PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4683033

| SUBMISSION TYPE: | NEW ASSIGNMENT |
|-----------------------|----------------|
| NATURE OF CONVEYANCE: | ASSIGNMENT |

CONVEYING PARTY DATA

| Name | Execution Date |
|----------------------------|----------------|
| CLARITY ACQUISITION II LLC | 11/03/2017 |

RECEIVING PARTY DATA

| Name: | CELULARITY, INC. | |
|-----------------|---------------------|--|
| Street Address: | 33 TECHNOLOGY DRIVE | |
| City: | WARREN | |
| State/Country: | NEW JERSEY | |
| Postal Code: | 07059 | |

PROPERTY NUMBERS Total: 327

| Property Type | Number |
|---------------------|----------|
| Application Number: | 10004942 |
| Application Number: | 10074976 |
| Application Number: | 10076180 |
| Application Number: | 10366671 |
| Application Number: | 10397867 |
| Application Number: | 10511354 |
| Application Number: | 10511355 |
| Application Number: | 10640428 |
| Application Number: | 10721144 |
| Application Number: | 10779369 |
| Application Number: | 10874828 |
| Application Number: | 11187400 |
| Application Number: | 11485840 |
| Application Number: | 11580588 |
| Application Number: | 11580625 |
| Application Number: | 11592544 |
| Application Number: | 11593348 |
| Application Number: | 11648802 |
| Application Number: | 11648804 |
| Application Number: | 11648812 |
| | |

PATENT REEL: 044780 FRAME: 0261

504636315

| Property Type | Number |
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| Application Number: | 11648813 |
| Application Number: | 11648824 |
| Application Number: | 11811447 |
| Application Number: | 11877475 |
| Application Number: | 11888926 |
| Application Number: | 11973902 |
| Application Number: | 11980012 |
| Application Number: | 11982007 |
| Application Number: | 11982211 |
| Application Number: | 11982291 |
| Application Number: | 12030161 |
| Application Number: | 12030170 |
| Application Number: | 12187337 |
| Application Number: | 12239679 |
| Application Number: | 12240956 |
| Application Number: | 12259259 |
| Application Number: | 12267499 |
| Application Number: | 12341961 |
| Application Number: | 12544949 |
| Application Number: | 12545029 |
| Application Number: | 12546556 |
| Application Number: | 12618664 |
| Application Number: | 12622352 |
| Application Number: | 12624359 |
| Application Number: | 12687851 |
| Application Number: | 12793620 |
| Application Number: | 12823063 |
| Application Number: | 12829326 |
| Application Number: | 12846765 |
| Application Number: | 12848007 |
| Application Number: | 13013721 |
| Application Number: | 13071437 |
| Application Number: | 13081415 |
| Application Number: | 13081422 |
| Application Number: | 13089029 |
| Application Number: | 13107727 |
| Application Number: | 13107778 |
| Application Number: | 13108871 |

| Property Type | Number |
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| Application Number: | 13108891 |
| Application Number: | 13108901 |
| Application Number: | 13164378 |
| Application Number: | 13182250 |
| Application Number: | 13212661 |
| Application Number: | 13251059 |
| Application Number: | 13252142 |
| Application Number: | 13275246 |
| Application Number: | 13276268 |
| Application Number: | 13293037 |
| Application Number: | 13327245 |
| Application Number: | 13327315 |
| Application Number: | 13340528 |
| Application Number: | 13340557 |
| Application Number: | 13340589 |
| Application Number: | 13467736 |
| Application Number: | 13473509 |
| Application Number: | 13474378 |
| Application Number: | 13480370 |
| Application Number: | 13485161 |
| Application Number: | 13584612 |
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| Application Number: | 13650803 |
| Application Number: | 13711331 |
| Application Number: | 13727217 |
| Application Number: | 13777391 |
| Application Number: | 13777426 |
| Application Number: | 13863308 |
| Application Number: | 13891732 |
| Application Number: | 14012179 |
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| Application Number: | 14298637 |
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| Application Number: | 14380014 |
| Application Number: | 14380018 |
| Application Number: | 14421059 |
| Application Number: | 14425505 |
| Application Number: | 14425523 |
| Application Number: | 14436746 |
| Application Number: | 14449795 |
| Application Number: | 14520934 |
| Application Number: | 14531110 |
| Application Number: | 14535896 |
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| Application Number: | 14550524 |
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| Application Number: | 14598357 |
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| Application Number: | 14651891 |
| Application Number: | 14692307 |
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| Application Number: | 14774250 |
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| Application Number: | 14775875 |
| Application Number: | 14792067 |
| Application Number: | 14900924 |
| Application Number: | 14919884 |
| Application Number: | 14925346 |
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| Application Number: | 14951655 |
| Application Number: | 14978723 |
| Application Number: | 14979327 |

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| Application Number: | 15013590 |
| Application Number: | 15026896 |
| Application Number: | 15036649 |
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| Application Number: | 15177779 |
| Application Number: | 15182804 |
| Application Number: | 15189914 |
| Application Number: | 15262515 |
| Application Number: | 15267695 |
| Application Number: | 15271429 |
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| Application Number: | 15305325 |
| Application Number: | 15362300 |
| Application Number: | 15364386 |
| Application Number: | 15436665 |
| Application Number: | 15505343 |
| Application Number: | 15509710 |
| Application Number: | 15517438 |
| Application Number: | 60268560 |
| Application Number: | 60372127 |
| Application Number: | 60384251 |
| Application Number: | 60437292 |
| Application Number: | 60699441 |
| Application Number: | 60727004 |
| Application Number: | 60727601 |
| Application Number: | 60754968 |
| Application Number: | 60754969 |
| Application Number: | 60812366 |
| Application Number: | 60835627 |
| Application Number: | 60835628 |
| Application Number: | 60846641 |
| Application Number: | 60850131 |
| Application Number: | 60853971 |
| Application Number: | 60855629 |
| Application Number: | 60901066 |
| Application Number: | 60901067 |

| Property Type | Number |
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| Application Number: | 60901076 |
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| Application Number: | 60906064 |
| Application Number: | 60963894 |
| Application Number: | 60966577 |
| Application Number: | 60995679 |
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| Application Number: | 60997022 |
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| Application Number: | 61090555 |
| Application Number: | 61090565 |
| Application Number: | 61090577 |
| Application Number: | 61090897 |
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| Application Number: | 61116248 |
| Application Number: | 61117004 |
| Application Number: | 61163449 |
| Application Number: | 61222930 |
| Application Number: | 61298517 |
| Application Number: | 61307821 |
| Application Number: | 61321822 |
| Application Number: | 61322272 |
| Application Number: | 61352768 |
| Application Number: | 61363981 |
| Application Number: | 61397692 |
| Application Number: | 61424559 |
| Application Number: | 61424593 |
| Application Number: | 61428427 |
| Application Number: | 61429070 |
| Application Number: | 61492314 |
| Application Number: | 61497897 |
| Application Number: | 61546009 |
| Application Number: | 61548663 |
| Application Number: | 61579942 |
| Application Number: | 61592350 |
| Application Number: | 61594985 |
| Application Number: | 61601406 |
| Application Number: | 61602524 |

