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US cosmetics firm claims skin cream from China and Vietnam's xianmu tree

by Edward Hammond

The xianmu tree (*Burretiodendron hsienmu*)¹ is a highly valued forest species native to the China-Vietnam border region. Mary Kay, a large American cosmetics firm with an expanding Asian business, is seeking to patent skin care uses of any extract made from the tree.

Indicated as “vulnerable” on the IUCN Red List,² the xianmu is legally protected in China.³ In Vietnam,⁴ it is known as the *nghien*. There, conservation officials and traditional communities are engaged in a struggle to prevent illegal logging of the tree.⁵

Mary Kay's US patent claim is very broad, covering any skin care use of any extracts from the xianmu. Published in September 2013, the first item of the company's claims is “A topical skin composition comprising an extract from *Burretiodendron hsienmu* and a dermatologically acceptable vehicle” (e.g. a skin cream base). A corresponding international patent application has been filed, with somewhat different claim language.⁶

Based in suburban Dallas, Texas, Mary Kay is one of the United States' largest private companies, with an estimated US\$3 billion in annual sales. The company is controlled by Richard Rogers, the billionaire son of the founder, who reportedly holds over 50% of its

¹ Also called *Excentrodendron hsienmu*.

² IUCN (2013). IUCN Red List, entry for *Burretiodendron hsienmu*. URL: <http://www.iucnredlist.org/details/32350/0> (Accessed 9 December 2013).

³ Tang Y et al (2005). Over-exploitation and lack of protection is leading to a decline of a protected calcicolous tree species *Excentrodendron hsienmu* (Tiliaceae) in China. *Biological Conservation* 126:1 (November).

⁴ Some scientific sources consider the Vietnamese and Chinese populations to be separate species.

⁵ Vietnam News (2013). Nature lover listens to the forest's pain (30 July) and Vietnam News (2012). Seven people arrested for destroying ancient trees in national park (12 December). See Vietnam News stories on *Burretiodendron hsienmu* at URL: <http://www.vietnambreakingnews.com/tag/burretiodendron-hsienmu/> (accessed 9 December 2013).

⁶ See US patent publication 20130236403 and PCT patent publication WO2012145748. The wording of national and regional patent filings will ultimately determine the patent's scope.

stock.⁷ Mary Kay specializes in direct marketing of cosmetics through “sales consultants” (often unemployed or underemployed women) in a manner similar to the company’s rival Avon. In the US, Mary Kay’s top sales agents are rewarded – some would say in poor taste – with distinctive pink colored Cadillac automobiles.

Like Avon, Mary Kay is focused on expansion in China, where it recently built a large new product distribution center⁸ and has been very successful. The *South China Morning Post* reports that Mary Kay was China’s largest selling cosmetics brand in 2012, and the company says it has 850,000 “sales consultants” in the country. As in the US, the most successful are gifted with pink cars (in China they are Mercedes rather than Cadillac). The company says that more than 3,000 of its pink sedans ply China’s roads.⁹

According to the Mary Kay patent application, it received samples of the xianmu tree from the Kunming Institute of Botany in China’s Yunnan Province. There is no information in the patent application, or on the Institute or Mary Kay’s websites concerning access and benefit sharing issues.

It is unclear if the xianmu tree could be utilized sustainably by the company,¹⁰ and the patent application sheds no light on this issue. Mary Kay claims any extract of xianmu as being that of the invention, be it from the “leaves, stems, bark, roots, fruit, flowers or flower buds, seeds, sap, and the entire plant,” together or individually. Mary Kay says that xianmu extract can comprise anywhere from 0.0001% to 99% of the final product, which the company says might be any of a ridiculously long variety of items, ranging from “sunscreen products, sunless skin tanning products, hair products ... moisturizing creams, skin creams and lotions... ointments... night creams, lipsticks and lip balms, cleansers... pre-moistened wipes... bath products... foot care products... skin colorant and makeup...” etc.

The patent application further claims a wide variety of other plants when used in combination with xianmu in a skin care product. These include a focus on plants from Yunnan and surrounding regions, some of which have documented traditional medicinal use, such as extracts of *Cyclosurus parasiticus*, a fern, *Clausena dunniana*, a small tree, *Rhynchosia yunnanensis*, a legume, and *Myriopterion extensum*, a liana.

⁷ Wee G and Z Siraj (2013). Mary Kay’s Rogers Becomes Billionaire in Pink Escalade. Bloomberg (8 August). URL: <http://www.bloomberg.com/news/2013-08-08/mary-kay-s-rogers-becomes-billionaire-in-pink-escalade.html>

⁸ Bloomberg (2011). Mary Kay to Invest \$25 Million in China, Soon Its Largest Market (19 September). URL: <http://www.bloomberg.com/news/2011-09-19/mary-kay-to-invest-25-million-in-china-soon-its-largest-market.html>

⁹ Ap T (2013). Mary Kay sells the beauty of culture. South China Morning Post (14 September). URL: <http://www.scmp.com/business/companies/article/1309352/mary-kay-sells-beauty-culture>

¹⁰ Notably, if the company’s patent encourages others to use the plant in cosmetics, such concerns may multiply.

Mary Kay's strategy of claiming Asian plants for skin care products mirrors that of rival Avon, which has lodged its own Asian plant extract patent applications.¹¹ This is not only because both companies are rapidly expanding in the region, it is because cosmetics makers report that Asia – specifically Japan, South Korea, and China – has particularly strong markets for skin care products. Both companies appear to be using patents to position themselves as exclusive purveyors of lotions and other items from uniquely Asian plants.

From available sources it is very clear that the xianmu tree is highly valued in traditional communities in China and Vietnam, including by Yao (China) / Dao (Vietnam) people as well as Tay people in Vietnam. A recent report from Vietnam praises a Dao man who, for ten years and despite physical intimidation, has voluntarily patrolled forests in Na Hang District to protect nghein (xianmu) trees from illegal felling.¹² Dao and other peoples have long used the tree as a source of wood for building structures, and perhaps for other uses, although these are undocumented in available Western scientific literature.

The interesting question of other traditional uses of xianmu, particularly if it has cosmetic or medicinal traditional use on the skin, may be answered in Chinese or Vietnamese scientific publications or by consulting the peoples themselves. Considering that the xianmu is an important tree species, specimens of which are physically protected from loggers by communities with well-elaborated traditional medicine systems, it is quite plausible that Mary Kay was not the first to discover beneficial effects on the skin.

It appears unlikely that Mary Kay has entered into an access and benefit sharing agreement in relation to its claim over xianmu tree extract. The patent application merely notes that such extracts “can be obtained” from the Kunming Institute of Botany, and do not indicate any deeper relationship. The inventors of the patent application are from Texas, not from China or Vietnam.

In addition to the question of traditional use of xianmu, whether any material transfer agreement (MTA) was utilized between Mary Kay and the Kunming Institute of Botany will also be of interest in relation to benefit sharing issues. Further, if that MTA permitted Mary Kay's claim, the Kunming Institute of Botany may wish to adjust its access and benefit sharing approach to industrial collaborations.

¹¹ See Hammond E (2013). Biopiracy Watch: A compilation of some recent cases. Third World Network. URL: <http://www.twinside.org.sg/title2/books/Biopiracy%20Watch.htm>

¹² Vietnam News (2013).