

(19) World Intellectual Property Organization  
International Bureau



(43) International Publication Date  
13 December 2007 (13.12.2007)

PCT

(10) International Publication Number  
**WO 2007/141530 A3**

(51) International Patent Classification:

A61K 31/00 (2006.01) A61K 31/4025 (2006.01)  
A61K 31/216 (2006.01) A61P 17/08 (2006.01)

(21) International Application Number:

PCT/GB2007/002098

(22) International Filing Date: 7 June 2007 (07.06.2007)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

0611240.3 7 June 2006 (07.06.2006) GB

(71) Applicant (for all designated States except US): **DANIO-LABS LTD.** [GB/GB]; 7330 Cambridge Research Park, Cambridge CB25 9TN (GB).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **ROACH, Alan George** [GB/GB]; DanioLabs Ltd., 7330 Cambridge Research Park, Cambridge CB25 9TN (GB). **GOLDSMITH, Paul** [GB/GB]; DanioLabs Ltd., 7330 Cambridge Research Park, Cambridge CB25 9TN (GB).

(74) Agent: **GILL JENNINGS & EVERY LLP**; Broadgate House, 7 Eldon Street, London EC2M 7LH (GB).

(81) Designated States (unless otherwise indicated, for every

kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every

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

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

(88) Date of publication of the international search report:

5 June 2008

(54) Title: TREATMENT OF EXCESS SEBUM PRODUCTION

(57) Abstract: A muscarinic receptor antagonist is useful for the treatment or prevention of a condition associated with excess sebum production or excretion.



WO 2007/141530 A3

**INTERNATIONAL SEARCH REPORT**

International application No  
PCT/GB2007/002098

**A. CLASSIFICATION OF SUBJECT MATTER**  
INV. A61K31/00 A61K31/216 A61K31/4025 A61P17/08

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)

A61K A61P

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)

EPO-Internal, WPI Data, BIOSIS, EMBASE, CHEM ABS Data

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 01/10427 A (ARAKIS LTD [GB]; COLLIER PAULA [GB]; MANALLACK DAVID THOMAS [GB]; BANN) 15 February 2001 (2001-02-15) page 3, lines 17-21; claims 3,15; examples	1-13
X	CARTLIDGE M ET AL: "THE EFFECT OF PROLONGED TOPICAL APPLICATION OF AN ANTI CHOLINERGIC AGENT ON THE SEBACEOUS GLANDS" BRITISH JOURNAL OF DERMATOLOGY, vol. 86, no. 1, 1972, pages 61-63, XP009098054 ISSN: 0007-0963 abstract	1,2,4,5,10

Further documents are listed in the continuation of Box C.

See patent family annex.

\* Special categories of cited documents:

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
- \*E\* earlier document but published on or after the international filing date
- \*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)
- \*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.
- \*Z\* document member of the same patent family

Date of the actual completion of the international search

7 April 2008

Date of mailing of the international search report

14/04/2008

Name and mailing address of the ISA/  
European Patent Office, P.B. 5818 Patentlaan 2  
NL - 2280 HV Rijswijk  
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl.  
Fax: (+31-70) 340-3016

Authorized officer

Friederich, Martin

## INTERNATIONAL SEARCH REPORT

International application No  
PCT/GB2007/002098

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	VASWANI N: "Management of acne vulgaris" INDIAN JOURNAL OF DERMATOLOGY, VENEREOLOGY AND LEPROLOGY, DEPARTMENT OF DERMATOLOGY & VENEREOLOGY,, IN, vol. 53, no. 3, 1987, pages 146-154, XP009098051 page 148, last paragraph - page 149, paragraph 1 -----	1,2,4,5, 10

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/GB2007/002098

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 0110427	A	15-02-2001	
		AU 6306400 A	05-03-2001
		CA 2378445 A1	15-02-2001
		EP 1202723 A2	08-05-2002
		JP 2003506405 T	18-02-2003
		ZA 200200795 A	29-01-2003

---