Appendix
Bolivian Medicinal Herbs

The majority of this thesis has focused on agricultural commodities whose structures or components could potentially be repurposed for use as biomaterials for biomedical applications. Many of the applications discussed are based on traditional western medical practices with a basis in pharmaceuticals and engineering; however, for the Andean and rainforest communities (Vandebroek et al. 2004) found in the Peru-Ecuador-Bolivia region and throughout South America, medicinal herbs can be just as important, if not more, to their cultural practices.

A 2012 survey of local Bolivians established 258 medical uses of 91 plants for 13 disease groups. Researchers found that gastrointestinal disorders, as well as musculoskeletal system and dermatological conditions, were the most frequently treated health issues by medicinal herbs. Depending on the condition being treated, a plant’s roots, leaves, stems, fruits, or combination thereof would be used. Remedies were primarily administered as teas through boiling, poultices, and/or by application to the skin after heating the ingredients (Quiroga et al. 2012). Another 2008 study had previously conducted their own survey and established the use of 181 medicinal plant species for 67 separate medical uses (Vandebroek et al. 2008).

Many efforts have been made by those on the outside looking in to further develop the basic healthcare infrastructure of Bolivian communities by focusing solely on biomedicine and pharmaceuticals. This approach may prove to be flawed as studies have shown that while medical accessibility and affordability does play an important role in the use of medical resources by community members, indigenous communities show a preference for indigenous remedies even in regions where the aforementioned is not an issue. The acceptance, integration, and investigation of both styles of medical care may give the most effective and beneficial results (Mathez-Stiefel et al. 2012). The balance, and often tension, between traditional Bolivian remedies and modern medicine is a subject requiring further exploration.
A list of a few traditional medicinal herbs, their local names, and their intended treatments compiled from various sources (Lunny 1997; Quiroga et al. 2012) may be found below.

- **Acacia aroma** (Sirao)—Wounds, muscle pain, liver, gastritis
- **Psidium guineense** (Guayabilla)—Diarrhea
- **Celtis tala** (Tala)—Diarrhea
- **Tecoma stans** (Guaranguay)—Liver, stomach pain, kidney, gallbladder, hangover
- **Verbena berteroi** (Verbena)—Swelling, blows, fevers, intestinal problems
- **Schinus molle** (Molle)—Body pain, cold rheumatism, chagas, urifa, child dehydration
- **Schinus longifolius** (Chirimolle)—Measles, smallpox, wounds, body pain
- **Salix humboldtiana** (Sauce)—Body pain, cold
- **Ricinus communis** (Tártago)—skin scars, head pustules, swellings
- **Argemone Mexicana** (Cardosanto)—Cough wounds, stomach anti-inflammatory
- **Cissus simsiana** (Zarzaparrilla)—Liver, stomach anti-inflammatory, kidney, purifying
- **Chamaesyce serpens** (Chanca Piedra)—Kidneys
- **Plantago major** (Llantén)—Heat, sunstroke, liver, gallbladder
- **Eucalyptus globulus** (Eucalipto)—Asthma, sinusitis
- **Pluchea sagittalis** (Cuatro Cantos)—Liver, gallbladder, cold
- **Matricaria chamomilla** (Manzanilla)—Liver, stomach anti-inflammatory, kidney, gastritis
- **Opuntia ficus-indica** (Tuna)—Sunstroke, sunburn, yellow fever, renal problems, gastritis
- **Cereus validus** (Ulala)—Sunstroke
- **Citrus sinensis** (Naranja)—Sunstroke
- **Aloysia triphylla** (Cedrón)—Heart, cold, nerves
- **Melissa officinalis** (Toronjil)—Heart, cold, nerves, stomach, dysentery, headache
- **Citrus delicious** (Mandarina Criolla)—Nerves
- **Lactuca sativa** (Lechuga)—Relaxant
- **Citrus aurantium** (Naranja Agria)—Nerves, to wash head
- **Gossypium hirsutum** (Algodón)—Ear pain, deafness
- **Ocimum micranthum** (Albahaca)—Headaches, kidney and bladder diseases, period pain regulation, acute neuritis pain
- **Equisetum giganteum** L. (Cola de Caballo)—Hemorrhages, diarrhea, stomach heat, liver, kidneys
- **Copaefera officinalis** L. (Copaiba)—Intestinal, nervous and urinary disorders
- **Psidium guajava** L. (Guayaba)—Diarrhea
- **Chenopodium ambrosioides** L. (Paico)—Abdominal wind, abdominal cramps, indigestion, swollen stomach, acidity, diarrhea
- **Tabebuia ipe** (Tajibo)—Nervous tension, palpitations, anemia
- **Uncaria tomentosa** (Cat’s Claw)—Immune system boost, anti-diabetic
Appendix: Bolivian Medicinal Herbs

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