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| Application Number: | 61682706 |
| Application Number: | 61696479 |
| Application Number: | 61696487 |
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| Application Number: | 61716091 |
| Application Number: | 61734665 |
| Application Number: | 61737498 |
| Application Number: | 61761176 |
| Application Number: | 61780115 |
| Application Number: | 61783752 |
| Application Number: | 61785222 |
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| Application Number: | 61799211 |
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| Application Number: | 61838693 |
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| Application Number: | 62041468 |
| Application Number: | 62049895 |
| Application Number: | 62056008 |
| Application Number: | 62062046 |
| Application Number: | 62098560 |
| Application Number: | 62098795 |
| Application Number: | 62134943 |
| Application Number: | 62145551 |
| Application Number: | 62151726 |
| Application Number: | 62166504 |
| Application Number: | 62170757 |
| Application Number: | 62218885 |
| Application Number: | 62220620 |
| Application Number: | 62234404 |
| Application Number: | 62242246 |
| Application Number: | 62272984 |
| Application Number: | 62333186 |

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| Application Number: | 62333187 |
| Application Number: | 62403571 |
| Application Number: | 62415918 |
| Application Number: | 62415954 |
| Application Number: | 62430123 |
| Application Number: | 62440687 |
| Application Number: | 62440909 |
| PCT Number: | US2017031255 |
| PCT Number: | US2016056988 |
| PCT Number: | US2016054058 |
| PCT Number: | US2016051571 |
| PCT Number: | US2016034003 |
| PCT Number: | US2016022865 |
| PCT Number: | US2015068055 |
| PCT Number: | US2015068044 |
| PCT Number: | US2015054629 |
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| PCT Number: | US2015015157 |
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| PCT Number: | US2014027102 |
| PCT Number: | US2014025266 |
| PCT Number: | US2014025202 |
| PCT Number: | US2014014632 |
| PCT Number: | US2013074892 |
| PCT Number: | US2013073593 |
| PCT Number: | US2013065653 |
| PCT Number: | US2013057806 |
| PCT Number: | US2013057803 |
| PCT Number: | US2013054677 |
| PCT Number: | US2013027288 |
| PCT Number: | US2013026819 |
| PCT Number: | US2012071192 |
| PCT Number: | US2012054493 |

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| PCT Number: | US2012040081 |
| PCT Number: | US2011067867 |
| PCT Number: | US2011067785 |
| PCT Number: | US2011067716 |
| PCT Number: | US2011065170 |
| PCT Number: | US2011065158 |
| PCT Number: | US2011043831 |
| PCT Number: | US2011031335 |
| PCT Number: | US2011031330 |
| PCT Number: | US2011022333 |
| PCT Number: | US2010040707 |
| PCT Number: | US2010037161 |
| PCT Number: | US2010028885 |
| PCT Number: | US2009065509 |
| PCT Number: | US2009065152 |
| PCT Number: | US2009004801 |
| PCT Number: | US2009004741 |
| PCT Number: | US2009004740 |
| PCT Number: | US2008012540 |
| PCT Number: | US2008011251 |
| PCT Number: | US2008011167 |
| PCT Number: | US2008001831 |
| PCT Number: | US2008001830 |
| PCT Number: | US2007022545 |
| PCT Number: | US2007021677 |
| PCT Number: | US2007017622 |
| PCT Number: | US2007013507 |
| PCT Number: | US2006049493 |
| PCT Number: | US2006049491 |
| PCT Number: | US2006040148 |
| PCT Number: | US2006040145 |
| PCT Number: | US2006027364 |
| PCT Number: | US2004004388 |
| PCT Number: | US2003038143 |
| PCT Number: | US2003011578 |
| PCT Number: | US2003011190 |
| PCT Number: | US2003009304 |
| PCT Number: | US2003004539 |

| Property Type | Number |
|---------------|--------------|
| PCT Number: | US2002004282 |
| PCT Number: | US2002004187 |
| PCT Number: | US2001046506 |

CORRESPONDENCE DATA

Fax Number:

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

Phone: 858-703-7969

Email: patents@celularity.com
Correspondent Name: CELULARITY, INC.

Address Line 1: 33 TECHNOLOGY DRIVE

Address Line 4: WARREN, NEW JERSEY 07059

| ATTORNEY DOCKET NUMBER: | ASSIGNMENT |
|-------------------------|------------------|
| NAME OF SUBMITTER: | JILL R. CLARKE |
| SIGNATURE: | /Jill R. Clarke/ |
| DATE SIGNED: | 11/09/2017 |

Total Attachments: 148

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PATENT ASSIGNMENT

This PATENT ASSIGNMENT (this "<u>Patent Assignment</u>") is entered into as of November 1, 2017 by and between Clarity Acquisition II LLC, a New Jersey limited liability company ("<u>Assignor</u>") and Celularity, Inc., a Delaware corporation ("<u>Assignee</u>").

WHEREAS, Assignor holds the entire right, title, and interest in and to the patents and patent applications listed on the attached Patent Schedule (collectively, the "Patents"); and

WHEREAS, Assignor, a wholly owned subsidiary of Assignee, desires to assign to Assignee Assignor's entire right, title, and interest in the Patents, and Assignee desires to secure the entire right, title and interest in the Patents.

