srog ‘dzin rlung dang khyab byed rlung gi bya bas klad pa’i dbang rtsa dang khrag rtsa phra mo rnams brgyud de bsam se u’i nang gi kham dkar dmar gyi rgyu la nus pa thebs nas rim bzhin ‘phel zhing smin te mthar mngal ‘dzin gyi sa bon nam kham dmar la gyur, ibid., 104.}

In this passage, Lhamokyi establishes the Tibetan framework for a central pillar of Western endocrinology, that is, the relation between the brain and the ovaries (and testes). Also, like Western endocrinological studies, she concentrates on how the substances known as the “supreme quintessence” (or “hormones”) are transmitted and move through the body to their sites of action, such as the ovaries.

Lhamokyi asserts that the supreme quintessence is spread throughout the body through the “subtle lymphatic channels and blood channels” (klad pa’i dbang rtsa dang khrag rtsa phra mo rnams), which “transmit” (rgyu) and “plant” (thebs) the “power” (nus pa) of the white and red elements. Further, she states that the supreme quintessences propel the maturation of the red and white reproductive seeds as well as the onset of the menstrual period through the ovaries and testes.

It is clear from Lhamokyi’s description of the “supreme quintessence” (bcud chen po) from the above and further in her article that she is directly referring to a Tibetan interpretation of biomedical notions of “hormones.” In other words, “supreme quintessence” should be understood as a Tibetan word for “hormones.” Hence, Lhamokyi presents a complex integration of Tibetan medical and biomedical ideas that may at first glance, by its very language, seem entirely native to Tibetan medical thought. However, she is directly referring to the biomedical account of hormones and the endocrine system, and using Tibetan medical and Buddhist ideas and language in innovative ways to do so. Therefore, before continuing with Lhamokyi’s interpretation of “hormones” in Tibetan medicine, it is worthwhile to look at bcud, the operative word in bcud chen po, and with it, another closely related term, bdud rtsis, meaning “nectar” or “elixir,” which also appears in the language surrounding and naming “hormones.”
For the remainder of this section I look more closely at the constituent parts of the term that Lhamokyi uses to speak to integrated Tibetan and biomedical notions of “hormones,” namely, *bcud chen po*. In doing so, we are taken, again, to the world of Tantra and ideas of very subtle material substances and core essences and quintessences that make up and circulate in the body. Through this we see another important aspect of the relation between medicine and tantra, that is, the dietary practices that centre on notions of digestion and the refining processes that produce pure ‘essences’ of material elements. Lastly in this section, we will see how the term, *bcud*, is used in another contemporary Tibetan medical setting outside of China, pointing to a trend of reinterpreting Tantric and medical ideas to fit within the context of ‘modern medicine.’

The first part of *bcud chen po*, *bcud* (Skt. *rasa*), is a polyvalent term that can be translated as “essence,” “vital essence,” “elixir,” “nectar,” “juice,” “moisture,” “potency,” “nutrition,” “core nutrition,” “quintessence,” “distillation,” and “distilled essence or drink.” It is often found as part of the conjunction, *bcud len* (Skt. *rasāyana*), meaning “extracting the essence,” which has both medical and Tantric meanings. The practice of “extracting the essence” appears in a number of Tibetan medical works, including the *Four Treatises*, where the term appears chiefly in the chapters dealing with promoting longevity and restoring virility. In both the medical and Buddhist context, *bcud* refers to the very pure and potent essences or vital nutrition that has been “extracted” (*len*) not only from material substances like “flower petals” (*me tog gi bcud len*) and “minerals” (*rdo’i bcud len*), but also from “breath” or “wind” (*rlung gi bcud len*), and even (seemingly) immaterial sources such as Buddha-fields and one’s own meditative “awareness” (*rig pa’i bcud len*). Once extracted and then consumed, the “nectar” or “distilled essence” nourishes the body and its constituents through their absorption by digestion.

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459 Rangjung Yeshi, s.v. “*bcud*.”


Ideas of “extracting the essence” are found in a variety of Buddhist works. Two key areas that have received scholarly attention are within the larger context of “health and longevity” practices (*tshe grub; Skt. āyuḥsādhaṇa), and in the closely related set of texts and practices known as “empowering the medicine” (*sman sgrub). Similar in many ways, “longevity” and “empowering the medicine” are practices that have a long and intertwined textual tradition. Today, both of these practices continue to be ritually performed throughout Tibet, its surrounding regions and in the West.

Works by Frances Garrett, Barbara Gerke and Geoffrey Samuel explain these traditions in considerable detail and breadth, so here, I will only give a brief summary and pay attention to the substances they describe, that is, *bcud* and *bdud rtsis* (Skt. *amṛta*), which is often translated as “elixir,” “nectar,” “juice” and “sap.” *Bdud rtsis* often is found interchangeably with *bcud* in both the “empowering the medicine” and “longevity” works. Both terms, *bcud* and *bdud rtsis* appear in contemporary Tibetan medical works to describe and name “hormones.”

Within the sphere of Buddhist “longevity” or “long-life” practices and texts, of which there are many hundreds in Tibet, an important blueprint for essence extraction still in circulation today is the *Essence of Immortal Life* (*Chi med srog thig*), which first appeared in twelfth-century India. This Tantra centres on the deity Amitāyus (Tshe dpag med), whose name means “Buddha of boundless life,” and features him in sexual union with a female partner. The ritual and meditative practices of the *Essence of Immortal* Tantra are said to produce “universal nectar”—*bcud* or *bdud rtsi*—that can restore lost vitality and lengthen the life span.

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463 Barbara Gerke, “‘Treating the Aged’ and ‘Maintaining Health,’ and *Long Lives and Untimely Deaths.*


In the *Essence of Immortal Life* Tantra, the “nectars” are made of the purest and most refined essences of the five outer elements. As such, they are infused with life-giving properties, which through their digestion, enhances the health of the five inner elements that form the body. This particular idea of *bcud* and *bdud rtsi* draws heavily from the Sanskrit understandings of these terms. According to its Indian understanding, *amṛta* (*bdud rtsi*) is an “immortal nectar” made from the churning of the oceans by the gods at the beginning of time. Therefore, it is a life-giving nectar. *Rasāyana* (*bcud len*), is sometimes translated as “alchemy” because it “refers to a series of pharmaceutical, physiological and meditational practices aimed primarily at the attainment of longevity and ultimately immortality.” Hence, the idea of extracting “immortal nectars” conjures the idea of nutrient-rich properties and substances that prolong and ameliorate life.

The second area where we find overlapping uses of *bcud* and *bdud rtsi* is in the “empowering the medicine” (*sman grub*) practices. The ritual processes described in this work transform medicinal substances into a consecrated “nectar,” or “elixir,” (*bdud rtsi* or *bcud*) said to “empower” or “accomplish” (*grub*) the substances, thereby, increasing their benefit for the patient. The most famous and still utilized work of this genre is the *Yuthok Heart Essence*, attributed to Yuthok Yönten Gönpo the senior, which contains references to both *bdud rtsi* and *bcud len*. This text and its ritual prescriptions show the intersection of Buddhist and medical thought, and underscores the nature of their relation.

Today, as the contemporary sources show, the Buddhist elements of Tibetan medicine are held as authoritative even while their meanings are being debated and reinterpreted to integrate biomedical ideas. For example, the pharmaceutical division of the Dharmasala Men-Tsee-Khang in India manufactures “vitalizing dietary supplements” and “health tonics” that are made from, and advertised as, the extracted essences—*bcud* and *bdud rtsi*. Among these products are the “Invigorating Medicine, Ocean of Assembled Essences” (*stobs sman bcud ’dus rgya mtsho*), a

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466 Ibid., 273.

467 Garrett, “The Alchemy of Accomplishing Medicine (*sman sgrub*).”

tonic supposed to help with sexual stamina;\textsuperscript{469} the “Elixir of Rejuvenation” (\textit{rgas pa gso ba bcud len chen mo}), which is meant to slow down aging and give the body a revitalizing boost, and therefore recommended for elderly patients;\textsuperscript{470} the “Energize the Body” (\textit{gcong chen bcud len}), presumed to provide vital nutrition to the body in order to boost the immune system, and therefore good for chronic illnesses, especially those affecting the immune system; and, the “Life-Span Increasing Nectar” (\textit{tshe 'phel bdud rtsi}), which helps to build the strength of a weakened body so as to prolong life.\textsuperscript{471} In all of these instances, the claimed active ingredient is either \textit{bcud} or \textit{bdud rtsi} purported to be an ultra purified quintessence whose consumption promotes a number of benefits, such as longer life span, or an improved immune system or renewed sexual vigour.

Importantly, \textit{bcud} or \textit{bdud rtsi} are thought to nourish the consumer by moving through their digestion and forming the seven bodily constituents of the body. The meanings associated with \textit{bcud} and \textit{bdud rtsi} in the modern-day dietary supplements and tonics draw equally from shared medical and Tantric understandings and associations. This is made clear in an instructional leaflet included with the “Elixir of Rejuvenation,” which describes “a longevity practice involving visualizations that facilitate the extraction of \textit{bcud} from surrounding elements as well as the recitation of the Amitāyus (Buddha of Long Life) mantra.”\textsuperscript{472}

Terms like \textit{bcud} and \textit{bdud rtsi} are rich in medical, religious and social meanings, giving contemporary thinkers a deep resource to reinterpret and innovate their meanings in accordance with the times. For the same reasons that Tibetan pharmacologists in India use \textit{bcud} to describe a ‘life-enhancing vital essence’ in their products, Lhamokyi uses \textit{bcud} to describe and name shared Tibetan medical and biomedical understandings of “hormones.” In both instances they are thought to be potent, ultra-refined quintessences that are produced by, and have their producing effects, through digestion and other distillation processes. By using \textit{bcud} as a way to name and characterize “hormones,” Lhamokyi asserts that they should be principally understood as

\textsuperscript{469} Ibid., 210.
\textsuperscript{470} Ibid., 212.
\textsuperscript{471} Ibid., 214.
\textsuperscript{472} Ibid., 212.
substances made of the ‘core nutrition’ or ‘vital essence’ that propel growth and change in the body. By identifying them with the white and red elements, Tibetan ideas are not contradicted by biomedical ones, and the integration of biomedically understood “hormones” appears to support, further to explain, and to substantiate, the claims of Tibetan medicine.

3.3 The Relation between the Brain and Reproductive Fluid

After introducing the “supreme quintessences” as a Tibetan term referring to biomedical “hormones,” Lhamokyi enters into a core debate surrounding the nature of hormones and how they are produced in the brain and transmitted from there to the ovaries so as to make the egg ready for conception. Just as her contemporaries indicate, Lhamokyi maintains that Tibetan notions of the red element are compatible with biomedical understandings of hormones.

Like Thupten Püntsok and Mingji Cuomu, Lhamokyi also enters into the debate surrounding the so-called ‘confusion’ over whether menstruation is the essence or refuse of the seventh bodily constituents. In her explanation, Lhamokyi also looks to notions of ‘thick’ and ‘thin,’ by studying the nature of ‘marrow’ and the ‘brain.’ Beyond this debate, she presents two other Tibetan words that are direct translations for specific biomedical terms for “hormones.” In this section, I present each of these issues together with the conclusion of her article.

Lhamokyi’s explanation of the ‘marrow and brain debate’ is as follows:

In regards to this [debate], some people who quote from a limited selection of texts stubbornly insist that from their point of view, because both the brain and marrow have a common material basis, the reproductive fluid must arise in the brain. If the reproductive fluid is perceived in this way, that is, as postulated as being produced in the brain, then it would be necessary for there to be quite large [and] thick male and female sub-channels that would move the reproductive fluid from the brain to the ovaries, given the inherent nature of material substances. [If this were the case], how could that occur given that the reproductive fluid is not only inherently heavy and oily, but sticky too?473

473 ‘di’i thad la kha cig gis klad pa dang rkang gnyis ngo bo gzhi mthun gyi sgo nas gzung ga ge mo zhig las tshig dum bu kha shas lung ’dren byas nas U tshugs tsha bos mtha’ skyel te klad pa las khu ba ’byung bar bshad / gal te mthong chos su gyur pa’i khu ba de klad pa nas ’byung bar brjod na / klad pa nas pho mo tha dad du gnas pa’i bsam se’u dbar khu ba rgyu ba’i rtsa cung sbom pa zhig nges par du yod dgos pa ni dangos po’i chos nyid yin la / ci i phyir khu ba de ni lci snum gyi rang bzhiin can zhig yin pa ma zad ’byar bag dang ldan pas so, Lho ma skyid, Zla mtshan gyi rnam par bshad, 104.”
To understand this passage, we should remember that the sixth bodily constituent is “marrow” (*r kang* *ma*), and through the body’s instillation process, its essence, separated from the refuse, goes on to become the seventh bodily constituent, which is the reproductive fluid.

As I have mentioned earlier, the brain is said to be a kind of marrow. According to this thinking, the term “marrow” applies to several parts of the body. Lhamokyi postulates that if the reproductive fluids originate from the brain, as is claimed by biomedical endocrinology, then there must be a way for them to travel to the reproductive organs. In other words, she explains how it cannot be the case that the egg and the sperm mature *in* the brain (and travel to the ovaries and testicles in that form), but rather they are matured *by* the brain *in* the ovaries and testicles. Hence, to explain how this is so, she first debunks the nonsensical postulation that there could be “thick male and female sub-channels” directly between the brain and the ovaries. She writes:

The way of modern science is very quickly becoming familiar here [in Tibet]. If we use a microscope and other [modern technology] to see subtle [material substances] then even small particles and cells which the physical eye cannot see become clearly visible, just like seeing a sour fruit in the palm of the hand. Thus, if one were to claim that there is a channel that moves the reproductive fluid [directly between the brain and the ovaries], then it not only harms the intended meaning of the Treatises, but it also lacks the capacity to keep up with the new developments. Furthermore, because it is not in keeping with actual reality, other people become critical [of Tibetan medicine] and think it to be senseless.

Therefore, I myself think that at this time when the reproductive fluid is the ‘root quintessence of the seed,’ being heavy and oily, possesses the nature of phlegm. Its “essence” (*d wangs* *ma*) is that which establishes the materiality of the “core nutrition” (*bcud*), and it is clear that the “supreme quintessence,” which is invisible to the naked eye, is not the actual seed of conception.\(^\text{474}\)

\(^{474}\) gsar dar tshan rig gi gom ’gros shin tu mgyogs pa ’i deng gi nyin mo ’dir / phra mthong che shel sogs spyad na chu bur mig gis mi mthong ba ’i ’byung ba ’i rdul phran nam phra phung rnams kyang lag mthil du skyu ru ra bzhag pa ltar gsol bar mthong bas na bshad ma thag pa ’i khu ba ’i rgyu lam de ’dra zhig yod par bzhag na rgyud kyi dgongs don la gnod pa ma zad / gsar gtod kyi nus pa dben zhing dngos yod kyi gnas lugs dang yang mi mthun pas gzhann gyis kyang ’phya ba ’i gnas su ’gyur ba las bab col gyi rigs pa ’di ’dra su zhig gis tshad mar ’dzin / der brten kho mo ’i bsam par skabs ’di ’i sa bon bcud kyi rtsar gnas pa ’i khu ba de ni bad kan lci snum gyi rang bzhin ldan zhi / bcud kyi ngo bo grub pa ’i dwangs shing mig gis mi mngon pa ’i bcud chen po zhig yin pa las mngal ’dzin gyi sa bon dngos min par mngon te, ibid., 104–5.
It is here that Lhamokyi, eschewing ridiculous ideas about the sperm travelling from the brain, really begins to present her position on how the biomedical notions of “hormones” can be understood and interpreted within the Tibetan medical framework.

First, she brings up the idea of the “root quintessence” (or “core nutrition”) of the seed (sa bon bcud kyi rtsa). This term, which we saw briefly in Mingji Cuomu’s work, refers to the very subtle (or microscopic) and powerful embryonic nutritional essence that is matured by digestion into a viable reproductive seed in the ovaries and the testes. Then she makes a few technical clarifications concerning her use of the term bcud in explaining reproduction.

Lhamokyi asserts that the “essence,” the dwangs ma of the “root quintessence of the seed,” the sa bon bcud kyi rtsa, establishes the “core nutrition,” which is the bcud of the reproductive seed when it is in its earliest stages in the brain.

According to Lhamokyi, the “supreme quintessence” (bcud chen po) is a ‘hormone-like substance that is related to but different from the fully matured reproductive seed that comes from the genitals. They both, however, share in the nature of the dynamic of phlegm. Focussing on the dynamic of phlegm, Lhamokyi clarifies its relation to the reproductive fluids further:

The reproductive fluid originates from the “core nutrition” (bcud) of the seven bodily constituents, which are the ripened “essences” (dwangs ma) of consumed food and drink. It is through the [digestive] separations of each of the bodily constituents that the seventh one, the reproductive fluid, which has the nature of phlegm, that is, heaviness and oiliness, has become ‘heavy.’

Here, Lhamokyi asserts that the reproductive fluid, which contains the core nutrition of ripened essences, has the self-nature of phlegm, which has the self-nature of being white in colour, heavy and oily. Thus, she reasons that the sperm and the egg, from their very beginnings as the core nutrition at the root seed in the brain, have the nature of phlegm, and it is through the digestive process, whereby subtle things become more and more coarse, that the phlegm-like nature of the reproductive fluids becomes more manifest.

