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The Scientific Rediscovery of an Ancient Chinese Herbal Medicine: *Cordyceps sinensis* Part I

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ABSTRACT

This review presents *Cordyceps sinensis* (Berk.) Sacc., a fungus highly valued in China as a tonic food and herbal medicine. The extant records show the continued use of *C. sinensis* is now centuries old. The major chemical, pharmacological, and toxicological studies on *C. sinensis* and the various derived, cultured, fermented mycelial products currently in use are reviewed from the English and Chinese literature. Preclinical *in vitro* and *in vivo* studies and clinical blinded or open-label trials in to date over 2000 patients are reviewed. These studies show the main activities of the fungus in oxygen-free radical scavenging, antisenescence, endocrine,

hypolipidemic, antiatherosclerotic, and sexual function-restorative activities. The safety of the fungus, its effects on the nervous system, glucose metabolism, the respiratory, hepatic, cardiovascular, and immune systems, immunologic disease, inflammatory conditions, cancer, and diseases of the kidney will be reviewed in the second part of this article to be published in the winter issue of this journal.

This paper was cited by:

Structural characterization and immunostimulatory activity of a glucan from natural Cordyceps sinensis
Junqiao Wang, Shaoping Nie, Steve W. Cui, Zhijun Wang, Aled O. Phillips, Glyn O. Phillips, Yajing Li, Mingyong Xie
Food Hydrocolloids. Jun 2017, Vol. 67: 139-147
CrossRef

Entomopathogenicity and Biological Attributes of Himalayan Treasured Fungus Ophiocordyceps sinensis (Yarsagumba)
Bikash Baral
Journal of Fungi. Mar 2017, Vol. 3, No. 1: 4
CrossRef

Differential expression patterns of two delta-9-acyl-CoA desaturases in *Thitarodes pui* (Lepidoptera: Hepialidae) during different seasons and cold exposure
Qiang Min, Shiyu Cheng, Jianfei Xi, Tianrong Xin, Bin Xia, Zhiwen Zou
Ecology and Evolution. Mar 2017, Vol. 7, No. 6: 1909-1918
CrossRef

Adaptogenic medicinal plants utilized for strengthening the power of resistance during chemotherapy–a review
Mehnaz Kamal, Muhammad Arif, Talha Jawaid
Oriental Pharmacy and Experimental Medicine. Mar 2017, Vol. 17, No. 1: 1-18
CrossRef

The complete mitochondrial genome of Thitarodes sejilaensis (Lepidoptera: Hepialidae), a host insect of Ophiocordyceps sinensis and its implication in taxonomic revision of Hepialus adopted in China
Zhiwen Zou, Qiang Min, Shiyu Cheng, Tianrong Xin, Bin Xia
Gene. Feb 2017, Vol. 601: 44-55
CrossRef

Comparison of structural features and antioxidant activity of polysaccharides from natural and cultured Cordyceps sinensis
Junqiao Wang, Shaoping Nie, Lijiao Kan, Haihong Chen, Steve W. Cui, Aled O. Phillips, Glyn O. Phillips, Mingyong Xie
Food Science and Biotechnology. Feb 2017, Vol. 26, No. 1: 55-62
CrossRef

Isolation, Culture and Characterization of Hirsutella sinensis Mycelium from Caterpillar Fungus Fruiting Body
Yun-Fei Ko, Jian-Ching Liau, Chien-Sheng Lee, Chen-Yaw Chiu, Jan Martel, Chuan-Sheng Lin, Shun-Fu Tseng, David M. Ojcius, Chia-Chen Lu, Hsin-Chih Lai, John D. Young, Wei-Chun Chin

PLOS ONE. Jan 2017, Vol. 12, No. 1: e0168734
CrossRef
Cordyceps militaris Improves Tolerance to High-Intensity Exercise After Acute and Chronic Supplementation
Katie R. Hirsch, Abbie E. Smith-Ryan, Erica J. Roelofs, Eric T. Trexler, Meredith G. Mock
Journal of Dietary Supplements. Jan 2017, Vol. 14, No. 1: 42-53
CrossRef
The mitochondrial genome of the lepidopteran host cadaver (Thitarodes sp.) of Ophiocordyceps sinensis and related phylogenetic analysis
Xincong Kang, Yongquan Hu, Jiang Hu, Liqin Hu, Feng Wang, Dongbo Liu
Gene. Jan 2017, Vol. 598: 32-42
CrossRef
Profiling metals in Cordyceps sinensis by using inductively coupled plasma mass spectrometry
Xin Wei, Hankun Hu, Baogeng Zheng, Zikri Arslan, Hung-Chung Huang, Weidong Mao, Yi-Ming Liu
Anal. Methods. Jan 2017, Vol. 9, No. 4: 724-728
CrossRef
Functional study of Cordyceps sinensis and cordycepin in male reproduction: A review
Yung-Chia Chen, Ying-Hui Chen, Bo-Syong Pan, Ming-Min Chang, Bu-Miin Huang
Journal of Food and Drug Analysis. Dec 2016
CrossRef
High-throughput sequencing-based analysis of endogenetic fungal communities inhabiting the Chinese Cordyceps reveals unexpectedly high fungal diversity
Fei Xia, Xin Chen, Meng-Yuan Guo, Xiao-Hui Bai, Yan Liu, Guang-Rong Shen, Yu-Ling Li, Juan Lin, Xuan-Wei Zhou
Scientific Reports. Dec 2016, Vol. 6, No. 1
CrossRef
Cordyceps collected from Bhutan, an appropriate alternative of Cordyceps sinensis
Ding-Tao Wu, Guang-Ping Lv, Jian Zheng, Qian Li, Shuang-Cheng Ma, Shao-Ping Li, Jing Zhao
Scientific Reports. Nov 2016, Vol. 6: 37668
CrossRef
Selection of entomopathogenic fungus for biological control of chili anthracnose disease caused by Colletotrichum spp.
Piyanoot Jaihan, Kusavadee Sangdee, Aphidech Sangdee
European Journal of Plant Pathology. Nov 2016, Vol. 146, No. 3: 551-564