

History of Science in South Asia

A journal for the history of all forms of scientific thought and action, ancient and modern, in all regions of South Asia

Special issue:

Transmutations: Rejuvenation, Longevity, and Immortality Practices in South and Inner Asia

Edited by Dagmar Wujastyk, Suzanne Newcombe, and Christèle Barois

Tibetan Precious Pills as Therapeutics and Rejuvenating Longevity Tonics

Barbara Gerke

University of Vienna

HISTORY OF SCIENCE IN SOUTH ASIA

A journal for the history of all forms of scientific thought and action, ancient and modern, in all regions of South Asia, published online at http://hssa-journal.org

ISSN 2369-775X

Editorial Board:

- Dominik Wujastyk, University of Alberta, Edmonton, Canada
- Kim Plofker, Union College, Schenectady, United States
- Dhruv Raina, Jawaharlal Nehru University, New Delhi, India
- Sreeramula Rajeswara Sarma, formerly Aligarh Muslim University, Düsseldorf, Germany
- Fabrizio Speziale, Université Sorbonne Nouvelle CNRS, Paris, France
- Michio Yano, Kyoto Sangyo University, Kyoto, Japan

Publisher:

History of Science in South Asia

Principal Contact:

Dominik Wujastyk, Editor, University of Alberta Email: \(\square\) wujastyk@ualberta.ca\(\)

Mailing Address:

History of Science in South Asia, Department of History and Classics, 2–81 HM Tory Building, University of Alberta, Edmonton, AB, T6G 2H4 Canada

This journal provides immediate open access to its content on the principle that making research freely available to the public supports a greater global exchange of knowledge.

Copyrights of all the articles rest with the respective authors and published under the provisions of Creative Commons Attribution-ShareAlike 4.0 License.

The electronic versions were generated from sources marked up in LaTeX in a computer running gnu/linux operating system. PDF was typeset using XaTeX from TeXLive. The base font used for Latin script and oldstyle numerals was TeX Gyre Pagella developed by gust, the Polish TeX Users Group.

Tibetan Precious Pills as Therapeutics and Rejuvenating Longevity Tonics

Barbara Gerke *University of Vienna*

1. MEETING MAGIC PILLS

Tt is a brilliant sunny afternoon in McLeod Ganj in spring 2016, and I just obf I served a foreign tourist buying a three-month supply of precious pills, each wrapped in green-colored silk cloth, at a private Tibetan medical clinic. From the color I recognize them as Rinchen Chakril Chenmo, the Precious Great Iron Pill, a panacea for all kinds of eye disorders, including cataracts. I am curious and strike up a conversation with the young man while walking down the bazaar road lined with little Tibetan shops selling hand-knitted socks, shawls, and Dalai Lama post cards. Having settled here in the 1960s after fleeing the Chinese invasion, Tibetan refugees and the Dalai Lama have re-established their governmentin-exile here, and it is now a vibrant international community. "Little Lhasa," as this hillside settlement in northwestern India is often called,² is buzzing with tourists this time of the year. The young man is from St. Petersburg and tells me that a friend of a friend who is practicing Tibetan medicine in Russia recommended this clinic to him. In Russia, he also heard about the precious pills. When I ask him whether he knows what is inside the pills he says: "We call them magic pills not precious pills. I do not know what is inside them and I don't want to know; I just want to believe in their magic!" He had taken Tibetan medicine himself against stomach pain and felt better after ten days. He explains, "Now I am bringing these magic pills back for my mother. Her eyes are bad and the doctor told me these will improve her eyesight." He is leaving town soon and hurriedly

1 A contemporary description of its therapeutic usage has been published in English by the Men-Tsee-Khang: http://www.men-tsee-khang.org/ medicine/rinchen-pills/chakril.htm. Accessed September 8, 2017. 2 Anand 2000.



bids me a quick good-bye before turning the corner. I am left with the question of how many foreigners are taking magic pills back to their loved ones from a visit to McLeod Ganj without knowing much about them and without the person taking the pills ever consulting a qualified Tibetan physician, as is typically required in Tibetan medical practice, also known as Sowa Rigpa.³

Later, I google the terms "magic" and "precious pills" and indeed find a website in German by the Tibetan Geshe Gendun Yonten, who is a trained Tibetan monk scholar but not a Sowa Rigpa physician. Geshe Yonten presents precious pills as magic jewel pills (magische Juwelenpillen) with descriptions that are largely translated from the website of the Men-Tsee-Khang (MTK), the largest Tibetan medical institute in the Indian diaspora. The MTK's website does not use the term magic. The Tibetan term for magical power is tu (mthu). As far as I know it is not found in medical descriptions of precious pills, but I have seen the term "endowed with magical powers" in descriptions of precious substances.. Geshe Yonten uses the word magic to refer to the alchemical and astrological conditions that are considered important in the complex manufacturing of precious pills. We will see how some of these conditions form an integral part of Sowa Rigpa understandings of potency.

Curious, I walk back to the clinic and ask at the counter how many of each precious pill I could buy. "Five hundred a day per kind as long as stocks last," I am told. On another occasion, at the same clinic, I watch a young Tibetan man paying his bill of several thousand Indian rupees⁸ and packing large bags of what I guess are hundreds of precious pills into his backpack. The price of precious pills in this clinic varies from forty to sixty Indian rupees per pill, an average of eighty euro cents per pill. Each is individually wrapped in colored silk. Five types are available, each packaged in their own color. "Where are you taking all these?" I ask him in Tibetan. "Back to Tibet" he smiles. "Over there, it is difficult for us to get precious pills. They are expensive, and these here have been blessed

Gendun Yonten. Accessed September 9, 2017.

- 5 Kloos 2008, 2010.
- 6 This article follows the transcription developed by The Tibetan and Himalayan Library (THL) to provide the phonetic version of Tibetan terms, followed by their Wylie (1959) transliteration at first use. On the THL transcription system, see Germano and Tournadre 2003.
- 7 See also Triplett 2014: 199-203.
- 8 At the time one euro was about seventy-five Indian rupees.

³ In India, Tibetan medicine was officially recognized under the name of Sowa Rigpa in 2010 under AYUSH (the Department of Ayurveda, Yoga and Naturopathy, Unani, Siddha, Sowa Rigpa, and Homoeopathy, Government of India). See Craig and Gerke 2016 for a critical discussion on the naming of Sowa Rigpa; see Blakie 2016 and Kloos 2016 for the recognition process in India; and see Kloos 2013 for how Tibetan medicine became a "medical system" in India.

⁴ http://www.openyourlife.de/magicpills.htm. German website of Geshe

by His Holiness, so they are much better." His comments raise questions of what else other than their complex *materia medica* compositions of twenty-five to more than one hundred ingredients contributes to their perceived efficacy.

Moreover, what kind of access do Tibetans have to their own medicines in the People's Republic of China (PRC)? Hofer describes from her fieldwork in 2006–2007 how precious pills are sold as OTC (over-the-counter) drugs in the Lhasa and Shigatse area in the Tibetan Autonomous Region (TAR), as well as to tourists in "biomedical pharmacies-cum-souvenir shops" as a showcase for a "developing" and "alive" Tibetan medical culture. Since 2003 their production in the PRC follows Good Manufacturing Practices (GMP), which are implemented in diverse ways, at times opposing traditional practice, but have recently received more positive responses from Tibetan physicians. Their state regulation and pharmaceuticalization has turned them into valuable commodities expressing "Tibetanness," while they often remain expensive and unaffordable for rural Tibetans. This situation is different in India, where my fieldwork data is based on.

In Dharamsala, precious pills are sold as OTC-drugs in only one privately-run Tibetan clinic. The MTK, which currently produces eight types of precious pills on a regular basis (priced between 40 and 100 Indian rupees per pill), has strict regulations on their sale. Here, precious pills (as most other medicines, except three herbal OTCs,¹³ Sorig supplements, and teas) are principally prescription drugs, and one has to see a Tibetan physician and receive a proper prescription based on a diagnosis. There is even a limit for these prescriptions because of the shortage of precious pills.

In 2015–2016, local Tibetans were given special passes with which they were allowed to receive ten precious pills of each kind per month. This set of eighty pills cost 1,890 rupees (around 27 euros) and was in high demand to be traded not only among Tibetans but also to international Buddhist communities and patients from all walks of life who value them for various reasons. "A trader will add about five hundred rupees commission," I was told by one of the workers at a MTK branch clinic. "Especially in winter, when most Tibetans go on pilgrimage to Bodh Gaya, the demand is very high." I had heard many times from Tibetans that they would take a precious pill before embarking on a journey to be stronger and to protect themselves from infectious disease, especially in the hot Indian plains. But now there seemed to be an additional demand developing. He said, "Apart from the Tibetans, there were the Taiwanese buying precious pills. Now,

```
9 Hofer 2008: 177.10 Saxer 2013.11 Cuomo 2016.
```

13 In 1996, the Men-Tsee-Khang launched three general herbal medicines as OTCs (Men-Tsee-Khang 1996: 1).

¹² Hofer 2008: 178.

more recently, Chinese Buddhists who come to Bodh Gaya take the pills back to Tibet. Last winter, the demand was so high that we only gave out precious pills once a month. On that day the line was always very long, and we'd see about one hundred patients." The current demand for precious pills in India is clearly higher than the supply, even though the MTK has increased production. 14

In this paper I explore two basic questions: 1) What makes precious pills "precious" and 2) what is "rejuvenating" about them? I approach this inquiry from the angle of how precious pills are publicly presented online, how rejuvenation is explained in Tibetan works on precious pills, and how Tibetan physicians understand these attributes.

2. "EFFICACY COMES IN MANY FORMS"

"When taken for rejuvenation by a healthy person, [this precious pill] should be taken on an auspicious dates [sic] like eight [the 8th of the Tibetan month], full moon and new moon days of [the] Tibetan lunar calendar to gain optimum result[s]."

- MTK website advice for seven of eight precious pills¹⁵

The current popularity and perceived efficacy of precious pills appears to be based on a variety of components. They are valued as strong medicines, strengthening tonics, travel protection, spiritual blessings, priced commodities, magic pills, and also as an expression of Tibetan identity in the struggle for a Free Tibet. Their preciousness is traditionally accentuated by the pills' individual silk wrapping (since 2009 the MTK has replaced these with machinemade blister-packs). It also refers to their content of between 25 and 140 plants, semi-precious stones and jewels (e.g., rubies, diamonds, corals, turquoise, pearls, sapphires, lapis), and the special processed compound of a refined mercury-sulfide powder, known as tsotel (btso thal). Tsotel is processed with the ash of eight other metals (copper, gold, silver, iron, bronze, brass, tin, lead) and with eight pre-processed mineral or rock components ("sour-water stone", red mica, gold ore or chalcopyrite, orpiment, magnetite, pyrite or galena, realgar, and silver ore or pyrargyrite). traverare

- 14 For example, Ratna Samphel, which appears to be in highest demand, was produced twice in June 2016, around 20,000 kilos each batch. http://www.men-tsee-khang.org/dept/pharmacy/prod-finished.htm. Accessed September 18, 2017.
- 15 Excerpted from the MTK's English website: http://www.men-tsee-khang.org/medicine/pills.htm. Accessed
- September 18, 2017. The relevant sections on the Tibetan leaflets read: *nad med bcud len du bsten mkhan rigs nas tshes brgyad dang/bco lnga/ gnam gang sogs gza' tshes dge ba'i dus su bzhes thub tshe phan nus che ba yod.* 16 Kloos 2012.
- 17 These are rough identifications for *chu skyur rdo, lhang tsher dmar po, gser rdo, ba bla, khab len, pha wang long bu, ldong ros,* and *dngul rdo,* respectively; see Gerke 2013:127.

