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*For two-letter codes and other abbreviations, refer to the "Guid-
ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.*

(54) Title: MONITORING OF WOUNDS BY MEASUREMENT OF PROTEASE AND PROTEASE INHIBITOR LEVELS IN
WOUND FLUIDS

(57) Abstract: A diagnostic test apparatus for determining a ratio of: (a) at least one endogenous protease enzyme inhibitor, to (b)
at least one endogenous protease enzyme, in a sample of a wound fluid. Suitably the protease enzyme is a neutrophil elastase and
the protease enzyme inhibitor is alpha-1-antitrypsin. Also provided are wound treatment systems comprising an apparatus according
to the invention and a wound dressing comprising an oxidized cellulose. Also provided are methods of diagnosis, prognosis and
treatment of wounds using the apparatus and systems of the invention.



WO 2006/030232 A3

INTERNATIONAL SEARCH REPORT

CT/GB2005/003585

A. CLASSIFICATION OF SUBJECT MATTER

G01N33/52 G01N33/53

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)

G01N

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, BIOSIS, WPI Data, PAJ, EMBASE

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	CULLEN BREDA ET AL: "The role of oxidised regenerated cellulose/collagen in chronic wound repair and its potential mechanism of action." INTERNATIONAL JOURNAL OF BIOCHEMISTRY AND CELL BIOLOGY, vol. 34, no. 12, December 2002 (2002-12), pages 1544-1556, XP002370457 ISSN: 1357-2725 the whole document ----- -/--	1-18

☒ 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.

G document member of the same patent family

Date of the actual completion of the international search

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Name and mailing address of the ISA/

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INTERNATIONAL SEARCH REPORT

CT/GB2005/003585

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	YAGER ET L D R: "Ability of chronic wound fluids to degrade peptide growth factors is associated with increased levels of elastase activity and diminished levels of proteinase inhibitors" WOUND REPAIR AND REGENERATION, MOSBY-YEAR BOOK, ST. LOUIS, MO, US, vol. 1, no. 5, January 1997 (1997-01), pages 23-32, XP002080317 ISSN: 1067-1927 page 29, column 2, paragraph 4	1-18
X	RAO C N ET AL: "Alpha-1-Antitrypsin is degraded and non-functional in chronic wounds but intact and functional in acute wounds: The inhibitor protects fibronectin from degradation by chronic wound fluid enzymes" JOURNAL OF INVESTIGATIVE DERMATOLOGY, vol. 105, no. 4, 1995, pages 572-578, XP009062834 ISSN: 0022-202X the whole document	1-18
X	GB 2 323 166 A (* JOHNSON & JOHNSON MEDICAL, INC) 16 September 1998 (1998-09-16) page 7, lines 1-12	1-18
X	US 2003/119073 A1 (QUIRK STEPHEN ET AL) 26 June 2003 (2003-06-26) cited in the application paragraphs [0005], [0007]	1-18
P,X	SCHONFELDER U ET AL: "Influence of selected wound dressings on PMN elastase in chronic wound fluid and their antioxidative potential in vitro" BIOMATERIALS, ELSEVIER SCIENCE PUBLISHERS BV., BARKING, GB, vol. 26, no. 33, November 2005 (2005-11), pages 6664-6673, XP004989124 ISSN: 0142-9612 abstract	1-18

Box II Observations where certain claims were found unsearchable (Continuation of item 2 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 13-18 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 III Observations where unity of invention is lacking (Continuation of item 3 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

PCT/GB2005/003585

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
GB 2323166	A	16-09-1998	AT 230484 T	15-01-2003
			AU 736995 B2	09-08-2001
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