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475 khu ba ni ‘byung bas grub pa’i zas skom rnams kyi dwangs ma zungs su smin pa’i lus zungs bdun gyi bcud yin pa dang / lus zungs bdun po phyi ma phyi ma lei zhes pa las khu ba de nyid lei snum gyi rang bzhin ldan pa dang, ibid., 105.
Lhamokyi then claims, that despite being different, the “quintessence” (bcud) of the “root quintessence of the seed” (sa bon bcud kyi rtsa) and the “supreme quintessence” (bcud chen po) share in the same self-nature of the phlegm dynamic. She writes:

Therefore, the “supreme quintessence” possesses the self-nature of phlegm’s heaviness and oiliness, whether or not it stays in the upper [parts of the body], or whether or not it descends to the lower parts, that is its inherent material nature. The life-sustaining wind circulating the essence of the core nutrition, controlling the brain’s system of channels [or nerves]. The pervasive wind governs the circulation of the subtle blood channels by which the [reproductive fluid] descends and is carried to the ovaries. From there, by having planted the power to cause parts of the reproductive fluid or red element residing there, [the core supreme quintessence] not only accompanies, but stimulates [the reproductive fluid] to ripen. If one asks, it is not possible to identify a channel [that directly moves the reproductive fluid from the brain to the ovaries]. There is no conflict with the intended meaning of the [Tibetan] texts, including the older texts; there are no contradictions.476

In this passage, Lhamokyi explains how the “supreme quintessences,” that is, the “hormones” cause the reproductive fluid to move from the brain to the genitals by way of the body’s system of winds and channels. She is the only author among the primary sources of this thesis who identifies “hormones” as having the nature of phlegm. In doing so, she is able to show how the Tibetan system can explain the endocrinological claim that the reproductive fluid is ‘planted’ and matured in the ovaries and the testes by way of hormonal ‘messages’ from the brain.

Noteworthy in this passage, is her ability to explain what is an essentially biomedical idea entirely within the language and framework of Tibetan medicine. She invokes Tibetan notions of the phlegm and the wind dynamics, the channels, digestion, and the white and red elements to explain how “supreme quintessences” are produced, synthesized and then circulated within the body. Her use of the term, bcud, as part of a general Tibetan term for “hormones” expands upon already well-established medical and religious ideas connecting quintessences, core nutrition, 

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476 des na bad kan lei snum rang bzhin can gyi bcud chen po de stod na gnas kyang smad du lhung bar byed pa ni dngos po'i chos nyid yin la / bcud kyi dwangs ma'i rgyun srog 'dzin rlung gis kha lo bsgyur pa'i klad pa'i dbang rtsa dang / khyab byed rlung gis kha lo bsgyur pa'i khrag rtsa phra mo rnams la brgyud nas snod kyi bsam se'u'i nang la babs pa'm skyel bar byed / de nas der gnas pa'i khu ba'i cha shas sam khams dmar gyi rgyu la nus pa thebs nas de dag rnam par smin pa la bskul ma dang ram 'degs mi dman pa byed pa ma gtogs rtsa 'di dang 'di'o zhes ngos 'dzin byed rgyu med ce na / gzhung gi dgongs pa dang mi 'gal zhing snga phyi kun la mi mthun pa cher med snang, ibid., 105.
vitality, and sexual and reproductive vigour. Significantly, as she clearly states, her discussion of hormones does not disrupt the Tibetan medical or Buddhist account of the reproductive body.

Following her explanation of how the core nutrition and “supreme quintessences” travel to the ovaries by way of the winds and subtle channels, Lhamokyi describes how conception occurs.

Therefore, at the time when the cervix opens, or at the time of fertility, that red element which has ripened and gathered in the ovaries is carried by the downward-expelling wind from the ovaries to the inside of the uterus through the two [fallopian] tubes. During this time of fertility, if both the male and female seed are flawless, and the male’s white element meets with female’s seed in the uterus, and a *bardo* being’s consciousness is mutually compatible [with the parents], then the gathering [of those conditions] apply [and] that sentient being enters the mother’s uterus, establishing the pregnancy. Or, if the red element does not have the occasion of meeting with the white seed, or [in other words] the mother’s blood and the father’s semen do not intermingle, the *bardo* being does not have an occasion to enter [the uterus], and then that red element loses the ability to conceive, so becomes refuse.477

In this passage, Lhamokyi explains that each monthly cycle of the red element results in a reproductive seed which either becomes a child conceived in the uterus, or in the event that conception does not occur, the refuse that comes out as menstrual blood. In listing the flawless reproductive seeds of the parents, the consciousness of a *bardo* being, and their mutual karmic attraction as requisites for conception, Lhamokyi’s presentation of conception follows the standard Tibetan embryological narrative. Thus, Lhamokyi demonstrates her loyalty and adherence to authoritative Tibetan medical and Buddhist ideas about human life.

Following her outline of the Tibetan account of conception, Lhamokyi focuses for a moment on the refuse of reproductive fluid, the menstrual blood, and in doing so, turns again to “hormones.” She writes:

477 *deltar bsam se'u bsags shing smin pa'i khams dmar de mngal kha 'byed pa'i dus sam mngal len pa'i dus la slebs tshe thur sel rlung gis bsam se'u nas mngal zur gyi khams rgyu ba'i shu gu gnyis la bgyud nas bu snod kyi sbubs su bsnyal / gnas bab de lta bu'i dus su pho mo gnyis kyi sa bon la nyes pa'i skyon med pa dang / mo'i mngal 'dzin sa bon de pho'i khams dkar dang 'phrad pa'i phan tshun gyi las mthun pa'i bar do'i rnam par shes pa zhig de la 'jug par byed pa bcas 'dzoms na ma'i mngal du sems can zhig chags srid / 'on te khams dmar de pho'i sa bon dang 'phrad pa'i skal ba zad pa dang / yang na pho mo gnyis kyi khu khrag lhan cig tu 'dzoms kyang bar do'i sems can ma zhugs tshe khams dmar po de rim bzhin mngal 'dzin pa'i nus pa shor nas ngo bo nyes can gyi snyigs ma'i rnam pa can du gyur te, ibid., 105.*
From the first until the fifteenth [days of the month], the power of the sun decreases and the power of the moon element increases. During that time, the [red element] gathering in the uterus [also] increases. The ‘blood,’ which is refuse, becomes an ‘object of harm’ by gradually increasing. The gathering [of the refuse blood] for a regular interval every month damages the inside surface of the uterus, and from being afflicted thusly, the lining on the inside surface of the uterus becomes rotten. Then, the downward expelling wind moves [the uterine blood] to the outside of the body, becoming menstruation.

Therefore, that which gathers in the ovaries is the refuse of the reproductive fluid, which is the final bodily constituent, which [itself] has been produced by the six tastes of food and drink. From that, the constituents of the seed’s root quintessence, by the power planted by the “supreme quintessence,” resume once again the beginning of a new menstrual cycle.\footnote{\textit{tshes gcig nas bco lnga’i bar ngyi ma’i stobs ‘bri zding zla ba’i kham’s ‘phel ba’i dus der bu snod du gsog cing ‘phel bar byed / de ltar nyes pa dang bcas pa’i khrag snyigs de rim bzhin ‘phel zding bsags nas tshad dang dus nges can zhig ste zla ba re re’i dus tshigs la slebs dus bu snod nang ngos kyi gnos bya rnuams la gnod par byed pa’m nyan pa las bu snod nang ngos kyi skyi pags ral ’drul du gyur nas mbar thur sel rlungs gis lus kyi phyi la’ ded de zla mtshan ‘byung / de nas ro drug gi bza’ btung las byung ba’i lus zungs phyi ma khu ba’i snyigs ma bsam se’ur bsags pa der sa bon bcud kyi rtsa’i zungs bcud chen po’i nus pa thebs nas slar yang zla mtshan gyi ‘khor yun gsar ba zhig gi’ go tshugs kyi yod, ibid., 105.}

In this passage, Lhamokyi points to Tibetan understandings of the lunar cycle and its relation to the red element and menstruation. She is also speaking to and integrating biomedical ideas of hormones. She writes that it is the “supreme quintessence” that “plants the power” to compel the menstrual cycle. Again, biomedical knowledge about hormones are integrated in a way that both fits within and expands (or develops) the Tibetan medical framework.

In the third section of the article, “The time of menstruation,” (zla mtshan ‘bab pa’i dus), Lhamokyi remarks further on the occurrence of menstruation, its duration, its symptoms, and when it first begins. She describes the actions of “hormones” in very close relation to Tibetan ideas of digestion and the making of core nutrition (bcud). And for the first time, she also includes a direct Chinese biomedical term. In the following, she outlines the reasons why young girls do not menstruate. She writes:

Generally, for girls under the age of twelve, the body’s elements grow the quintessences of the body that are produced from the natures of the six tastes of food and drink. Because this energy is used to transform, nourish and grow the bodily constituents, menstruation does not have a cause to occur. In regards to that, according to contemporary medical science, before young women reach physical maturity, menstruation is said not to arise because the function of the “pituitary gland” (垂体) in the brain is not completely mature,
and therefore, there is not enough strength to compel [the growth] of the uterus and the ovaries.\textsuperscript{479}

As in Mingji Cuomu, Lhamokyi includes the Chinese characters for a biomedical term, in this case, the “pituitary gland” of the endocrine system. Lhamokyi refers again to the six tastes, digestion and the resulting “quintessences” (\textit{bcud}) to augment the existing Tibetan tradition with biomedical knowledge about the hormones.

For women over the age of fifty, according to Lhamokyi, “because the power of the body’s elements are diminishing, they become old and their negative emotions grow stronger.”\textsuperscript{480} Due to the quintessence (\textit{mdangs}) and core nutrition (\textit{bcud}) gradually weakening, “the reproductive fluid that establishes the material substance of the core nutrition exhausts, together with the production of menstruation.”\textsuperscript{481} In her explanation of menopausal and post-menopausal women, “hormones” are not mentioned. Instead, she enlists the standard Tibetan medical position on the waning elements of the body during one’s advancing years.

In her discussion on pregnant women and the reasons that they do not normally menstruate, Lhamokyi introduces new terms for “estrogen” and “pregnancy hormones.” She notes that:

According to modern medical texts, the reason that menstruation is not produced during pregnancy is because in that situation, secretions of the “estrogen hormones” (\textit{mo skul rtsi})” arising from the ovaries, together with the “pregnancy hormone” (\textit{sbrum skul rtsi}) establish their potency in the uterus. Because of [the secretions of those hormones], the

\textsuperscript{479} spyir bu mo lo bcu gnyis ma lon pa ’i gong du ro drug gi mtshan nyid can gyi zas skom las byung ba ’i zungs bcud rnams lus khams ’tshar longs dang lus zungs gso skyed kyi gsos su ’gyur stabs zla mtshan ’bab rgyu med / ’di’i thad la deng rabs gso rig gi ’dod pa ltar na lang tsho ma rdzogs gong klad pa ’i ’phyang gzugs (\textit{垂体}) kyi byed nus yongs su ma rdzogs pas bsam se ’u dang bu snod la skal ’ied gtong ba ’i mthu stobs zhan stabs zla mtshan mi ’byung zer, ibid., 106.

\textsuperscript{480} … bzungs ’byung ba ’i stobs nyams nas rgas pa ’i dus te rlung shas che ’i dus la slebs par ’dug, ibid., 106.

\textsuperscript{481} … bcud kyi ngo bor grub pa ’i khu ba zad p dang chabs cig zla mtshan yang mi ’byung, ibid., 106.
lining on the inside of the uterus is supplemented and transformed, and the mother is supplied with the necessary core nutrition [needed to develop] the fetus.\(^{482}\)

In this passage it is striking that Lhamokyi uses a term different than *bcud chen po* to describe and name specific “modern” medical words for “hormones.”

Lhamokyi’s first innovative noun phrase, *mo skul rtsi*, is a translation of the biomedical term “estrogen.” Although estrogen is popularly known as a ‘female hormone,’ it also performs many non-reproductive functions in both male and female (mammalian) bodies. And estrogen has a dominant role in organizing and activating sex-based ‘differences’ from the brain and genitalia to behaviour. Reading the Tibetan more literally, Lhamokyi’s term could be read as ‘female-inducing nectar.’ This is because *mo* is a female marker, *skul* means to “arouse” or “induce,” and *rtsi*, as discussed above in relation to *bdud rtsi* and “Extracting the essence” tradition, refers to either “elixir,” “nectar” or “sap.” Of note, Lhamokyi’s Tibetan translation for “estrogen” as “female-inducing nectar” indicates that she views estrogen to be a ‘female hormone.’ This is common among the present-day Tibetan medical sources.

The second specific hormone that Lhamokyi names is popularly known in the West as the “pregnancy hormone” (*sbrum skul rtsi*), which is more precisely, in biomedical thought, the human chorionic gonadotropin (HCG) hormone. This hormone is said to be produced by the placenta following conception. By interacting with the receptors of the ovaries, the HCG hormone induces (or causes to function) the different parts of the body that establish and maintain the pregnancy. Lhamokyi’s noun phrase for the “pregnancy hormone” is similar to “estrogen” but instead of the female marker *mo* as the first syllable, she uses a word for “pregnancy,” *sbrum*. Hence, literally, Lhamokyi’s term for the HCG hormone could mean ‘pregnancy-inducing hormone.’

Her choice of words in the naming of these hormones can be examined in a few ways. Both ‘female-inducing nectar’ and ‘pregnancy-inducing nectar’ closely mirror their respective

\(^{482}\) *deng rabs gso rig gi gzhung du’ng mngal sbrum pa’i skabs zla mtsan mi ’byung ba’i rgyu mtsan ni bsam se’u las zags thon byung ba’i mo skul rtsi dang sbrum skul rtsi rnams skabs de dang de’i dus su bu snod la nus pa thebs nas bu snod nang skyi sha ma’i cha shas su ’gyur ba la ram ’degs byas te mngal gnas la ma’i zungs bcud mkho sprod hyed pas na zla mtsan mi ’byung*, ibid., 106.
biomedical functional equivalents. In that naming, Lhamokyi reaches to Tantric words and ideas of the vajra body, such as rtsi from bdud rtsi to identify biomedical hormones. In the *Extracting the Essence* and *Empowering the Medicine Tantras*, the terms bcud and bdud rtsi are synonymous and can mean any one of “quintessence,” “nectar,” “elixir” and “sap.” In medicine, bcud also can refer to the “essence” of food and drink, and in those cases is synonymous with dwangs ma. Hence it would seem that in using bcud chen po and skul rtsi, the “hormones” are chiefly identified by terms that are based on shared Tibetan medical and religious ideas surrounding ultra-reified essences in the body. Particularly, in the use of rtsi in such phrases as mo skul rtsi and sbrum skul rtsi, Lhamokyi is asserting that Tantric terms describing the subtle vajra body can be used to translate biomedical terms for “hormones.”

If we recall, Mingji Cuomu used the term, skul, in her term for estrogen, shes rab rang bzhin skul rgyu, literally meaning, “the hormone which induces the inherent self-nature of wisdom.” Wisdom, as noted earlier is a Buddhist euphemism for women. Lhamokyi’s term for estrogen, mo skul rtsi, is similar to Mingji Cuomu’s insofar as pointing to the biomedical understandings of the functions of “hormones.” Although using different terms for “estrogen,” both Mingji Cuomu and Lhamokyi explicitly name estrogen as a ‘female hormone.’

As discussed above, Lhamokyi, like many of her contemporaries, asserts that the proper interpretation of the authoritative literature of Tibetan medicine can establish knowledge of the “hormones” studied in biomedical endocrinology. When Lhamokyi establishes “hormones” in Tibet’s authoritative literature, she uses the very general ‘name-holder’ phrase, “bcud chen po” to indicate ‘hormone-like substances.’ And, when she provides direct Tibetan equivalents, or translations of biomedical words, she uses a more exacting phrase such as mo skul rtsi. Hence, Lhamokyi integrates the two systems, while maintaining a number of Tibetan distinctions, including her central position which is that Tibet had its own independently established understanding of “hormones,” which she terms, bcud chen po.

Continuing her focus on the reasons for menstruation not to occur, Lhamokyi turns to delayed or suspended menstruation. She writes that if, since the first occurrence of the menstrual period, at least two years have passed without menstruation, then the “essential nature of the
menstrual cycle has not yet materialized.” She further, “the essential bodily strength, and specifically the energy and power of the ovary, is not quite complete and not quite mature.” She then writes that women are like a ripened fruit in that they show signs of being “ripe” (dmar mdangs), because mature and healthy women have a “radiant and ruddy red complexion.”

Lhamokyi finds her textual evidence for this assertion, that is, that reproductively mature women show signs of being such, in Gendun Chöphel’s Treatise on Passion. According to him, “femaleness is achieved at the age of thirteen [and] is exhausted at the age of sixty.” Lhamokyi reinforces this statement with a similar quotation from her second authoritative source, the Eight Branches written by Vāgbhaṭa, and translated into Tibetan in the eleventh-century by Rinchen Zangpo.

