



Tiepi Shihu
鐵皮石斛

Shihu
石斛



(From left to right) Ms LANG Jun, Dr HAN Quanbin, Ms WEN Xin, Mr HAN Xiaoqiang & Ms FUNG Hauyee

(從左至右) 郎俊女士、韓全斌博士、溫昕女士、韓曉強先生和馮巧儀女士

Chinese Medicine Scholars Develop Patented Novel Method to Authenticate Precious Chinese Herb Tiepi Shihu

中醫藥學者研發鑑定名貴中藥「鐵皮石斛」新方法成功取得美國專利

HONG KONG AUTHENTICATION CENTRE OF DEDROBII OFFICINAKIS CAULIS (HKACDOC)
香港鐵皮石斛檢定中心 (HKACDOC)



香港鐵皮石斛檢定中心
Hong Kong Authentication Centre of Dendrobii Officinalis Caulis

Dendrobium officinale (Tiepi Shihu) is good for stomach and immune system but it is a very expensive traditional Chinese medicine with its market price of over HK\$10,000 per catty. Due to the high market value, it is often being doped with a variety of other substances and sold as fake products. Dr. Han Quanbin, Associate Professor, Dr. Chen Hubiao, Professor and Dr. Xu Jun, Senior Research Assistant of the Teaching and Research Division of the School of Chinese Medicine have invented a convenient, low-cost and fast testing method to efficiently authenticate Tiepi Shihu. The novel authentication method has been granted a patent by the United States Patent and Trademark Office and is being used by a Chinese medicine company in Hong Kong.

The research team conducted a study on the polysaccharide of Tiepi Shihu and other Shihu species. An identical and unique polysaccharide was discovered in all samples of Tiepi Shihu while it was not obviously found in the samples of other Shihu species. The result of the study reveals that this unique polysaccharide can serve as a marker to distinguish Tiepi Shihu from other species of Shihu quickly and effectively. The result of the study was published in the international academic journal Analytical and Bioanalytical Chemistry in October 2014 (<http://link.springer.com/article/10.1007%2Fs00216-014-8060-9>).

"Dendrobium will generally be dried, and then twisted to tie a knot for sale, it is difficult to distinguish the appearance of its species. At present, the industry relies mainly on the expert's experience, or through genetic identification and microscopic identification methods such as identification, but the cost of these methods is high and not successful to determine the active substance content." said Dr. Han Quanbin, Assistant Professor.

Dr. Han continued, "The new method can also be used to identify the quality of Dendrobium officinale, for example, if the polysaccharide content ranges from 30% to 50%, the Dendrobium officinale will be classified as excellent."

