



INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁶ : A61K 31/58, 31/70	A3	(11) International Publication Number: WO 99/48507 (43) International Publication Date: 30 September 1999 (30.09.99)
(21) International Application Number: PCT/GB99/00951 (22) International Filing Date: 26 March 1999 (26.03.99) (30) Priority Data: 9806513.9 26 March 1998 (26.03.98) GB 9905275.5 8 March 1999 (08.03.99) GB (71) Applicant (for all designated States except US): PHY- TOPHARM PLC [GB/GB]; Corpus Christi House, 9 West Street, Godmanchester, Cambridgeshire PE18 8HG (GB). (72) Inventors; and (75) Inventors/Applicants (for US only): XIA, Zongqin [CN/CN]; Flat 403, Block 8, 1 Jian-De Road, Shanghai 200025 (CN). HU, Yaer [CN/CN]; Flat 1209, Block 1, Lane 357, Ma-Dang Road, Sanghai 200025 (CN). RUBIN, Ian [GB/GB]; Hall Farm House, 9 High Street, Castle Donington, Leicester LE74 2PP (GB). BROSTOFF, Jonathan [GB/GB]; 34 Fitzjohn Avenue, London NW3 5NB (GB). WHITTLE, Brian [GB/GB]; Mereclose, Hull Road, Hornsea, East Yorkshire HU18 1RJ (GB). WANG, Weijun [CN/GB]; 10 Brecon Way, Hinchingsbrooke Park, Huntingdon, Cams PE18 8XX (GB). GUNNING, Phil [GB/GB]; 37a King Street, Saffron Walden, Essex CB10 1EU (GB).		(74) Agent: ABRAMS, Michael, John; Haseltine Lake & Co., Imperial House, 15-19 Kingsway, London WC2B 6UD (GB). (81) Designated States: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, 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, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG). Published <i>With international search report.</i> <i>Before the expiration of the time limit for amending the claims</i> <i>and to be republished in the event of the receipt of amendments.</i> (88) Date of publication of the international search report: 25 November 1999 (25.11.99)
(54) Title: STEROIDAL SAPONINS FOR TREATING ALZHEIMER'S DISEASE		
(57) Abstract The invention discloses the use of a number of saponins and sapogenins, notably those of steroidal structure, in the treatment of cognitive dysfunction and similar conditions. Methods of treatment, and pharmaceutical compositions are also disclosed.		

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INTERNATIONAL SEARCH REPORT

International Application No

PCT/GB 99/00951

A. CLASSIFICATION OF SUBJECT MATTER
IPC 6 A61K31/58 A61K31/70

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)

IPC 6 A61K

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 practical, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	N. YI ET AL.: "Sarsasapogenin: Mechanism in treating senile dementia" PROCEEDINGS OF THE SIXTH INTERNATIONAL SYMPOSIUM OF THE INTERNATIONAL ISOTOPE SOCIETY, PHILADELPHIA, 1997, pages 315-320, XP002117140 the whole document ---	1-32
X	STN INTERNATIONAL. FILE CHEMICAL ABSTRACTS. AN=123:266081, XP002117141 abstract & CN 1 096 031 A (SHANGHAI NO. 2 MEDICAL UNIVERSITY) cited in the application --- -/--	1-32

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"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

"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

"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.

"&" document member of the same patent family

Date of the actual completion of the international search

30 September 1999

Date of mailing of the international search report

13/10/1999

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INTERNATIONAL SEARCH REPORT

International Application No

PCT/GB 99/00951

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	DE 43 03 214 A (MARKS WOLFGANG) 11 August 1994 (1994-08-11) cited in the application page 6, line 15-26; claims 1,14 ---	1-32
E	WO 99 16786 A (WANG BINGJI ;DONG JUNXING (CN); MA BEIPING (CN); INST OF RADIATION) 8 April 1999 (1999-04-08) abstract ---	1-32
A	G. BLUDEN ET AL.: "Steroidal sapogenins from leaves of Agaveae species" STN INTERNATIONAL. FILE BIOSIS. AN=1979:172390, XP002117142 abstract -----	1-32

INTERNATIONAL SEARCH REPORT

International application No.

PCT/GB 99/ 00951

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.: 10-31
because they relate to subject matter not required to be searched by this Authority, namely:
Remark: Although claims 10-31
are directed to a method of treatment of the human/animal
body, the search has been carried out and based on the alleged
effects of the compound/composition.
2. ☐ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such
an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all
searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment
of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report
covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is
restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/GB 99/00951

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
DE 4303214	A	11-08-1994	NONE	
WO 9916786	A	08-04-1999	CN 1212966 A	07-04-1999
			AU 9336098 A	23-04-1999