In this instance, Lhamokyi’s choice of authoritative sources is striking. Gendun Chöphel is an eccentric and iconoclastic figure. He was at one time a renowned, brilliant but controversial monk-scholar, who later disrobed and advocated for the modernization of Tibet. Among his various writings, Treatise of Passion became (perhaps understandably) his most famous. In this work, Gendun Chöphel writes about the methods of sexual pleasure, and his own experiences with and ‘appreciation’ of various kinds of women. What is perhaps unusual is that Treatise on Passion is a sexological work rather than a medical one, and so one might not expect to see it quoted in medical works. But his knowledge of women’s bodies is clearly considered by many present day authors to be authoritative.

Beyond being sexual partners, Gendun Chöphel frequently urges his male readers to value and respect women as equal to themselves. Some of his ideas may seem antiquated to

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483 zla mtshan gyi dus ’khor la da dung chos nyid cher med, ibid., 107.
484 gtso bo lus kyi stobs dang lhag par bsam se ’u’i nus mthu cung zad rdzogs pa tsam las yongs su ma smin pa ste, ibid., 107.
485 Rangjung Yeshi, s.v. “dmar dmangs.”
486 mo ni rang lo bcu gsum lon na // na tshod dar zhung bcu drug lo la rdzogs, ibid., 107. This passage is also quoted in Gönpokyap’s article on Gendun Chöphel: Mgon po skyabs, Gso rig dpyad rtsom kundan dgyes pa ’i zla zer, 25.
487 In his Treatise on Passion, Gendun Chöphel outlines the different categories that included physical features, personality and mental capabilities of men and women.
some readers. For example, he writes that a woman partner is “a goddess,” “a field that producing a good family lineage,” “a nurse,” “a poet,” “a servant who does all of the work of the household,” and a “friend.” Yet in many ways he was an advocate for women’s equality, which was in contradistinction to the social conservatism of the monastic elite of his (and arguably our) day. It is not surprising then that many contemporary writers and gender equality activists in present-day Amdo cite his Treatise on Passion as an authoritative source on women’s rights in Tibet. For example, in her book of interviews with prominent Tibetan women thinkers, Perspectives on Common Discrimination against Tibetan Women, Gönpokyi asks one expert: “Is Gendun Chöphel’s Treatise on Passion, a weapon against the degradation of and discrimination against women?” Hence, it is telling that this same work, Treatise on Passion appears as a medical authority in medical articles, such as Lhamoky’s article on the inner workings of female bodies.

The other authoritative source that Lhamoky refers to in this section is the Eight Branches, an immensely influential work for the development of Tibetan medicine (and other medical systems throughout south and central Asia). Lhamoky’s choice of authoritative sources is revealing of her research methods and the sort of intellectual narrative she is piecing together. In integrating biomedical and Tibetan medical thought on menstruation, she juxtaposes one of the earliest and most influential sources from the Indo-Tibetan tradition with a somewhat notorious sexological work by a famous (and equally notorious) twentieth-century Tibetan intellectual.

In contrast, twenty first-century Western biomedical thinkers tend to view the methods of their scientific systems as a clear break from the earlier, ‘non-scientific’ medical traditions that

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488 Hopkins, Tibetan Arts of Love, 52.

489 Dge ‘dun chos ‘phel gyi ‘dod pa’i bstan bcos kyis bud med la dma’ ‘bebs dang mthong chung byas pa mthson thub bam, Mgon po skyid, Bod mo’i dogs gzhi dang thun mong gi lha tshul (Gansu: Kañ su’u mi rigs dpe skrun khang, 2010), 26.

preceded them. For example, while modern-day biomedicine can trace its lineage to fifth-century BCE classical Greece, it is not common to cite Hippocrates (460 – 377 BCE) as an authoritative medical source in contemporary scientific literature, unless as a sage anecdote about the art of medicine. In the Tibetan case, it is quite the opposite. The details of works like Vāgbhaṭa’s *Eight Branches* constitute a vital source of authority and are engaged as such in their medical research. Similarly, a modern treatise on sexual pleasure is able to show the same insights as a text written over a thousand years earlier on the Indian sub-continent. Her narrative is clear: Tibetan medicine is a continuous tradition that is maintaining and developing scientific knowledge about the body. More importantly, the texts of Tibet’s intellectual world, whether they be strictly medical or not, can constitute authoritative medical knowledge that is both unique and universal and should be researched as such.

What both the *Eight Branches* and *Treatise on Passion* are pointing to, according to Lhamokyi, is that without the bodily strength and energy garnered from the core nutrition of food and drink (and a properly working digestive system), a woman cannot menstruate even if she is of the age to do so. Her larger point is that menstruation is an inherent nature and defining characteristic of woman. She explicitly ties this definition of woman to Buddhist thought through the use of the symbolic gendered pair of wisdom and means. Lhamokyi writes:

> What we are able to know from what has been written, is this: As far as the ‘self-nature of wisdom’ that belongs to females, at sixty years of age the strength of their youth is exhausted. Therefore, the ovaries, and other [reproductive parts]—the faculties of fertility—become devoid of the power to increase the family lineage, that is, to produce and to develop children.

Hence, according to Lhamokyi, so-called menopausal women do not menstruate because their body’s “self-nature of wisdom” (*shes rab rang bzhin*), marked in its youth by signs of fertility, is

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492 *zhes pa’i shugs las nga tsho mtshon thub pa ni shes rab rang bzhin gyi bu mo rnam lo bcu drug ma lon gong du lang tsho’i stobs yongs su ma rdogs pa ste’i bsam se’i sogs ro rtsa’i dbang po la rigs rgyud spel ba dang phru gu gso skyed kyi nus pa dben par mthong ngo, Lha mo skyid, Zla mtshan gyi rnam par bshad*, 107.
no more. It is exhausted by age. Her use of the Buddhist symbolic term for women, “wisdom,” points to the notion of ‘femininity’ and the physical marks that distinguish the female body.

Much like the Western endocrinological explanations, Lhamokyi then cites physical illness, mental or emotional stress, and environmental changes as also being reasons for disruptions of the menstrual period. Lastly, she concludes this sub-section by reiterating women’s “inherent self-nature” (chos nyid rang bzhin): “For each and every woman, her individual menstrual cycle depends on her own inherent self-nature.” Here again, like at the beginning of the article and throughout, Lhamokyi asserts that the ability to menstruate is an inherent nature of women.

Lhamokyi’s consideration of ‘non-menstruating women’ immerses the biomedical understanding of hormones into the context and language of Tibetan thought, principally through understandings of digestion, core essences and the white and red elements. This integration substantiates and maintains the authority of the Tibetan system. At the same time, it expands and reinterprets the meanings of the Tibetan textual tradition so as to innovate and to advance its knowledge, and most importantly for political reasons, to show its signs of ‘contemporary relevancy.’ What is key, is that biomedical hormones and their relation to sex and gender appear to substantiate Tibetan religious and medical ideas that define what a woman essentially is.

Significantly, in the sixth and final section of her article, “The connection between menstruation and the red element,” (zla mtshan dang khams dmar bar gyi 'brel ba) Lhamokyi bases her final analysis of menstruation principally on the Tibetan medical system. In her final summary, Lhamokyi emphasizes that the red element and menstruation have the same “material basis” (ngo bo bzhi), and therefore, the term “red element” encompasses the entire menstrual cycle, including the ovulatory cycle.

In this last section, Lhamokyi reiterates the relations among the brain, the ovaries, the marrow and the reproductive fluids. She writes that the white and red elements and their

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493 *bud med rnams kyi zla mtshan gyi dus ‘khor lo so so rang gi chos nyid rang bzhin yang mchis so*, ibid., 108.

494 Ibid., 109.
respective fluids are produced from the essence of marrow, which includes the brain. She asserts that this is because the brain and marrow share the same material basis, and their relation is based on the metabolizing processes of digestion. Lhamokyi’s reasoning is an implicit nod towards hormones and the endocrinological system of biomedicine.

In conclusion, Lhamokyi’s overall argument is that the Tibetan medical system has, from its very beginnings in the Indian tradition, independently established insights into what contemporarily is called “hormones.” Hence, further research into biomedical notions of “hormones” can only enrich the Tibetan medical system, rather than replace or undermine that system. Lhamokyi’s work shows that the ideas and language of the authoritative Tibetan Buddhist and medical literature can be reinterpreted to integrate the new ‘modern’ knowledge of biomedicine. In fact, Lhamokyi does this so well, that Tibetan medicine remains central throughout her article, while biomedicine, clearly having a much larger authoritative voice both on the global stage of medicine and in Chinese Tibet, appears to play only a supportive, auxiliary role in her article.

3.4 Brain, Marrow and Reproductive Fluid in Gönpokyap

Gönpokyap’s article, “Brief Discussion in regards to the Connections among the Reproductive Fluid, Marrow, Brain and the Ovaries and Testes” is singularly focused on the role of the brain. What is remarkable about this article is that although it is clearly aimed at establishing the Tibetan textual account of the biomedical endocrinological system, “hormones” themselves are not explicitly mentioned. Even more so than Lhamokyi, Gönpokyap concentrates on the Tibetan medical picture of the relation between the ‘brain marrow,’ the ovaries and the testes, by relying exclusively on a wide range of Tibetan sources. This part of the thesis looks closely at how he creates a Tibetan ‘endocrinological’ account of the reproductive body without direct reference to biomedical “hormones.”

Gönpokyap begins his article by describing the seven bodily constituents with a quotation found in both the Root and Explanatory Tantras of the Four Treatises:
By the method of condensing the most important parts of the essences of the bodily constituents, there are seven: essence, blood, flesh, fat, bone, marrow and reproductive fluid.\footnote{lus zungs kyi dwangs ma'i cha rnams ches mdor bs dus sgos dwangs ma khrag sha tshil rus rkang khu ba ba ces bdun gyi khongs su 'dus par byas shing, Mgon po skyabs, Gso rig dpyad rtsom kundan dgyes pa'i zla zer, 238.}

Commenting on this, Gönpokyap writes:

Later generations of people mostly interpreted these root texts in the following way. From the essence comes blood and from blood, flesh; from flesh, fat; from fat, marrow, and from marrow, arises the reproductive fluids. Because it is stated like this, the subject to be explained in this [article] is the brain, because it is difficult to ascertain whether it is the essence or the refuse. For example, according to Ancestral Advice and Blue Beryl, the initial essence comes to reside in the liver. In dependance on the functions of the wind, bile and phlegm [dynamics] that reside in the liver, those essences become exclusively blood. Again, the essence of blood goes to constitute the flesh; those essences [of blood] exclusively become flesh. Likewise, the essence of flesh, goes to constitute fat; the essence of that [flesh] exclusively becomes fat. The essence of fat becomes bone; the essence of bone becomes marrow, and; again from the [essences of] marrow become the reproductive fluids, that is, the white and red elements. Likewise, according to the Eight Branches: “Flesh is from that blood which comes from the essence; bone is from that fat which comes from flesh, and reproductive fluid comes from the marrow which comes from the bone.”\footnote{gzhung tshig ‘dir phyi rabs pas ‘gre ldzad skabs mang che bas dwangs ma las khrag dang khrag las sha / sha las tshil / tshil las rkang / rkang las khu bar ‘gyur zhes gsungs pa las / skabs ‘di’i brjod gzhir gyur ba’i klad pa ni dwangs snyigs gang gi khongs su sgos pa’i nges pa nnyed dka’/ dper na mes po’i zhal lung dang baidürya sngon po du thog ma’i dwangs ma de yang mchun pa’i gnas su slesbs pa’i tshe / mchun pa la gnas pa’i bad mkhris rlung gsun gyi bya ba byas pa la brten nas de’i dwangs ma rnams khrag ‘ba’ zhig tu gyur la / khrag gi dwangs ma de yang sa’i gnas su song ba’i tshe de’i dwangs ma de rnams las sha ‘ba’ zhig tu ‘gyur ro / de bzhin du sha yi dwangs ma de tshil gyi gnas su song ba’i tshe de’i dwangs ma de rnams tshil du ‘gyur zhes / tshil gyi dwangs ma de las ni rus par ‘gyur la / rus pa’i dwangs ma de las rkang mar du ‘gyur ba dang / rkang mar de las kyang khu ba ste kham s kmar dmar du ’gyur ba yin no zhes gsungs / dpa’ bo’i yin lag brgyad pa ru’ng / dwangs ma las khrag de las sha // sha las tshil te de las rus // rus rkang de las khu ba yin, ibid., 238–9.}

According to Gönpokyap, when people read these lines from the early authoritative sources like the Four Treatises, Ancestral Advice, Blue Beryl and the Eight Branches, they normally interpret them as meaning that the essence of marrow, that is the marrow from inside of the bone, becomes the reproductive fluid. They therefore do not associate the ‘brain as marrow’ as being a cause for reproductive fluid because, according to Gönpokyap, it is not mentioned in these lines from the Four Treatises as one of the seven bodily constituents. Gönpokyap’s response to this misreading of the ‘later generations’ is that the four authoritative texts mentioned above are
extremely condensed works that summarize all of the body’s constituents into the seven central categories, and that the brain is therefore not mentioned here. But, he emphasizes, in many of the commentaries of these works, the brain is elaborated upon as marrow, the sixth bodily constituent.

For the remainder of the article, Gönpokyap argues that the brain is already established as marrow in the Tibetan system, and further, is therefore already understood as having a direct relationship to the reproductive fluids, including the menstrual and ovulatory processes. One of the central issues that Gönpokyap examines is whether the brain (understood as the sixth bodily constituent, marrow) is the essence or refuse of ‘bone,’ the fifth bodily constituent. Similar to biomedical endocrinological studies, Gönpokyap is working to establish the physical pathways and mechanisms that produce the relations among the brain and the body’s reproductive parts.

In the second half of his introduction, Gönpokyap introduces two of his primary guiding sources, the Somarāja and Treatise on Passion. He argues that both of these texts confirm the relations among the brain, marrow and reproductive fluids in the Tibetan medical tradition. Setting up his discussion, Gönpokyap writes:

Many people really familiar with these texts basically say that they think that the two white and red reproductive fluids come directly from marrow, but according to the Somarāja:

“In the middle of the ‘heart of the brain,’ or some also say, the ‘centre of the brain,’ is the ‘root quintessence of the seed,’ which increases the health of the body.”

And, according to the authority of Gendun Chöphel’s work, Treatise on Passion:

“Blood is the essence of the human body, and [when it is] gathered together, the essence of blood are the drops.”

According to Gönpokyap, both the Somarāja and the Treatise on Passion show that, within the Tibetan medical tradition, the male and female reproductive fluids arise (indirectly) from the brain. The Somarāja claims that they arise from the “root quintessence of the seed” (sa bon bcud

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497 gzung lugs ’dir rgyus mnga’ che ba’i skye bo gang mang zhig gis rkang las thad kar khu ba dkar dmar gnyis su ’gyur bar bsam / yang so ma ra’ dza ru / klad pa’i snying dang ’brel ba ste // la la klad pa’i rgya yang zer // dbus na sa bon bcud kyi rtsa // lus kyi bde ba rgyas par byed // ces dang / mkhas dbang dge ’dun chos ’phel gnyis mdzad pa’i ’dod pa’i bstan bcos su / skyes pa’i lus kyi dwangs ma khrag yin cing // khrag gi dwangs ma ’dus pa thig le ste, ibid., 239.
kyi rtsa) at the “heart of the brain” (klad pa ’i snying) or the “centre of the brain” (klad pa ’i rgya). However, the connection between the brain and the reproductive fluids may seem less obvious from the Treatise on Passion, unless we consider (according to earlier sources) that the “drops” (thig le) refer to the quintessences (or essence of essences) of the white and red elements that reside at the brain.498

Essentially, both of these texts show that the brain is connected to the reproductive fluid. In this regard, Gönpokyap writes that interpreted correctly, and according to their genre and purpose, the respective viewpoints of all three works, the Four Treatises, Somarāja and Treatise on Passion, can be maintained as correct or true. Like many of his contemporaries, Gönpokyap refers to works that span the Tibetan medical tradition, reaching back to the earliest sources of Āyurveda, to the standard text of Tibetan medicine, the Four Treatises, and to Gendun Chöphel’s twentieth-century treatise on sex. A primary reason for this effort is to show that contemporary interpretations of the authoritative texts are part of a continuous, and long-standing world-class medical tradition.

Gönpokyap divides the remainder of his article into two sections titled, “The connection between the brain and reproductive fluid” (klad pa dang khu ba ’i ‘brel ba), and “The connection between the ovaries/testes and reproductive fluid” (bsam bse ’u dang khu ba ’i ‘brel ba).

On the relation between the brain and reproductive fluid Gönpokyap begins:

The essences of the bodily constituents, are gradually transformed by a sequence of events, to become the marrow inside [the bone] cavities. [Both] the brain, and the inside of the bone or the ‘place on the interior of the bone’ are included as ‘marrow.’499

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498 If we recall, Thupten Pünstok makes this claim. See: Thub bstan phun tshogs, Gso bya lus kyi rnam bshad, 103–4 and 118–120.