Vincanne Adams reminds us: "Efficacy comes in many forms" and with different kinds of reasoning, and is often "unattached to singular fixed biological ground in any essential way". My examples above confirm Adam's view that "efficacy happens at the intersection of episteme and practice, where personal and sociological contexts blur. This inter-section forms the essence, the heart, of efficacy". Anthropologists acknowledge that "a medicine's efficacy is often produced at the crossroads of ritual action and pharmacology". The taking of Tibetan pills has been ritualized to varying degrees. Auspiciousness still plays a role in enhancing "efficacy," and is in fact one of the three main pillars on which Sowa Rigpa concepts of potency and efficacy are based, as explained below.

In the Tibetan language, complex notions of potency are often found under the umbrella term $n\ddot{u}pa$ (nus pa), which is frequently translated into English as "potency," but also as "efficacy." $N\ddot{u}pa$ is combined with the term for "benefit," pentok (phan thog), as $penn\ddot{u}$ (phan nus) to indicate the "benefit potency," which Sienna Craig aptly describes as "coupling that which is useful with that which is powerful". 22 $Penn\ddot{u}$ is often glossed as "efficacy," but in itself comprises a complex set of ideas to describe efficacies of medicines and ritual compounds. 23 Tibetan translators have also used the Tibetan word $pheny\ddot{o}n$ (phan yon, meaning "beneficial qualities") to express the "effectiveness" 24 of medicines, but Tibetan physicians themselves do not find the biomedical distinction between "efficacy" and "effectiveness" useful. 25 They think of efficacy in different, more complex ways.

In Sowa Rigpa, *nüpa* comes in three basic ways:²⁶ through the "*nüpa* of the substance" itself, *dzé kyi nüpa* (*rdzas kyi nus pa*); through the "*nüpa* of mantra" con-

- 18 Adams 2010: 8.
- 19 Adams 2010: 10.
- 20 Craig 2010: 216.
- 21 Czaja (2015) offers a detailed study of seven medical texts on how to administer precious pills, which all involve Buddhist rituals.
- 22 Craig 2012: 6, original emphasis.
- 23 For example, Craig 2010, 2015 and Schrempf 2015: 288.
- 24 See Witt (2009) for a differentiation between efficacy and effectiveness. Efficacy refers to clearly measurable effects of a drug (through randomized control trials (RCTs)), while effectiveness is more inclusive of "pragmatic" approaches to whether a drug works in normal practice, also including "felt effects of a medicine" (Craig 2012: 8).

- 25 Craig 2015: 166.
- 26 There are also other types of potency, such as the "eight potencies," nüpa gyé (nus pa brgyad), in Sowa Rigpa pharmacology, which are the sensorial parameters of heavy, oily, cool, blunt, light, coarse, hot, and sharp. There are also distinctions made between the "taste potency," nüpa ro (nus pa ro), which is based on different combinations of the five elements, jungwa nga ('byung ba lnga), water, fire, earth, wind, and space, and the "intrinsic potency," nüpa ngowo (nus pa ngo bo), which is based on the nature of the actual substances, dzé (rdzas). These different types of potencies are explained in chapter twenty of the Explanatory Tantra, the second part of the Four Treatises (Yutok Yönten Gonpo 1982: 65/11 ff).

secration, ngak kyi nüpa (sngags kyi nus pa); and through the so-called "nüpa of auspiciousness," temdrel gyi nüpa (rten 'brel gyi nus pa), which is generated not only through processing substances at an auspicious time,²⁷ but also by administering pills at a potentially powerful moment, for example, during "nectar hours," on days when one's vital forces are strongest,²⁸ or during the full and new moon and other favorable Tibetan lunar calendar days as in the MTK's online indications in the opening quote to this section.²⁹

The opening quote mentions three auspicious dates: 1) the eighth day of the Tibetan lunar calendar, which is dedicated to the Medicine Buddha and is thus considered auspicious for taking special medicines; 2) the fifteenth day, the full-moon day, auspicious in Buddhism because many life events of Buddha Shakyamuni—e.g., his birth, enlightenment, and death—are said to have occurred during full moon; and 3) the thirtieth day, which is the auspicious new moon day. Tibetan calendars and almanacs are filled with information on auspicious and inauspicious days based on temporal rhythms of various factors that influence life-forces and longevity.³⁰ Both full and new moon are said to have an influence on the vital forces moving around the body, such as a vital essence called *la* (*bla*), which is said to pervade the entire body for a short period of time on full and new moon days.³¹ Taking precious pills on any of these auspicious days is believed to make them more effective; this is what is meant by the "nüpa of auspiciousness."

An example of the "nüpa of mantra" or "spiritual efficacy" is seen in the above ethnographic example of the young man from Tibet who attributed the Dalai Lama's blessings or jinlab (byin rlabs) to the precious pills he bought in Dharamsala. Jinlab is generated in different ways. First, precious pills are produced in the vicinity of the Dalai Lama, and the entire surroundings are believed to be permeated with his jinlab. Second, the MTK itself produces "dharma medicine" (chos sman) which is ritually consecrated at the Dalai Lama's temple and then added to the medicines back in the pharmacy. "Dharma medicine" is often confused with, but is actually quite different from, the mani rilbu distributed to the public at the Dalai Lama's temple during certain holidays as described, for example, by Audrey Prost. The "dharma medicine" added to the precious pills is so-called "nectar dharma medicine" or dütsi chömen (bdud rtsis chos sman) and is produced at the MTK pharmacy itself. It is then consecrated at the Dalai

²⁷ An example here is the processing of a type of calcite (*cong zhi*), which is processed during a full moon night in August.

²⁸ Gerke 2012b: 132-33.

²⁹ Czaja (2015: 50–51) gives other examples

of auspicious times to take precious pills.

³⁰ This is discussed at length in Gerke 2012b.

³¹ Gerke 2012b: 139-40.

³² Prost 2008: 78.

Lama's temple and brought back to the pharmacy to be added as *jinlab* to medicines. *Dütsi chömen* follows a specific formula and contains more than a hundred ingredients which are medicinal in nature and even include small amounts of standard herbal formulas for the prevention of infectious disease such as Norbu Dünthang and Pangyen 10.³³ *Dütsi chömen* combines two types of *nüpa*, relying on the *nüpa* of substances as well as that of mantras adding "spiritual efficacy." However, it does not explain the rejuvenating effects assigned to several of the precious pills found on the MTK website and leaflets today.

Below, I explore the question of how, why, and for whom Tibetan precious pills are linked to ideas of rejuvenation—in Tibetan terms, taken as a *chülen* (*bcud len*) by the healthy. How did these pills receive these attributes? What do different texts reveal about their use as rejuvenators?

3. PRECIOUS PILLS AS REJUVENATING TONICS ONLINE

A NINITIAL ANALYSIS of the MTK website and the corresponding leaflets for their set of eight precious pills shows that almost all of them (except Rinchen Tsajor) are presented as rejuvenating pills for healthy people when taken on auspicious days. In seven out of eight pill descriptions we find the advice: "When taken for rejuvenation by a healthy person, it should be taken on an auspicious date like eight [sic], full moon and new moon days of [the] Tibetan lunar calendar to gain optimum result[s]".34 Let us look at the eight precious pill presentations in more detail (see Table 1 below, numbers 1–8, for their names).35

The website descriptions are the English versions of the individual bi-lingual leaflets (English and Tibetan) that are given out at MTK dispensaries. The

- 33 Personal communication, Dr Choelothar, Chontra, April 2017.
- 34 Excerpted from the MTK's English website: http://www.men-tsee-khang.org/medicine/pills.htm. Accessed September 18, 2017. The relevant section on the seven Tibetan leaflets reads: nad med bcud len du bsten mkhan rigs nas tshes brgyad dang/bco lnga/ gnam gang sogs gza' tshes dge ba'i dus su bzhes thub tshe phan nus che ba yod. 35 Tibetan formulary texts document more than these eight precious pills, for example: Rinchen Gujor (rin chen dgu sbyor), Rinchen Jangchö 37 (rin chen byang chos so bdun), Rinchen Tsukshel (rin chen gtsug bshal),

Rinchen Telkem Menjor (rin chen thal skem sman sbyor), and others (e.g., Dawa Ridak 2003: 502; Sonam Dhondup and BMTK 2006: 714–21). New formulas of precious pills also exist. For example, Rinchen Ratna Gugul (rin chen ratna gu gul), Rinchen Muk Khyung Gugul (rin chen smug khyung gu gul), and Rinchen Dangtso (rin chen dang mtsho) are made by Gen Rinpoche Lozang Tenzin Rakdho at CUTS in Sarnath, who formulated the first two; Rinchen Dangtso was formulated by Khempo Troru Tsenam (1926–2004). All three contain tsotel. Personal email communication, Dr Penpa Tsering, October 2017.

Nr.	Tibetan Name (Phonetics)	English Translation	Wylie Transliteration
1	Rinchen Drangjor Rilnak Chenmo	Precious Cold Compound Great Black Pill	Rin chen grang sbyor ril nag chen mo
2	Rinchen Ratna Samphel or Mutik 70	Precious Wish-fulfilling Jewel or Pearl 70	Rin chen ratna bsam 'phel or Mu tig bdun bcu
3	Rinchen Tsajor Chenmo	Precious Great Hot Compound	Rin chen tsha byor chen mo
4	Rinchen Mangjor Chenmo	Precious Great Multi-Compound	Rin chen mang sbyor chen mo
5	Rinchen Tsodru Dashel Chenmo	Precious Great Refined Moon Crystal	Rin chen btso bkru zla shel chen mo
6	Rinchen Yunying 25	Precious Old Turquoise 25	Rin chen g.yu rnying nyer lnga
7	Rinchen Jumar 25	Precious Red Coral 25	Rin chen byur dmar nyer Inga
8	Rinchen Chakril Chenmo	Precious Great Iron Pill	Rin chen lcags ril chen mo
9	Rinchen Wangril 25	Precious Powerful Pill 25	Rin chen dbang ril nyer lnga
10	Rinchen Mutik 25	Precious Pearl 25	Rin chen mu tig nyer lnga

Table 1: The ten precious pills mentioned in this article.

