

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
22 May 2003 (22.05.2003)

PCT

(10) International Publication Number  
**WO 2003/041686 A3**

- (51) International Patent Classification<sup>7</sup>: **A61K 9/70**, 80919 (US). **ROGERS, Karen, Newell, M.** [US/US]; A61L 26/00, A61K 31/785, A61P 31/00 3930 Mariposa Street, Colorado Springs, CO 80907 (US).
- (21) International Application Number: PCT/US2002/036840 (74) Agent: **SWISS, Gerald, F.**; Morrison & Foerster, LLP, 755 Page Mill Road, Palo Alto, CA 94304-1018 (US).
- (22) International Filing Date: 14 November 2002 (14.11.2002) (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, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (25) Filing Language: English (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, IE, IT, LU, MC, NL, PT, SE, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
- (26) Publication Language: English
- (30) Priority Data: 60/332,752 14 November 2001 (14.11.2001) US (63) Related by continuation (CON) or continuation-in-part (CIP) to earlier application: US 60/332,752 (CIP) Filed on 14 November 2001 (14.11.2001)
- (71) Applicants (*for all designated States except US*): **MED-LOGIC GLOBAL LIMITED** [GB/GB]; Western Wood Way, Langleigh Science Park, Plymouth, Devon PL7 5BG (GB). **REGENTS OF THE UNIVERSITY OF COLORADO** [US/US]; Regents 201, SYS 3, Boulder, CO 80309 (US). (88) Date of publication of the international search report: 22 April 2004
- (72) Inventors; and (73) Inventors/Applicants (*for US only*): **ASKILL, Ian, N.** [US/US]; 6572 Foxdale Circle, Colorado Springs, CO (81) 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, IE, IT, LU, MC, NL, PT, SE, 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
- 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.

(54) Title: IMPROVED THERAPY FOR TOPICAL DISEASES

(57) Abstract: Disclosed are methods and formulations for the treatment of topical conditions on mammalian tissues such as skin and mucous tissues mediated at least in part by viral, bacterial or fungal infections in the mammal. The methods of this invention involve the in situ formation of a polymeric film over the diseased tissue.

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# INTERNATIONAL SEARCH REPORT

International Application No.  
PCT/US 02/36840

**A. CLASSIFICATION OF SUBJECT MATTER**  
 IPC 7 A61K9/70 A61L26/00 A61K31/785 A61P31/00

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 7 A61K A61L

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, PAJ, BIOSIS, EMBASE, MEDLINE

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 98 30090 A (MEDLOGIC GLOBAL CORP) 16 July 1998 (1998-07-16)  page 4, line 12 -page 5, line 20 page 7, line 16 -page 9, line 23 page 18, line 1 - line 15 examples claims & US 5 684 042 A 4 November 1997 (1997-11-04) cited in the application ---	1-12, 15-21, 23-27
X	GB 2 071 678 A (VNII ISPYTATEL MED TECH) 23 September 1981 (1981-09-23)  page 1, line 7 - line 48 examples 3-5 claims ---	1-12, 15-21, 23-27

Further documents are listed in the continuation of box C.

Patent family members are listed in 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.
- \* & \* document member of the same patent family

Date of the actual completion of the international search

22 January 2004

Date of mailing of the international search report

6. 02. 2004

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INTERNATIONAL SEARCH REPORT

Internat. Application No  
PCT/US 02/36840

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	GB 1 112 381 A (BOFORS AB) 1 May 1968 (1968-05-01) page 1, line 36 - line 55 examples claims ---	1,13-21, 23-27
X	SAETTONE M F: "Release of miconazole from topical PVA matrices: preliminary in vitro and in vivo data" JOURNAL OF CONTROLLED RELEASE, ELSEVIER SCIENCE PUBLISHERS B.V. AMSTERDAM, NL, vol. 16, no. 1 / 2, 1 June 1991 (1991-06-01), pages 197-202, XP000219667 ISSN: 0168-3659 abstract page 198, left-hand column, paragraph 3 page 199, left-hand column, paragraph 2 -page 201 ---	1,13-27
X	DE 198 32 519 A (OSWALD HARTMUT) 27 January 2000 (2000-01-27) column 1, line 1 - line 13 column 1, line 45 - line 51 example 1 ---	1,13-27
X	EP 0 319 964 A (SHIONOGI & CO) 14 June 1989 (1989-06-14) page 2, line 17 - line 21 examples claims ---	1,13-21, 23-27
X	WO 85 00288 A (SOFT SHEEN PRODUCTS INC) 31 January 1985 (1985-01-31)  page 1, line 5 - line 15 examples claims ---	1,13, 15-21, 23-27
P,X	WO 02 062331 A (LYSTER HANS BRINCH) 15 August 2002 (2002-08-15)  page 14, line 25 -page 18 examples claims -----	1-12, 15-21, 23-27

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US 02/36840

## 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.:  
because they relate to subject matter not required to be searched by this Authority, namely:  
  
Although claims 1-23 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 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:

see additional sheet

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.

## FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. Claims: 1 (partially), 2-12, 15-27 (partially)

Method for treating skin or mucous membrane lesions in a mammal wherein the formation of said lesions is mediated at least in part by one or more bacterial, viral and/or fungal agents which method comprises

- a) identifying such lesion(s); and
- b) forming a polymeric film over said lesion(s) which inhibits proliferation of said infectious agents in said lesion(s),

wherein the polymeric film is formed by applying to the lesion a sufficient amount of a polymerizable, biocompatible prepolymer under conditions wherein a polymeric film is formed in situ over said lesion(s).

2. Claims: 1 (partially), 13, 14, 15-27 (partially)

Method for treating skin or mucous membrane lesions in a mammal wherein the formation of said lesions is mediated at least in part by one or more bacterial, viral and/or fungal agents which method comprises

- a) identifying such lesion(s); and
- b) forming a polymeric film over said lesion(s) which inhibits proliferation of said infectious agents in said lesion(s),

wherein the polymeric film is formed by applying to the lesion a sufficient amount of a biocompatible polymeric composition comprising a biocompatible solvent and a biocompatible polymer dissolved therein under conditions wherein a polymeric film is formed in situ over said lesion(s) upon dissipation of the solvent.

## INTERNATIONAL SEARCH REPORT

International Application No

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