499 lus zungs rnams dwangs ma nas rim bzhin phyi mar ‘gyur ba ’i brgyud rim nang sbubs su yod pa ’i rkang rnams su ‘gyur la / klad pa dang gzhung pa ’ing rus sbubs su gnas pas rkang gi khongs su gtogs, ibid., 239–40.
As his first piece of textual evidence to support this claim, Gönpokyap quotes the following from Kyempa Tsewang’s (Skyem pa tshe dbang, fifteenth-century) work, *Commentary to the Explanatory Tantra*:

The ‘digestive bone heat’ belonging to the bone ripen [the essence of the fat], and by separating the essence from the refuse, the essence goes to become marrow. The brain and the inside of the bone are included within the [category of] ‘marrow.’

In this passage, it is explained how marrow, understood as that which is on the inside of the bone and the brain, is produced from fat. The “digestive bone heats” (*rus pa’i me drod*) refers to the digestive heats that exists in each of the seven bodily constituents and are needed to further separate essences from refuse throughout the entire body. As noted above, Lhamokyi stated that the “three heats” refer to the digestive bile, the decomposing phlegm and the fire-accompanying wind. In Kyempa Tsewang’s work, it is explained that the digestive bone heats produce the marrow.

Following from above, Gönpokyap continues to establish how marrow is made, quoting the following from Nāgārjuna’s *Commentary*:

The ‘digestive bone heats’ inside the opening of the bone ripen and separate into the essence and the refuse. The essence of bone goes to the marrow, where the marrow softens [to become] the cartilage of the brain. That essence of the brain is [produced from] the essences of marrow from the inside of the bone. The refuse of the bone becomes teeth,

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502 *rus pa ’rus pa’i me drod kyis smin cing dwangs snyigs phye ba las dwangs ma rkang mar dang // de ’i khongs su gtogs pa klad pa dang gzung par gyur zhes, Mgon po skyabs, Gso rig dpyad rtsom kundan dgyes pa’i zla zer*, 240.

503 Gönpokyap simply refers to this text as Nāgārjuna’s commentary (*Dpal mgon gyi ’grel ba*). Nāgārjuna wrote several important medical commentaries that have been republished in Tibet. I am unsure from which text this particular passage is taken.
fingers, and toe nails. The ‘marrow heats,’ inside the opening of marrow, ripen and separate into essence and refuse. The essence of marrow becomes reproductive fluid.\textsuperscript{504}

According to Gönpokyap, these two passages clearly indicate that the brain is understood to be the essence of marrow. Hence, Gönpokyap writes:

Kyempa Tshewang and Nagarjuna’s thoughts are not at all dissimilar from the \textit{Four Treatises}, \textit{Ancestral Advice} and the \textit{Blue Beryl}. The \textit{Explanatory Tantra} is an extremely condensed [explanation of] the bodily constituents. And, because of that, the \textit{Ancestral Advice} and the \textit{Blue Beryl} are similarly written in an extremely condensed commentarial style.\textsuperscript{505}

Gönpokyap deduces that all these various sources of the Indo-Tibetan medical tradition point to the fact that the brain is marrow. Each of the seven bodily constituents are really, in Gönpokyap’s analysis, a ‘category header’ for a number of body parts and substances that fit under that classification. Hence, “marrow,” includes the marrow that exists inside of bones and the brain. Therefore, according to Gönpokyap, even though the brain is not listed as one of the seven bodily constituents in the \textit{Four Treatises} and its major commentaries, it certainly is considered as such by those sources.

To further support the argument that the brain is indeed included as marrow in the \textit{Four Treatises}, Gönpokyap quotes the following from the chapter on poison: “That which comes from bone, subsequently becomes brain matter, and the brain and [marrow] inside the bone comes from the bone transforming into marrow.”\textsuperscript{506} And further, from the \textit{Explanatory Tantra}, he cites the following: “Exhausted marrow makes the hollow [parts] become empty, causes dizziness, and obscures the eyes.”\textsuperscript{507} According to Gönpokyap, the ‘hollow parts’ refer to the brain, and

\begin{footnotesize}
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\item \textsuperscript{504} \textit{rus pa’i bu gar rus pa’i me drod kyis smin par byas pa las} // \textit{dwangs snyigs gnyis su phye nas rus pa’i dwangs ma rkang mar la yang rkang zhun bu dang lha ba klad pa’o} // \textit{klad pa’i dwangs ma de rkang dang gzhung pa’i dwangs ma rnams so} // \textit{rus pa’i snyigs ma so sen mor ‘gyur ro} // \textit{rkang pa’i bu gar rkang pa’i me drod kyi smin par byas pa las} // \textit{dwangs snyigs gnyis su phye nas} // \textit{rkang gi dwangs ma khu bar ‘gyur zhes gsungs pas so}, ibid., 240.
\item \textsuperscript{505} \textit{de na skyem pa tshe dbang dang dpal mgon gyi dgongs pa rgyud dang mes zhal Baidurya sngon po sogs dang ma mthun pa yin nam zer na} // \textit{de gian nas min te} // \textit{bshad rgyud du lus zungs rnams ches mdor bsdus sgos gsungs shing} // \textit{der mes zhal dang Baidurya sngon po du de bzhin ches mdor bsdus ‘grel ba mdzad la}, ibid., 240.
\item \textsuperscript{506} \textit{rus las klad gzhung rkang du ‘gyur ba’i phyir}, ibid., 240.
\item \textsuperscript{507} \textit{rkang zad sbubs stong mgo mkhor mig ‘grib ‘gyur}, ibid., 240.
\end{itemize}
\end{footnotesize}
when it becomes exhausted, one feels lightness and dizziness in the head. Hence, these examples from the *Four Treatises* show that the brain is definitively the “marrow” (*rkaṅ*) produced from the essence of bone.

The next step for Gönpokyap is to explain how the brain, correctly understood as marrow, produces the reproductive fluid which is the seventh bodily constituent. To do this, Gönpokyap returns to the *Somarāja, Blue Beryl* and *Treatise on Passion* to lay out how “the brain is the actual basis of the arising of the reproductive fluid.”

Gönpokyap quotes the following from *Somarāja*:

> There are four roots of the inner tree. That which is gathered at the head is the wind, which holds the seed for the body. The chakra at the ‘conch shell of Brahman’ is the root seed for the bodily constituents.

The point that Gönpokyap is making in using this somewhat cryptic text is that the chakra at the crown of the head, which is said to hold the drop for the “root seed of the body” (*lus zungs sa bon rtsa*) indicates the brain. Therefore, the brain can be said to be the basis or source for the reproductive fluid. Gönpokyap further supports this idea quite definitively through the *Blue Beryl*, from which he quotes: “The brain and bone marrow ripen the two, white and red seeds.”

After some further reasoning that the brain is clearly understood as a part of marrow, and is the source of the reproductive fluids, Gönpokyap turns to a more modern source demonstrating that the brain is the source of the reproductive fluid, the *Treatise on Passion*. He writes:

> [According to] the authority of Gendun Chöphel’s *Treatise on Passion*, “the essence of the human body is blood, and the gathering of the essence of blood is *thig le*.” It is also written in [the *Treatise on Passion*] that “a mere seven drops of the essence of food establishes one drop of blood in the human body. And roughly one cup of drops of blood establishes roughly one subtle drop of reproductive fluid.” If one is not experienced in [Tibet’s] glorious science of healing they believe that reproductive fluid comes directly from blood.

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508 *khu ba’i ‘byung gzhi dngos klad pa yin*, ibid., 241.


510 *klad pa dang gzhung pa nas sa bon dkar dmar gnyis su smin*, ibid., 241.
But that holy man [Gendun Chöphel] is a person who has great knowledge of the body’s systems. On this occasion, the actual subject matter is [the seven bodily constituents]: from blood, comes flesh. And from that, fat, and from that, bone, and from that, marrow, and from that, the reproductive fluids which have been gathered from the transformative sequence of events that have already been explained.511

In this passage Gönpokyap asserts that although Gendun Chöphel’s *Treatise on Passion* is about sexual pleasure (and its ethical, spiritual and Tantric dimension), he also knew a lot about medicine. Clearly then, argues Gönpokyap, “the seven drops of the essence of food” (*zas kyi khu ba thigs pa bdun tsam*) quoted from Gendun Chöphel, is directly referring to the Tibetan medical understanding of the digestive system and the seven bodily constituents. Therefore, as we can see here, Gönpokyap is working to establish the medical authority of both the person, Gendun Chöphel, and the *Treatise on Passion*. In essence, he interprets the *Treatise on Passion* as being a medically informed sexological work.

Gönpokyap concludes this first section on the relation between the brain and reproductive fluid by pointing to the Buddhist philosophical notion of “cause and effect” or “seed and fruit” (*rgyu ’bras*). He writes:

> Between the two, ‘direct primary cause’ and ‘indirect cause,’ the brain is the ‘indirect cause’ of reproductive fluid. If it were the case that the brain was the ‘direct cause’ of reproductive fluid, then the fruit [semen and the egg] that is produced would not require any middle means, that is, the causes and conditions of transmission and [the brain] would have the causal power to produce [reproductive fluid] on its own. For something to be an ‘indirect cause,’ the ‘effect’ requires a ‘cause’ in order to be produced. [Therefore], for the

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511 *yang mkhas dbang dge ‘dun chos ’phel gyis mdzad pa’i ‘dod pa’i bstan bcos su / skyes pa’i lus kyi dwangs ma khrag yin cing / khrag gi dwangs ma ‘dus pa thig le ste zhes dang / yang de las / zas kyi khu ba thigs pa bdun tsam gyis // mi yi lus la khrag thigs gcig ’grub cing // khrag gi thigs pa dkar yol gang tsam las // khu ba thigs pa phra mo gcig tsam ’grub ces gsungs par / dpal ldan gso rig la rgyus mnga’ / dpen pa’i mi zhig gs btils tshe khrag las thad kar kha bar ’gyur bzhin pa’i snang ba zhig ster mod / dam pa khong nyid de tsam mi rtogs shing mi’i lus kyi shes byar rgyus mnga’ med pa’i skye bu zhig gan nas min / skabs ’di’i brjod don dngos ni khrag nas sha dang / de nas tshil de nas rus de nas rkang de nas khu ba rnams su ’gyur ba’i brgyud rim dag bsdus nas gong ltar gsungs, ibid., 241–2.*
brain to ripen the white and red elements that are needed for pregnancy, it requires the meeting of other causes and conditions, so that is why it cannot be a direct cause.\footnote{klad pa de khu ba ’i dngos rgyu dang brgyud rgyu gnyis las brgyud rgyu yin / dngos rgyu yin tshe rang gi bskyed bya’i ‘bras bu de dang bar du rgyu’i chos gzhana brgyud mi dgos par skyed nus pa ’i rgyu yin dgos shing / brgyud rgyu yin tshe rang gi ‘bras bu de skyed byed yin yang rang gis dngos su skyed par ‘bras bu de ’i rgyun zhig skyed cing de brgyud nas rang gi ‘bras bu de skyed par byed pa ’i rgyu yin dgos pas / klad pa nas bu ’dzin byed kyi khams dkar dmar la smin dgos pa ’i bar du rgyu ’i rkyen gzhana dang ‘phrad dgos pa ’i phyir ro, ibid., 243.}

In this passage, Gönpokyap asserts that the brain is “indirect cause” (\textit{brgyud rgyu}) of the reproductive fluid, arguing that the reproductive seed undergoes transformative stages that are mediated by the digestive system. Like Lhamokyi, he argues that the reproductive fluid cannot be a “direct cause” (\textit{dngos rgyu}) because fully matured reproductive fluids do not move directly from the brain, and through a channel to the ovaries or testes. Therefore, according to Gönpokyap, the brain, acting as ‘marrow,’ the sixth bodily constituent, ripens the white and red reproductive fluids in the testes and ovaries through a complex series of ‘digestive processes.’ How these processes happen is the topic of the second and final section of the essay.

Gönpokyap’s central aim in the last section of his article, “The connection between the ovaries/testes and reproductive fluid,” is to explain how the ovaries and testes function as those vessels of the body that hold and ripen the reproductive fluids by their relation to the brain. To set up his discussion, Gönpokyap quotes from the \textit{Eight Branches}, “all of [the essences of] the elements [of the body] accumulate as the white and red [reproductive elements]. The refuse [of the seven bodily constituents] is what gathers in the vessels of the testes and ovaries.”\footnote{khams kun ‘dus pa dkar dmar gyi // snyigs ma gsog snod bsam bse’u, ibid., 243–4.} Commenting on this, Gönpokyap writes: “As it is said, the ovary is a container that gathers the reproductive fluid, which has been ripened by the brain and dispersed everywhere in the body.”\footnote{zhes gsungs pa ltar bsam bse’u ni klad pa nas smin pa ’i khu ba de lus kyi gang sar khyab pa rnams bsdu gsog byed mkhan gyi gsog snod cig yin, ibid., 244.} For the remainder of the article, Gönpokyap presents Tibetan medical and Tantric sources to substantiate, and demonstrate beyond any doubt, that Tibet’s authoritative literature on the body includes knowledge about the brain and its relation to reproduction. Implicitly, Gönpokyap shows that Tibetan medicine has its own version of the biomedical endocrine system.
One of the first sources that Gönpokyap turns to in order to demonstrate the relation of the brain to the reproductive fluids is a Tantric work by the Nyingma treasure revealer, Dorje Lingpa (Rdo rje gling pa, 1346 – 1405). Gönpokyap writes:

If you ask how the reproductive fluid is successively ripened [beginning] from the brain, and descends through a channel pathway to the reproductive sac, then [it is useful to look at] the channels, winds and drops according to Dorje Lingpa, who writes:

You may wonder from where in the body does the essence of the five elements, known as the ‘drop of the enlightened mind’ descend from? For example, if there is a drop of rain on the top of a tree, whether it is moved by the wind or someone’s hand, or by any other circumstances, the drop, by falling to the ground, moistens the earth and grows the plants and vegetables. Similarly, the essence of the elements of the five elements are dispersed throughout the entire body. And from being in that state, when a person with sexual desire enters into the state of union of bliss and emptiness, the action of the pervasive wind causes that essence, which is the stirring of all of the elements, to gather in the ovary and testes, which is at the thirteenth cakra on the left side. After [gathering] there, the downward clearing wind draws [the essence] downwards from the penis and carries it through the canal to the opening of the uterus. The mother’s downward-clearing wind and grasping wind grasps the seed [that causes] pregnancy.

Here, the principle subject is the “drop of the enlightened mind” (khams byang chub sms kyi thig le) which is a Tantric idiom for the quintessence of the five elements (earth, water, fire, wind and space) that make up the body. In Dorje Lingpa’s account, these essences of the elements are dispersed throughout the body, and when ‘stirred’ through sexual desire and passion, they gather at the ovaries, becoming the reproductive seed. Commenting on this, Gönpokyap writes: “As it says [in Dorje Lingpa’s text], just like earth vapours dissipate in the sky, the [essence of the

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515 TBRC: P6164.
516 klad pa nas rim bzhin smin pa'i khu ba de rgyu lam gang du brten nas gsang sgror babs pa yin zhe na / rdo rje gling ba'i rtsa rlung thig le'i skor las / 'byung lnga'i dwangs ma khams byang chub sms kyi thig le zhes pa de lus gnas gang nas babs pa yin snyam na / dper na lo 'dabs ldan pa'i shing gi rtser char gyi zil ba chags pa de rlung gis g.yos pa'm skyes bu gang dag gi lag pas bskul ba sogs kyi rkyen las zil ba de dag sa yi steng du lhung bas sa ghzi brlan zhing rtsi thog skyes pa ltar / 'byung lnga'i khams kyi dwangs ma rnam las kyi cha shas kun la khyab cing gnas pa las skyes bu gang dga' 'bzhi'i bde ba 'phel te bde stong zung du 'jug pa'i tshe khyab byed rlung gi byed las kyiis khams kun g.yos pa'i dwangs ma de bsam bse'u zhes tshigs pa bcu gsun gyi g.yon ngos kyi rtsa lam der 'dus skabs thur sel rlung gis thur du drangs te padom'i lam nas mngal gyi sbhus su bskyal bas / ma'i thur sel rlung ngam 'dzin 'bri'i rlung gis 'dzin pas mngal chags pa'i sa bon byed pa yin no, Mgon po skyabs, Gso rig dpyad rtsom kundan dgyes pa'i zla zer, 244–5.
As one can imagine, such an account dovetails nicely with biomedical notions of hormones.

Supplementing this, Gönpokyap again quotes the following from Gendun Chöphel’s *Treatise on Passion*:

If material forms are stirred and churned, then their self-essence, that is, their inherent nature is emitted. If clouds are churned then rain falls. If trees are churned, the tongues of fire come out. Similarly the essence of milk is butter, but first, it is milk. Moreover, if milk is churned from being poured in a barrel then it gradually heats up, and from that, the essence (*bcud*) from inside the [milk] separates and rises. Similarly, the essence of blood are the drops. At first, [the drops are] absorbed in the blood. However, if there is ‘churning’ from the joining of the male [and] female [bodies], then the power of desire, [causes] heat to arise in the blood, and the reproductive fluid, similar to butter, arises. Seven drops of the essence of food establishes one drop of blood of the human body, and roughly a bowl of drops of blood establishes roughly one subtle drop of reproductive fluid.518

Here we see more examples of the Tibetan penchant for using metaphors of milk, butter-making and “churning” (*bsrub pa*). This aside, Gönpokyap is attempting to show a few things by quoting this passage from *Treatise on Passion*.

