



TCM BIOTECH INTERNATIONAL CORP.

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泰宗生物科技股份有限公司

The World Class Expert of
Cordyceps

TCM Biotech International Corp

秉持誠信原則關懷社會，研發創新精準醫療技術

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Cordyceps sinensis



- ◆ Named as "winter worm, summer grass" in Chinese literally, *Cordyceps sinensis* is neither worm nor grass. Instead, it is a larva-fungus complex.
- ◆ More than 400 Cordyceps genera have been discovered worldwide, but the only one ever specified by traditional Chinese medicine scholars is the fungus of *Cordyceps sinensis* (Berk.) Sacc parasitizing the larva of Bat Moth (*Hepialus armoricanus* Oberthur).

Cultured Mycelia of Cordyceps sinensis-LivPhcD



Isolating /purifying fungal strains

All varieties of strains from the stroma and sclerotium Cordyceps sinensis were obtained after proliferation of cells through the sterilized-isolating technique.

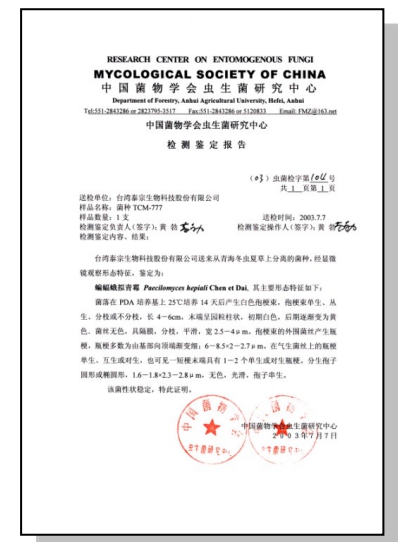


Identifying fungal strains

The isolated strains were identified as the authentic Cordyceps sinensis by the Research Center on Entomogenous Fungi, Mycological Society of China.

Effective strains

Samsoniella hepiali : LivPhcD

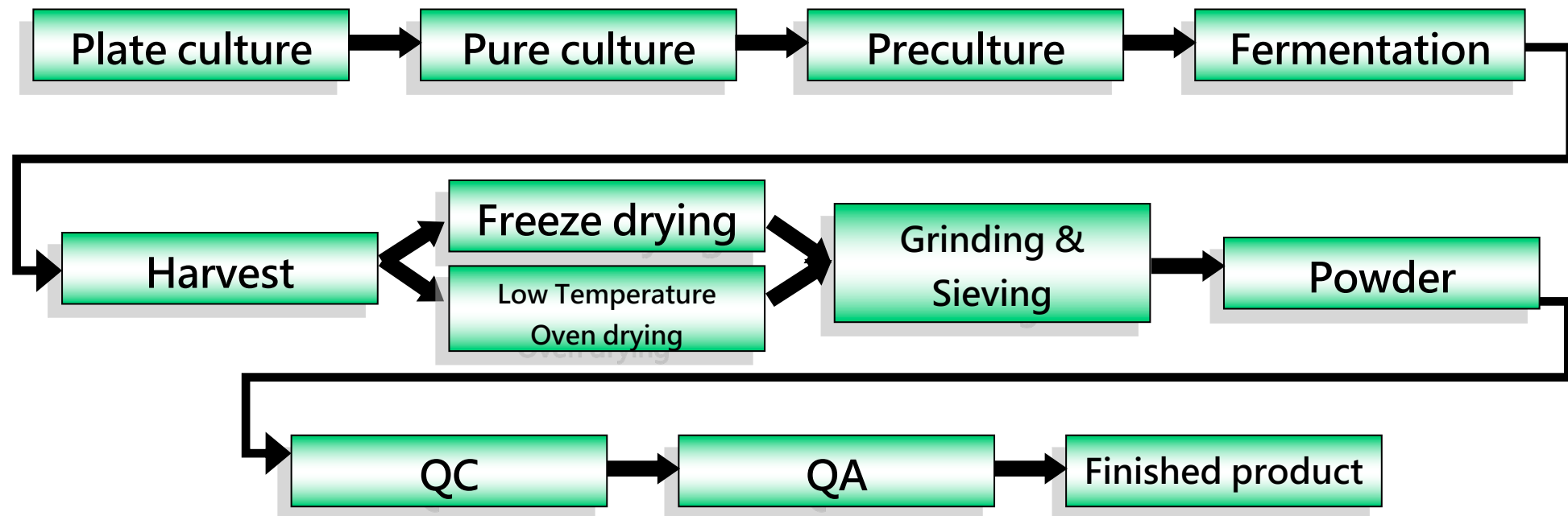


Identification report

Production Footsteps

Proprietary submerged fermentation and production techniques

TCM Biotech 's researchers collect and analyze the fermentative broth of various stages to find out the best **culturing conditions** and **harvest timing**.