Tibetan version of the leaflet varies in some cases. Each leaflet is dedicated to one precious pill and describes its "formula," "brief indication," and "instructions/cautions" on how to take the pill, followed by the Medicine Buddha mantra, which people may recite while taking precious pills. Here are the relevant excerpts referring to rejuvenation and prevention of disease for each of the eight pills:

1) Rinchen Drangjor Rilnak Chenmo Among the eight precious pills, Rinchen Drangjor is the most complex and mentioned first; it is "like the king of all precious pills", 36 with a rejuvenating and aphrodisiac effect on the healthy: "When taken by a healthy person, it enhances complexion, clears sense organs, is a rejuvenator, acts as an aphrodisiac, strengthens nerves, blood vessels and bones, and is a prophylactic ...". 37

36 rin chen kun gyi rgyal po lta bu yin. MTK leaflet on Rinchen Drangjor in Tibetan.
37 Excerpted from the MTK's English website: http://www.men-tsee-khang.org/medicine/rinchen-pills/drangjor.htm.
Accessed September 18, 2017. The relevant

section on the Tibetan leaflet reads: nad med rnams kyis bsten na lus mdangs rgyas shing/dbang po gsal ba/ rgas ka sra ba/ ro tsa 'phel ba/ rtsa dang rus pa mkhregs pa/ nad gzhi sngon 'gog thub ba sogs bcud len gyi mchog tu gyur ba yin/.

- **2) Rinchen Ratna Samphel** "When taken by a healthy person, it helps to develop complexion, clears sensory organs, rejuvenates, increases virility and can prevent all disorders mentioned above ..."³⁸
- **3) Rinchen Tsajor Chenmo** Rinchen Tsajor is not advertised as a rejuvenating tonic; rather, the website cautions: "When taken by a healthy person, it can prevent all disorders mentioned above. However, it is recommended to use this pill only after consulting the physician".³⁹
- **4) Rinchen Mangjor Chenmo** "When taken by a healthy person, it develops body radiance, clears sensory organs, helps in rejuvenation, is an aphrodisiac, strengthens nerves, blood vessels and bones and acts as a prophylactic, etc". 40
- **5) Rinchen Tsodru Dashel Chenmo** "When taken by a healthy person, it acts as a rejuvenator".⁴¹
- **6) Rinchen Yunying 25** "It is exceptionally beneficial against chronic liver disorder if taken regularly over a period of time. It can prevent all disorders mentioned above when taken by a healthy person...".⁴²
- **7) Rinchen Jumar 25** "It helps to prevent all the disorders mentioned above when taken by a healthy person".⁴³
- **8) Rinchen Chakril Chenmo** "When taken by a healthy person, it can prevent all disorders mentioned above and protects one's eyes".⁴⁴

38 http://www.men-tsee-khang.org/medicine/rinchen-pills/ratna.htm.
Accessed April 8, 2017. The relevant section on the Tibetan leaflet reads: nad med rnams kyis bsten na lus mdangs rgyas shing/dbang po gsal ba/rgas ka sra ba/ro tsa'phel ba/gong gsal nad gzhi'i rigs sngon 'gog thub ba sogs bcud len gyi mchog tu gyur ba yin/.

39 http://www.men-tsee-khang.org/medicine/rinchen-pills/tsajor.htm.

Accessed April 8, 2017. The relevant section on the Tibetan leaflet reads: *nad med rnams kyis bsten na gong gsal nad gzhi rnams sngon 'gogs thub pa yin/ 'on te sman par bsten gtugs gnang nas bsten na dge phan che/.*

40 http://www.men-tsee-khang.org/medicine/rinchen-pills/mangjor.htm.
Accessed April 8, 2017. The relevant section on the Tibetan leaflet reads: nad med rnams kyis bsten na lus mdangs rgyas shing/dbang po gsal ba/rgas ka sra ba/ro tsa 'phel ba/ rtsa dang rus pa mkhregs pa/ nad gzhi sngon 'gog thub pa

sogs/.

gyur ba yin/.

41 http://www.men-tsee-khang.org/medicine/rinchen-pills/tso-tru.htm.
Accessed April 8, 2017. The relevant section on the Tibetan leaflet reads: nad med rnams kyis bsten na stobs skyed bcud len gyi mchog tu

42 http://www.men-tsee-khang.org/medicine/rinchen-pills/yunying.htm.
nad med rnams kyis bsten na gong gsal nad gzhi rnams sngon 'gog thub pa yin/. Accessed April 9, 2017.

43 http://www.men-tsee-khang.org/medicine/rinchen-pills/jumar.htm. nad med rnams kyis bsten na gong gsal nad gzhi rnams sngon 'gog thub pa yin//. Accessed April 9, 2017.

44 http://www.men-tsee-khang.org/medicine/rinchen-pills/chakril.htm.
nad med rnams kyis bsten na gong gsal nad gzhi rnams sngon 'gog dang mig srung skyob thub pa yin//. Accessed April 9, 2017.

The last two precious pills in the above table, Rinchen Wangril 25 and Rinchen Mutik 25, are not manufactured at the MTK but by some private physicians in India and Nepal. They are mentioned in the popular precious pill book by Aschoff and Tashigang (2009) but not as rejuvenating tonics (see further below).

Seven of the eight precious pills (with the exception of Rinchen Tsajor) are presented by the MTK as rejuvenators, as they all include the same advice highlighted in this section's opening paragraph. The additional individual descriptions above show that in one way or another they can be taken by a healthy person for rejuvenation or disease prevention. Other websites that sell precious pills internationally use similar approaches. Here are two examples:

"J. Crow's Marketplace" website, a private North American-based online sale for esoteric items, offers seven of the above listed pills, excluding Rinchen Tsajor. These Indian MTK-made Tibetan precious pills are sold on J. Crow's website only as talismans and with an FDA disclaimer⁴⁵ at around twelve US dollars a pill.⁴⁶ The website's photos still show the older types of precious pill packaging that were used by the MTK in India before blister packs were introduced in 2009.⁴⁷ Four of them (Rinchen Drangjor, Mangjor Chenmo, Ratna Samphel, and Tsodru Dashel) are advertised as a "general tonic" for the healthy; Jumar 25 can be taken "occasionally, by healthy persons, as a preventive measure against nerve disorders" and Chakril Chenmo "can also be used generally to keep the vessels of the eyes fresh and healthy".⁴⁸ Only Old Turquoise 25 is advertised as a specific remedy for liver disorders.

The website "Vajrasecrets" is linked to the Buddhist foundation Kechara in Malaysia, which was established in 2000 by the Mongolian-Tibetan Tsem Rinpoche, a reincarnate lama from Ganden Shartse Monastery, who follows the controversial Shugden tradition.⁴⁹ Their website sells a variety of precious pills from India as "holy items".⁵⁰ Among a range of blessed pills of various sizes that are also called "precious pills," they are clearly identified as "precious pills of Tibetan medicine" with a brief description of their therapeutic range. However, they are only to be "inserted in statues or stupas, or placed on the altar as an

45 This refers to the legislation of foods, dietary supplements, and drugs by the US Food and Drug Administration (FDA), which stipulates that dietary supplements must have a disclaimer on their label. It typically states that the product is not intended to diagnose, treat, cure, or prevent any disease

```
46 http://www.jcrows.com/incense.
html#pills. Accessed April 9, 2017.
```

```
47 http://www.men-tsee-khang.org/
announcement/eng-rinchen.htm. Ac-
cessed April 9, 2017.
48 http://www.jcrows.com/
precioushistory.html. Accessed
April 9, 2017.
49 Dreyfus (1998) offers a good summary of
the controversy.
50 http://www.vajrasecrets.com/
precious-pills. Accessed April 9, 2017.
```

offering of medicine" thus emphasizing their spiritual efficacy and avoiding any legalities linked to their consumption as medicine.⁵¹ The benefits of longevity or use as rejuvenation tonics are not mentioned. Other websites, such as "Siddhienergetics" mention precious pills as a "general prophylactic," describe how to take them, but at the same time warn about possible dangers and add FDA disclaimers and advise consumers to consult a qualified physician and not take "more than one pill per month unless prescribed by a Tibetan doctor.⁵² "Siddhienergetics" was founded by Joseph Wagner in Denver, Colorado, after his own positive experience with Tibetan medicine in Nepal. His medicines are made by Ngawang Drakpa, a Tibetan physician in Kathmandu.

Non-academic, grey literature on precious pills presents similar ideas. Aschoff and Tashigang published various undated leaflets on ten precious pills (the above eight, plus Rinchen Wangril and Rinchen Mutig 25) from across India, Nepal, and some Tibetan pharmacies in the PRC.⁵³ Six of the ten precious pills are presented for various diseases but also as tonics for the healthy in various ways, except Rinchen Tsajor, Ratna Samphel, Wangril, and Mutig 25.⁵⁴

From these contemporary online and print examples one gets the impression that precious pills are both for the sick and the healthy, and that they have a rejuvenating and disease-preventing effect. Next I will explore the terms that are loosely translated from the Tibetan into English as "rejuvenating," and analyze whether Tibetan textual formulas for precious pills actually present a similar picture as found on contemporary leaflets and websites.

4. TRANSLATING CHÜLEN AS "REJUVENATION"

Technical Tibetan terms employed in longevity contexts usually have a variety of other meanings, but tend to be translated in English in terms of "rejuvenation," which is easily associated with modern esoteric connotations of antiageing and well-being. When looking at the Tibetan versions of the MTK precious pill leaflets, the predominant Tibetan term that in the English version is translated as "rejuvenation" is *chülen.*⁵⁵ *Chü (bcud)* has many meanings and can be translated, for example, as taste, essence, elixir, sap, moisture, potency, nu-

```
51 For example: http://www.vajrasecrets.com/tsodruptashil-37.
Accessed April 9, 2017.
52 For example: https://www.siddhienergetics.com/products/jumar-25-precious-pill. Accessed April 9, 2017.
53 Aschoff and Tashigang 2001, 2004, 2009.
```

⁵⁴ Aschoff and Tashigang 2001: 60, 63–65, 72–75, 78–79, 90, 92, 94–95, 97.