Principally, Gendun Chöphel is speaking to the “inherent nature” (*chos nyid*) of material things. As we have been reading, when things become heated, digested or metabolized in the body, the “essence” (*dwangs ma*) is separated from the refuse. The “quintessence,” (*bcud* or *mdangs*) or “drops” (*thig le*) are the ultra distilled ‘super essences’ which have been produced through many stages and transformations owing to the digestive process. In the above passage, Gendun Chöphel is asserting that similar to butter being separated from the milk by being heated, the reproductive fluids ripen in the testes and ovaries by being ‘heated’ with sexual pleasure.

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517 zhes gsungs pa ltar sa ’i rlangs pa nam mkhar ’thim pa ’i dpe bzhin bsam bse ’u ’i gnas su gsog, ibid., 145.

518 gzugs can dngos po dkrugs shing bsrub pa na // rang gi snying bo ’byin pa chos nyid de // sprin dag bsrubs na char ba ’i rgyun ’bebs shing // shing dag bsrubs na me lce ’byung ba ’dra // de bzhin ’o ma ’i bcud ni mar yin kyang // dang po ’o ma ’i nang du ’dres te gnas // ’on kyang zom du blugs nas dkorugs pa na // ’o ma rlams la rim gyis drod lngas nas // nang gi bcud rlams thon nas zur du ’ong // de bzhin khrag gi dwangs ma thig le yang // dang po khrag gi nang du thin nas yod // ’on kyang pho mo sbyar nas bsrubs pa na // chags pa ’i stobs kyi khrag la drod langs nas // mar dang ’dra ba ’i khu ba ’thon te ’ong // zas kyi khu ba thigs pa bdun tsam gyis mi yi lus la khrag thigs geig ’grub cing // khrag gi thigs pa dkar yol gang tsam las // khu ba ’i thigs pa phra mo geig tsam ’grub, ibid., 245
This is because the drops, which originated in the brain, are dispersed throughout the body and through the action of sexual heat, they separate and the essence goes to ripen the white and red reproductive fluids in the testes and ovaries. It is therefore, not by a direct ‘channel,’ or ‘path’ that reproductive fluid moves from the brain to the testes and ovaries, but by complex processes of circulation and distillation.

If we recall, Gönpokyap’s central aim for this section is to explain how the white and red reproductive fluids, the seventh bodily constituents, are produced in and compelled by the brain, understood as marrow, the sixth bodily constituent, to descend downwards to the testes and ovaries where they are matured into viable reproductive seeds. Therefore, he asked by which “pathways” (lam) or “channels” (rtsa) the seventh bodily constituent moves from the brain, where it originates, to the reproductive sac. Gönpokyap finds his answer by looking at the vajra body and the sexual aspects of Tantra according to Dorje Lingpa and Gendun Chöphel. A reason for this is because both of these sources can speak to extremely subtle ‘essences’ that are dispersed throughout the body and have a crucial role in sexual behaviour and reproduction. It is telling that here Gönpokyap does not turn to medical sources to explain how ‘the root quintessence of the seed’ located at the centre of the brain is compelled to descend to the reproductive sacs to become ripened seeds. This is in large part because Gönpokyap is speaking (or providing the Tibetan answer) to the biomedical account of the endocrinological system.

Gönpokyap’s summary of these two passages from Dorje Lingpa and Gendun Chöphel centres on establishing the relation of the brain to the testes and ovaries and the reproductive fluids. He writes:

The underlying meaning of what has been written [by Dorje Lingpa and Gendun Chöphel] in the passages above is that parts of the reproductive fluids pervade the entire body. As for that reproductive fluid which is pervasive, if one has the ‘mark’ of being male, then at the time of coitus it is transmitted to the principal reproductive organ, falling to the scrotum. Here, the action of descending is necessarily by the inducing power of the brain. It is because of that ‘inducing power’ that parts [of the reproductive fluids] spread everywhere in the body. Just like butter is drawn from milk, because of the circulation of blood, parts
of [the body’s essences] will necessarily end up being gathered in the reproductive organ of the scrotum.\textsuperscript{519}

In this passage, Gönpokyap writes that it is the “inducing power” (skul nus) of the brain that causes the red and white reproductive fluids to descend to the ovaries and testes to be ripened into the seed for conception. If we recall, the term, skul, meaning to “arouse” and “incite,” appears in both Mingji Cuomu’s and Lhamokyi’s works to indicate “estrogen.” Mingji Cuomu uses the phrase, shes rab rang bzhin skul rgyu, literally meaning, “the hormone (or, that which causes) the inducement of the inherent self-nature of wisdom,” and Lhamokyi employs the noun phrase, mo skul rtsi, which can be translated as “female-arousing nectar.” In these two works, the term skul is used in part for the author’s own particular translation for biomedical “hormone”—skul rgyu and skul rtsi. Although Gönpokyap does not use skul to directly indicate “hormones” like other contemporary authors do, he shares in their language to describe the particular function of the brain to plant and ripen the reproductive fluids.

Further in his summary of the Dorje Lingpa and Gendun Chöphel works, Gönpokyap implicitly alludes to the biomedical endocrinological system and its role in the reproductive body. He does not directly name the “adrenal glands” of biomedicine, but refers to their possible interpretation in the Tibetan system by writing that the reproductive fluids gather “first underneath the thirteenth joint [or rib]” (thog mar tshigs pa bcu gsum ‘og ‘dus) before moving to the ovaries and testes where they are ripened. Mingji Cuomu similarly interpreted the “thirteenth joint” of Tibetan medicine as the “adrenal glands” on the top of the kidneys according to biomedicine.

In his final analysis, Gönpokyap returns to the brain and its role in producing and directing the reproductive fluids in the testes and ovaries. He reiterates an early quote he began from the Somarāja: “In the middle of the ‘heart of the brain,’ or some also say, the ‘centre of the brain,’ is the ‘root quintessence of the seed,’ which increases the health of the body.” Here,

\textsuperscript{519} ces gsungs pa yang gong gi dgongs don dang gcig tu ‘khums te / de ni khu ba’i cha rnams lus kyi gang sar khyab yod cing khyab yod pa’i khu ba de phor mthshon na ‘khrig sbyor skabs gtso bo’i bsam bse’u’i gnas brgyud de gsang sgror ‘bab / ‘dir ‘bab par byed pa klad pa’i skul nus dgos shing / skul nus der brten nas lus kyi gang sar khyab pa’i cha rnams ’o ma las mar bion pa bzhin khrag gi ’khor skyod du brten te mjug mthar cha shas kyi bsam bse’u gnas gsang sgror gsogs dgos pas so, ibid., 245–6.
Gönspokyap is showing that it is not only the ‘brain as marrow,’ the sixth bodily constituent that creates the reproductive fluids, but also a specific part of the brain, that is the “heart of the brain” \((k\text{lad} \text{ pa}’i \text{ snying})\) or “the centre of the brain,” \((k\text{lad} \text{ pa}’i \text{ rgya})\), phrases we have seen in other contemporary and authoritative sources.

Gönspokyap then returns to the question of how the reproductive fluid moves from the brain to the ovaries and testes by looking again to the *Four Treatises*. He writes:

> According to what has been [written], there is no direct path for the white and red elements to [move] directly from the brain to the ovaries and testes. According to the *Four Treatises*:
> 
> “The brain is a great ocean of channels and acts just as a root projecting downwards. [Of the channels,] there are nineteen functional channels.\(^{520}\)"

Gönspokyap then explains what he means by quoting this passage from the *Four Treatises*. He notes:

> The ‘root’ [which house the quintessential seed] is included among the ‘nineteen channels,’ but really, this is not understood as being literal, but rather, the expression, ‘nineteen channels’ is but an approximate [or] gross [as in counting only the coarser or thicker channels] statement. Otherwise, there is no question that what is being said is that there are many, many functioning white channels. For that reason, it is from the brain that the quintessential root of the seed originates, and it is from the brain’s workings that the white and red elements which have spread everywhere in the body gather together [in the ovaries], just as it has been described.\(^{521}\)

In that conclusion, Gönspokyap assures the reader that there is no doubt that the reproductive fluids originate from a root source in the brain, and as they move all around the body through the extremely subtle white channels, are transformed either into the mature sperm emitted from the testicles, or into the mature egg emitted from the ovaries.

\(^{520}\) *gzhan yang so ma ra dza ru / klad pa’i snying dang ‘brel ba ste // la la klad pa’i rgya yang zer // dbus na sa bon bcud kyi rtsa // lus kyi bde ba rgyas par byed // ces gsungs pa de ni klad pa nas khams dkar dmar thad kar bsam bse’u ru rgyu sa’i nges gtan gyi lam zhih min la / de yang rgyud las / klad pa rtsa yi rgya mtiho chen po las // rtsa ba lta bur thur du zug pa yi // bya ba byed pa’i chu rtsa bcud dgu yod, ibid.*, 246.

\(^{521}\) *ces gsungs pa’i rtsa bcu dgu po’i khongs su rtsa ‘di thad kar mi gtogs kyang bcu dgu zhes pa ni rags pa’i dbang du gsungs pa las de min gyi bya ba byed pa’i chu rtsa gang mang yod pa’ng smras med yin / de’i rkyen gys klad pa las byung ba’i sa bon bcud kyi rtsa ‘di’i byed las kyiis lus kyi gang sar khyab pa’i khams dkar dmar lhan cig bsdu bar byed pas na de bzhin brjod do, ibid.*, 246–7.
In this article Gönpokyap does not explicitly refer to biomedical notions of hormones. He is indirectly responding to them by establishing the Tibetan precedents for thinking about “hormones” as substances that propel growth and connect the brain with the testes, ovaries, and the reproductive fluids. In that frame of reference, biomedical notions of hormones can quite seamlessly be integrated with, or at least confirm and not contradict, Tibetan medical and Buddhist conceptions of the body.

Similarly to the contemporary researchers we have seen above, Gönpokyap presents a textually based argument showing that key endocrinological insights were already present in the earliest Indic, and Tibetan medical, and Tantric sources of the tradition. In this way Gönpokyap needed only to allude to “hormones.” In framing the biomedical understanding of hormones as something already present in the Tibetan tradition, these biochemicals do not appear either to be new or foreign, but rather as a confirmation, or another way of speaking of the same material substances and their functions in the body. For this reason, I think that his exclusion of any direct mention of hormones is strategic. He is clearly motioning towards their current state of being integrated with Tibetan medical literature, yet he sticks to an entirely Tibetan description for what he and others claim is the same phenomenon that biomedicine describes. In this way, Tibetan medicine is presented as being in confluence with other national medical traditions, thus representing an objective that Tibetan medical writers are eager to show.

3.6 Concluding Remarks on Lhamokyi’s and Gönpokyap’s Works

In this section we examined two contemporary Tibetan medical works that looked specifically to the mechanisms by which the reproductive fluids, which began as tiny microscopic materials in the brain, are successively transformed and moved to the ovaries and testes to be matured into the reproductive seed. Lhamokyi and Gönpokyap are interested in this question primarily because modern Chinese Tibetan medicine must be able to account for biomedical notions of the hormones and the endocrine system. To this end, both authors research and expand upon the meanings of Tibetan medical and Buddhist texts in order to establish a Tibetan understanding that integrates biomedical ideas of the relations of the brain and the reproductive body. Lhamokyi and Gönpokyap, it could be said, present quite convincing
evidence to support the argument that Tibetan medicine already has its own pre-modern knowledge of substances like “hormones.” Both authors borrow from the Tantric vision of the vajra body, as well as the medical literature, to first establish and then to integrate these Tibetan insights with the biomedical notions of hormones. The only significant difference between the Lhamokyi and Gönpokyap writings is that the former directly names and translates “hormones” into Tibetan from the Chinese while the latter’s article is largely an implicit nod to the biomedical endocrinological system.

It is significant that all of the contemporary Tibetan medical writers shown above looked to both the medical body and the Tantric body of winds, channels and drops to understand and interpret biomedical notions of “hormones.” Thupten Püntsok, Mingji Cuomu, Lhamokyi and Gönpokyap explicitly assume Buddhist understandings of the body, and make liberal use of Tantric language and thought to interpret biomedical notions of hormones in relation to the Tibetan authoritative medical literature. Words that cross over medical and Buddhist meanings, such as chos nyid, thig le, and bcud, appear throughout the present-day sources.

Crucially, authors tell us directly and through the authors and works they quote from, that the best way to understand how very subtle materials circulate and function at various sites of the body is by looking at the intersection of biomedicine and Tantra. So far, in the integration of “hormones,” shared Tibetan Buddhist and medical epistemologies are not being replaced or eroded by biomedical thought, but rather are being substantiated and reinforced in new ways.

It is also quite revealing of the geo-political context of Chinese Tibet, and especially Xining and its surrounding Tibetan areas, that Gönpokyap and Lhamokyi position Gendun Chöphel as a modern medical authority. They present his Treatise on Passion as being able to both supplement and illuminate authoritative Indo-Tibetan religious and medical works. This is because both authors understand the Treatise on Passion to be a religiously infused (or virtue-soaked) sexological work that is informed by empirical knowledge about the body. For both Gönpokyap and Lhamokyi, this makes the Treatise on Passion an authoritative source on women’s bodies, sexuality and reproduction. It also makes sense for both researchers to look to Gendun Chöphel because much like his Treatise on Passion, he is viewed as a present-day
paradigm of mixing traditional ideas with modern ones, and his liberal and sympathetic views
towards women matches new ‘modern’ ideals about gender equality.

Lastly, some comparison of biomedical and Tibetan medical understandings of
“hormones” in the medical works we’ve looked at thus far would seem to be useful. In both
Western endocrinology and contemporary Tibetan gynaecology, hormones are understood as
being produced from the body’s nutrition and energy. In biomedicine this is initially cholesterol,
and in Tibetan medicine, *bcud, dwangs ma* or *dmangs*. In both systems, the movements and
activities of hormones are perceived, and articulated, as an orchestra of movement,
metabolization and action. Hormones, like the red element, go through numerous microscopic
changes and processes that produce outcomes in other parts of the body. As shown in this
chapter, a key point in both systems was establishing the connection between the brain,
reproductive fluids, the ovaries and the testes. Further to this, the white and red elements, like
hormones, are perceived as being involved in human sexuality and reproduction, governing the
body’s ability to become aroused, to produce the reproductive seed, to conceive, and to nourish a
developing fetus.
4. Hormones in Home Reference Works for Women

In this chapter I examine the integration of biomedical notions of hormones with Tibetan medicine in two works which are devoted exclusively to women’s bodies, and are specifically written for ‘modern’ young adult Tibetans, particularly women and girls. I refer to these slim, popular books as ‘home reference’ guides. While far more than two such resources exist, this chapter scrutinizes Wangyel’s *Knowledge on Maintaining the Health of Mother and Child* and Palzang Gyatso’s *Some Common Knowledge about Protecting the Health of Women*. Both of these sources present medical literature with a public health message and the objective of educating the ordinary masses. As such, they constitute a new genre of medical writing in Tibet.

Given that these are home reference works, the contents and complexity of writing are far less ‘academic,’ and authors tend to provide neither extensive quotes of authoritative sources nor any citations. Instead, the writers present a simpler instructional account of the body for the modern reader. The preface to Wangyal’s work states that the book

has easy composition and small glossary, and that medicinal compounds (Tibetan, foreign and Chinese) are arranged clearly. Therefore, being simple and for every-day use, ordinary doctors or the masses of nomads and farmers can have the benefit of coming to understand and recognize common knowledge about [women’s bodies].

This is important because in the section on the time of menstruation, Wangyal writes that, “some women in real life do not know how to take care of their bodies when they are menstruating, so at the time of menstruation their mood is not stable, and a great deal of anxiety, embarrassment and fear arises.” Such an assertion belies what I heard often from Tibetan medical experts,

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522 Dbang rgyal, *Ma bu bde srung gi rgyun shes*.

523 Dpal bzang rgya mtsho, *Bud med bde srung skor gyi rgyun shes phran bu bzhugs*.

524 ... tshig sbyor bde zhing tshig tshogs nyung la / zhib cing gsal bor bkod pa’i smin sbyor (bod phyi krong lugs) rnams kyang rgyun spyod can sha stag yin pas sman pa dkyus ma’rn rong ‘brog mang tshogs kyi’i skor gyi rgyun shes la ngos ’dzin dang rgyus lon byed par phan tshogs yod pa, Dbang rgyal, *Ma bu bde srung gi rgyun shes*, ii.

525 ’tsho ba dngos kyi khrod du bud med mi nyung ba zhig gis zla mtshan ’bab skabs kyi ’phrod bsten thad kyi shes bya mang bo mi shes pas / zla mtshan ’bab skabs su blo kha rtan po min pa dang ’tshub cha che zhing ngo tsha ba’m skrag snang skye ba dang, ibid., 6.
among others in Xining, which is that Tibetan women often do not talk about menstruation with their daughters, and by and large, many rural women in particular are ignorant of ‘proper’ hygiene and care during menstruation. These ‘modern’ works are not only meant to fill in this ‘knowledge gap,’ but more importantly, to modernize and to open up the very discussion, between mothers and daughters, husbands and wives, and doctors and patients, about women’s bodies and their particular needs.