NOW, THEREFORE, be it known by all whom it may concern, that for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged:

- 1. Assignor agrees to and hereby does assign, transfer and set over to Assignee, its successors and assigns, and Assignee hereby accepts, all of Assignor's entire right, title and interest in and to the Patents, to have and to hold the same, unto Assignee for its own use and enjoyment and for the use and enjoyment of its successors and assigns, for the full term or terms of all such rights, including the right to sue for and collect past damages. The assignment of the Patents shall include (i) the right to file domestic patent applications (including all letters patent, design patents, provisional applications, reissues, divisions, continuations, continuations-in-part, renewals, substitutes, patent disclosures and extensions of any patent or patent application), under the laws of the United States and all other countries that claim the benefit of any of the foregoing applications, and to file foreign patent applications in the name of Assignee or its affiliates, wherever such right may be legally exercised, including the right to claim the benefits of the International Convention for such applications, (ii) any and all royalties, fees, income, payments and other proceeds now or hereafter due or payable with respect to any and all of the foregoing and (iii) any and all claims and causes of action, with respect to any of the foregoing, including all rights to and claims for damages, restitution and injunctive and other legal and equitable relief for past, present and future infringement, misappropriation, violation, misuse, breach or default, with the right but no obligation to sue for such legal and equitable relief and to collect, or otherwise recover, any such damages.
- 2. Assignor hereby authorizes and requests the United States Commissioner of Patents, and the Patent Office officials in foreign countries as are duly authorized by the respective foreign patent laws to issue patents, to issue any and all patents directed to the Patents to Assignee as the owner thereof.
- 3. From time to time, each of the parties hereto shall execute and deliver all such further assignments or other instruments of conveyance and transfer as the other party may reasonably request for the purpose of giving effect to, or evidencing or giving notice of, the transactions contemplated by this Patent Assignment.

- 4. This Patent Assignment will be governed by and construed in accordance with the domestic laws of the State of Delaware for contracts entered into and to be performed in such state without giving effect to any choice or conflict of law provision or rule (whether of the State of Delaware or any other jurisdiction) that would cause the application of the laws of any jurisdiction other than the State of Delaware.
- 5. This Patent Assignment may be executed in counterparts, all of which taken together shall constitute one agreement. For purposes of this Agreement, signatures delivered by facsimile or by email in the portable document format (PDF) or any other electronic format shall be accepted and binding as original signatures.

[Signature Page Follows]

| IN TESTIMONY WHEREOF, the person executing this Assignment in a representative capacity on behalf of ASSIGNOR warrants that he/she is fully authorized and empowered to do so and signs his/her name on the date indicated below. |
|--|
| Clarity Acquisition IJ-LLC |
| |
| Name: Robert F. Hariri, MD, PhD |
| Title: President |
| Date: November 3,2017 |
| ACKNOWLEDGMENT |
| A notary public or other officer completing this |
| certificate verifies only the identity of the individual |
| who signed the document to which this certificate is |
| attached, and not the truthfulness, accuracy, or |
| validity of that document. |
| State of New Jessey |
| County of Some(Sed.) |
| On Oversper 30,300 before me, January name and title of the officer) |
| personally appeared Robert J. Hariri, MD, PhD, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument. |
| I certify under PENALTY OF PERJURY under the laws of the State of New Jersey that the foregoing paragraph is true and correct. |
| WITNESS my hand and official seal. |
| Signatur JUL (Seal) |
| DANIELLE N. PENNA NOTARY PUBLIC OF NEW JERSEY Comm. # 50042177 My Commission Expires 7/20/2021 |
| ACCEPTED AND AGREED TO BY ASSIGNEE, CELULARITY, INC.: |
| Signature: Date: NW. 3, 2017 |
| Printed Name: Timothy L. Smith, JD, PhD |

Title: Executive Vice President & General Counsel

| POST-PARTUM MAMMALIAN PLACENTA, ITS USE AND PLACENTAL STEM CELLS THEREFROM | POST-PARTUM MAMMALIAN PLACENTA, ITS USE AND PLACENTAL STEM CELLS THEREFROM | POST-PARTUM MAMMALIAN PLACENTA, ITS USE AND PLACENTAL STEM CELLS THEREFROM | POST-PARTUM MAMMALIAN PLACENTA, ITS USE AND PLACENTAL STEM CELLS THEREFROM | POST-PARTUM MAMMALIAN PLACENTA, ITS USE AND PLACENTAL STEM CELLS THEREFROM | POST-PARTUM MAMMALIAN PLACENTA, ITS USE AND PLACENTAL STEM CELLS THEREFROM | POST-PARTUM MAMMALIAN PLACENTA, ITS USE AND PLACENTAL STEM CELLS THEREFROM | POST-PARTUM MAMMALIAN PLACENTA, ITS USE AND PLACENTAL STEM CELLS THEREFROM | TITLE |
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| 2,438,153 | 10182433.2 | 10182243.5 | 2015203846 | 2012200102 | 2012200069 | 2007234581 | 2002251935 | APPL. NO. |
| Feb-13- 2002 | FILING |
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| 2,438,153 | 2316918 | 2316919 | N/A | 2012200102 | 2012200069 | 2007234581 | 2002251935 | PATENT NO. |
| Jun-02- 2015 | Jul-01-2015 | Oct-07- 2015 | N/A | Jul-30-2015 | Jul-23-2015 | May-17- 2012 | Mar-20- 2008 | ISSUE DATE |

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| 10182243.5 | 10182485.2 | 10182362.3 | 10182303.7 | 10182243.5 | 10182195.7 | 02720974.1 | 2,856,986 | 2,796,875 | APPL, NO. |
| Feb-13- 2002 | FILING |
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| Oct-07- 2015 | Jul-24-2013 | Jul-30-2014 | Jul-08-2015 | Oct-07- 2015 | N/A | May-27- 2015 | N/A | N/A | ISSUE |

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| Germany | Germany | France | France | France | France | France | France | Finland | COUNTRY |
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| Feb-13- 2002 | FILING DATE |
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| 2316919 | 60247211.3 | 2314673 | 2316918 | 2336301 | 2336300 | 2316919 | 1362095 | 2316918 | PATENT NO. |
| Oct-07- 2015 | May-27- 2015 | Jul-24-2013 | Jul-01-2015 | Jul-30-2014 | Jul-08-2015 | Oct-07- 2015 | May-27- 2015 | Jul-01-2015 | ISSUE |

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| Feb-13- 2002 | Feb-13- 2002 | Feb-13- 2002 | Feb-13- 2002 | Feb-13- 2002 | Feb-13- 2002 | Feb-13- 2002 | Feb-13- 2002 | Feb-13- 2002 | FILING |
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| HK1157384 | N/A | HK1156965 | N/A | HK1059801 | 2314673 | 60247294.6 | 60246499.4 | 60247312.8 | PATENT NO. |
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| Registered | STATUS |
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| May-27- 2015 | Jul-01-2016 | Jan-31- 2015 | Sep-01- 2015 | Mar-01- 2011 | Jul-24-2013 | Jul-30-2014 | Apr-04- 2014 | May-27- 2016 | ISSUE |