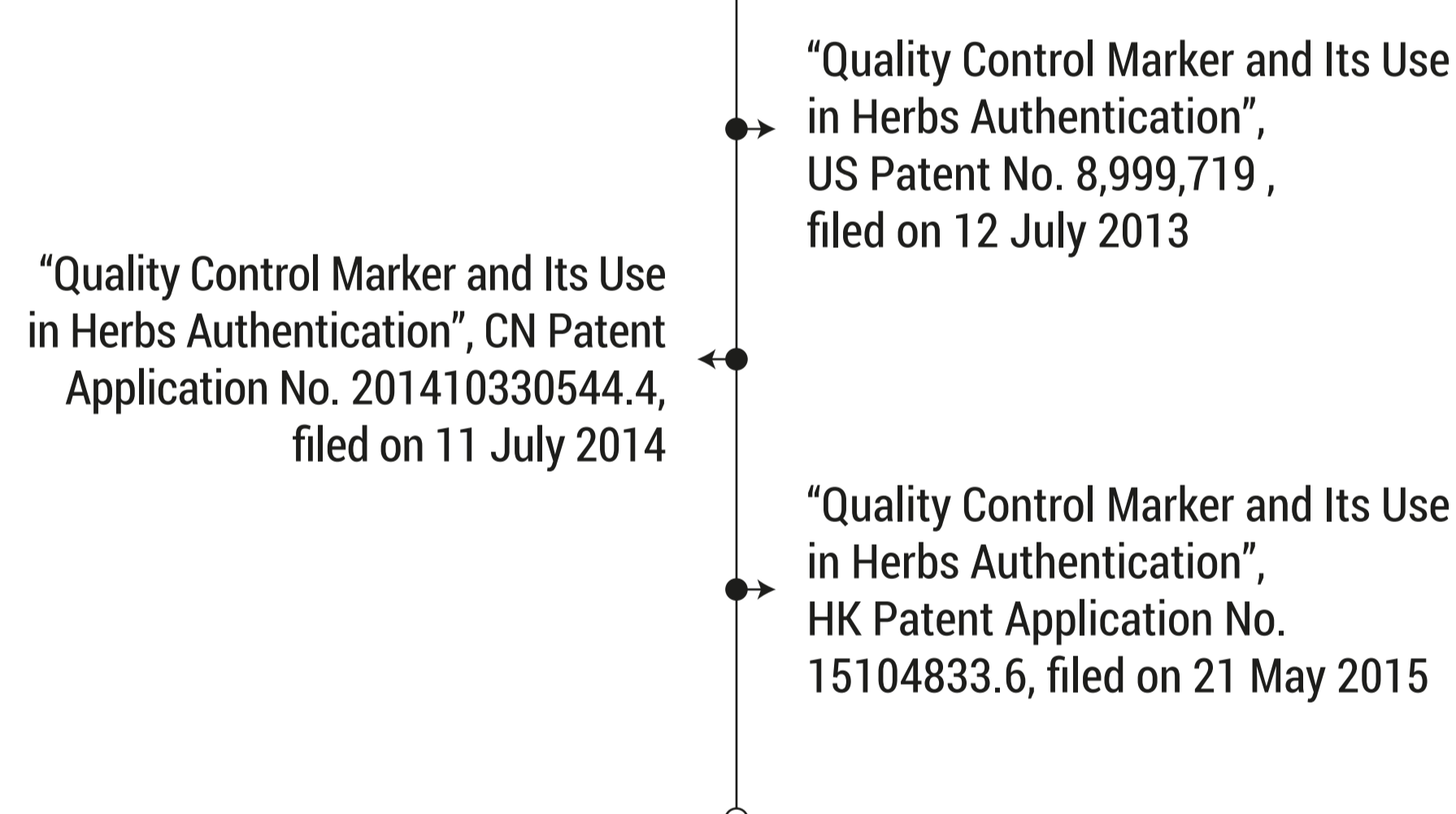
鐵皮石斛有益胃生津及增強免疫力等功效，是傳統名貴中藥材，單單市值逾港幣萬元一斤，因此常被摻雜其他品種出售，出現贗品。中醫藥學院教學科研部副教授韓全斌博士、教授陳虎彪博士和高級研究助理許軍博士共同研發了一種快速、簡易及低成本的中藥鑑定方法來區別名貴中藥「鐵皮石斛」。新鑑別方法獲美國專利商標局授予專利權，並獲香港一間中藥公司採用。

研究團隊進行了一項有關鐵皮石斛與其他品種石斛的多糖成分對比的研究，研究人員在鐵皮石斛各樣本中發現一組相同而獨特的多糖成分，在其他石斛品種的樣本中則沒有明顯地發現。研究結果顯示，以這組獨特的多糖成分作為鑑定鐵皮石斛的標誌成分（即凡有規律出現這標誌物的便是鐵皮石斛），能夠快速、有效地識別鐵皮石斛樣本。研究結果已於2014年10月在國際學術期刊《Analytical and Bioanalytical Chemistry》上發表 (<http://link.springer.com/article/10.1007%2Fs00216-014-8060-9>)。

浸大中醫藥學院助理教授韓全斌博士說：「石斛一般會被烘乾，然後扭曲打結後出售，單憑外表難以區別其品種。業界目前主要依賴專家的經驗，或通過基因鑑定及顯微鑑定等方法作辨別，惟部分方法成本較高，亦未能確定活性物質的含量。」

韓博士續稱：「新方法同時可用於鑑定鐵皮石斛的質素；若多糖成分介乎30%至50%，該鐵皮石斛的品質便屬於『優質』。有關檢測方法已獲美國專利商標局授予專利權，並獲一本地中藥公司採用；研究團隊未來會研究以該檢測方式，應用於辨別其他中藥材的可能性。」

PATENTS



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