Similarly, Palzang Gyatso writes in the introduction to his *Some Common Knowledge about Protecting the Health of Women*:

> These days, it is not necessary to learn first hand all that has been taught in earlier treatises such as the sutras on the household, sutras on sexual desire, as well as the Sutras and Tantras on health and well-being from throughout the world, the sciences, arts and literature. What is relevant from [all] these, [including] the sutras on the home and sexual desire, is explained here, in addition to modern knowledge about women’s health.\(^{526}\)

As he tells us, the purpose of his book is to present the culmination of his experience and knowledge such that one does not need to be an expert to have some basic, yet crucial knowledge of how to care for the female body.

At this point, Palzang Gyatso does not name the specific sources on sex, the household, or medicine. However, he does list the “sutras, Tantras and commentaries” (*mdo rgyud bstan bcos*) on the final page of the book. In the last page, he names four works that form the authoritative sources of his work. The first is the *Four Treatises*, which he describes as the “great treatise of our Tibetan medical system.”\(^{527}\) The second is the *Enumeration of Terms Derived from Art, Medicine and Astrology*\(^{528}\) by Longdöl Lama Ngawang Lobsang (Klong rdol bla ma ngag

\(^{526}\) de yang sngon kyi bstan bcos rnams su khyim gyi mdo dang ’dod pa’i mdo sogs ’jig rten thams cad bde bar ’tsho ba’i mdo dang rgyud sde / rig gnas / sgyu rtsal mang du bstan yod pa ni deng dus kyang mig mthong lag zin du gyur pa / bshad ma dgos pa yin la / de dag las ’dir bshad pa skabs su babs pa ni / khyim gyi mdo dang ’dod pa’i mdo’i phyogs su bstun zhung / dus rabs dang mthun pa’i bud med kyi bde srung gi skor phran tsam bshad pa, Dpal bzang rgya mtsho, *Bud med bde srung skor gyi rgyun shes phran bu bzhugs*, 1.

\(^{527}\) rang re bod kyi gso ba rig pa’i bstan bcos chen mo, ibid., 134.

\(^{528}\) Ngag dbang blo bzang. Klong rdol bla ma, *Bzo rigs sogs las hyung ba’i ming gi rnam grangs* (’bar khams: si khron rnga ba khul bod yig rstom sgyur cus, 1985).
dbang blo bzang; 1719 – 94), an influential Buddhist scholar and encyclopaedists.\textsuperscript{529} The third and fourth works are Tibet’s two famous treatises on sex, each of the same title, namely, *Treatise on Passion*. One of these is by the extremely well-known and prolific Buddhist scholar, Ju Mipam Gyatso (mi pham ‘jam dbyangs nam rgyal rgya mtso; 1846 – 1912),\textsuperscript{530} and the second other is by none other than Gendun Chöphel. It is revealing then, that aside from the *Four Treatises*, the other three works are relatively modern, and only two of them could be considered ‘medical.’ A whole half of the primary sources for Palzang Gyatso’s home reference work for young women consists of treatises on human sexuality and sexual practices.

In this chapter I look at the explanations of “hormones” in Wangyal’s and Palzang Gyatso’s home reference works. In the concluding remarks I explore religious and social ideas behind the notion of the ‘good’ Tibetan Buddhist woman, and how this ideal ‘limits’ how women and their bodies are considered and presented in contemporary Tibetan language home reference medical guides. Lastly, I look at how the term for “estrogen,” used in the two home reference works examined here, *mo rsti*, evokes social and religious ideas about women’s essential underlying nature, and their role as sexual partners.

4.1 Hormones in Wangyal

Like the title states, Wangyal’s *Knowledge on Maintaining the Health of Mother and Child* is a home reference work that focuses on women’s well-being as related to reproduction, pregnancy, and post-natal care for mother and child. About one hundred and fifty pages long, the book is mostly text accompanied by a few simple black and white anatomical sketches. Except for the opening section of the book, which describes menstruation and its relation to hormones, throughout the work, Chinese biomedical and Tibetan medical explanations are presented separately.

\textsuperscript{529} For more on this work and its author see: Ekaterina Sobkovyak. “Classifications of the Fields of Knowledge According to One of Klong Rdol Bla Ma’s ‘Enumeration of Terms,’” in *Tibetan Literary Genres, Texts, and Text Types: From Genre Classification to Transformation*, eds., Henk Blezer, Alex McKay, and Charles Ramble (Leiden: Brill, 2015), 54–72.

\textsuperscript{530} TBRC: P252.
This part of the thesis, examines the first two and a half pages of Wangyal’s work, which establish the connection he makes between the “hormones” of biomedicine and the “red element” of Tibetan medicine.

Wangyal begins his work on the workings of the female body by explaining that the ability to menstruate is the defining and inherent nature of all mature female bodies. He relates:

That which is known as the ‘uterine lining’ is a fine lining that goes through successive transformations inside the women’s uterus. Before the age of eleven or twelve, a woman has a very small uterus, but after [this age] it becomes bigger and bigger. Once she reaches maturity, the uterine lining goes through changes each and every month.\(^{531}\)

Describing menstruation principally in terms of the “uterine lining” (mngal skyi) that goes through regular, successive changes every month, Wangyal tells us that a sign of a matured female is the perpetuation of the monthly cycle. To explain the menstrual transformation of the uterine lining Wangyal, perhaps more so than any other writer we have met so far, explicitly conflates “hormones” with the basic building blocks of the “red element.” He states that:

Those [monthly] changes are the result of many regular causes and conditions that arise due to transformations at the ‘source’ of the red element. Inside the ‘material source’ of the red element, there are cells that grow and increase the red element until it ripens and is secreted out. The ‘yellow shapes’ [in the ovaries] grow, increase, and degenerate. Based on the particular [individual timing] of those transformations, estrogen arises inside of the ‘source’ of the red element. The arising of the secretions of estrogen can be a little or a lot. The specific, inherent nature of the changes of a little or lot depends on one’s own cycle. Based on the effects of the arising of estrogen, the lining on the interior of the uterus expands and becomes thicker and thicker.\(^{532}\)

\(^{531}\) *bud med kyi mngal sbyubs su skyi mo sras mo rim pa zhib yod pa de la mngal skyi zer / bud med ni lo bcu gcig nas bcu gnyis kyi sgon la mngal je cher gyur pa las gzhans ‘gyur ldog ha cang chung / lang tsho dar ba ’i sbyabs su mngal skyi der zla rer ‘gyur ldog thangs re ‘byung nges yin, Dbang rgyal, Ma bu bde srung gi rgyun shes, 1.*

\(^{532}\) *’gyur ldog de ni kham sdmar ‘byung gnas kyi ‘gyur ldog las rgyu rkyen mang bar tshod ‘dzin thebs pas yin / kham sdmar ‘byung gnas kyi grub cha’i nang du kham sdmor phra phung skye ‘phel ‘byung zhing smin pa dang kham sdmor thon pa / ser zugs skye ‘phel ‘byung ba dang nyams pa sog yod / ’gyur ldog de rigs dang bstan nas kham sdmor ‘byung gnas nang du mo rtsi ‘byung srid / mo rtsi thags thon byung ba de nyung ba mang bar ‘gyur ba dang / mang ba nas nyung bar ‘gyur ba ’i chos nyid nges glan zhib dang dus ’khor rang bzhiin gyi ‘gyur ldog yod / mo rtsi byung ba ’i shugs rkyen la brten nas mngal sbyubs nang skyi rgyas shing je mthug tu ’gro ba yin, ibid., 1–2*
In this passage, Wangyal translates the biomedical term “hormones” using *rtsi*, the shortened form of *bdud rtsis*, meaning “nectar” or “elixir” in Tantric thought. Foremost, he asserts that the red element, or more specifically, its “material” or “elemental source” (*byung gnas kyi grub cha*), that is, at the red element’s microscopic level, “cells” (*phra phung*), produce and increase the red element itself. This is possible because, as Wangyal explains, on the inside of the “source” or “origin” (*byung gnas*) of the red element, secretions of “estrogen” (*mo rtsi*) direct the menstrual cycle, including the monthly transformations of the uterine lining.

Wangyal’s term for “estrogen,” *mo rtsi*, actually appears in the *Four Treatises* to indicate “female fertility.” Hence, in using *mo rtsi* to refer to “estrogen,” Wangyal is drawing from Tibetan medical and Tantric ideas surrounding women’s fertility and sexuality, but ascribing new meanings that expand these notions. If we recall, Lhamokyi translates “estrogen” as *mo skul rtsi*, meaning more literally “female-arousing nectar.” Wangyal’s use of *mo rtsi*, could be interpreted as a simplified home reference version of its more technical counterpart. Whatever the case, it is clear that the term “*mo rtsi*” or “female nectar” is understood by the lay educated reader to indicate biomedical notions of “estrogen.”

Wangyal introduces other innovative present-day terms in the passage above. The “yellow shapes” (*ser gzugs*) refer to the “corpus luteman” which we encountered earlier, that is, the hormone-secreting sac that develops the egg and gradually perishes after the egg is released from the ovary. There is a curious spelling discrepancy between Wangyal’s term for the corpus luteman, *ser gzugs*, “yellow shape” or “form” and Mingji Cuomu’s spelling which is *ser gzungs*, meaning, “yellow sac.” It is unclear if the former is a spelling error, or as is more than likely, there is not yet an agreed upon standard Tibetan term for “corpus luteman” since both terms are contemporary innovations in the Tibetan medical tradition. Also, Wangyal’s term for “cells,” *phra phung*, is common among today’s medical researchers, even though it is a new term made of compound parts, as noted in the above discussion of Lhamokyi’s article.

Of note in the passage above is Wangyal’s assertion that estrogen is secreted from the red element, implying that at the cellular level, the (white and) red elements produce and emit hormones. The secretion of these hormones, or more exactly, “estrogen,” *mo rtsi*, compels the
synchronized growth and decline of both the uterine lining and the reproductive seed in the ovary, giving rise to either menstruation or conception. No other writer so concretely moors the biomedical notions of hormones with the red element of Tibetan thought. Unfortunately, being a home reference work, he does not expand on the mechanisms by which the red element creates and emits hormones. But it is significant that for a general, educated readership, he conflates the red element with hormones.

Next, Wangyal develops the functioning of hormones in conception and menstruation. He infers that:

Based on the effects of the ‘pregnancy hormone’ and the common [female hormone] ‘estrogen,’ the lining on the inside the uterus [is able to] grasp [the embryo]. It is the arising of those secretions [of hormones] that transform the uterine lining and by that, prepare the uterus for pregnancy. If the white and red elements do not intermingle, then the white element does not transform the red element. The decreasing [amounts] of those two types of hormones cause the degeneration of the ‘yellow shapes,’ and the ability of the uterine lining to continue [growing]. Because of that, [the uterine lining] becomes exhausted at the root because of atrophy. Those parts of the uterine lining that come out with the blood through the cervix is what is known as ‘menstruation.’ It takes roughly three to five days for the pieces of the lining to emerge from the uterus. Afterwards, a new lining grows on the inside surface of the uterus, as well as new cells of the red element, which ripen and repeat [the cycle].

In this passage, Wangyal describes more specifically how secretions of the “pregnancy” (sbrum chags rgyu rtsi) and “estrogen” (mo rtsi) “hormones” cause the production, growth and destruction of both the uterine lining and the “yellow shapes” (corpus lutem). Both the yellow shapes and uterine lining are discarded once their ability to grow have become exhausted. The lining takes the form of the menstrual blood, and when completely expelled, once again, new cells of the red element compel the cycle of growth and decomposition.

\[533\] sbrum chags rgyu rtsi dang mo rtsi’i thun mong gi shugs rkyen la brten nas chags pa ’i mngal sbubs nang skyi de zags thon byung ba ’i skabs su mngal sbubs nang skyir gyur nas mngal chags pa ’i gra sgrig byed pa yin / gal srid khams dmar dang khams dkar ma ’dres na khams dkar dang ’dres pa ’i khams dmar du ma gyur pa yin / ser gzugs nyams dus rgyu rtsi rigs gnyis je nyung du ’gyur ba dang / mngal sbubs nang skyi’i rgyun ’khyongs nus pa shor zhog’ khums te rtsa ba nas nyams pa / nang skyi brul nas khrag thon pa de skye sgo nas ’bab par zla mishan zer / mngal sbubs nang skyi brul nas phal cher nyin gsum nas lnga ’gor rjes / mngal ngos su nang skyi gsar ba skyes te / khams dmar phra phung gsar ba zhig bskyar du smin pa yin / de bzhin yang skor byed pa der zla mishan dus ’khor zer, ibid., 2.
Wangyal comes full circle in his presentation of “hormones” in relation to the red element of Tibetan medicine. According to his account, hormones are produced and emitted from the material source or origin of the red element. Then, the secretions of these hormones cause the proliferation of more red cells. In essence, the red element has the ability to regulate the reproductive cycles in the female body by continually re-creating itself.

Then, Wangyal hones into the anatomical mechanisms by which hormonal secretions from the red element regulate the ovulatory and menstrual cycles. He claims that:

One menstrual cycle, if it is regular, takes twenty-eight days, and whether it is early or late depends upon the state of one’s body. A menstrual cycle which is consistently regular is a sign that the woman’s body is healthy. The arising of the transformations that are in accordance with one’s own individual menstrual cycle is regulated by the brain’s membranes and nerves, as well as the system at the navel. Especially, the interdependent functioning of the brain’s pituitary gland and the hypothalamus together with the source of the red element, produce and increase [the parts of the body], and are important factors in the regulation of menstruation. The outside environment also surely affects the time periods of the menstrual cycle, but I don’t need to explain this.

This passage concludes the first section of the first chapter. Wangyal touches on the major pillars of endocrinological thought, and again, does so principally through the red element, the lens of Tibetan medicine and thought. In this particular passage, Wangyal writes that the red element, together with the pituitary gland and hypothalamus, the adrenal and other endocrine glands, and the brain’s system of membranes and nerves, compel and regulate not only the menstrual cycle, but also other important bodily functions. Thus, Wangyal having earlier described specific hormones earlier, now has related the anatomical parts needed for the red element to perform its reproductive functions.

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534 This is referring to the “adrenal glands” and the endocrine system.

535 zla mtshan dus ‘khor gcig la cha snyoms byas na nyin nyer brgyad re dgos pa dang / lus kyi skye khams gnas tshul dang bstun nas zla mtshan snga ‘bab dang phyi ‘bab byed srid / zla mtshan dus ‘khor de chos nyid ldan zhirg nor ba med par ‘bab pa ni bud med kyi lus khams bde thang yin pa’i mtshon rtags red / zla mtshan la dus ‘khor rang bzhin gi’gyur ldog ‘byung ba ni klad skyi dang dbang rtsa / lte ba’i ma lag sogs kyis tshod ’dzin byed pa yin / khyad par du klad ’bur dang klad dril / khams damar ‘byung gnas bcas kyi bar du phan tshun nus pa skyed pa ni zla mtshan snyom sgrig byed pa’i lhu tshigs gal chen zhirg yin / phyi rol gi khor yug sogs kyis kyis zla mtshan dus ‘khor la shugs rkyen nges can thebs su ’jug pa ni bshad ma dgos so, ibid., 2–3.
By importing and integrating biomedical thought into the Tibetan medical system, Wangyal has given new meanings to the ideas and words found in the authoritative Tibetan medical texts. The passage incorporates a number of new and contemporary Tibetan medical terms describing the brain and the endocrine system. Some of these terms are the “brain’s membranes” (klad skyi), literally meaning the ‘skin [on the inside of] the brain,’ and the brain’s “nerves” (dbang rsta), which could be translated as the ‘channels that empower.’ Likewise, the term for the “hypothalamus,” klad ‘bur, means literally, the “protuberance of the brain,” and the “pituitary gland,” hanging from it, is translated into Tibetan as klad bril, “the bell [shape] of the brain.” Many of these new Tibetan terms that Wangyal has used so far to describe hormones and reproductive anatomy highlight both the functional and the physical characteristics of the parts being described.

The reader may notice that there is no mention of digestion, the seven bodily constituents or other features we have come to expect from reading about women’s bodies in the research-focused sources. Aside from the mention of the red element, the first three pages of Wangyal’s book are almost exclusively a Tibetan translation of biomedical endocrinological thought. In later sections on conception and menstruation, Wangyal presents mostly traditional Tibetan medical ideas such as the five elements, the three dynamics, the white and red elements and the consciousness of a bardo being, while hormones and the endocrine system disappear. Hence, Wangyal’s home-reference book places no emphasis on showing how the Tibetan medical system can address hormones independently of biomedicine. Wangyal conflates “hormones” with the “red element,” but beyond this, there is no deep ‘integration’ of the Tibetan medical and biomedical systems as seen in the previous four sources. Instead, the biomedical and Tibetan medical accounts of the female body, largely are kept separate throughout the book.