⁵⁵ Other terms used are: "can prevent the cause [of disease]" (*gzhi sngon 'gog thub ba*), and "not looking as old as one is" (*rgas ka sra ba*), both translated by the MTK as "rejuvenator."

trition, extraction, good substance, vitality, or distilled essence. In pharmacological contexts I translate *chülen* as "essence extraction," since *chü* must first be extracted from substances such as stones, flowers, metals, or minerals through soaking, cooking, and other practices before it can be consumed. While many *chülen* formulas are described as useful for preventing ageing and revitalizing the body, they also have significant religious, pharmacological, and nutritional meanings and purposes. Their appearance in both medical and ritual contexts supports the wide-spread belief in Tibetan societies that vital essences can be extracted from the outer elements—through visualization and/or pharmacological extraction—and imbibed by humans to support spiritual and physical health. Substances rich in *chü* carry "potency," or *nüpa*, that can be added to strengthen other formulas. I discussed elsewhere how notions of *chülen* have been re-invented at the MTK in the context of Sorig OTC "rejuvenating tonics," sold as supplements. Note that these MTK Sorig supplements do not include precious pills, which are treated as medicine and are made in the pharmacy.

The recurring sentence in the above opening quote of the MTK advice on how to take (seven of the eight) precious pills, "When taken for rejuvenation by a healthy person ..." (nad med bcud len du bsten), is significant for two reasons. First, it includes the "healthy person" in the group of precious pill consumers. Second, it points to the themes of "prevention" and "rejuvenation." Both refer to two well-known subject areas of Sowa Rigpa knowledge in the Four Treatises that emphasize the importance of taking chülen: "maintaining health" and "treating the aged". Taking chülen for disease prevention and rejuvenation is a long-established Sowa Rigpa episteme going back to the twelfth century with clear links to Indian rasāyana (rejuvenation) practices mentioned in the great Ayurvedic classic Aṣṭāṅgahṛdayasaṃhitā. Curiously, none of the chapters dealing with rasāyana/chülen in the Four Treatises mention precious pills; these are mentioned in the chapter on "precious medicine" (see below) and are not directly linked to the chülen material adopted from the Astāṅgahrdayasamhitā.

This raises certain questions: What is "rejuvenating" in a precious pill? How is this linked to what makes a precious pill "precious," in Tibetan *rinchen* (*rin*

⁵⁶ THL (2010).

⁵⁷ Gerke 2012a. See also Oliphant 2016 for an analysis for *chülen* formulas.

⁵⁸ Gerke 2012c.

⁵⁹ I refer here to chapter 23 of the second of the *Four Treatises*, titled 'Normal Health' (*nad med tha mal gnas*, "remaining in a normal state without disease") and to chapter 90 of the third of the *Four Treatises*, titled

[&]quot;The treatment of the aged with essence extractions" (*rgas pa gso ba'i bcud len*). Yutok Yönten Gonpo 1982: 80/13–82/2; 548/6–551/12; See Gerke 2012a for an analysis of these chapters.

⁶⁰ I used the German translation of the *Aṣṭāṅgaḥṛdayasaṃḥitā* by Hilgenberg and Kirfel (1941:710–36). For an English translation see Murthy 1996.

chen)? Why, when, and how have precious pills been presented as chülen? Three of the MTK precious pills do not contain tsotel, but are nevertheless presented as "rejuvenating" (Jumar 25, Chakril Chenmo, Old Turquoise 25). In Tibetan formularies only three of the more complex precious pill formulas (Rinchen Drangjor, Manjor Chenmo, Tsodru Dashel) are called a chülen, though not consistently (see below). The Tibetan versions of the MTK leaflets on Rinchen Drangjor, Ratna Samphel and Tsodru Dashel highlight them as a "supreme chülen" (bcud len gyi mchog tu gyur ba yin). Before exploring these key questions, I ask what makes precious pills actually "precious." What is entailed in calling a formula a precious pill, in Tibetan a rinchen rilbu (rin chen ril bu)?

5. WHAT MAKES A MEDICINE A RINCHEN RILBU?

PRECIOUS PILLS are frequently grouped together as a special group of Tibetan medicines that are entogorized and the second secon medicines that are categorized, marketed, and packaged as a set of commodities called rinchen rilbu, translated as precious pills or jewel pills. But what is a rinchen? Rinchen means precious and refers to substances categorized in the Four Treatises under "precious medicines" or rinpoché men. Note that the Tibetan term for medicine, men, can refer to both a compound or a single substance. Eleven substances are listed as precious medicines in the materia medica chapter (chapter 20 of the Explanatory Treatise): gold, silver, copper, iron, turquoise, pearl, mother of pearl, conch shell, coral, and lapis lazuli. 61 Later pharmacopeias list many more precious medicines. For example, the early eighteenth century wellknown materia medica work A Lump of Crystal and its commentary A Rosary of *Crystal*, in Tibetan briefly called *Shelgong Sheltreng*, 62 introduces fifty-six precious substances. 63 The last part of the Four Treatises (chapter 11 of the Last Treatise) contains a chapter specifically dedicated to the preparation of rinchen medicine, focusing on the two precious pills Rinchen Drangjor and Rinchen Tsajor and their manufacturing. ⁶⁴ Here it is said that *rinpoché men* should be prescribed when the body has become used to other forms of medicines (liquids, powders, pills, etc.), and the disease remains untreated.⁶⁵

There are two common misunderstandings about precious pills. First, statements found online on sites that sell precious pills promote the historically ques-

⁶¹ In Tibetan these are *gser, dngul, zangs, lcags, g.yu, mu tig, nya phyis, dung, byu ru,* and *mu men* respectively. Yutok Yönten Gonpo 1982: 66/12–17.

⁶² In Tibetan *Shel gong shel phreng* (Deumar Tendzin Püntsok 2009).

⁶³ Deumar Tendzin Püntsok 2009:14–15; 4/2–6/8.

⁶⁴ Yutok Yönten Gonpo 1982:601/9-604/14. Gerke and Ploberger (2017) provide an English translation of this chapter. See also Men-Tsee-Khang 2011:125–33.

⁶⁵ Yutok Yönten Gonpo 1982:601/10–11, Men-Tsee-Khang 2011:125.

tionable claim that they have been "in use for more than 1,200 years in Tibet". 66 The second widespread misunderstanding is that precious pills form a homogenous group of special pills within a homogenous system called "Tibetan Medicine." In fact, precious pills comprise heterogeneous Sowa Rigpa formulas that emerged from different histories, contexts, and sources. The oldest (Rinchen Drangjor, Rinchen Tsajor) are mentioned in simplified forms in the *Four Treatises*, dating back to the twelfth century. 67 The youngest formulas (e.g., Jumar 25, Old Turquoise 25) emerged only around the seventeenth and eighteenth century. Some precious pills are common formulas to which *tsotel* is added. For example, Ratna Samphel, also called Mutik 70, is based on the formula Nyachi 25 mentioned in the *Four Treatises*. 68 Its formula became more complex over time, and it is called a *rinchen rilbu* when *tsotel* is added. 69 The case of Tsodru Dashel is similar in that it is based on the common formula Dashel 37, but includes *tsotel* instead of *kardül* (*dkar 'dul*). 70 This turns it into a *rinchen rilbu* and changes its name to Rinchen Tsodru Dashel.

Precious pill formulas are scattered across Tibetan formularies, and are often presented in chapters dedicated to the diseases they predominantly treat (e.g., Mangjor Chenmo appears in chapters on poisoning, Chakril Chenmo in chapters on eye disease). It is only in some contemporary pharmacopoeias that they appear in unison as a group of pills (though with variations),⁷¹ all prefixed with *rinchen*; only recently have they been commodified as a particular set of medicines, which in part drive the Tibetan medical industry today, though in very different ways, in both the PRC⁷² and in India.

When discussing with Tibetan physicians in India the question of what makes a precious pill "precious," I received several different answers, emphasizing four aspects: (1) their costly and precious ingredients, (2) their rarity, (3) their tsotel content, and (4) their packaging. First, they are precious because they contain in varying amounts expensive and precious ingredients, such as gold, silver, rubies, turquoise, pearls, sapphires, and so forth, categorized as *rinpoché men* (see above). The term *rinpoché* is also used for a highly respected Buddhist master. The Tibetan physician Dr Choelothar explained: "One main quality of a *rinpoché*

```
66 https://www.siddhienergetics.com/products/jumar-25-precious-pill.
Accessed April 9, 2017. See also: http://www.men-tsee-khang.org/announcement/rinchen-new.htm, that states that "The practice of this formulation [rinchen rilbu] is approximately 1200 years old." Accessed April 9, 2017.
67 Men-Tsee-Khang 2011:126-129.
```

```
68 Sonam Bakdrö 2006: 280/2; Yutok Yönten Gonpo 1982: 343/1–3.
69 Sonam Dhondup 2000: 232–33; Sonam Bakdrö 2006: 285/7.
70 Dawa Ridak 2003: 68. Kardül is a simplified form of processed mercury sulfide.
71 For example, Sonam Dhondup 2000: 229–38.
72 Saxer 2013.
```

is 'rarity,' called *könpa* (*dkon pa*). Only something that is rare can be regarded as precious".⁷³ In Tibet's past, precious pills were certainly a rarity since precious ingredients were difficult to obtain and were considered rare and valuable not only in medicine but also in Buddhist spiritual practices and rituals. They often had to be procured from far away and through spiritual and political alliances,⁷⁴ and their manufacture was expensive, time consuming, and required extensive networks between sponsors, monastics, and pharmacological professionals.⁷⁵ Furthermore, only the elite could afford or had access to the pills through their connections and socio-economic status.⁷⁶

The third, which for many doctors is the most important aspect of what makes these pills precious, is the addition of *tsotel*. The famous scholar physician Khempo Troru Tsenam (1926–2004), who was instrumental in spreading the *tsotel* practice after the Cultural Revolution in the PRC,⁷⁷ was once asked by a Chinese official about the most important practice in Tibetan medicine. He replied, "If you have *tsotel* from the Great Mercury Purification, only then is one able to prepare and make all the varieties of precious pills. Therefore, the real precious pill is actually *tsotel*. Without it, just saying 'precious pills' has no meaning".⁷⁸ Gen Rinpoche Lozang Tenzin Rakdho, head of the Sowa Rigpa Department at the Central University of Tibetan Studies (CUTS) in Sarnath, northern India, received the *tsotel* transmission from Troru Tsenam in Lhasa in the 1980s and told me that "All *rinchen rilbu* should have *tsotel*".⁷⁹

When I went back to the private Tibetan clinic in McLeod Ganj where I could buy "500 precious pills a day as long as stocks last" over the counter, I inquired from the physician at the dispensary which of their precious pills contained *tsotel*. I was told:

We produce six types of precious pills,⁸⁰ and these days only one of them has *tsotel*, which is Rinchen Tsodru Dashel. Only one has *chokla*,⁸¹ which is Jumar 25. We do not make Rinchen Drangjor and Rinchen Tsajor; those you get at the Men-Tsee-Khang.

- 73 Personal communication, Chontra, April 2017.
- 74 Sangye Gyatso 2010: 327.
- 75 Czaja 2013.
- 76 For an example of availability of precious pills among aristocrats in Lhasa in the mid-twentieth century see the memoirs of Tubten Khétsun (Khétsun 2008: 80–81).
- 77 Gerke 2015; Lozang Lodrö 2006.
- 78 This is mentioned in the biography of Khempo Troru Tsenam, written by Lozang Lodrö (2006: 173); my translation.