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| 1749 Feb-13- 2002 | 8034 Feb-13- 2002 | 8480 Feb-13- 2002 | 070 Feb-13- 2002 | 2013 Feb-13- 2002 | 054454 Feb-13- 2002 | 52.3 Feb-13- 2002 |)57616 Feb-13- 2002 | 089254 Feb-13- 2002 | DATE |
| Pending | 3- Abandoned | 3- Abandoned | 3- Abandoned | 3- Registered | 3- Registered | 3- Registered | 3- Registered | Registered | E |
| N/A | N/A | N/A | N/A | 2314673 | 2316918 | 502014000001444 | 2336300 | 2316919 | I STERVING. |
| N/A | N/A | N/A | N/A | Jul-24-2013 | Jul-01-2015 | Jul-30-2014 | Jul-08-2015 | Oct-07- 2015 | DATE |

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| Monaco | Monaco | Mexico | Mexico | Mexico | Mexico | Luxembourg | Luxembourg | Japan | COUNTRY |
| 10182485.2 | 10182362.3 | MX/a/2013/011498 | MX/a/2012/001630 | MX/a/2009/007976 | 2003/007175 | 10182485.2 | 10182362.3 | 2016-162660 | APPL. NO. |
| Feb-13- 2002 | FILING DATE |
| Registered | Registered | Pending | Pending | Registered | Registered | Registered | Registered | Pending | STATUS |
| 2314673 | 2336301 | N/A | N/A | 313900 | 298004 | 2314673 | 2336301 | N/A | PATENT NO. |
| Jul-24-2013 | Jul-30-2014 | N/A | N/A | Oct-04- 2013 | Apr-11- 2012 | Jul-24-2013 | Jul-30-2014 | N/A | ISSUE DATE |

| POST-PARTUM MAMMALIAN PLACENTA, ITS USE AND PLACENTAL STEM CELLS THEREFROM | POST-PARTUM MAMMALIAN PLACENTA, ITS USE AND PLACENTAL STEM CELLS THEREFROM | POST-PARTUM MAMMALIAN PLACENTA, ITS USE AND PLACENTAL STEM CELLS THEREFROM | POST-PARTUM MAMMALIAN PLACENTA, ITS USE AND PLACENTAL STEM CELLS THEREFROM | POST-PARTUM MAMMALIAN PLACENTA, ITS USE AND PLACENTAL STEM CELLS THEREFROM | POST-PARTUM MAMMALIAN PLACENTA, ITS USE AND PLACENTAL STEM CELLS THERE FROM | POST-PARTUM MAMMALIAN PLACENTA, ITS USE AND PLACENTAL STEM CELLS THEREFROM | POST-PARTUM MAMMALIAN PLACENTA, ITS USE AND PLACENTAL STEM CELLS THEREFROM | POST-PARTUM MAMMALIAN PLACENTA, ITS USE AND PLACENTAL STEM CELLS THEREFROM | HILE |
|--|--|--|--|--|---|--|--|--|---------------|
| South Africa | Republic of Korea | Republic of Korea | Republic of Korea | Patent Cooperation Treaty | New Zealand | New Zealand | Netherlands | Netherlands | COUNTRY |
| 2003/6271 | 2009-7027197 | 2009-7006244 | 2003-7010671 | PCT/US02/04282 | 541541 | 527849 | 10182433.2 | 10182243.5 | APPL. NO. |
| Feb-13- 2002 | Feb-13- 2002 | Feb-13- 2002 | Feb-13- 2002 | Feb-13- 2002 | Feb-13- 2002 | Feb-13- 2002 | Feb-13- 2002 | Feb-13- 2002 | FILING DATE |
| Registered | Registered | Registered | Registered | Completed | Registered | Registered | Registered | Registered | STATUS |
| 2003/6271 | 10-1132545 | 10-1012952 | 10-0973615 | N/A | 541541 | 527849 | 2316918 | 2316919 | PATENT NO. |
| Oct-27- 2004 | Mar-26- 2012 | Jan-27- 2011 | Jul-27-2010 | N/A | Aug-09- 2007 | Jan-11- 2007 | Jul-01-2015 | Oct-07- 2015 | ISSUE DATE |

| POST-PARTUM MAMMALIAN PLACENTA, ITS USE AND PLACENTAL STEM CELLS THEREFROM | POST-PARTUM MAMMALIAN PLACENTA, ITS USE AND PLACENTAL STEM CELLS THEREFROM | POST-PARTUM MAMMALIAN PLACENTA, ITS USE AND PLACENTAL STEM CELLS THEREFROM | POST-PARTUM MAMMALIAN PLACENTA, ITS USE AND PLACENTAL STEM CELLS THEREFROM | POST-PARTUM MAMMALIAN PLACENTA, ITS USE AND PLACENTAL STEM CELLS THEREFROM | POST-PARTUM MAMMALIAN PLACENTA, ITS USE AND PLACENTAL STEM CELLS THEREFROM | POST-PARTUM MAMMALIAN PLACENTA, ITS USE AND PLACENTAL STEM CELLS THEREFROM | POST-PARTUM MAMMALIAN PLACENTA, ITS USE AND PLACENTAL STEM CELLS THEREFROM | POST-PARTUM MAMMALIAN PLACENTA, ITS USE AND PLACENTAL STEM CELLS THEREFROM | TITLE |
|--|--|--|--|--|--|--|--|--|----------------|
| Switzerland | Sweden | Sweden | Spain | Spain | Spain | Spain | Spain | Spain | COUNTRY |
| 02720974.1 | 10182433.2 | 10182243.5 | 10182485.2 | 10182433.2 | 10182362.3 | 10182303.7 | 10182243.5 | 02720974.1 | APPL. NO. |
| Feb-13- 2002 | FILING DATE |
| Registered | STATUS |
| 1362095 | 2316918 | 2316919 | ES2432493T3 | ES2548591T3 | ES2522526T3 | ES2549161T3 | 2316919 | ES2545899T3 | PATENT NO. |
| May-27- 2015 | Jul-01-2015 | Oct-07- 2015 | Jul-24-2013 | Jul-01-2015 | Jul-30-2014 | Jul-08-2015 | Oct-07- 2015 | May-27- 2015 | ISSUE DATE |