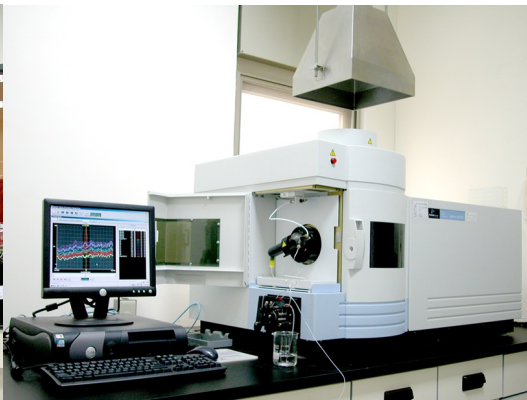
Exclusive fermentation technology and equipment



Automatic vertical semi-airlift hybrid reactor



International standard quality control



Strain preservation



Automatic monitoring system

LivPhcD VS Other cordyceps mycelium

	Cordyceps mycelium produced by TCM	Other cordyceps mycelium	Cordyceps militaris often mistaken for Cordyceps sinensis
	LivPhcD		
Bioactive ingredient concentration	high	low	low
health benefits	<ul style="list-style-type: none"> Promote health Boost immunity Liver protection 	<ul style="list-style-type: none"> Promote health 	<ul style="list-style-type: none"> Promote health
patent	A number of functions and process patents	Unknown	Unknown

Patents



TCM BIOTECH INTERNATIONAL CORP.

Pharmaceutical composition for preventing and treating liver fibrosis or nonalcoholic fatty liver disease

US08722056B2

(12) **United States Patent**
Wang et al.

(10) **Patent No.:** US 8,722,056 B2
(45) **Date of Patent:** May 13, 2014

(54) **METHODS FOR MAKING AND COMPOSITIONS COMPRISING FERMENTATION PRODUCTS OF CORDYCEPS SINENSIS**

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(73) Assignee: **TCM Biotech International Corp.**, Taipei (TW)

(* Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 365 days.

(21) Appl. No.: 12461,204

(22) Filed: Aug. 6, 2009

(65) **Prior Publication Data**
US 2010/0021426 A1 Jan. 28, 2010

Related U.S. Application Data

(66) Continuation-in-part of application No. 12/411,940, filed on Mar. 25, 2009, now abandoned, which is a continuation of application No. 12/003,736, filed on Dec. 31, 2007, now abandoned, which is a division of application No. 10/755,458, filed on Jan. 13, 2004, now abandoned.

(30) **Foreign Application Priority Data**
Oct. 3, 2003 (TW) 92127864 A

(51) **Int. Cl.**
A61K 36/06 (2006.01)

(52) **U.S. Cl.**
156 (2006.01) 424/195.15; 424/115

(58) **Field of Classification Search**
None
See application file for complete search history.

(56) **References Cited**
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21 Claims, 2 Drawing Sheets

The United States of America

The Director of the United States Patent and Trademark Office

Has received an application for a patent for a new and useful invention. The title and description of the invention are enclosed. The requirements of law have been complied with, and it has been determined that a patent on the invention shall be granted under the law.

Therefore, this

United States Patent

Grants to the person(s) having title to this patent the right to exclude others from making, using, offering for sale, or selling the invention throughout the United States of America or importing the invention into the United States of America for the term set forth below, subject to the payment of maintenance fees as provided by law.

If this application was filed prior to June 8, 1995, the term of this patent is the longer of seventeen years from the date of grant of this patent or twenty years from the earliest effective U.S. filing date of the application, subject to any statutory extension.

If this application was filed on or after June 8, 1995, the term of this patent is twenty years from the U.S. filing date, subject to any statutory extension. If the application contains a specific reference to an earlier filed application or applications under 35 U.S.C. 120, 121 or 365(c), the term of the patent is twenty years from the date on which the earliest application was filed, subject to any statutory extensions.