- 79 Interview, Sarnath, December 2012.
- 80 At the time they produced Tsodru Dashel, Mangjor Chenmo, Ratna Samphel, Chakril Chenmo, Jumar 25, Old Turquoise 25 (March 2016).
- 81 Chokla (*chog la*) is processed artificial vermillion used to coat Jumar 25 with a reddish color. Several formulas of Jumar 25 also list vermillion (*mtshal dkar*) as an ingredient, for example, Khyenrap Norbu 2007: 170/10, Sonam Bakdrö 2006: 313.

They did not distribute any leaflets, and I cannot say if they promoted their precious pills as rejuvenating to their patients. I left the clinic wondering if so many precious pills did not contain *tsotel*, what was "precious" about them?

Following Troru Tsenam and Gen Rinpoche Lozang Tenzin Rakdho, one would think that the label *rinchen* is largely a classifier not for the use of precious gems or other forms of processed mercury, but for tsotel; clearly, in the many cases as already shown above, when tsotel is added to a formula, the prefix rinchen is added to the name of the formula.82 For example, Ngulchu 18 is a common formula made with a simplified form of processed mercury; the formula Rinchen Ngulchu 18 receives the title rinchen when it contains tsotel, though not any additional gems.⁸³ But things are not always that straightforward. All eight pills grouped together as "precious pills" by the MTK carry the prefix of rinchen in their name, even though three of them do not contain tsotel and their names are not necessarily prefixed by rinchen in formularies. The 900-page formulary The Great Collection of Tibetan Medical Formulas, edited by the contemporary PRC-based medical author Sonam Dhondup, only lists three versions of the Drangjor formula as rinchen rilbu.⁸⁴ All other precious pills are listed under their simple names. An earlier work by the same author groups them all as rinchen rilbu.85

Jumar 25 contains red coral, pearl, and lapis, but no *tsotel*. The contemporary PRC-based author Sonam Bakdrö includes *tsotel* in his Jumar 25 formula and calls it Rinchen Jumar 25. Most formulas of Jumar 25 do not add *tsotel*, but processed forms of cinnabar (the ore from which mercury is extracted; *mtshal*), largely as artificial vermillion (*rgya mtshal* or *mtshal skar*), and while some authors call it a *rinchen*, others do not. The same is the case with Old Turquoise 25, which contains turquoise, pearl, coral, and processed vermillion, but no *tsotel*; while some authors do not call it a *rinchen*, others do, but without adding *tsotel*.

The fourth aspect that makes *rinchen rilbu* "precious" is their packaging. The Tibetan physician Tenzin Namdul expressed that "preciousness" also lies in their individual packaging with colored silk, tied with a five-colored thread and a red

⁸² I noted a few exceptions. Formulas can be called *rinchen* when especially 'tamed' substances, such as a type of calcite (*cong zhi*) which undergoes special processing during full moon, is added as, for example, in Rinchen Gujor (Dawa Ridak 2003: 67).

⁸³ Khyenrap Norbu 2007: 154/1 and 154/5.

⁸⁴ Sonam Dhondup and BMTK 2006:718–21.

⁸⁵ Sonam Dhondup 2000: 229-38.

⁸⁶ Sonam Bakdrö 2006: 312/10 and 315/6.

⁸⁷ Khyenrap Norbu 2007: 170/7; Sonam Dhondup 2000: 237/3; Sonam Bakdrö 2006: 312/10.

⁸⁸ Lozang Nyima and Dhondup Tsering 2006: 264; Sonam Dhondup and BMTK 2006: 517/5; Tshekho 2006: 239/16.

⁸⁹ Lozang Nyima and Dhondup Tsering 2006: 271; Sonam Dhondup and BMTK 2006: 700/1; Tshekho 2006: 243/1.

⁹⁰ Sonam Bakdrö 2006: 310/1; Sonam Dhondup 2000: 235/13.

wax seal with a Tibetan symbol, which turns each pill into a piece of authentic Tibetan culture, "something you like to keep on your altar at home or in a special place, and take only when you are really in need of it." For him, high production numbers and blister-packs—while conforming to better hygiene and GMP—translate into a loss of preciousness: "You don't want to keep a machinemade blister-pack on your altar and think of it as blessed. It looks cheap, not precious".91

6. CHÜLEN IN PRECIOUS PILL FORMULAS

CHAPTER 11 on precious medicines called *rinpoché men* in the last part of the *Four Treatises* includes a general statement on the benefits of precious medicines: "They become a *chülen* when taken by a healthy person". 92 This statement is not linked to any specific precious pill, but is a general assertion that all precious medicines are *chülen*. The same chapter offers a brief description of how to make Rinchen Drangjor and Rinchen Tsajor with a focus on the necessary mercury refinement; there is no mention of these formulas working specifically as a *chülen*, but it is implied in the above statement that precious medicines have *chülen* benefits. Contemporary Tibetan formularies use this general quote from the *Four Treatises* to highlight the *chülen* character of precious pills, specifically of Rinchen Drangjor and Mangjor Chenmo.93

The long list of diseases that can be treated in general with all kinds of precious medicines appears at the beginning of chapter 11. It reappears as a specific therapeutic target group of Rinchen Drangjor in later formularies. Far from unusual, this is a common pattern of how Tibetan formulas are written. ⁹⁴ It can be explained by the fact that the *Four Treatises* is considered the root text for many formulas, and the chapter on precious medicines specifically contextualizes the benefits of precious pills as a *chülen*. ⁹⁵ This has to be taken into account for our understanding of the general use of *rinpoché men* for the healthy.

In contemporary formularies, Rinchen Drangjor in particular is presented as a strengthening tonic for old age. Here are some examples:

91 Interview, Dharamsala, May 2016. 92 nad gzhi med pa'i mi la bcud len 'gyur. Yutok Yönten Gonpo 1982:601/14. The translation by Men-Tsee-Khang (2011:125– 6) reads: "They are rejuvenating when taken by a healthy person."

93 For example, Sonam Dhondup 2000: 230/19–20 (Rinchen Drangjor), Sonam Dhondup 2000: 235/4–5 (Mangjor Chenmo). Sonam Bakdrö 2006: 293/7

(Mangjor Chenmo).

94 I discuss this for the Old Turquoise 25 formula, which includes the list of liver diseases from the *Four Treatises* in its formula as its therapeutic target group (Gerke in press). 95 Men-Tsee-Khang 2011: 125/12–15, translated from Yutok Yönten Gonpo 1982: 601/11–14; reappears with slight variations in Sonam Dhondup 2000: 230/18–20.

Even for the healthy, [Rinchen Drangjor] is a supreme *chülen*.

Thus in old age [the body] will be solid, gaining full strength.

The physical condition will be comfortable, and at night vitality will increase.

[There will be] few infections, and so forth; the benefits are limitless. 96

The following is found in a contemporary formulary published in the PRC; the description is also found in an eighteenth century *tsotel* manual:

[When] taken by the healthy, [Rinchen Drangjor will] clear away decrepitude and old age. Hair and beard [will become] shiny and supple; the bones will become [strong] like a vajra [thunderbolt].97

It is also advised to take Rinchen Drangjor with strong fermented barley beer (*chang*) when taking it as a *chülen* in healthy conditions.⁹⁸ A Tibetan-English Sowa Rigpa dictionary, compiled by a MTK-trained physician in India, lists seven precious pills. Rinchen Drangjor is described as a "general health tonic" as the only one among the seven, which is quite different when compared to the MTK website.⁹⁹

Mangjor Chenmo is advertised as a *chülen* for the healthy in several formulas, using the direct quote from the *Four Treatises*. Tsodru Dashel's therapeutic targets are largely stomach and digestive disorders; rejuvenation is not mentioned in most formularies, the use sometimes find a brief reference to its use as a preventive medicine and a *chülen*. For example, the nineteenth century physician Orgyen Tekchok, alias Orgyen Tendzin, from eastern Tibet in his brief text on Tsodru Dashel mentions at the end: "If taken by the healthy, disease will not arise and it becomes a *chülen*". 102

96 nad med la yang bcud len mchog yin te/rgas ka sra zhing lus stobs rgyas pa dang / lus khams bde la dgong mdangs rgyas par byed/ 'gos nad nyung sogs phan yon mtha' yas shing (Sonam Dhondup 2000: 231/2–5, my translation).
97 nad med mi la gtong bas ni/rgas dang rgud pa sel bar byed/ skra dan sma ra snum zhing mnyen/ rus pa rdo rje lta bur 'gyur (Sonam Bakdrö 2006: 279/3–5, my translation. This phrase is also found in Dege Drungyig

98 nad med beud len yin na gar chang dang (Sonam Dhondup 2000: 231/9). This refers to the practice that for each disease and con-

Gurupel 1986: 371/6-372/1).

dition the medicine should be taken with a kind of carrier, or "medicine horse" (*sman rta*).

99 T. T. Drungtso and T. D. Drungtso 2005; 444.

100 nad gzhi med pa'i mi la bcud len 'gyur (Sonam Bakdrö 2006: 293/7; Sonam Dhondup 2000: 235/5; see Yutok Yönten Gonpo 1982: 601/14).

101 Sonam Bakdrö 2006: 321; Sonam Dhondup 2000: 238/10–17.

102 nad med kyis bsten na nad mi 'byung zhing bcud len du 'gyur ba dang (Orgyen Tekchok 2005: 151/1, my translation).

When I interviewed contemporary Tibetan physicians in India on what the *chülen* in precious pills refers to, I received answers that reveal that the actual *chü*, or essence, in the pills refers to mercury ($dngul\ chu$) in its processed form of tsotel. A phrase found with variations in many sources is: "For the healthy [refined mercury] is the best $ch\ddot{u}len$." Gen Rinpoche Lozang Tenzin Rakdho from CUTS, explained the $ch\ddot{u}$ of mercury as follows:

Mercury has a great potential. They call it *pārada* [in Sanskrit]. ...a person who has suffering also has the potential to liberate himself from suffering. Mercury has many poisons ... some have to be washed away and some have to be bound, and tamed. Then the potential comes out and then it is *dröl sgrol*) *pārada*, liberated mercury'; we say *ngülchu chü kyi gyelpo* (*ngul chu bcud kyi rgyal po*), "mercury, the king of *rasāyana*." If you have a little bit of *chü* inside your body, then you do not attract disease....¹⁰⁴

Referring to various medical texts, the MTK-trained physician Penpa Tsering summarizes why refined mercury is a *chülen*: it increases the life-span and protects from ageing, evil spells, and poisoning.¹⁰⁵ Concerning the benefits of refined mercury in the form of *tsotel* for the healthy, he writes:

It is said that if ordinary people who do not have any diseases take [refined mercury] from time to time, the strength of their life span and bodily constituents will increase; it sharpens all the senses, such as the eyes, etc; it brings well-being to the circulation pathways of nerves and blood vessels ("white and black channels"); [it supports] staying strong in old age; grey hair and wrinkles, etc., will not appear, and therefore it is supreme among [all] *chülen*. 106

If the *chülen* aspect of precious pills was largely linked to refined mercury in the form of *tsotel*, which is rarely made, I wondered how were precious pills given to healthy people in the past and for what reasons. It is beyond the scope of this paper to analyze all formulas of all the precious pills. The examples suffice to demonstrate that the formula texts generally do not promote precious pills

```
103 nad med rnams la bcud len mchog yin te (Nyima Tsering 2009: 81/8).
```

rnams gsal zhing lus la gnas pa'i dkar nag rtsa yi rgyu lam bde ba dang / rgas kha sra bas skra dkar dang gnyer ma mi 'byung ba sogs bcud len gyi mchog tu gyur cing (Penpa Tsering 1997: 28/2–6, my translation). See also Nyima Tsering (2009: 58/1–21) on the benefits of refined mercury.