| Jul-30-2014 | 2336301 | Registered | Feb-13- 2002 | 10182362.3 | United Kingdom | POST-PARTUM MAMMALIAN PLACENTA, ITS USE AND PLACENTAL STEM CELLS THEREFROM |
|-----------------|------------|------------|-----------------|------------|-------------------|--|
| Jul-08-2015 | 2336300 | Registered | Feb-13- 2002 | 10182303.7 | United Kingdom | POST-PARTUM MAMMALIAN PLACENTA, ITS USE AND PLACENTAL STEM CELLS THEREFROM |
| Oct-07- 2015 | 2316919 | Registered | Feb-13- 2002 | 10182243.5 | United Kingdom | POST-PARTUM MAMMALIAN PLACENTA, ITS USE AND PLACENTAL STEM CELLS THEREFROM |
| May-27- 2015 | 1362095 | Registered | Feb-13- 2002 | 02720974.1 | United Kingdom | POST-PARTUM MAMMALIAN PLACENTA, ITS USE AND PLACENTAL STEM CELLS THEREFROM |
| Jul-24-2013 | 2314673 | Registered | Feb-13- 2002 | 10182485.2 | Switzerland | POST-PARTUM MAMMALIAN PLACENTA, ITS USE AND PLACENTAL STEM CELLS THEREFROM |
| Jul-01-2015 | 2316918 | Registered | Feb-13- 2002 | 10182433.2 | Switzerland | POST-PARTUM MAMMALIAN PLACENTA, ITS USE AND PLACENTAL STEM CELLS THEREFROM |
| Jul-30-2014 | 2336301 | Registered | Feb-13- 2002 | 10182362.3 | Switzerland | POST-PARTUM MAMMALIAN PLACENTA, ITS USE AND PLACENTAL STEM CELLS THEREFROM |
| Jul-08-2015 | 2336300 | Registered | Feb-13- 2002 | 10182303.7 | Switzerland | POST-PARTUM MAMMALIAN PLACENTA, ITS USE AND PLACENTAL STEM CELLS THEREFROM |
| Oct-07- 2015 | 2316919 | Registered | Feb-13- 2002 | 10182243.5 | Switzerland | POST-PARTUM MAMMALIAN PLACENTA, ITS USE AND PLACENTAL STEM CELLS THEREFROM |
| ISSUE | PATENT NO. | STATUS | FILING | APPL. NO. | COUNTRY | TITLE |

| TREATMENT OF ORGAN INJURIES AND BURNS USING PLACENTAL STEM CELLS | TREATMENT OF NEURODEGENERATIVE DISEASE USING PLACENTAL STEM CELLS | TREATMENT OF RADIATION INJURY USING PLACENTAL STEM CELLS | TREATMENT OF BRAIN OR SPINAL CORD INJURY USING PLACENTAL STEM CELLS | TREATMENT OF DISEASES OR DISORDERS USING PLACENTAL STEM CELLS | TREATMENT OF STROKE USING PLACENTAL STEM CELLS | PLACENTAL STEM CELLS | PLACENTAL STEM CELLS | POST-PARTUM MAMMALIAN PLACENTA, ITS USE AND PLACENTAL STEMCELLS THEREFROM | POST-PARTUM MAMMALIAN PLACENTA, ITS USE AND PLACENTAL STEM CELLS THEREFROM | POST-PARTUM MAMMALIAN PLACENTA, ITS USE AND PLACENTAL STEM CELLS THEREFROM | TITLE |
|--|---|--|---|---|--|--------------------------------|--------------------------------|---|--|--|------------|
| United States of America | United States of America | United States of America | United States of America | United States of America | United States of America | United States of America | United States of America | United States of America | United Kingdom | United Kingdom | COUNTRY |
| 13/251,059 | 13/252,142 | 13/108,901 | 13/108,891 | 13/108,871 | 12/341,961 | 12/259,259 | 10/874,828 | 10/076,180 | 10182485.2 | 10182433.2 | APPL. NO. |
| Sep-30- 2011 | Oct-03- 2011 | May-16- 2011 | May-16- 2011 | May-16- 2011 | Dec-22- 2008 | Oct-27- 2008 | Jun-22- 2004 | Feb-13- 2002 | Feb-13- 2002 | Feb-13- 2002 | FILING |
| Registered | Abandoned | Registered | Abandoned | Registered | Registered | Registered | Registered | Abandoned | Registered | Registered | STATUS |
| 8,293,223 | N/A | 8,545,833 | N/A | 9,149,569 | 7,976,836 | 8,580,563 | 7,468,276 | N/A | 2314673 | 2316918 | PATENT NO. |
| Oct-23- 2012 | N/A | Oct-01- 2013 | N/A | Oct-06- 2015 | Jul-12-2011 | Nov-12- 2013 | Dec-23- 2008 | N/A | Jul-24-2013 | Jul-01-2015 | ISSUE |

| METHODS FOR IDENTIFICATION OF MODULATORS OF ANGIOGENESIS, COMPOUNDS DISCOVERED THEREBY, AND METHODS OF TREATMENT USING THE COMPOUNDS | METHODS FOR IDENTIFICATION OF MODULATORS OF ANGIOGENESIS, COMPOUNDS DISCOVERED THEREBY, AND METHODS OF TREATMENT USING THE COMPOUNDS | METHODS FOR IDENTIFICATION OF MODULATORS OF ANGIOGENESIS, COMPOUNDS DISCOVERED THEREBY, AND METHODS OF TREATMENT USING THE COMPOUNDS | METHODS FOR IDENTIFICATION OF MODULATORS OF ANGIOGENESIS, COMPOUNDS DISCOVERED THEREBY, AND METHODS OF TREATMENT USING THE COMPOUNDS | METHODS FOR IDENTIFICATION OF MODULATORS OF ANGIOGENESIS, COMPOUNDS DISCOVERED THEREBY, AND METHODS OF TREATMENT USING THE COMPOUNDS | POST-PARTUM MAMMALIAN PLACENTA, ITS USE AND PLACENTAL STEM CELLS THEREFROM | POST-PARTUM MAMMALIAN PLACENTA, ITS USE AND PLACENTAL STEM CELLS THEREFROM | TITLE |
|--|--|--|--|--|--|--|---------------|
| New Zealand | Australia | Canada | United States of America | United States of America | United States of America | United States of America | COUNTRY |
| 536050 | 2003237078 | 2,481,387 | 10/511,354 | 60/372,127 | 14/616,167 | 14/012,179 | APPL. NO. |
| Apr-14- 2003 | Apr-14- 2003 | Apr-14- 2003 | Apr-14- 2003 | Apr-12- 2002 | Feb-06- 2015 | Aug-28- 2013 | FILING DATE |
| Registered | Abandoned | Abandoned | Abandoned | Expired | Pending | Abandoned | STATUS |
| 536050 | 2003237078 | N/A | N/A | N/A | N/A | N/A | PATENT NO. |
| Mar-13- 2008 | Feb-21- 2008 | N/A | N/A | N/A | N/A | N/A | ISSUE DATE |