Nicholas P. Ebdici
Acting Director of the United States Patent and Trademark Office

Debi M. Pison
Acting Director

- **Taiwan** TWI501771
TWI554277
- **USA** US8,858,954
US8,658,181
- **Japan** JP6050099
- **European Union** EP2644201B1

Methods for making and compositions comprising fermentation products of Cordyceps sinensis

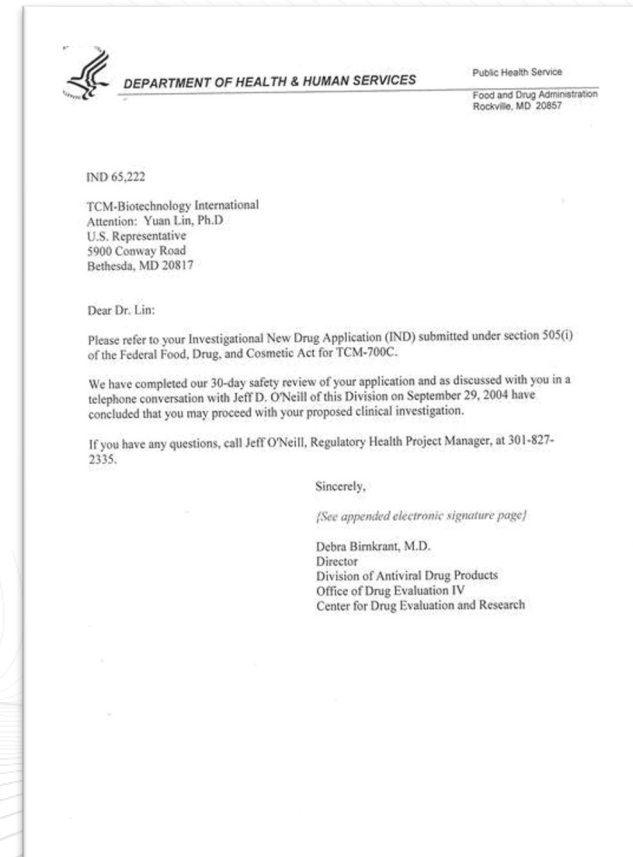
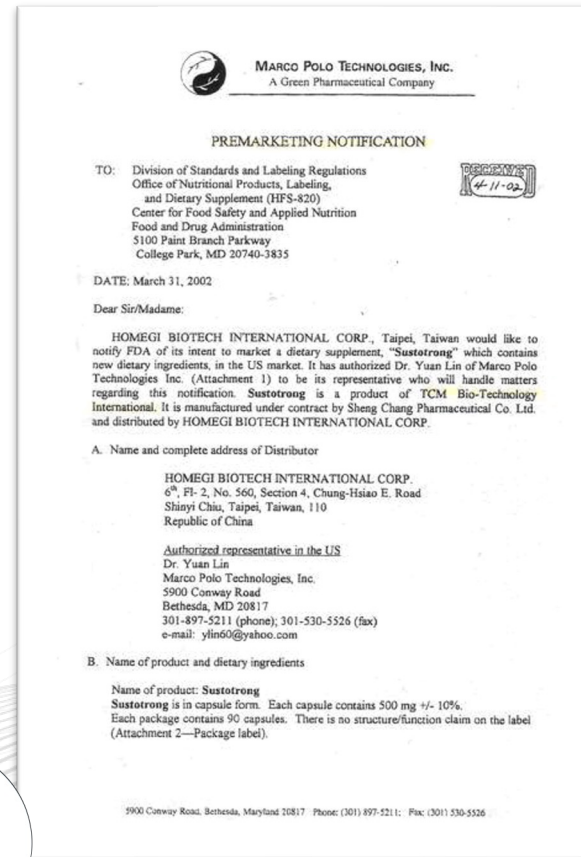
- **USA** US8722056 B2

The only Cordyceps sinensis owns approval from US FDA

US FDA confirmed that LivPhcD was a natural botanical product with decent quality safe enough to be used as dietary supplements' new ingredient in American market and therefore granted it a pre-market notification.

FDA agrees LivPhcD can :

- promote general health
- boost energy
- modulate physical functions





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