¹⁰⁴ Gen Rinpoche Lozang Rakdho, Interview, CUTS, Sarnath, 16.3.2015.

¹⁰⁵ Penpa Tsering 1997: 27/15-18.

¹⁰⁶ nad med tha mal du gnas pa rnams kyis yun du bsten na tshe dang lus zungs kyi thobs 'phel ba dang/ mig la sogs pa'i dbang po'i sgo

as rejuvenating, except Rinchen Drangjor and Mangjor Chenmo, and sometimes Tsodru Dashel. They focus on the ingredients and their therapeutic benefits. It is predominantly the specific genre of texts on administering precious pills, discussed in the next section, and the online leaflets given out by pharmacies that stress precious pills as preventive, rejuvenating, and as tonics for the healthy.

7. ADMINISTERING PRECIOUS PILLS TO THE HEALTHY

A very useful paper for our understanding of how precious pills were administered to both the sick and the healthy in Tibet's past is by Olaf Czaja. 107 He analyzes seven Tibetan medical works from the sixteenth to the early twentieth century that focus entirely on the administration of precious pills. He begins with a detailed description of the work by Deumar Tenzin Püntsok (b. 1672), titled *Practice of Administering Jewel Pills*. 108 Deumar is still widely respected for his writings on medicine, *materia media* (e.g., the *Shelgong Sheltreng*), 109 and precious pill formulas (he is said to have first composed Jumar 25). At his time, the pills were administered in a highly ritualized fashion. 110 In addition to extensive consecration rituals performed by the doctor before administering the pill to the patient, invasive therapies had to be avoided for the following three months and special dietary precautions had to be kept for at least a year; if instructions were strictly followed, the jewel pill would remain in one's body for a year. 111 All these are indications of how rarely a precious pill would be taken. It probably also involved quite an expense for the patient to cover the physician's ritual and pill production costs.

For our discussion it is important to note that Deumar does not distinguish between the healthy and sick and administers precious pills for two main therapeutic purposes: 1) when ingested, to treat all kinds of diseases, specifically poisoning, and 2) when worn as amulets, to protect from spirits and sorcery. These main emphases on poisoning and protective amulets are also found in the earlier text *Ten Millions Relics* (*Bye ba ring bsrel*) by Zurkhar Nyamnyi Dorjé (1439–1475), who writes: "It becomes the best of amulets if used by the healthy who bear the promised vows, and it will resist poisons for a life-time". One can imagine that at the time poisoning was a real concern in Tibet, and therapeutics had to

```
107 Czaja 2015.
108 Deumar Tendzin Püntsok 2006: 853–58.
109 Deumar Tendzin Püntsok 2009.
110 Czaja 2015: 42–47.
111 Czaja 2015: 48–49.
112 Czaja 2015: 49–50.
113 dam tshig dang ldan pas bsten na nad med
```

pa la srung ba'i mchog tu 'gyur te/ mi tshe 'di'i dug rigs thub 'khrug dang (Zurkhar Nyamnyi Dorjé 1993: 293/18–20, translated by Gyatso (1991: 44)).

114 According to Da Col (2012) this is still the case in some Tibetan communities today.

be developed to address these concerns which involved preparing antidotes to poisoning in the form of both medicines and protective amulets. That precious pills are still used as protective amulets became apparent in 2002–2003 during the SARS epidemic in the PRC when a special Black Pill 9 called Rilbu Gunak (*ril bu dgu nag*) and Rinchen Drangjor became very popular to be worn as an amulet for protection from SARS.¹¹⁵

The other six authors mentioned by Czaja more explicitly include the "healthy" as a category of recipients of precious pills. For example, Orgyen Tekchok in his nineteenth century work *A Beautiful Ornament for the Compendium: A Treasury of Medicinal Elixirs*, ¹¹⁶ distinguishes "two practices of administering [precious pills]: for the sick and the healthy" and gives special instructions on how to administer a precious pill to a healthy person, but does not mention rejuvenation:

[If administering a jewel pill] to the healthy, clean [the patient's] stomach with a cleansing formula to clear the body from bad smells. Give medicine to protect the loss of regenerative fluid and avoid perspiration. [Keep] a balance of food and exercise, [and] rely on nutritious foods and remedies.¹¹⁸

Orgyen Tekchok also offers much astrological advice on auspicious times and extensive rituals for precious pill intake. His and the other works analyzed by Czaja filled a need for detailed manuals on how to administer precious pills. I argue that the appearance of these manuals along with the "healthy" as a category of recipients paralleled the gradual increase in the production of *tsotel* and precious pills in both eastern Tibet (in the eighteenth to nineteenth centuries) and Lhasa (mainly during the late nineteenth and early twentieth century). In Lhasa, Khyenrap Norbu (1883–1962) was a key figure in this regard. He became the founding director in 1916 of the Mentsikhang, the first secular medical institute in Lhasa, and took part in two *tsotel* events in 1919 and 1921. He also

115 Craig 2003; Craig and Adams 2008: 3. 116 The Tibetan title is *Zin tig mdzes rgyan bdud rtsi'i sman mdzod* (Orgyen Tekchok 2005). The work is now published as part of a collection known under its short title *Sorig Notes* or *Sor ig Zin tig* (Kongtrül Yönten Gyatso et al. 2005).

117 btang tshul lag len nad can nad med gnyis (Orgyen Tekchok 2005: 284/20).

118 nad med lto sbyong 'jam pos snod dri bsal/ 'dzag srung bcangs la sman btang rngul 'don

spang/zas spyod gzhan mtshungs bcud ldan zas sman brten (Orgyen Tekchok 2005: 285/3–5. My translation, cf. Czaja 2015: 52).

119 According to published records, tsotel was made in eastern Tibet in 1767, 1795, 1820, 1838, 1856, and 1872. In Lhasa tsotel was made in 1678, 1783, 1893, 1919, and 1921 (Sonam Bakdrö 2006: 56–7). Small-scale events are often not documented.

120 For details on these two events see Gerke 2015: 876–878.

wrote a manual on how to administer precious pills.¹²¹ These major *tsotel* production events are fairly well documented and point to a time in which Tibetan medicine flourished and had governmental and financial support. In Lhasa the Dalai Lamas supported the making of precious pills; in eastern Tibet the king of Derge, local chieftains, and the large monasteries of Dzongsar and Palpung supported famous Buddhist scholars and physicians (Situ Panchen, Kongtrül Yönten Gyatso, and others) to refine mercury and make precious pills on a larger scale than before.¹²²

Sponsors of *tsotel* events were usually rewarded with a large portion of the *tsotel*, ¹²³ which was also used for spiritual purposes in the consecration of stupas and statues. Sponsors also received precious pills, and we can assume that not all of them were patients. Emphasizing the benefits of precious pills specifically for the healthy enlarged the group of their beneficiaries. The point I make here is that while precious pills and their benefits for the healthy have been mentioned in Tibetan texts since the twelfth century, with their increasing availability, beginning in the eighteenth century, the healthy person seems to receive more attention as is shown in the manuals on how to administer precious pills. While it will take more research to establish the exact reasons for this, we can assume that their greater availability influenced how precious pills were highlighted for the healthy.

8. CONCLUSION

MY TEXTUAL and ethnographic inquiries of what makes a medicine a *rinchen rilbu* revealed several rationales in the naming practices of precious pills. First, they are labeled "precious" by prefixing the Tibetan term *rinchen*, which is done for the most part, but not always, when the complex processed mercury sulfide powder *tsotel* is added. Such inconsistency in naming can be explained to some extent by a second rationale: they are also considered precious if they contain precious substances categorized in medical literature as *rinpoché men*, which include precious metals (gold, silver, etc.) and precious and semi-precious stones (pearls, lapis, turquoise, coral, etc.). What exactly defines the "preciousness" of a medicine or substance can be quite fluid among those who are conferring the term *rinchen* or *rinpoché*. In conclusion, while we can come to a tentative definition that *rinchen rilbu* are precious pills that for the most part contain *tsotel*, there are no set standards in naming a medicine a *rinchen* that are followed across those formularies I analyzed for this paper, which were mostly published recently in the PRC and in India.

```
121 Khyenrap Norbu 2007: 198–209.123 See, for example, Gerke 2015: 883.122 Czaja 2013.
```

Thus, the "precious" aspects of a precious pill is on the one hand strongly linked to its *tsotel* content but on the other hand also depends on the other "precious" (gold, silver, jewels, etc.) and also rare and costly substances (e.g., musk) included in the formula. This complexity is also apparent from the ways in which Tibetan physicians describe the potency or *nüpa* of these pills, the three main pillars of which are the potency of "substances," "mantras," and "auspicious timing." All of these contribute to how Tibetan physicians explain the efficacy of precious pills. Even if they do not contain *tsotel*, they are often presented as a "rejuvenating" *chülen* for the healthy. This refers to the characteristics of precious medicines or *rinpoché men* that are described in the *Four Treatises* as having general *chülen* benefits.

My data raises questions on the contemporary commodification of precious pills in India. On the one hand, the production and sale of precious pills in India is higher than it ever has been in the history of Sowa Rigpa, and on the other hand precious pills are perceived as less "precious" for varying reasons, for example, the loss of rarity through mass-production, machine-made packaging instead of individual silk-cloth wrapping, or the lack of *tsotel* in precious pills despite "precious" packaging. Like efficacy, preciousness comes in many forms, and a loss of potency and preciousness can occur when precious medicines are commodified, machine-packaged, and marketed for a larger clientele. If they are mass-marketed they are no longer rare, an important aspect of a *rinchen*. Moreover, for some, a machine-made blister pack does not look "precious" enough.