| METHODS FOR IDENTIFICATION OF MODULATORS OF ANGIOGENESIS, COMPOUNDS DISCOVERED THEREBY, AND METHODS OF TREATMENT USING THE COMPOUNDS | METHODS FOR IDENTIFICATION OF MODULATORS OF ANGIOGENESIS, COMPOUNDS DISCOVERED THEREBY, AND METHODS OF TREATMENT USING THE COMPOUNDS | METHODS FOR IDENTIFICATION OF MODULATORS OF ANGIOGENESIS, COMPOUNDS DISCOVERED THEREBY, AND METHODS OF TREATMENT USING THE COMPOUNDS | METHODS FOR IDENTIFICATION OF MODULATORS OF ANGIOGENESIS, COMPOUNDS DISCOVERED THEREBY, AND METHODS OF TREATMENT USING THE COMPOUNDS | METHODS FOR IDENTIFICATION OF MODULATORS OF ANGIOGENESIS, COMPOUNDS DISCOVERED THEREBY, AND METHODS OF TREATMENT USING THE COMPOUNDS | METHODS FOR IDENTIFICATION OF MODULATORS OF ANGIOGENESIS, COMPOUNDS DISCOVERED THEREBY, AND METHODS OF TREATMENT USING THE COMPOUNDS | TITIE |
|--|--|--|--|--|--|-------------|
| Israel | South Africa | China | Hong Kong | Japan | Mexico | COUNTRY |
| 164533 | 2004/8369 | 03813733.X | 05112029.5 | 2003-583394 | 2004/009996 | APPL. NO. |
| Apr-14- 2003 | Apr-14- 2003 | Apr-14- 2003 | Apr-14- 2003 | Apr-14- 2003 | Apr-14- 2003 | FILING DATE |
| Abandoned | Abandoned | Abandoned | Abandoned | Abandoned | Abandoned | STATUS |
| N/A | 2004/8369 | N/A | N/A | N/A | N/A | PATENT NO. |
| N/A | Nov-29- 2006 | N/A | N/A | N/A | N/A | ISSUE |

| METHOD OF COLLECTING PLACENTAL STEM CELLS | METHOD OF COLLECTING PLACENTAL STEM CELLS | PLACENTAL STEM CELLS | PLACENTAL STEM CELLS | METHOD OF COLLECTING | PLACENTAL STEM CELLS | PLACENTAL STEM CELLS | METHOD OF COLLECTIVE | METHOD OF COLLECTING | PLACENTAL STEM CELLS | METHOD OF COLLECTING | PLACENTAL STEM CELLS | METHOD OF COLLECTING | USING THE COMPOUNDS | METHODS OF TREATMENT | DISCOVERED THEREBY, AND | ANGIOGENESIS. COMPOUNDS | OF MODULATORS OF | METHODS FOR IDENTIFICATION | USING THE COMPOUNDS | METHODS OF TREATMENT | DISCOVERED THEREBY, AND | ANGIOGENESIS, COMPOUNDS | OF MODULATORS OF | METHODS FOR IDENTIFICATION | USING THE COMPOUNDS | METHODS OF TREATMENT | DISCOVERED THEREBY, AND | ANGIOGENESIS, COMPOUNDS | OF MODULATORS OF | METHODS FOR IDENTIFICATION | ппе |
|---|---|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|---------------------|----------------------|-------------------------|-------------------------|------------------|----------------------------|---------------------|----------------------|-------------------------|-------------------------|------------------|----------------------------|---------------------|----------------------|-------------------------|-------------------------|------------------|----------------------------|---------------|
| Sweden | Switzerland | Mexico | | Italy | France | Остшану | Kingdom | United | | Canada | | Canada | | | | Treaty | Cooperation | Patent | | | | | Patent Office | European | | | | | Korea | Ramuhlic of | COUNTRY |
| 01999637.0 | 01999637.0 | MX/a/2008/007251 | | 01999637.0 | 01999637.0 | 01777037.0 | 010006370 | 01999637.0 | | 2,678,490 | | 2,430,989 | | | | | | PCT/US03/11578 | | | | | | 03736463.5 | | | | | 10-2004-7010048 | 10-2004-7016648 | APPL. NO. |
| Dec-05- 2001 | Dec-05- 2001 | Dec-05- 2001 | 2001 | Dec-05- | Dec-05- 2001 | 2001 | Dog 05 | Dec-05- | 2001 | Dec-05- | 2001 | Dec-05- | | | | | 2003 | Apr-14- | | | | | 2003 | Apr-14- | | | | | Apr-14- 2003 | Δnr_1/1_ | FILING |
| Registered | Registered | Registered | | Registered | Registered | wegisteled | Docistored | Registered | | Abandoned | | Abandoned | | | | | , | Completed | | | | | | Abandoned | | | | | Aballuolleu | Ahandoned | STATUS |
| 1349918 | 1349918 | 309282 | | 502014000001862 | 1349918 | 00140949.7 | 60176070 7 | 1349918 | | N/A | | N/A | | | | | | N/A | | | | | | N/A | | | | | AW | N/A | PATENT NO. |
| Aug-06- 2014 | Aug-06- 2014 | May-03- 2013 | 2014 | Aug-06- | Aug-06- 2014 | 2014 | 701 4 | Aug-06- | | N/A | | N/A | | | | | | N/A | | | | | | N/A | | | | | NA | N/A | ISSUE DATE |

