

(19) World Intellectual Property Organization  
International Bureau



(43) International Publication Date  
4 July 2002 (04.07.2002)

PCT

(10) International Publication Number  
**WO 02/051457 A3**

(51) International Patent Classification<sup>7</sup>: **A61L 15/32**

(21) International Application Number: PCT/US01/48807

(22) International Filing Date:  
17 December 2001 (17.12.2001)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
60/257,806 22 December 2000 (22.12.2000) US  
10/016,849 14 December 2001 (14.12.2001) US

(71) Applicant: **KIMBERLY-CLARK WORLDWIDE, INC.** [US/US]; 401 North Lake Street, Neenah, WI 54956 (US).

(72) Inventors: **MCDEVITT, Jason, P.**; 1960 Grand Lake Court, Alpharetta, GA 30004 (US). **TYRRELL, David, John**; 415 South Olde Oneida Street, Apartment #318, Appleton, WI 54911 (US).

(74) Agent: **NELSON MULLINS RILEY & SCARBOROUGH, L.L.P.**; Keenan Building, Third Floor, 1330 Lady Street, Columbia, SC 29201-3332 (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, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, 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, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent (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:  
1 August 2002

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: REMOVAL OF TARGETED PROTEASES WITH PROTEINACEOUS WOUND DRESSINGS CONTAINING GROWTH FACTORS

(57) Abstract: A wound dressing and method for treating a wound with a wound dressing are provided. In particular, the wound dressing contains a fibrous component, typically made from silk fibers or wool fibers for attracting and capturing proteases from a wound site that may interfere with the healing of the wound, and a growth factor.



**WO 02/051457 A3**

## INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 01/48807

**A. CLASSIFICATION OF SUBJECT MATTER**

IPC 7 A61L15/32

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 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, 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	US 5 836 970 A (PANDIT ABHAY S) 17 November 1998 (1998-11-17) claims ---	1-32
X	US 6 124 273 A (ELSON CLIVE ET AL) 26 September 2000 (2000-09-26) column 25, line 20 - line 62 claims 25-32 ---	1-32
X	WO 00 42958 A (3M INNOVATIVE PROPERTIES CO) 27 July 2000 (2000-07-27) page 28, line 4 - line 31 page 31, line 25 - line 29 ---	1-32
P, X	WO 01 87267 A (MASTERS DAVID B ; GEL DEL TECHNOLOGIES INC (US)) 22 November 2001 (2001-11-22) claims 75-95 --- -/--	1-32

☒ 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.

\*&amp;\* document member of the same patent family

Date of the actual completion of the international search

11 June 2002

Date of mailing of the international search report

18/06/2002

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

Fey-Lamprecht, F

## INTERNATIONAL SEARCH REPORT

ational Application No

PCI/US 01/48807

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P,X	WO 01 64132 A (US AGRICULTURE ;UNIV VIRGINIA COMMONWEALTH (US)) 7 September 2001 (2001-09-07) page 7, line 4 - line 6 page 8, line 8 - line 21 page 9, line 23 -page 11, line 25 -----	1-32

**INTERNATIONAL SEARCH REPORT**  
Information on patent family members

International Application No  
**PCT/US 01/48807**

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 5836970	A	17-11-1998	NONE	
US 6124273	A	26-09-2000	CA 2224253 A1 EP 0830381 A1 JP 11507697 T WO 9641818 A1	27-12-1996 25-03-1998 06-07-1999 27-12-1996
WO 0042958	A	27-07-2000	AU 4190599 A EP 1146838 A1 WO 0042958 A1	07-08-2000 24-10-2001 27-07-2000
WO 0187267	A	22-11-2001	AU 4907901 A WO 0187267 A1 US 2002028243 A1	26-11-2001 22-11-2001 07-03-2002
WO 0164132	A	07-09-2001	AU 4330901 A WO 0164132 A2 US 2002012693 A1	12-09-2001 07-09-2001 31-01-2002