Apart from the packaging, Czaja's work on the manuals describing how to administer precious pills also reveals "precious" ways of administering *rinchen rilbu*. Administering them to patients is described as being highly ritualized with prayers and mantras, at an auspicious time, and observing all kinds of dietary and behavioral rules. This demonstrates the rarity of such an event, which can transform the doctor-patient relationship into a precious moment of human interaction of healing. It also highlights the complex interface of pharmacological, spiritual, and auspicious potency. The ways of administering precious pills today have been simplified. Some dietary and behavioral restrictions are described on the leaflets, but patients take the pills by themselves, maybe reciting the Medicine Buddha mantra if they are drawn to Buddhism. Some patients still adhere to the basic preliminaries of taking precious pills, which are using Sichuan pepper to open the channels before the intake of the pill, and taking saffron to close the channels afterwards. For some, the pills' magic lies in the belief of their efficacy, without knowing much else about them.

124 Czaja (2015) points to several other substances that were prescribed to open and

close the channels.

Sowa Rigpa texts talk about what we loosely translate as "rejuvenation" as "essence extraction," or *chülen*, which refers to powerful, often ritually as well as pharmacologically enhanced substances that provide strength, nourishment, and virility. I showed how the *chülen* theme in the *Four Treatises* is largely discussed in terms of maintaining normal health and treating the aged. The relevant chapters, however, do not mention any mercury or precious pills. Just one sentence in the chapter on *rinpoché men* in the *Four Treatises* attributes *chülen* benefits to precious medicines in general when taken by the healthy; however, in a revered root text such as the *Four Treatises* one sentence can be very significant.

Notions of preventative and rejuvenating benefits have been adopted widely in precious pill presentations, more extensively so in notices, leaflets, and on websites addressed to a foreign clientele than in traditional Tibetan formulary works. The noticeable difference between these domains is that many websites and leaflets advertise the rejuvenating and disease-preventive effects, while Tibetan formularies limit attributing *chülen* benefits to three of the eight precious pills currently made in India: Rinchen Drangjor, Mangjor Chenmo, and sometimes Tsodru Dashel. These pills contain both *tsotel* and other rare and expensive precious substances.

Refined mercury sulfide in the form of *tsotel* is considered the "king of rejuvenation," and is said to have preventive benefits, also for the healthy. When added to certain precious pills, *tsotel* increases their potency and makes them even more precious. Based on Czaja's recent work, I pointed out how with the emergence of special manuals on how to administer precious pills beginning in the eighteenth century, the category of the "healthy" came more to the forefront allowing more people—possibly also including the sponsors of *tsotel* events—to partake in the preciousness and benefits of the pills. The partaking in the consumption of what Tibetan culture offers as "precious," including its spiritual aspects, certainly plays a part in the contemporary popularity of precious pills, which in turn also drives their commodification and commercialization.

Today, leaflets and online descriptions of almost all precious pills are aimed also at the healthy as general tonics and rejuvenators. While this seems to be part of the commercialization of precious pills, it is still directly referring to indications from the root text *Four Treatises* and the long historic use of precious medicines. The overall popularity of precious pills draws on a combination of their therapeutic and *chülen* benefits, which are based on the preciousness of potent, rare and expensive substances, as well as the use of *tsotel* as the king of *chülen*.

ACKNOWLEDGEMENTS

The research and writing of this article was carried out during the Lise Meitner senior research fellowship M1870-G28, supported by the Austrian Science Fund (FWF). I am grateful to the Men-Tsee-Khang in Dharamsala, especially the Tibetan physicians Dr Choelothar and Dr Tendzin Namdul, as well as Gen Rinpoche Lozang Tenzin Rakdho and Dr Penpa Tsering from CUTS in Sarnath. I also thank Florian Ploberger and two anonymous reviewers for their helpful comments.

ABBREVIATIONS

AYUSH The Department of Ayurveda, Yoga and Naturopathy, Unani, Siddha, Sowa Rigpa, and Homoeopathy, Government of India

BMTK Bod rang skyong ljongs sman rtsis khang (Men-Tsee-Khang of the Tibetan Autonomous Region)

CUTS Central University of Tibetan Studies, Sarnath, India

FDA Food and Drug Administration

FWF Austrian Science Fund

GMP Good Manufacturing Practices

MTK Men-Tsee-Khang, "Medicine-Astrology-House," also Mentsikhang, is the name of the first secular Tibetan medical institute, founded in Lhasa in 1916. It was also established in 1961 in Dharamsala by exiled Tibetans in India.

OTC Over-the-counter

PRC People's Republic of China

RCT Randomized Controlled Trial

SARS Severe Acute Respiratory Syndrome

TAR Tibetan Autonomous Region

THL Tibetan & Himalayan Library (Germano, Weinberger, et al. 2010)

US United States

REFERENCES

- Adams, Vincanne (2010). "Encounters with Efficacy". In: *Asian Medicine* 6.1, pp. 1–21. DOI: 10.1163/157342110x606833.
- Anand, Dibyesh (2000). "(Re)imagining Nationalism: Identity and Representation in the Tibetan Diaspora of South Asia". In: *Contemporary South Asia* 9.3, pp. 271–287. DOI: 10.1080/713658756.
- Aschoff, Jürgen C. and Tashi Yangphel Tashigang (2001). *Tibetan "Precious Pills"*. *The Rinchen Medicine. A Tantric Healing System with Great Benefits, Some Problems, Many Secrets*. Ulm/Donau: Fabri-Verlag. ISBN: 3931997138.
- (2004). Tibetan Jewel Pills. Ulm/Donau: Fabri Verlag. ISBN: 3931997162.
- (2009). Tibetan Jewel Pills: With Some Remarks on Consecration (Byin rlabs) of the Medicines. 3rd ed. Ulm/Donau: Fabri Verlag. ISBN: 9783931997380.
- Blakie, Calum (2016). "Positioning Sowa Rigpa in India: Coalition and Antagonism in the Quest for Recognition". In: *Medicine Anthropology Theory* 3.2, pp. 50–86. DOI: 10.17157/mat.3.2.352.
- Craig, Sienna (2003). "SARS on the Roof of the World". In: *Explorers Journal* Summer issue, pp. 20–21.
- (2010). "From Empowerments to Power Calculations: Notes on Efficacy, Value and Method". In: *Medicine between Science and Religion: Explorations on Tibetan Grounds*. Ed. by Sienna Craig, Vincanne Adams, and Mona Schrempf. Oxford: Berghahn, pp. 215–40. ISBN: 9781845459741.
- (2012). Healing Elements. Efficacy and the Social Ecologies of Tibetan Medicines. Berkeley, Los Angeles, London: University of California Press. ISBN: 9780520273238.
- (2015). "The Efficacy of Collaboration: Tibetan Medicine Across Countries and Conversations". In: *Asian Medicine* 10.1–2, pp. 152–75. DOI: 10 . 1163 / 15734218-12341343.
- Craig, Sienna and Vincanne Adams (2008). "Global Pharma in the Land of Snows: Tibetan Medicines, SARS, and Identity Politics Across Nations". In: *Asian Medicine* 4.1, pp. 1–28. DOI: 10.1163/157342108x381205.
- Craig, Sienna and Barbara Gerke (2016). "Naming and Forgetting: Sowa Rigpa and the Territory of Asian Medical Systems". In: *Medicine Anthropology Theory* 3.2, pp. 87–122. DOI: 10.17157/mat.3.2.350.
- Cuomo, Mingji (2016). "Deconstructing and Reconstructing Tradition: Good Manufacturing Practices and the Tibetan Medicine Industry in China, 2001–2014." Conference paper, June 22, 2016. Bergen, Norway.
- Czaja, Olaf (2013). "On the History of Refining Mercury in Tibetan Medicine". In: *Asian Medicine* 8.1, pp. 75–105. DOI: 10.1163/15734218-12341290.
- (2015). "The Administration of Tibetan Precious Pills". In: *Asian Medicine* 10.1–2, pp. 36–89. DOI: 10.1163/15734218-12341350.

- Da Col, Giovanni (2012). "The Poisoner and the Parasite: Cosmoeconomics, Fear, and Hospitality among Dechen Tibetans". In: *Journal of the Royal Anthropological Institute* 18.s1, S175–S195. DOI: 10.1111/j.1467-9655.2012.01771.x.
- Dawa Ridak (2003). *Bod kyi gso ba rig pa las sman rdzas sbyor bzo'i lag len gsang sgo 'byed pa'i lde mig*. Delhi: Rig Drag Publications. Author's Tibetan name: Zla ba ri brag.
- Dege Drungyig Gurupel (1986). Srid Gsum Gtsug Rgyan Si Tu Chos Kyi 'byung Gnas Kyi Zhal Lung Dngul Chu Btso Chen Dang Rin Chen Ril Bu'i Sbyor Sde Zla Ba Bdud Rtsi'i Thig Le Rin Chen Dngul Chu Sbyor Sde Phyogs Bsdebs. = Collected Works on Mercury Formulations (Rasasiddhisastra) by Ju Mi-pham, Bla-sman Orgyan Bstan-dzin, Sde-dge Drun-yid Guru-phel, Kon-sprul Yon-tan Rgya-mtsho. Reproduced from Rare Manuscripts and Sde-dge Woodblocks from the Library of Late Dr Jamyang Tashi, Dr Tenzin Chodrak, and Dr Lobsang Tashi. Ed. by Tashi Tsering. Library of Tibetan Works and Archives. Dharamsala, pp. 303–91. Author's Tibetan name: Sde dge'i drung yig Gu ru 'phel (18th century). Editor's Tibetan name: Bkra shis tshe ring.
- Deumar Tendzin Püntsok (2006). "Rin chen ril bu gtong thabs lag len nges zab snying thig". In: *De'u dmar gso rig gces btus*. Pecin: Mi rigs dpe skrun khang, pp. 853–58. Author's Tibetan name: De'u dmar Bstan 'dzin phun tshogs (b. 1672).
- (2009). *Shel gong shel phreng*. Dharamsala: Men-Tsee-Khang. Author's Tibetan name: De'u dmar Bstan 'dzin phun tshogs (b. 1672).
- Dreyfus, Georges (1998). "The Shuk-Den Affair: Origins of a Controversy". In: *Journal of the International Association of Buddhist Studies* 21.2, pp. 227–70.
- Drungtso, Tsering Thakchoe and Tsering Dolma Drungtso (2005). *Tibetan-English Dictionary of Tibetan Medicine and Astrology*. Dharamsala: Drungtso Publications. ISBN: 8190139525.
- Gerke, Barbara (2012a). "'Treating The Aged' and 'Maintaining Health': Locating bcud len Practices in the four Tibetan Medical Tantras". In: *Journal of the International Association of Buddhist Studies* 35.1–2, pp. 329–62. DOI: 10.2143/JIABS.35.1.3078168.
- (2012b). Long Lives and Untimely Deaths: Life-span Concepts and Longevity Practices among Tibetans in the Darjeeling Hills, India. Leiden, Boston: Brill. ISBN: 9789004217034. DOI: 10.1163/9789004217485.
- (2012c). "Treating Essence with Essence: Re-inventing boud len as Vitalising Dietary Supplements in Contemporary Tibetan Medicine". In: *Asian Medicine* 7.1, pp. 196–224. DOI: 10.1163/15734218-12341248.
- (2013). "The Social Life of *Tsotel*: Processing Mercury in Contemporary Tibetan Medicine". In: *Asian Medicine* 8.1 (Mercury in Ayurveda and Tibetan Medicine), pp. 120–52. DOI: 10.1163/15734218-12341287.

