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(72) Inventor; and

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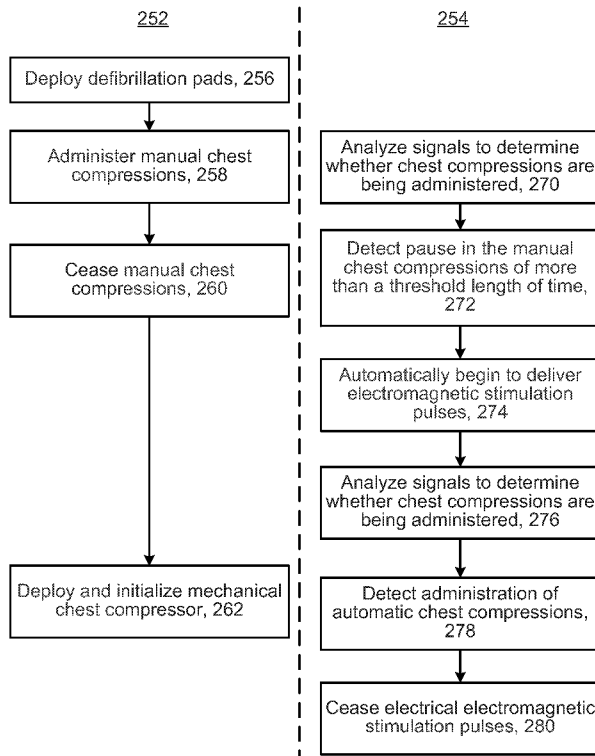
(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG,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

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[Continued on next page]

(54) Title: COORDINATED RESUSCITATION PERFUSION SUPPORT

(57) Abstract: This document relates to systems and techniques for the treatment of a cardiac arrest victim via electromagnetic stimulation of physiologic tissue.



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UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- *with international search report (Art. 21(3))*
- *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))*

Declarations under Rule 4.17:

- *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))*
- *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))*

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

27 December 2013

INTERNATIONAL SEARCH REPORT

International application No
PCT/US2012/025401

A. CLASSIFICATION OF SUBJECT MATTER
INV. A61H31/00 A61N1/39 A61N1/362 A61B5/11
ADD.
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)
A61H A61N
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 practicable, search terms used)
EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6 463 327 B1 (LURIE KEITH G [US] ET AL) 8 October 2002 (2002-10-08) cited in the application	1,2,6-18
Y	column 3, line 50 - column 6, line 65	5
A	column 15, line 37 - column 18, line 46; figures 6-7	3,4,30, 32,36-41
X	----- WO 2005/021089 A1 (MEDTRONIC INC [US]; HAMLEN ROBERT C [US]; DENO D CURTIS [US]; MULLIGAN) 10 March 2005 (2005-03-10)	49,51-73
Y	page 5, line 16 - page 6, line 25 page 16, line 8 - page 17, line 20; figures 6-10	5
A	page 6, lines 1-26 ----- US 6 213 960 B1 (SHERMAN DARREN R [US] ET AL) 10 April 2001 (2001-04-10) 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 application or patent 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 8 November 2013	Date of mailing of the international search report 14/11/2013
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Name and mailing address of the ISA/ European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Fax: (+31-70) 340-3016	Authorized officer Loveniers, Kris
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INTERNATIONAL SEARCH REPORT

International application No

PCT/US2012/025401

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	EP 1 913 923 A1 (LAERDAL MEDICAL AS [NO]) 23 April 2008 (2008-04-23) the whole document	1-18
A	US 2005/119706 A1 (IDEKER RAYMOND E [US] ET AL) 2 June 2005 (2005-06-02) paragraphs [0034] - [0038]; figures 2-3 paragraph [0046]; figure 9	1-18
A	US 2004/162510 A1 (JAYNE CYNTHIA [US] ET AL) 19 August 2004 (2004-08-19) paragraph [0113]	1-18
A	WO 00/57955 A1 (GALVANI LTD [US]) 5 October 2000 (2000-10-05) page 2, line 20 - page ., line 13 pages 7-10; figure 4 page 15; figure 9B	1-18,30, 34-36, 40,41
X	WO 2006/058133 A2 (GALVANI LTD [US]; KROLL KAI [US]; KROLL MARK [US]; BUGLIOSI THOMAS [US]) 1 June 2006 (2006-06-01) page 6, lines 1-30 page 8, lines 3-12 page 12, line 9 - page 18, line 16	30-41
X	US 5 431 688 A (FREEMAN GARY A [US]) 11 July 1995 (1995-07-11) column 1, line 40 - column 5, line 35	30, 34-37, 40,41
X	WO 2010/010567 A2 (LAKSHMANAN NARAYANAN [IN]) 28 January 2010 (2010-01-28) the whole document	30,32, 36,38,39
A	US 6 125 299 A (GROENKE ALLEN W [US] ET AL) 26 September 2000 (2000-09-26) column 1, line 32 - column 2, line 52 column 8, line 66 - column 9, line 33	49-73
A	WO 2006/104977 A2 (ZOLL MEDICAL CORP [US]; FREEMAN GARY A [US]; TOTMAN MARK [US]; BARASH) 5 October 2006 (2006-10-05) page 15, line 21 - page 16, line 6 page 28, lines 5-24	49-73
A	US 2007/060785 A1 (FREEMAN GARY A [US] ET AL) 15 March 2007 (2007-03-15) paragraphs [0031], [0047], [0109] - [0110]	49-73
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INTERNATIONAL SEARCH REPORT

International application No
PCT/US2012/025401

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 2005/070497 A1 (IXA MEDICAL PRODUCTS LTD LIABI [GB]; HERBERT KEVIN J [GB]; MILLS DESMO) 4 August 2005 (2005-08-04)	86-88, 90,91
A	page 4, line 5 - page 5, line 22 page 8, lines 11-24 -----	89
X	US 2003/208237 A1 (LOCKE KELLY J [US] ET AL) 6 November 2003 (2003-11-06)	86-88, 90,91
A	paragraph [0033] -----	89
A	US 2008/300518 A1 (BOWES C J [US]) 4 December 2008 (2008-12-04) paragraphs [0073] - [0074] -----	86-91
A	US 6 360 125 B1 (WEIL MAX HARRY [US] ET AL) 19 March 2002 (2002-03-19) the whole document -----	86-91

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2012/025401

Box No. 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.: 19-29, 42-48, 74-85, 92-106
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 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 No. 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:

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 fees, this Authority did not invite payment of additional fees.
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 and, where applicable, the payment of a protest fee.
- The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
- 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: 1-18

A medical system for providing electromagnetic stimulation comprising a chest compression sensor and ceasing to electrically stimulate blood flow upon detection of the administration of chest compressions by a mechanical chest compressor.

2. claims: 30-41

A medical system for providing electromagnetic stimulation comprising two sets of electrodes and having a controller programmed for alternate or dual-stage delivery electrical energy to initiate blood flow in the patient.

3. claims: 49-73

A medical system for providing electromagnetic stimulation comprising a chest compression sensor and electrically stimulating blood flow in the patient upon detection of a change in the administration of chest compressions

4. claims: 86-91

An external defibrillator comprising a hand proximity sensor and delivering a shock based on data from the proximity sensor.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/US2012/025401

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