It is telling then that the only place where there is a clear and explicit intersection and ‘integration’ between Tibetan medicine and biomedicine in Wangyal’s work is in regards to “hormones.” This would seem to indicate the perceived need among contemporary Tibetan medical writers, even those writing home reference works, to explain the biomedical notions of hormones in their descriptions of women’s bodies because hormones are too important in ‘world medicine’ to be ignored even by the non-biomedical traditions.
4.2 Hormones in Palzang Gyatso

Palzang Gyatso’s *Some Common Knowledge about Protecting the Health of Women*, is a pink, rose-covered one hundred and thirty-five page home reference work that encompasses topics pertaining to women’s bodies ranging over self-care during menstruation and pregnancy, the legal age of marriage, sexually transmitted infections, the means of arousing a woman (for the male reader), and beauty tips (for the female reader). Palzang Gyatso’s book is less technical than Wangyal’s home reference work. To indicate biomedical “estrogen” Palzang Gyatso uses the term “mo rtsi” which is the same term as that used by Wangyal. This section examines Palzang Gyatso’s description of hormones. It also pays attention to the wider Tibetan context of female reproductive bodies. Of note is the fact that the writing style is in a manner that would be understood by a home-reference audience. This work, meant for young adults, particularly girls and women, is a highly popular book about sex, relationships and reproductive health.\(^{536}\)

The outset of the first chapter explains how the male and the female bodies emerge. Palzang Gyatso writes that:

> The way in which ordinary men and women come into existence is [explained in the following quote from] that great Tibetan medical treatise, the *Four Treatises*: “men and women manifest by the force of previous karma and sexual desire.” Therefore, the force of previous karma, the power of the affliction of sexual desire, one’s own consciousness, and the inner and outer five elements produce the differences between male and female bodies.\(^{537}\)

The *Four Treatises*’ Gynaecology chapters indicate that women’s bodies are produced from low karmic merit. Palzang Gyatso’s explanation of the origins of female body, in concurrence with modern sources, omits this idea. However, he appears to maintain the negative implications of sexual desire, traditionally described as an “affliction” (*nyon mongs pa*).

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\(^{536}\) The Toronto Public Library has a copy of *Some Common Knowledge about Protecting the Health of Women*, attesting to the book’s popularity and global reach.

\(^{537}\) *spyir 'jig rten pa'i pho mo gnyis kyi snang tshul ni / bod kyi gso ba rig pa'i bstan bcos chen mo gso rig rgyud bzhi las // "sngon las 'dod chags dbang gis pho mor snang" // des na tshe sngon ma'i las dbang brtsan po dang / nyon mongs pa 'dod chags kyi dbang dang / rang gi rnam par shes pa dang / phyi nang gi 'byung ba lnga'i byed las sogs la brten nas pho mo tha dad du snang zhung, Dpal bzang rgya mtsho, Bud med bde srung skor gvi rgyun shes phran bu bshugs, 3.*
Palzang Gyatso, concentrating on digestion and the white and red elements, then outlines the unique characteristics of women’s bodies according to Tibetan medical and Tantric thought.

Women are different from men, insofar as they possess the unique features of the activities of the uterus and the breasts [which are the ability to] menstruate and [to produce] breast milk. The essence of consumed foods, the blood, the meat, the fat, the bone, the marrow and the reproductive fluids make up the [digestive] process which forms the basis of the body. The final of the seven bodily constituents, the reproductive fluid, comes in two [forms]: the white and the red. According to the Mahayoga Tantras, from the white and red elements, the essence of the white part abides in the body’s central channel at the upper end of the pulsing blood vessel between the eyebrows. The essence of the red element abides four finger lengths below the navel towards the lower tip of the central channel. Parts of these two [essences] permeate the entire body.538

In this passage and throughout the book, Palzang Gyatso presents a mixed Tibetan medical and Tantric perspective of the female body for the young adult reader. First, he gives the medical explanation as to the process by which reproductive fluids are made, and then follows this with the more popular, Tantric understanding of the vajra body of white and red drops. Palzang Gyatso’s description of the reproductive fluids is thoroughly Tibetan, and despite being a ‘modern’ account of the body, it is permeated with religious ideas.

Because we have read professional works, we can recognize and understand Palzang Gyatso’s description of the white and red elements in the body. Indeed, he is drawing from the same authoritative sources as the research-focused sources we have read. Yet, his presentation is far more simplified, contains very little by way of citations and passages from authoritative works, and he does not explicitly work towards establishing Tibetan medical knowledge of “hormones” before the birth of the field of endocrinology during the modern era. He does, however, include hormones further along in the first few pages of his book where he outlines the female reproductive body.

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538 des na bud med la skyes pa las / nu ma dang / mngal gyi byed las dang / zla mtshan ’o ma bcas kyi khyad par du lhag cing / kha zas kyi dwangs ma dang khrag / sha / tshil / rus pa / rkang mar / khu ba ste lus kyi gzh ’dzin par byed pa ’i zungs bdun gyi phyi ma khu ba dkar dmar gnyis las / rgyud sde rnams su kham dkar dmar du grags pa ’i dkar cha ’i dwangs ma ni rang gi lus kyi rtsa dbu ma ste ’phar rtsa ’i yar sne smin mtshams su gnas pa dang / dmar cha ’i dwangs ma rtsa dbu ma ’i mar sne lte ba ’i ’og tu sor bzhi ’i thad du gnas pa de gnyis kyi cha shas lus kun la khyab pa las, ibid., 4.
After telling us about the red and white drops according to Tantric thought, Palzang Gyatso then describes the white and red elements in a bit more medical detail. For example, he writes that the refuse of the red element goes on to become the menstrual blood and the refuse of the white element becomes the breast milk. He also writes that the essence of the white element becomes the body’s source of “glorious youthful splendour” (lang tsho’i dpal) and “sexual arousal” (‘dod pa’i dbang po). In his written explanation, he does not outline what the ‘essence of the red element’ is. But, at the bottom of the page, Palzang Gyatso identifies that essence to be “estrogen” (mo rsti) through the following diagram, titled, “The system by which reproductive fluid is produced from the seven bodily constituents in women,” as translated and reproduced below.

Although mo rsti is not explained in the passage preceding it, its presentation in this diagram is in keeping with other contemporary home reference books claim, including Wangyal’s, that estrogen is the essence of the red element. We also notice here, the notion of the “life-force” (bla) which we have encountered earlier. Hence, Palzang Gyatso presents an integrated perspective of the female body, drawing from Tibetan medicine, Tantra and biomedicine.

539 Ibid., 5.
540 Bud med kyi lus zungs bdun pa de khu ba’i ‘gyur tshul, ibid., 5.
Next, Palzang Gyatso presents and explains medical illustrations depicting external and internal female reproductive anatomy. “Estrogen” is further explained within his description of the inner reproductive anatomy, which includes the vagina, the uterus, the fallopian tubes and the ovaries.

Regarding the fallopian tubes, Palzang Gyatso notes that:

The red element moves through hollow tube (also known as the “great channel”) that runs from the middle lower edge of the uterus to the left and the right ovaries on either side of the uterus. By that pathway, the ‘product’\(^\text{541}\) of the red element moves from the ovaries to the uterus. Thus, the red element produces the reproductive fluids that are pulled through this pathway.\(^\text{542}\)

And, on the ovaries and estrogen, he continues:

The ovaries are formed on the right and left sides of the uterus. The shape [of the ovary] is that of an oblong and flat container, and its size is roughly that of a thumb. [Inside the ovary], the red element having accumulated and increased, is emitted together with secretions of estrogen. Estrogen also maintains the distinguishing features of women.\(^\text{543}\)

In these two passages, Palzang Gyatso explains how the red element, together with the secretions of estrogen, move the reproductive seed from the ovaries, where it has been produced, through the fallopian tubes to the uterus. His account of “estrogen” follows the basic biomedical script insofar as being emitted from the ovaries, and responsible for the physical characteristics of female bodies. Unquestionably, estrogen is viewed as a “female” (mo) property.

### 4.3 Conclusions on Home Reference Works

Prior to the twentieth century, works such as Wangyel’s Knowledge on Maintaining the Health of Mother and Child and Palzang Gyatso’s Some Common Knowledge about Protecting

\(^{541}\) Here, the “product” (‘byung ba) refers to the reproductive egg.

\(^{542}\) khams dmar rgyu ba’i sdu gu ni (rsta chen yang zer) bu snod mthil zhabs kyi zur g.yas g.yon gnyis nas re re gyes te phal cher bsam se’u dang ’brel yod pa dang / des bsam se’u nas ‘byung ba’i khams dmar bu snod du rgyu sa’i lam dang khams dmar gvis skyes pa’i khu ba ’then sa’i lam byed pa yin, ibid., 7.

\(^{543}\) bsam se’u ni bu snod kyi gzhogs g.yas g.yon gnyis su chags yod la / dbyibs ’jong leb can gyi snod mtse bong gi che chung tsam yod / des khaps dmar gsgog ’phel byas nas phyir gtong ba dang sbrags da dung mo rtsi zags thon byed pa yin la / mo rtsi des kyang bud med kyi khyad chos rnams srung’ dzin byed pa red, ibid., 7, 9.
the Health of Women would be unthinkable in a conservative Buddhist theocracy wherein the monasteries were by and large the driving force behind textual production in Tibet. The creation of such works in the late twentieth-century needs to be understood within the socio-political context of Chinese Tibet, and from the perspective of the PRC’s stated efforts to ‘modernize’ Tibet and improve the lives of Tibetans. Thus, these home reference guides, which are meant to teach women and girls about their bodies and how to care for them, constitute a new genre of Tibetan medical literature.

While this thesis has been concentrated on the subject of hormones, the home reference works show this topic only to be a small part of the larger project. Far more attention is paid to having a healthy pregnancy, preventing the spread of sexually transmitted infections, and in particular HIV/AIDS and hepatitis, which are said to be in epidemic numbers in some Tibetan communities. Moreover, maternal and infant mortality rates remains high. Among ethnic Tibetans, life expectancy in 2010 was 70.52 years (an improvement over the 2000 census of 66.67 years of age), compared to the national life expectancy of 74.83 years of age. Tibetans, like nearly all other ethnic minorities in China live shorter lives than their Han compatriots. Cleary, from a public health perspective, home-reference works such as Wangyal’s and Palzang Gyatso’s are intended provide a vital service to their intended readers who are young and adult women.

These home reference works provide much more than just medical information and ‘facts.’ They promote a particular view of the ‘good’ Tibetan woman. For example, in the section titled, “Common things that girls need to pay attention to” Palzang Gyatso warns his readers:

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544 Incidentally, in a bookstore near Namgyal Monastery in India, I found the copies of Healthy Body, Healthy Mind: A Health Handbook for Tibetan Women separated from all of the other books and somewhat hidden under a case. Despite being a hometown publication, it was difficult to find copies because the material was considered too controversial.

545 On the problems of measuring these rates see: Adams, “Saving Tibet?”

546 Rongxing Guo et al., eds., Multicultural China, 72, 74.

547 spyir btang bu mo tshos do snang byed dgos pa ‘ga’, Dpal bzang rgya mtsho, Bud med bde srung skor gyi rgyun shes phran bu bshugs, 20.
Generally, some girl students become influenced by mistaken thoughts, and because of that wear skimpy clothing and are fond of wearing tight clothes on their chest. What is worse, is that some girl students, because they worry about looking fat, and thinking to prevent this, wear a tight girdle around their waist. But, by tying a tight girdle around the waist causes great damage to the body while it is still growing.\footnote{Spyir btang bu mo slob grwa ba ‘ga’ re la nor ‘khrul gyi bsam blo’i shugs rkyen thebs nas gon chas zheng chung gyon te so so’i brang khog dam por bcing rgyur dga’po byed pa yin / da dung slob phrug bu mo re ‘gas rang gi rked pa shom po chags mi yong ba’i ched du yin bsams nas sens khral dang bcas pa’i sgo nas ska rags dam por bcing ba yin / brang khog dam por sdom pa dang / rked par ska rags dam por bcing ba’i byed stangs ni / gzugs po ‘tshar longs yong rgyur gnod skyon chen po yod par bshad, ibid., 20–1.}

Similarly, by means of an illustration he tells the pregnant reader to avoid wearing skimpy “underwear” (brla thung), and wear instead, what can only be described as “puritan drawers.” In the same section of illustrations, he also suggests that Tibetan women wear traditional “Tibetan style clothes” (bod chas).\footnote{Ibid., 62–3.} Just these few examples give some picture of what I have personally witnessed in Tibet, India and Nepal, which is that Tibetan women, particularly young women and girls are expected to dress conservatively and behave modestly. In Buddhist Tibet, despite all of the Tantric images of deities in sexual embrace, female sexual desire is largely considered dirty and dangerous, and a woman showing signs of overt sexuality is extremely taboo.\footnote{Charlene E. Makley, “On the Edge of Respectability: Sexual Politics in China’s Tibet.” \textit{Positions: East Asia Cultures Critique} 10, no. 3 (2002): 575–630.} And, pregnancy is often hidden because it ‘shows’ that the woman has had sex.\footnote{Vincanne Adams, Suellen Miller, Jennifer Chertow, Sienna Craig, Arlene Samen, and Michael Varner, “Having a ‘Safe Delivery’: Conflicting Views from Tibet,” \textit{Health Care for Women International} 26, no. 9 (2005): 821–51.}

Also, in the case of Chinese Tibet, the symbol of the ‘good’ Tibetan woman is intimately tied to Tibetan ethnic and national identity. A so-called ‘pure’ Tibetan woman is analogous to a ‘pure’ (pre-Chinese) Tibet. This view results in a palpable fear among older, as well as young generations of Tibetans, that young Tibetan women are becoming sinicized in that they are interested in wearing make-up, tight clothing and conducting themselves in an ‘immoral’ fashion. For Tibetan women, overt or even subtle signs of female sexuality, such as wearing tight-fitting clothing, is linked to ‘Chinese ways of being.’ These ways are considered immoral and decisively contrary to of the teachings of Buddhism.
In Tibetan culture, women are thought to be less able than men to control their sexual desires. Hence, this is the rationale behind the restrictions or the gentle suggestions on dress and behaviour which are said to be ‘needed’ to ‘protect’ women. Therefore, being a ‘good’ Tibetan woman in Chinese Tibet means dressing and behaving modestly. This view appears to be reflected in Palzang Gyatso’s advising against the wearing either of skimpy or of tight clothing.

The home reference medical literature suggests that being a ‘good Tibetan woman’ centres on taking care of the body. Therefore, how that body is characterized in the home reference sources is revealing of Tibetan social attitudes concerning women. Paradoxically, we find that even in works that are meant to be ‘modern’ and sympathetic to women’s rights, permeate with ideas and notions that are less than emancipatory. For example, one commonly finds in home reference and professional works instructions on what women should avoid doing (and thinking) while they are menstruating.

Palzang Gyatso provides a pretty extensive list of things menstruating women should avoid. He writes that menstruating women should “neither eat hot, spicy, or sour food, nor touch cold water, nor most importantly, have sex.” Further, in regards to work, menstruating women should only engage in “light labour” or “activities” (*ngal rtsol yang bo*), and avoid any “hard labour” (*ngal rtsol yang bo*), and further, it is “unsuitable to swim, run, or engage in other strong exercises.” Also, “Because the ability to prevent illness is weakened in women during menstruation”, it is “not suitable to stay in the water, or in marshland, bluish-green grasslands, in the shade, or on soft earth. One must be careful of staying [in these places].” He further tells the reader that “you should be careful to not wash your feet or hands in cold water, ride

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552 *kha zas tsha skyur rigs bsten mi che ba dang / chu grang la mi rig cing / ‘dod pa de bas kyang spyad mi nyan pa yin*, Dpal bzang rgya mtsho, *Bud med bde srung skor gvi rgyun shes phran bu bshugs*, 16.

553 *rgyug shad dang ‘gran bsdur byed pa / yang na de min gvi shugs drag che ba’i lus rtsal nang gzhug mi rung ba red*, ibid., 18.

554 *bud med rnams la zla mtshan ‘bab dus gzugs po’i nad ‘gog nus pa cung zad zhan po yin pas*, ibid, 19.

555 *chu’i nang la zhugs mi rung la / brlan zhad yod pa’i sngo ljang spang thang dang grib nag sa ‘bol dag la’ng sdod rgyur gzab dgos la*, ibid., 19.
animals, or travel long distances.”

As for specific foods, women should avoid eating “chilies, green vegetables, onions, garlic, and raw, cold or spicy foods.” Lastly, as for “behaviour” (spyod), if you are a menstruating woman then “during these days, you need to make your mind happy, and not become angry, be peaceful, and do not engage in sexual intercourse.” Anyone who has ever menstruated (or knows someone who has) knows that this list is ‘excessive’ to say the least. Moreover, the list is certainly an embellishment in the Foucaultian sense. I have not found such advice in earlier authoritative works.

Instructions similar to Palzang Gyatso’s can be found throughout the many present-day Tibetan works on women’s bodies considered and not considered in this thesis. The standard position throughout these works is that “during [menstruation] the body’s immune system becomes weak,” and therefore all these extra precautions are needed to avoid illness. Many professional and home reference sources report that during menstruation women’s minds, bodies, and even appearances are said to be “weakened” (zhan po).

It could be said that a general theme of the majority of these works is that women are presented as constrained by their bodies. Menstruation and child-bearing are seen as inherently weakening times. Moreover, these ideas appear to spill into the views that women can only accomplish or achieve what their bodies will allow them to perform. Lhamokyi, a notable exception to this above paradigm, states that “generally if [menstrual] symptoms are not too severe and if there are no signs of a developing disorder, then there is no harm for women to do their work or study throughout the day and the [symptoms] will dissolve naturally on their

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556 chu grang mos rkang lag ‘khrud pa dang / zhon pa bzhon pa / sa thag ring por ‘grul bzhud byed pa bcas kyi rigs la do snang dang nyams ’jog byed dgos, ibid., 19.