- (2015). "Biographies and Knowledge Transmission of Mercury Processing in Twentieth Century Tibet". In: *Asiatische Studien Études Asiatiques* 69.4, pp. 867–99. DOI: 10.1515/asia-2015-1041.
- (in press). "The Signature of Recipes: Authorship, Authenticity and the Epistemic Genre of Tibetan Formulas". In: *Revue d'Etudes Tibétaines* 45.
- Gerke, Barbara and Florian Ploberger (2017). "Jewels in Medicines: On the Processing and Efficacy of Precious Pills According to the *Four Treatises*". In: *Buddhism and Medicine: An Anthology*. Ed. by Pierce Salguero. New York: Columbia University Press, pp. 583–92. DOI: 10.7312/salg17994-062.
- Germano, David and Nicolas Tournadre (2003). THL Simplified Phonetic Transcription of Standard Tibetan. The THL Tibetan Dictionaries, Tibetan to English Translation Tool, Tibetan and Himalayan Library. url: http://www.thlib.org/reference/transliteration/%5C#!essay=/thl/phonetics/ (on 8 Apr. 2017).
- Germano, David, Steven Weinberger, et al. (2010). The Tibetan & Himalayan Library. Tibetan to English Translation Tool. University of Virginia. URL: http://www.thlib.org/reference/dictionaries/tibetan-dictionary/translate.php (on 1 Dec. 2017).
- Gyatso, Yonten (1991). "The Secrets of the Black Pill Formulation". In: *Tibetan Medicine* 13, pp. 38–55.
- Hilgenberg, Luise and Willibald Kirfel (1941). Vāgbhaṭa's Aṣṭāṅgahṛdayasaṇhitā, ein altindisches Lehrbuch der Heilkunde, aus dem Sanskrit ins Deutsche übertragen mit Einleitung, Anmerkungen und Indices. Leiden: Brill.
- Hofer, Theresia (2008). "Socio-Economic Dimensions of Tibetan Medicine in the Tibet Autonomous Region, China Part One". In: *Asian Medicine* 4.1, pp. 174–200. DOI: 10.1163/157342108x381250.
- Khétsun, Tubten (2008). *Memories of Life in Lhasa under Chinese Rule*. Ed. by Matthew Akester. New York: Columbia University Press. ISBN: 9780231142861.
- Khyenrap Norbu (2007). "Rin chen ril bu'i phan yon dang bsten thabs gsal ba'i me long". In: *Mkhyen rab nor bu'i sman yig gces btus. Mā yang sman yig gces btus.* Ed. by Khyenrap Norbu et al. Pe cin: Mi rigs dpe skrun khang, pp. 198–209. Author's Tibetan name: Mkhyen rab nor bu, (1883–1962).
- Kloos, Stephan (2008). "The History and Development of Tibetan Medicine in Exile". In: *Tibet Journal* 33.2, pp. 15–49.
- (2010). "Navigating 'Modern Science' and 'Traditional Culture': the Dharamsala Men-Tsee-Khang in India". In: *Medicine Between Science and Religion: Explorations on Tibetan Grounds*. Ed. by Vincanne Adams, Mona Schrempf, and Sienna Craig. London: Berghahn, pp. 83–105. ISBN: 9781845459741.
- (2012). "Die Alchemie exil-tibetischer Identität. Anmerkungen zur pharmazeutischen und politischen Wirksamkeit tibetischer Pillen (Pro-

- cessing Exile-Tibetan Identity: The Alchemy of Tibetan Medicine's Pharmaceutical and Political Efficacy)". In: *Curare* 35.3, pp. 197–207.
- Kloos, Stephan (2013). "How Tibetan Medicine in Exile became a 'Medical System'". In: *East Asian Science, Technology and Society* 7.3, pp. 381–95. DOI: 10.1215/18752160-2333653.
- (2016). "The Recognition of Sowa Rigpa in India: How Tibetan Medicine became an Indian Medical System". In: *Medicine Anthropology Theory* 3.2, pp. 19–49. DOI: 10.17157/mat.3.2.351.
- Kongtrül Yönten Gyatso et al., eds. (2005). *Gso rig zin tig yang tig*. Pe cin: Mi rigs dpe skrun khang. Editor's Tibetan name: Kong sprul yon tan rgya mtsho (1813–1899).
- Lozang Lodrö (2006). *Gnas lnga rig pa'i paN+Di ta mkhan chen khro ru tshe rnam mchog gi rnam thar baiḍūrya sngon po'i rang mdangs (= Mkhan chen khro ru tshe rnam gyi rnam thar)*. Pe cin: Krung go'i bod rig pa dpe skrun khang. Author's Tibetan name: Blo bzang blo gros.
- Lozang Nyima and Dhondup Tsering (2006). *Gso rig lag len spyi don sgron ma*. Zi ling: Mtsho sngon mi rigs dpe skrun khang. Authors' Tibetan names: Blo bzang nyi ma and Don grub tshe ring.
- Men-Tsee-Khang (1996). "Over the Counter Medicines". In: Men-Tsee-Khang Newsletter 4.3, p. 1.
- trans. (2011). *The Subsequent Tantra from the Four Tantras of Tibetan Medicine*. Dharamsala: Men-Tsee-Khang.
- Murthy, K. R. Srikantha (1996). *Vāgbhaṭa's Aṣṭāñga Hṛdayam. Text, English Translation, Notes, Appendix and Indices.* 3rd ed. 3 vols. Krishnadas Ayurveda Series 27. Varanasi: Krishnadas Academy.
- Nyima Tsering (2009). *Dngul chu btso bkru chen mo'i lag len*. Lha sa: Bod ljongs mi dmangs dpe skrun khang. Author's Tibetan name: Nyi ma tshe ring.
- Oliphant, Jamyang (2016). "Extracting the Essence': bcud len in the Tibetan Literary Tradition". PhD thesis. Oxford University. URL: https://ora.ox.ac.uk/objects/uuid:72121806-b3f5-4e87-8a9a-02b8b24ad12d (on 30 Nov. 2017).
- Orgyen Tekchok (2005). "Zin tig mdzes rgyan bdud rtsi'i sman mdzod". In: *Gso rig zin tig yang tig*. Ed. by Kongtrül Yönten Gyatso. Pe cin: Mi rigs dpe skrun khang, pp. 191–360. Author's Tibetan name: O rgyan theg mchog; editor's Tibetan name: Kong sprul yon tan rgya mtsho (1813-1899).
- Penpa Tsering (1997). "Gso rig sman sbyor gyi nying khu bcud rgyal bdud rtsi dar ya kan nam dngul chu btso thal gyi lag len mdo tsam bkod pa". In: *Men rtsis dus deb* 3, pp. 26–32. Author's Tibetan name: Spen pa tshe ring.
- Prost, Audrey (2008). *Precious Pills. Medicine and Social Change among Tibetan Refugees in India*. Epistemologies of Healing 2. Oxford, New York: Berghahn Books. ISBN: 9781845454579.

- Sangye Gyatso (2010). *Mirror of Beryl. A Historical Introduction to Tibetan Medicine*. Trans. by Gavin Kilty. 1st ed. The Library of Tibetan Classics 28. Boston, MA: Wisdom Publications. ISBN: 9780861714674.
- Saxer, Martin (2013). *Manufacturing Tibetan Medicine*. The Creation of an Industry and the Moral Economy of Tibetanness. Epistemologies of Healing 12. Oxford, New York: Berghahn. ISBN: 9780857457721.
- Schrempf, Mona (2015). "Contested Issues of Efficacy and Safety between Transnational Formulation Regimes of Tibetan Medicines in China and Europe". In: *Asian Medicine* 10.1–2, pp. 273–315. DOI: 10.1163/15734218-12341360.
- Sonam Bakdrö (2006). *Dngul chu'i byung ba spyi dang bye brag btso bkru rig pa'i lag len rgyas par bkral ba mkhas grub ratna shri'i dgongs rgyan*. Bod ljongs mi dmangs dpe skrun khang: Lha sa. Author's Tibetan name: Bsod nams bag dros.
- Sonam Dhondup (2000). *Sman sbyor lag len gyi gdams pa myong grub ma*. Bod lugs sman rig 21. Pe cin: Mi rigs dpe skrun khang. Author's Tibetan name: Bsod nams don grub.
- Sonam Dhondup and BMTK (2006). *Bod sman sbyor sde chen mo*. Lha sa: Bod ljongs mi dmangs dpe skrun khang. Author's Tibetan name: Bsod nams don grub.
- Triplett, Katja (2014). "Magische Medizin? Kultur- und religionswissenschaftliche Perspektiven auf die tibetische Heilkunde". German. In: *Tote Objekte lebendige Geschichten. Exponate aus den Sammlungen der Philipps-Universität Marburg*. Ed. by Irmtraut Sahmland and Kornelia Grundmann. Petersberg: Imhof Verlag, pp. 189–205. ISBN: 3865689485.
- Tshekho (2006). *Rgyun spyod bod sman thang phye ril bu gsum gyi sbyor sde dang lag len gyi skor brjod pa kun phan bdud rtsi'i chu rgyun*. Khreng tu'u: Si khron dpe skrun tshogs pa, Si khron mi rigs dpe skrun khang. Author's Tibetan name: Tshe kho.
- Witt, Claudia M. (2009). "Efficacy, Effectiveness, Pragmatic Trials Guidance on Terminology and the Advantages of Pragmatic Trials". In: Forschende Komplementärmedizin / Research in Complementary Medicine 16.5, pp. 292–94. DOI: 10.1159/000234904.
- Wylie, Turrell (1959). "A Standard System of Tibetan Transcription". In: *Harvard Journal of Asiatic Studies* 22, pp. 261–67. DOI: 10.2307/2718544.
- Yutok Yönten Gonpo (1982). *Bdud rtsi snying po yan lag brgyad pa gsang ba man ngag gi rgyud*. Lha sa: Bod ljongs mi dmangs dpe skrun khang. Author's Tibetan name: G.yu thog Yon tan mgon po (fl. 12th century).
- Zurkhar Nyamnyi Dorjé (1993). *Man ngag bye ba ring bsrel pod chung rab 'byams gsal ba'i sgron me*. Lanzhou: Kan su'u mi rigs dpe skrun khang. Author's Tibetan name: Zur mkhar Mnyam nyid rdo rje (1439–1475).