| METHOD OF COLLECTING PLACENTAL STEM CELLS | PLACENTAL STEM CELLS | METHOD OF COLLECTING PLACENTAL STEM CELLS | METHOD OF COLLECTING PLACENTAL STEM CELLS | METHOD OF COLLECTING PLACENTAL STEM CELLS | METHOD OF COLLECTING PLACENTAL STEM CELLS | PLACENTAL STEM CELLS | METHOD OF COLLECTING PLACENTAL STEM CELLS | TITLE |
|---|------------------------|---|---|---|---|----------------------|---|---|---|---|---|---|---|---|---|---|---------------|
| Patent Cooperation Treaty | European Patent Office | European Patent Office | European Patent Office | European Patent Office | Ireland | South Africa | Monaco | Spain | Netherlands | Luxembourg | Finland | Hong Kong | Hong Kong | Hong Kong | Hong Kong | Denmark | COUNTRY |
| PCT/US01/46506 | 10183435.6 | 10153834.6 | 10183378.8 | 01999637.0 | 01999637.0 | 2003/4341 | 01999637.0 | 01999637.0 | 01999637.0 | 01999637.0 | 01999637.0 | 11111658.7 | 11100250.2 | 11110531.2 | 04102448.0 | 01999637.0 | APPL. NO. |
| Dec-05- 2001 | Dec-05- 2001 | Dec-05- 2001 | Dec-05- 2001 | Dec-05- 2001 | Dec-05- 2001 | Dec-05- 2001 | Dec-05- 2001 | Dec-05- 2001 | Dec-05- 2001 | Dec-05- 2001 | Dec-05- 2001 | Dec-05- 2001 | Dec-05- 2001 | Dec-05- 2001 | Dec-05- 2001 | Dec-05- 2001 | FILING |
| Completed | Abandoned | Pending | Pending | Registered | Registered | Registered | Registered | Registered | Registered | Registered | Registered | Abandoned | Pending | Pending | Pending | Registered | STATUS |
| N/A | N/A | N/A | N/A | 1349918 | 1349918 | 2003/4341 | 1349918 | ES2522890T3 | 1349918 | 1349918 | 1349918 | N/A | N/A | N/A | N/A | 1349918 | PATENT NO. |
| N/A | N/A | N/A | N/A | Aug-06- 2014 | Aug-06- 2014 | Nov-24- 2004 | Aug-06- 2014 | Aug-06- 2014 | Aug-06- 2014 | Aug-06- 2014 | Aug-06- 2014 | N/A | N/A | N/A | N/A | Aug-06- 2014 | ISSUE DATE |

| RENOVATION AND REPOPULATION OF DECELLULARIZED TISSUES AND CADAVERIC ORGANS BY STEM CELLS | RENOVATION AND REPOPULATION OF DECELLULARIZED TISSUES AND CADAVERIC ORGANS BY STEM CELLS | RENOVATION AND REPOPULATION OF DECELLULARIZED TISSUES AND CADAVERIC ORGANS BY STEM CELLS | RENOVATION AND REPOPULATION OF DECELLULARIZED TISSUES AND CADAVERIC ORGANS BY STEM CELLS | RENOVATION AND REPOPULATION OF DECELLULARIZED TISSUES AND CADAVERIC ORGANS BY STEM CELLS | RENOVATION AND REPOPULATION OF DECELLULARIZED TISSUES AND CADAVERIC ORGANS BY STEM CELLS | RENOVATION AND REPOPULATION OF DECELLULARIZED TISSUES AND CADAVERIC ORGANS BY STEM CELLS | METHOD OF PROPAGATING CELLS | TITLE |
|--|--|--|--|--|--|--|--------------------------------|----------------|
| European Patent Office | European Patent Office | Canada | Belgium | Belgium | Austria | Australia | United States of America | COUNTRY |
| 10183252.5 | 02709498.6 | 2,437,957 | 10183301.0 | 02709498.6 | 02709498.6 | 2002243980 | 12/618,664 | APPL. NO. |
| Feb-13- 2002 | Nov-13- 2009 | FILING DATE |
| Registered | Registered | STATUS |
| 2316463 | 1367892 | 2,437,957 | 2338983 | 1367892 | E638496 | 2002243980 | 8,986,984 | PATENT NO. |
| Apr-12- 2017 | Oct-30- 2013 | Apr-22- 2014 | Oct-07- 2015 | Oct-30- 2013 | Oct-30- 2013 | Jan-10- 2008 | Mar-24- 2015 | ISSUE DATE |

| RENOVATION AND REPOPULATION OF DECELLULARIZED TISSUES AND CADAVERIC ORGANS BY STEM CELLS | RENOVATION AND REPOPULATION OF DECELLULARIZED TISSUES AND CADA VERIC ORGANS BY STEM CELLS | RENOVATION AND REPOPULATION OF DECELLULARIZED TISSUES AND CADA VERIC ORGANS BY STEM CELLS | RENOVATION AND REPOPULATION OF DECELLULARIZED TISSUES AND CADA VERIC ORGANS BY STEM CELLS | RENOVATION AND REPOPULATION OF DECELLULARIZED TISSUES AND CADAVERIC ORGANS BY STEM CELLS | RENOVATION AND REPOPULATION OF DECELLULARIZED TISSUES AND CADAVERIC ORGANS BY STEM CELLS | RENOVATION AND REPOPULATION OF DECELLULARIZED TISSUES AND CADA VERIC ORGANS BY STEM CELLS | TITLE |
|--|---|---|---|--|--|---|------------|
| Germany | France | France | France | Austria | European Patent Office | European Patent Office | COUNTRY |
| 02709498.6 | 10183252.5 | 10183301.0 | 02709498.6 | 10183252.5 | 17165721.6 | 10183301.0 | APPL. NO. |
| Feb-13- 2002 | Feb-13- 2002 | Feb-13- 2002 | Feb-13- 2002 | Feb-13- 2002 | Feb-13- 2002 | Feb-13- 2002 | FILING |
| Registered | Registered | Registered | Registered | Registered | Pending | Registered | STATUS |
| 60245698.3 | 2316463 | 2338983 | 1367892 | 2316463 | N/A | 2338983 | PATENT NO. |
| Oct-30- 2013 | Apr-12- 2017 | Oct-07- 2015 | Oct-30- 2013 | Apr-12- 2017 | N/A | Oct-07- 2015 | ISSUE |

| RENOVATION AND REPOPULATION OF DECELLULARIZED TISSUES AND CADAVERIC ORGANS BY STEM CELLS | RENOVATION AND REPOPULATION OF DECELLULARIZED TISSUES AND CADAVERIC ORGANS BY STEM CELLS | RENOVATION AND REPOPULATION OF DECELLULARIZED TISSUES AND CADAVERIC ORGANS BY STEM CELLS | RENOVATION AND REPOPULATION OF DECELLULARIZED TISSUES AND CADAVERIC ORGANS BY STEM CELLS | RENOVATION AND REPOPULATION OF DECELLULARIZED TISSUES AND CADA VERIC ORGANS BY STEM CELLS | RENOVATION AND REPOPULATION OF DECELLULARIZED TISSUES AND CADAVERIC ORGANS BY STEM CELLS | RENOVATION AND REPOPULATION OF DECELLULARIZED TISSUES AND CADAVERIC ORGANS BY STEM CELLS | TITLE |
|--|--|--|--|---|--|--|---------------|
| Israel | Ireland | Ireland | Hong Kong | Hong Kong | Hong Kong | Germany | COUNTRY |
| 157392 | 1018252.5 | 02709498.6 | 11113226.6 | 111111860.1 | 04100126.3 | 60247538.4 | APPL. NO. |
| Feb-13- 2002 | Feb-13- 2002 | Feb-13- 2002 | Feb-13- 2002 | Feb-13- 2002 | Feb-13- 2002 | Feb-13- 2002 | FILING |
| Registered | Registered | Registered | Registered | Pending | Registered | Registered | STATUS |
| 157392 | 2316463 | 1367892 | HK1158689 | N/A | нк1057975 | 2338983 | PATENT NO. |
| Jul-30-2010 | Apr-12- 2017 | Oct-30- 2013 | Sep-23- 2016 | N/A | Jul-04-2014 | Oct-07- 2015 | ISSUE DATE |

