

The
United
States
of
America



The Director of the United States
Patent and Trademark Office

Has received an application for a patent for a new and useful invention. The title and description of the invention are enclosed. The requirements of law have been complied with, and it has been determined that a patent on the invention shall be granted under the law.

Therefore, this

United States Patent

Grants to the person(s) having title to this patent the right to exclude others from making, using, offering for sale, or selling the invention throughout the United States of America or importing the invention into the United States of America, and if the invention is a process, of the right to exclude others from using, offering for sale or selling throughout the United States of America, or importing into the United States of America, products made by that process, for the term set forth in 35 U.S.C. 154(a)(2) or (c)(1), subject to the payment of maintenance fees as provided by 35 U.S.C. 41(b). See the Maintenance Fee Notice on the inside of the cover.

Michelle K. Lee

Director of the United States Patent and Trademark Office



US009162076B2

(12) **United States Patent**
Kumar

(10) **Patent No.:** **US 9,162,076 B2**
(45) **Date of Patent:** **Oct. 20, 2015**

(54) **METHOD FOR TISSUE REGENERATION OR DEGENERATION IN HUMAN AND AN APPARATUS THEREFORE**

(76) **Inventor:** **Rajah Vijay Kumar, Bangalore (IN)**

(*) **Notice:** **Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 1877 days.**

(21) **Appl. No.:** **11/569,917**

(22) **PCT Filed:** **Jun. 7, 2004**

(86) **PCT No.:** **PCT/IN2004/000157**

§ 371 (c)(1),
(2), (4) **Date:** **Dec. 1, 2006**

(87) **PCT Pub. No.:** **WO2005/120171**

PCT Pub. Date: **Dec. 22, 2005**

(65) **Prior Publication Data**

US 2007/0208249 A1 Sep. 6, 2007

(51) **Int. Cl.**
A61N 2/02 (2006.01)
A61N 2/00 (2006.01)
A61N 1/04 (2006.01)
A61N 1/32 (2006.01)

(52) **U.S. Cl.**
CPC *A61N 2/004* (2013.01); *A61N 1/0412*
(2013.01); *A61N 2/02* (2013.01); *A61N 1/327*
(2013.01)

(58) **Field of Classification Search**
CPC *A61N 2/00*; *A61N 2/02*; *A61N 2/002*;
A61N 2/004
USPC 600/9-15, 410-423; 250/492.1-492.3;
378/146-161; 607/100-102, 154-156
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

| | | | |
|-------------------|---------|-----------------|---------|
| 4,672,951 A | 6/1987 | Welch | |
| 5,099,756 A * | 3/1992 | Franconi et al. | 600/10 |
| 5,247,936 A | 9/1993 | Hagiwara | |
| 5,453,074 A * | 9/1995 | Imoto | 600/15 |
| 6,048,302 A * | 4/2000 | Markoff | 600/13 |
| 6,461,289 B1 * | 10/2002 | Munstermann | 600/9 |
| 6,470,220 B1 * | 10/2002 | Kraus et al. | 607/103 |
| 2003/0088189 A1 * | 5/2003 | Tu et al. | 600/549 |
| 2003/0195410 A1 * | 10/2003 | Winter | 600/410 |
| 2004/0022732 A1 * | 2/2004 | Zotz et al. | 4249/34 |

FOREIGN PATENT DOCUMENTS

CN 1077655 A 10/1993

OTHER PUBLICATIONS

Hornak, JP: The Basics of NMR. Jan. 1, 1998, 3 pages.*

* cited by examiner

Primary Examiner — Catherine B Kuhlman
(74) **Attorney, Agent, or Firm** — Laurence P. Colton; Smith Risley Tempel Santos LLC

(57) **ABSTRACT**

Disclosed herein is an apparatus for tissue regeneration or degeneration in human by applying rotational field narrow focused quantum magnetic resonance on the required area. The apparatus consists of a plurality of guns for delivery the quantum magnetic resonance, a traveling platform for carrying the person under treatment, an electronic switching system for controlling the guns, said electronic switching system being controlled by a main computer through an on board microprocessor and means for cooling and dispersing the heat generated during the operation.

7 Claims, 4 Drawing Sheets

