

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
7 August 2003 (07.08.2003)

PCT

(10) International Publication Number
WO 03/063793 A3

(51) International Patent Classification⁷: **A61K 31/20**,
31/185

(74) Agent: **HAGAN, Patrick, J.**; Dann, Dorfman, Herrell and
Skillman, 1601 Market Street Suite 720, Philadelphia, PA
19103-2307 (US).

(21) International Application Number: PCT/US03/02954

(22) International Filing Date: 31 January 2003 (31.01.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
10/066,334 31 January 2002 (31.01.2002) US

(71) Applicant (for all designated States except US): **PILOT
THERAPEUTICS, INC.** [US/US]; 2000 Daniel Island
Drive, Charleston, SC 29492 (US).

(81) Designated States (*national*): AE, AG, AL, AM, AT, AU,
AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU,
CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW,
MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE,
SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ,
VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (*regional*): ARIPO patent (GH, GM,
KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),
Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE,
ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI,
SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN,
GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

(88) Date of publication of the international search report:
6 November 2003

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(72) Inventors; and

(75) Inventors/Applicants (for US only): **CHILTON, Floyd, H.** [US/US]; 4226 Allistar Road, Winston-Salem, NC 27104 (US). **SURETTE, Marc, E.** [CA/US]; 2344 Westover Drive, Winston-Salem, NC 27103 (US). **KOUMENIS, Iphigenia, L.** [CY/US]; 3241 York Road, Winston-Salem, NC 27103 (US). **TRAMPOSCH, Kenneth** [US/US]; 8686 Millcreek Drive, E. Amherst, NY 14051 (US).

(54) Title: FATTY ACID-CONTAINING COMPOSITIONS AND METHODS FOR THE TREATMENT OF CYTOKINE MEDIATED DISORDERS

(57) Abstract: Compositions, dietary supplements and medical foods for the treatment of symptoms of inflammatory disorders may include gamma-linolenic acid or dihomogammalinolenic acid, an inhibitor of Δ^5 desaturase, and optionally stearidonic acid or ω -3 arachidonic acid. Preferred formulations may be in the form of a good tasting, preferably milk or fruit based drink, or a dried powder. Compositions reduce inflammation and inhibit increase in serum arachidonic acid associated with gamma-linolenic acid. The compositions of the invention may also be used for the treatment of cytokine mediated disorders in patients in need thereof.




WO 03/063793 A3

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US03/02954

A. CLASSIFICATION OF SUBJECT MATTER												
IPC(7) : A61K 31/20, 31/185												
US CL : 514/560, 558, 553												
According to International Patent Classification (IPC) or to both national classification and IPC												
B. FIELDS SEARCHED												
Minimum documentation searched (classification system followed by classification symbols) U.S. : 514/560, 558, 553												
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched												
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) USPATFULL PCTFULL WPIDS												
C. DOCUMENTS CONSIDERED TO BE RELEVANT												
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.										
Y	US 6,107,334 A (CHILTON) 22 August 2000 (22.08.2000), abstract, column 1 lines 33-67, column 2 lines 59-67, column 3 lines 33-67, column 13-14, and claims 1-11.	1-85										
Y	US 5,223,285 (DEMICHELE et al.) 29 June 1993 (29.06.1993), abstract, claims 1-23.	1-85										
<input type="checkbox"/> Further documents are listed in the continuation of Box C. <input type="checkbox"/> See patent family annex.												
* Special categories of cited documents: <table border="0"> <tr> <td>"A" document defining the general state of the art which is not considered to be of particular relevance</td> <td>"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention</td> </tr> <tr> <td>"E" earlier application or patent published on or after the international filing date</td> <td>"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone</td> </tr> <tr> <td>"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)</td> <td>"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art</td> </tr> <tr> <td>"O" document referring to an oral disclosure, use, exhibition or other means</td> <td>"&" document member of the same patent family</td> </tr> <tr> <td>"P" document published prior to the international filing date but later than the priority date claimed</td> <td></td> </tr> </table>			"A" document defining the general state of the art which is not considered to be of particular relevance	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention	"E" earlier application or patent published on or after the international filing date	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone	"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art	"O" document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family	"P" document published prior to the international filing date but later than the priority date claimed	
"A" document defining the general state of the art which is not considered to be of particular relevance	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention											
"E" earlier application or patent published on or after the international filing date	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone											
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art											
"O" document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family											
"P" document published prior to the international filing date but later than the priority date claimed												
Date of the actual completion of the international search 02 April 2003 (02.04.2003)		Date of mailing of the international search report 22 AUG 2003										
Name and mailing address of the ISA/US Commissioner of Patents and Trademarks Box PCT Washington, D.C. 20231 Facsimile No. (703)305-3230		Authorized officer Sreenivasan Padmanabhan  Telephone No. (703)305-1235										