557 si pan dang / sngo tshal tsong sgog pa la sogs pa ’i zas skom rjen pa ’m grang mo, ibid., 19.

558 da dung sms skyid po yong thabs byed dgos pa dang / rlung mi langs par blo sms skyid po byed cing / ’dod pa spyad mi nyan pa yin, ibid., 19.

559 Michel Foucault, The History of Sexuality.

560 skabs ’dir lus khams kyi ’gog shugs zhan par ’gyur ba, Dbang rgyal, Ma bu bde srung gi rgyun shes, 6.
own." Lhamokyi evidences that the increasing number of female doctors and researchers will change and reshape the future of Tibetan gynaecology and medicine into the future.

The home reference works serve a crucial public health function, in that they provide potentially life-saving information. However, they are not without the social and religious baggage that can perpetuate the view that women’s bodies have ‘limited abilities,’ and therefore actually can limit the (perceived) abilities of women. The warnings against doing any exercising, traveling, labour or hard thinking for a few days every month gives medical authority to what are essentially social and religious views about what women ought to be allowed to perform or to achieve. In general, they tend to portray women’s bodies as inherently burdened and weak. They also generally lean towards more conservative religious views of women’s bodies and sexualities. Hence, while home reference works serve a public health mandate, they also perpetuate certain attitudes that are limiting to women.

The language of “hormones” in Palzang Gyatso’s and Wangyal’s home reference works somewhat reflect and reinforce these Tibetan Buddhist attitudes about women. The term that both authors use to translate “estrogen,” mo rtsi is a new twist on an older idea that supports traditional Tibetan Buddhist ideas about women. Essentially mo rtsi communicates the notion that women have an “inherent,” “innate,” or “fundamental self-nature” (chos nyid, rang bzhiṅ) or “essence” (bdud rtsi) that compels their bodies, minds and emotions to co-align into something essentially and inherently female. Moreover, as the authors say, because estrogen plants and compels the menstrual cycle, one could conclude that the hormone mo rtsi has built within its functional core, an inherent and reoccurring ‘weakening’ feature. Such notions imply that the ingrained nature and essence of woman is an inherently debilitating one.

The language of mo rtsi, evoking the nectars and pure essences of the vajra body draws from the popular Tibetan imagination about women as sexual partners. For example, in his

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561 spyir btang tshabs mi che zhing nad ’gyur gyi rtags ma yin pas bud med kyi bya las dang slob sbyon la gnod ’tshes mi ’byung bar nyin kha shas rang bzhiṅ du yal ’gro ba yin, Lha mo skyid, Zla mistan gyi rnam pa bshad, 109.

562 I did not discuss this point for the thesis, but it is worthwhile mentioning that the vagina and other reproductive parts are also presented in a number of works, and especially in the home reference guides, as inherently open to disease and in need of various forms of ‘protection.’
description of the “vagina” (skye lam) and its functions Palzang Gyatso uses the term chu rtsi, literally meaning, “nectar water” to name the sexual fluid that naturally arises when women are aroused.\footnote{Dpal bzang rgya mtsho, Bud med bde srung skor gyi rgyun shes phran bu bshugs, 7.} In the section “Observable signs of sexual desire in men and women,”\footnote{skyes pa pho mo gnyis la ’dod pa skyes pa’i mngon tshul brtag pa, ibid., 32.} Palzang Gyatso more explicitly refers to the vajra body, in his “advice on the manner of sexual arousal in your woman, wife, or consort.”\footnote{bud med dga’ ma’ m chung ma sogs la chags pa slong tshul phran tsam la, ibid., 32.} He tells the (presumably) male readers: “when one finds himself in a close intimate encounter, the centre of neck and chest of the woman expands and blooms very white. The [cakra at the] armpit possessing the three knots gently loosens. If touched, great pleasure expands under the navel and at the root between the female thighs.”\footnote{rang gi rtsar bcar tshe rab dkar gzhon sha rgyas pa’i bu mo’i ske dang brang gzhung / lhod ‘jam drod gsum lidan pa’i mchan khung / reg na bde dga’rgyas pa’i lte ba’i ’og dang brla bar ma’i rtsa ba, ibid., 33.} Therefore, it could be said that in Palzang Gyatso’s work, mo rtsi, translated as “estrogen” alludes to female sexual desire as well as the ability to reproduce. This is perhaps not surprising given that in the \textit{Four Treatises}, mo rtsi refers to female fertility.

Within the two present-day home reference books we have looked at, the Tibetan language of hormones allows authors to communicate salient cultural, religious, political and medical meanings about women and gender to a wide audience of young Tibetans. Under the auspices of public health and a veneer of medical authority, a politics of gender and ethnicity is afoot. The integration of biomedical ideas of hormones does not undermine the religious or moral associations of Tibetan medical thought. Hormones like “estrogen” are recruited to bolster and to lend the authority of the Tibetan medical account of the female body. It is revealing that both Wangyal and Palzang Gyatso saw it fit to include a Tibetan account of the biomedical notions of hormones within the first few pages of their works. Clearly, the insight into hormones proved to be a central piece of ‘modern’ Tibetan knowledge of the female body.
5. Conclusions

Involving the ‘mixing’ of (at least) two ways of considering and explaining the body, ultimately, this thesis has explored the integration of medical systems in our present time. As this thesis has shown, mixing two medical traditions is not a straight-forward ‘scientific’ affair. The peculiar social, religious, and geo-political contexts of human cultures, plays a dominant role in determining and giving expression to ‘scientific’ and medical knowledge. The study of “hormones” in Tibetan medicine reveals how issues surrounding gender, nationalistic, ethnic, and religious identities, play a significant part in determining the manner in which the endocrinology of women is researched, debated, and documented.

Demonstrating the relationship between medical and religious ideas in the contemporary Tibetan medical research on “hormones,” I have shown how the religious perspectives of women and their bodies have influenced the Tibetan understanding of scientific and medical ‘knowledge.’ Their use of Tantric language and thought in the naming and their nomenclature of “hormones” demonstrates the influential role Buddhist thought has in contemporary Tibetan medicine in Chinese Tibet.

Both the professional and the home reference works impart a gendered perspective and language of the female body that is steeped in Buddhist thought. Hence, the integration of Tibetan medical and Chinese biomedical notions of “hormones” is an example of the ways in which medicine, gender, and religion intersect to create ‘knowledge’ (and with it, the power) that determines the nature and (dis)abilities of female bodies. Ultimately, such knowledge has an impact on women’s lives.

The study of “hormones” shows that neither the biomedical, nor the Tibetan medical system, is immune to social and religious issues of gender. Gender and science scholars have shown that what is ‘true’ or ‘correct’ about any medical or scientific system indicates that such knowledge meets social expectations. The analysis of “hormones” in the Tibetan research on women’s bodies shows how social, political and religious ideas become fused with medical ones.
This is especially apparent in the Tibetan terms authors use to name the hormone “estrogen.” The Tibetan language of “hormones” generally tells us that women have an innate nature that is tied to their bodies, and which, in Tibetan medicine, is compelled and maintained by a female quintessence identified as the red element, while in the biomedical system it is “hormones.”

We can intimate from the contemporary Tibetan sources that the language of hormones helps to reinforce Tibetan perceptions of the female body, and more importantly, what it is that women are capable of performing and achieving. The integration of “hormones” also allows researchers and writers to claim that biomedical knowledge of hormones substantiates and reinforces what Tibetan medicine, that up until very recently had been a virtually exclusive male (and monastic) writing community, had long known about women and their bodies.

The substantial role that Buddhist, and in particular Tantric ideas, have played in the Tibetan medical literature on hormones also shows that religious thought is a still highly relevant in the contemporary Tibetan medical tradition. Throughout the present-day sources referenced in this thesis, Buddhist texts are used to establish credible knowledge about the “real situation” (gnas lugs) of the body. Despite the concerns that Tibetan medicine is being ‘eroded’ or ‘erased’ by the ‘secular’ approach of biomedicine, the works that integrate hormones show an opposite trend. Indeed, they show, like Klassen’s study of Canadian biomedicine and its relation to Christianity, that ‘secularism’ and ‘religion’ are not mutually exclusive categories, and that medical researchers and writers can be devoted both to the ideals of ‘secularism’ and ‘religion’ in the research and the practice of medicine. That is, a medical tradition can be both scientific and religious. Tibetan medical writers are clearly as loyal to the Tibetan medical and Buddhist traditions as they are open and eager to research and incorporate new (biomedical) knowledge. Moreover they see their own tradition as being scientific because it rests upon a Buddhist framework of knowledge, which is said to be about the real, and actual situation of human embodiment.

Therefore, biomedical thought is not presented as a ‘threat’ to the authority or integrity of Tibetan medicine in the present-day Tibetan medical sources of this study. On the contrary, especially in the professional sources, Tibetan medical and Tantric texts are interpreted to
demonstrate insights into very subtle material substances circulating throughout the body, which biomedical scientists, with the help of modern technology, are only beginning to reveal. Biomedicine is positioned to provide collaborating evidence of Tibetan knowledge of “hormones” such that the integration of biomedical ideas serve to bolster, to augment and to develop the contemporary Tibetan medical system.

Although biomedicine is positioned as being additional evidence for the veracity of the Tibetan explanations of “hormones,” it is clear that in the bigger picture, biomedical knowledge is the looming, ever present authoritative voice in these sources. In its integration with biomedicine, modern Tibetan medical writers must present the knowledge of their tradition, to some degree, in response to biomedical authority. Hormones and the endocrine system, and the role they play in menstruation and reproduction are clearly too important for Tibetan medical writers not only to include at the beginning of their works on women, but also to incorporate into their ‘traditional’ Tibetan medicine.

The Tibetan study of hormones also demonstrates the enormous importance given to textual knowledge in the contemporary Tibetan medical tradition. Clearly, textual research is a significant methodological branch in the larger picture of medical research in present day Chinese Tibet. This is because the traditional texts, seemingly immutable, and yet always open to new interpretations, are one of the few ways of concretely preserving and giving life to the authoritative medical and Buddhist works of Tibet. This is why present-day writers are using texts that reach back as far as the ninth and tenth centuries to establish the medical authority of today’s writings. As demonstrated in the case of “hormones,” Tibetan medical writers have ‘lifted’ words from Buddhist and medical texts so as to interpret and craft new ‘modern’ meanings. By such method, Tibetan texts and textual knowledge remain prominent features of the Tibetan tradition.

The Tibetan authors of this study position authoritative medical texts as the vital life force of the Tibetan medical system by presenting their contents as being both ‘universal’ and ‘global,’ that is, parallel to the knowledge of other national medical systems (including biomedicine), and yet culturally ‘unique’ and ‘local.’ Thus, the Tibetan medical system is presented as being both
thoroughly ‘scientific,’ and therefore as having global or universal significance. It is also considered to be the unique Buddha-originated, intellectual tradition, and property of the Tibetan people.

The figure of Gendun Chöphel, whose works figure so prominently in the literature on women’s bodies, embodies this juxtaposition between the modern and the ancient, and the global along with the local. He knew of the modern world, and wanted to experience everything it had to offer, as much as he wanted to understand and debate the authoritative masterpieces of Tibetan Buddhism. He had both deep textual knowledge of Tibet’s intellectual traditions, and familiarity with Western science and technology. He was open-minded about change. And he is thought of today as both a local and national hero who represents the best of Tibet’s modern ethnic, national and religious identity. Gendun Chöphel’s mixing, or integrating, of the Tibetan and ‘modern’ worlds is clearly held as an example for young Tibetans to emulate.

Additionally, something should be said on the comparison between the Tibetan medical and the biomedical perspectives of “hormones.” Certain parallels stand out in both traditions, such as the relations among the brain, the glands and the ovaries. Although these differ in detail, the present-day Tibetan authors agree that the “hormones” and the “white and red elements” are equivalent ideas, and ultimately point to the same substances. While the Tibetan authors focus on showing the similarities of the biomedical and Tibetan medical traditions, it is revealing to consider the ways in which these insights differ.

Western endocrinology is moving away from a binary ‘sexed’ model of hormones, and has shown that estrogen is involved in some of the most important functions of both the male and the female bodies. However, Tibetans consider hormones to be strictly ‘male’ or ‘female.’ Estrogen, aligned with the red element, is unquestionably a female hormone in the Tibetan medical system, whereas this is not the case in Western biomedicine. This could be partly due to their close integration with the white and red elements of Tibetan medicine, and the postulation that estrogen is inherent to the red element. It is interesting to note that in contemporary and historical Tibetan medical texts, both the white and red elements are thought to function in women, and it is debated as to whether or not men have the red element.
Although further research is needed in this direction, the contemporary Tibetan medical system better appreciates ideas surrounding ‘internal cycling’ in both women and men. In Western biomedical thought, and as regards hormones, men are not thought to ‘cycle’ in the ways that women are. Men do not have a menstrual or an ovulatory cycle, and male ‘cycling’ is not thought to be involved in the reproductive functioning of men’s bodies. Tibetan medical writers, on the other hand, either directly or by implication, indicate that men, through the white element and “testosterone,” have a male ‘self-nature,’ and like women, go through various levels of cycling from the digestive process to the daily, monthly and seasonal cycles that cause the body to go through regular and predictable transformations. Men’s virility is an important topic in Tibetan medicine, and more research in this direction would enrich our picture of the Tibetan views of hormones.

The disciplinary reach of hormones is increasingly widening in contemporary Western medical thought, and whether this translates to changes in wider Tibetan medical thought outside the reproductive functions of hormones, and in conjunction with other bodily systems, such as the immune system, remains to be seen.

This dissertation notes that present-day Tibetan writers integrate and innovate biomedical knowledge in order to augment and to develop Tibetan medical knowledge of women. By integrating notions of hormones, Tibetan medical writers do so through the language and cultural repertoire of Tibetan Buddhist thought. Throughout my sources, the common thread of the red element encompasses an enormous range of indigenous medical and Buddhist thought, enabling contemporary authors a rich resource to incorporate, interpret, bend, and to expand modern Tibetan medicine. On the other hand, in using Tantric ideas of the body, larger and fundamental Buddhist ideas involving all manners of human life, including conception, gestation, or development, (re)birth, gender, and sexual desire, are maintained as pillars of the Tibetan medical framework on researching and configuring female and male reproductive bodies. Biomedical notions of hormones are made to fit onto a Tibetan Buddhist-informed medical model. Some medical writers, using an ecumenical assortment of Buddhist, medical, sexological and other works, maintain that the intellectual giants of Tibetan history were already motioning
towards knowledge of the very subtle, or microscopic, potent and life-enabling substances known today as hormones.

Instead of couching hormones as something entirely new or foreign to the Tibetan system, the medical authors in this study employ a range of ‘translation tactics’ to infuse biomedical thought into the Tibetan medical lexicon. Thupten Püntsok uses a phonetic transliteration of hormones, “ho’o mo’u”, indicating a foreign word possibly equivalent to the Tibetan medical and Tantric understandings of the body’s system of winds, channels, and drops. Mingji Cuomu’s use of the calque skul rgyu, meaning to “cause to arise, arouse or incite,” for “hormones,” mimics the Greek word “hormaein,” “an agent that can excite, arouse, or stir,” thus signalling a translation that remains close to the original biomedical sources on hormones. Lhamokyi’s rendering of “hormones” as bcud chen po uses pre-existing indigenous ideas about the body, but in an innovative way, stretching their meanings to accommodate new biomedical knowledge. Similarly, other neologisms for hormones that we see in the home reference works such as mo rtsi, more literally meaning, ‘female nectar’, also evoke Tibetan medical, Buddhist, and cultural ideas about the female body, but perhaps lose some of the closer associations with biomedical hormones. Throughout the contemporary Tibetan medical works on women, we see numerous examples of direct translations between perceived equivalencies, particularly in anatomy. As we have seen, even though biomedical understandings of the functions of reproductive sacs, the ovaries, and testicles diverge from Tibetan understandings, contemporary authors use the Tibetan medical term, bsam se’u to refer to these biomedical terms. A few authors hint to an equivalency of ideas between the Tibetan medical and biomedical endocrine system, however, the only direct use of biomedical terms appear in Chinese characters. Therefore, as we have seen in the various nomenclatures for “hormones” examined in this dissertation, “this seeming chaos is simply a sign that translation norms [have] yet to emerge” in the modern Tibetan medical system.

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567 Norman and Litwack, Hormones, 2.

568 Salguero, Translating Buddhist Medicine in Medieval China, 54.
The study of hormones in any given culture and geopolitical context continually deepens our understandings of the interactions between humans and their social and material worlds. Hidden in plain sight, Tibetan works on gynaecology and obstetrics, and home health references for women and girls, reflect the contemporary geopolitical context of Chinese Tibet, and the perceived roles of women and men in the performance of a modern Tibetan Buddhist identity. Given the current trend, we can expect to see further Tibetan research and integration into biomedical endocrinology and hormones. In what form this will take place will depend in large part on the translation and collaborative activities of various human actors, making strategic social and political choices that determine the shape and content of medical knowledge. In the current geopolitical context of Chinese Tibet, I expect that Buddhist and Tantric ideas about the body, will continue to play a vital role in Tibetan medical research as it continues to ‘mix’ with biomedicine.
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