

The United States of America



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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 or persons having title to this patent the right to exclude others from making, using or selling the invention throughout the United States of America for the term of seventeen years from the date of this patent, subject to the payment of maintenance fees as provided by law.

Bruce Lehman

Commissioner of Patents and Trademarks

Karnal J. Cooper

Attest



US05456924A

United States Patent [19]

Bounous et al.

[11] Patent Number: 5,456,924

[45] Date of Patent: * Oct. 10, 1995

[54] METHOD OF TREATMENT OF HIV-SEROPOSITIVE INDIVIDUALS WITH DIETARY WHEY PROTEINS

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[*] Notice: The portion of the term of this patent subsequent to Jul. 27, 2010 has been disclaimed.

[21] Appl. No.: 866,756

[22] Filed: Apr. 10, 1992

Related U.S. Application Data

[63] Continuation-in-part of Ser. No. 563,794, Aug. 3, 1990, Pat. No. 5,230,902, which is a continuation of Ser. No. 289,971, Dec. 23, 1988, abandoned, and a continuation-in-part of Ser. No. 417,246, Oct. 4, 1989, Pat. No. 5,290,511, which is a continuation-in-part of Ser. No. 289,971, Dec. 23, 1988, abandoned, which is a continuation-in-part of Ser. No. 188,271, Apr. 28, 1988, abandoned.

[51] Int. Cl.⁶ A61K 35/20

[52] U.S. Cl. 424/535; 514/2; 514/21; 426/72

[58] Field of Search 514/2, 21; 530/365, 530/833; 424/535; 426/72

References Cited

U.S. PATENT DOCUMENTS

4,880,626 11/1989 McMichael 424/88
4,983,387 1/1991 Goldstein et al. 424/88
5,030,449 7/1991 Berzofsky et al. 424/88
5,112,373 6/1992 Eibl et al. 424/85.8

FOREIGN PATENT DOCUMENTS

858533 12/1970 Canada 195/76
1263329 11/1989 Canada 195/128.3
2007258 7/1990 Canada 530/17.1
2011299 9/1990 Canada 167/140
2032653 12/1990 Canada
2022394 2/1991 Canada 530/7.06

2033347 5/1992 Canada .
0339656 11/1989 European Pat. Off. .
0374390 6/1990 European Pat. Off. .
8910139 11/1989 WIPO .

OTHER PUBLICATIONS

Bounous, G., Kongshavn, P., Gold, P., *Clinical and Investigative Medicine*, vol. 11, No. 4, pp. 271-278 (Aug. 1988).
Bounous, G., Batist, G., Gold, P., *Clinical and Investigative Medicine*, vol. 12, No. 3, pp. 154-161 (1989).
Fidelus, R. K., Tsan, M. F., *Cellular Immunol.*, vol. 97, pp. 155-163 (1986).
Gougerot-Pocidallo, M. A., et al., *Immunology*, vol. 64, pp. 281-288 (1988).
Noelle, R. J., Lawrence, D. A., *Biochem. J.*, vol. 198, pp. 571-579 (1981).
Anderson, M. E., Meister, A., *Proc. Natl. Acad. Sci.-USA*, vol. 80, pp. 707-711, (1983).
Meister, A., in Stranbury, J. B., eds, *Metabolic Basis of Inherited Diseases 4th Edn.* McGraw Hill, pp. 328-335 (1978).
Bounous, G., Gold, P., *Clinical and Investigative Medicine*, vol. 14, pp. 296-309 (1991).
Hirai, Y., et al., *Evaluation of the Immunological Enhancement Activities of Immunocol* (Dec. 13, 1990) Osaka, Japan.
Buhl, R., et al., *Lancet*, pp. 1294-1297 (Dec. 2, 1989).
Anderson, M. E., *C.R.C. Handbook of Methods for Oxygen Radical Research*, pp. 317-329 (1985).
Biological Abstracts, vol. 41, Abstract No. 84485, Voss et al. (Jun. 1991).
Biological Abstracts, vol. 41, Abstract No. 84488, Glauser et al. (Jun. 1991).

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[57]

ABSTRACT

Undenatured whey protein concentrate is administered to HIV-seropositive individuals to elevate their blood mononuclear cells, glutathione (GSH) level, body weight and sense of well being. In addition T-helper cells concentration and their T-helper cells/T-suppressor cells ratio are slightly elevated.

8 Claims, No Drawings