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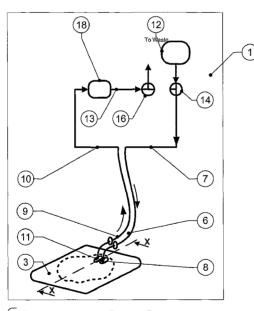
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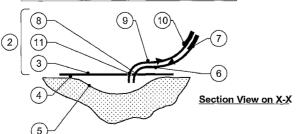
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[Continued on next page]

(54) Title: WOUND TREATMENT APPARATUS AND METHOD





(57) Abstract: An apparatus for cleansing wounds in which irrigant fluid from a reservoir connected to a conformable wound dressing and wound exudate from the dressing are moved by a device (which may be a single pump or two pumps) for moving fluid through a flow path which passes through the dressing and a means for providing simultaneous aspiration and irrigation of the wound, and means for stressing the wound bed and optionally tissue surrounding the wound. The former removes materials deleterious to wound healing, while distributing materials that are beneficial in promoting wound healing over the wound bed. The latter promotes wound healing. The dressing and a method of treatment using the apparatus.



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FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, 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).

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15 March 2007

INTERNATIONAL SEARCH REPORT

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According to	o International Patent Classification (IPC) or to both national classifica	ation and IPC	
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C. DOCUME	ENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the rele	evant passages	Relevant to claim No.
X	WO 2004/037334 A (SMITH & NEPHEW BLOTT PATRICK LEWIS [GB]; GREENER [GB]; HAR) 6 May 2004 (2004-05-06) The whole document, and in partic page 27, line 26 - page 28, line page 50, line 33 - page 51, line figure 1 page 31, line 23 - line 26 page 57, line 14 - line 18; figur	BRYAN 5) cular: 15 23;	1-41
X .	GB 2 378 392 A (RECUPERATIO LTD [12 February 2003 (2003-02-12) page 5, paragraph 1 - page 7, par figure 1 		1-41
X Furth	ner documents are listed in the continuation of Box C.	X See patent family annex.	
,		"T" later document published after the i	ith the application but
"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		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 docu-	
"P" docume	nt published prior to the international filing date but	ments, such combination being obvious to a person skilled in the art. *&" document member of the same patent family	
Date of the a	actual completion of the international search	Date of mailing of the international s	earch report
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C(Continua	tion). DOCUMENTS CONSIDERED TO BE RELEVANT	PC1/ GB2000/ 001551
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2001/029956 A1 (ARGENTA LOUIS C [US] ET AL) 18 October 2001 (2001-10-18) paragraphs [0010], [0037], [0046] - [0048]; figures 1,6	1,4,40
P,X, L	WO 2005/105174 A (SMITH & NEPHEW [GB]; BLOTT PATRICK LEWIS [GB]; GREENER BRYAN [GB]; HAR) 10 November 2005 (2005-11-10) the whole document	1-41
P,X, L	WO 2005/051461 A (SMITH & NEPHEW [GB]; BLOTT PATRICK LEWIS [GB]; GREENER BRYAN [GB]; HAR) 9 June 2005 (2005-06-09) the whole document, and in particular embodiments of figures 5 and 6	1-41
P,X	WO 2005/082435 A (HUNTLEIGH TECHNOLOGY PLC [GB]; MCLEOD ALASTAIR GEORGE [GB]; COOK STEPH) 9 September 2005 (2005-09-09) the whole document	1-41
Α	US 4 224 945 A (COHEN JONATHAN) 30 September 1980 (1980-09-30) the whole document	1,40

INTERNATIONAL SEARCH REPORT

International application No. PCT/GB2006/001551

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. X Claims Nos.: 42-50 because they relate to subject matter not required to be searched by this Authority, namely: Rule 39.1(iv) PCT - Method for treatment of the human or animal body by
surgeryRule 39.1(iv) PCT - Method for treatment of the human or animal body by therapy
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

International application No PCT/GB2006/001551

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 2004037334 A	06-05-2004	AU 2003276408 A1 CA 2503897 A1 CN 1732028 A EP 1562668 A1 JP 2006503628 T KR 20050075367 A US 2006155260 A1 ZA 200502973 A	13-05-2004 06-05-2004 08-02-2006 17-08-2005 02-02-2006 20-07-2005 13-07-2006 22-02-2006
GB 2378392 A	12-02-2003	NONE	
US 2001029956 A1	18-10-2001	NONE	,
WO 2005105174 A	10-11-2005	AU 2005237821 A1 CA 2564985 A1 EP 1740237 A1	10-11-2005 10-11-2005 10-01-2007
WO 2005051461 A	09-06-2005	AU 2004292383 A1 CA 2540878 A1 CN 1874806 A EP 1684826 A1	09-06-2005 09-06-2005 06-12-2006 02-08-2006
WO 2005082435 A	09-09-2005	AU 2005216691 A1 EP 1718349 A1	09-09-2005 08-11-2006
US 4224945 A	30-09-1980	NONE	