| RENOVATION AND REPOPULATION OF DECELLULARIZED TISSUES AND CADAVERIC ORGANS BY STEM CELLS | RENOVATION AND REPOPULATION OF DECELLULARIZED TISSUES AND CADAVERIC ORGANS BY STEM CELLS | RENOVATION AND REPOPULATION OF DECELLULARIZED TISSUES AND CADAVERIC ORGANS BY STEM CELLS | RENOVATION AND REPOPULATION OF DECELLULARIZED TISSUES AND CADAVERIC ORGANS BY STEM CELLS | RENOVATION AND REPOPULATION OF DECELLULARIZED TISSUES AND CADAVERIC ORGANS BY STEM CELLS | RENOVATION AND REPOPULATION OF DECELLULARIZED TISSUES AND CADAVERIC ORGANS BY STEM CELLS | RENOVATION AND REPOPULATION OF DECELLULARIZED TISSUES AND CADAVERIC ORGANS BY STEM CELLS | TITLE |
|--|--|--|--|--|--|--|---------------|
| Luxembourg | Italy | Italy | Italy | Israel | Israel | Israel | COUNTRY |
| 02709498.6 | 18183252.5 | 502015000080741 | 02709498.6 | 207008 | 207007 | 200540 | APPL. NO. |
| Feb-13- 2002 | FILING DATE |
| Registered | STATUS |
| 1367892 | 2316463 | 2338983 | 1367892 | 207008 | 207007 | 200540 | PATENT NO. |
| Oct-30- 2013 | Apr-12- 2017 | Oct-07- 2015 | Oct-30- 2013 | Nov-01- 2014 | Nov-01- 2014 | Nov-01- 2014 | ISSUE DATE |

| RENOVATION AND REPOPULATION OF DECELLULARIZED TISSUES AND CADAVERIC ORGANS BY STEM CELLS | RENOVATION AND REPOPULATION OF DECELLULARIZED TISSUES AND CADAVERIC ORGANS BY STEM CELLS | RENOVATION AND REPOPULATION OF DECELLULARIZED TISSUES AND CADAVERIC ORGANS BY STEM CELLS | RENOVATION AND REPOPULATION OF DECELLULARIZED TISSUES ANDCADAVERIC ORGANS BY STEM CELLS | RENOVATION AND REPOPULATION OF DECELLULARIZED TISSUES AND CADAVERIC ORGANS BY STEM CELLS | RENOVATION AND REPOPULATION OF DECELLULARIZED TISSUES AND CADAVERIC ORGANS BY STEM CELLS | RENOVATION AND REPOPULATION OF DECELLULARIZED TISSUES AND CADA VERIC ORGANS BY STEM CELLS | TITLE |
|--|--|--|---|--|--|---|-------------|
| Spain | Spain | Spain | Patent Cooperation Treaty | New Zealand | Netherlands | Monaco | COUNTRY |
| 1018252.5 | 10183301.0 | 02709498.6 | PCT/US02/04187 | 528035 | 02709498.6 | 02709498.6 | APPL. NO. |
| Feb-13- 2002 | Feb-13- 2002 | Feb-13- 2002 | Feb-13- 2002 | Feb-13- 2002 | Feb-13- 2002 | Feb-13- 2002 | FILING DATE |
| Registered | Registered | Registered | Completed | Registered | Registered | Registered | STATUS |
| 2316463 | ES2559031T3 | 1367892 | N/A | 528035 | 1367892 | 1367892 | PATENT NO. |
| Apr-12- 2017 | Oct-07- 2015 | Oct-30- 2013 | N/A | Nov-10- 2005 | Oct-30- 2013 | Oct-30- 2013 | ISSUE |

| TISSUE MATRICES COMPRIMISING PLACENTAL STEM CELLS, AND METHODS OF MAKING THE SAME | RENOVATION AND REPOPULATION OF DECELLULARIZED CADAVERICORGANS BY STEM CELLS | RENOVATION AND REPOPULATION OF DECELLULARIZED TISSUES AND CADA VERIC ORGANS BY STEM CELLS | RENOVATION AND REPOPULATION OF DECELLULARIZED TISSUES AND CADA VERIC ORGANS BY STEM CELLS | RENOVATION AND REPOPULATION OF DECELLULARIZED TISSUES AND CADAVERIC ORGANS BY STEM CELLS | RENOVATION AND REPOPULATION OF DECELLULARIZED TISSUES AND CADA VERIC ORGANS BY STEM CELLS | RENOVATION AND REPOPULATION OF DECELLULARIZED TISSUES AND CADAVERIC ORGANS BY STEM CELLS | TITLE |
|---|---|---|---|--|---|--|---------------|
| United States of America | United States of America | United Kingdom | United Kingdom | United Kingdom | Switzerland | Switzerland | COUNTRY |
| 10/074,976 | 60/268,560 | 1018252.5 | 10183301.0 | 02709498.6 | 10183301.0 | 02709498.6 | APPL. NO. |
| Feb-13- 2002 | Feb-14- 2001 | Feb-13- 2002 | Feb-13- 2002 | Feb-13- 2002 | Feb-13- 2002 | Feb-13- 2002 | FILING |
| Registered | Expired | Registered | Registered | Registered | Registered | Registered | STATUS |
| 7,311,904 | N/A | 2316463 | 2338983 | 1367892 | 2338983 | 1367892 | PATENT NO. |
| Dec-25- 2007 | N/A | Apr-12- 2017 | Oct-07- 2015 | Oct-30- 2013 | Oct-07- 2015 | Oct-30- 2013 | ISSUE DATE |

| EMBRYONIC-LIKE STEM CELLS DERIVED FROM POST-PARTUM MAMMALIAN PLACENTA, AND USES AND METHODS OF TREATMENT USING SAID CELLS | EMBRYONIC-LIKE STEM CELLS DERIVED FROM POST-PARTUM MAMMALIAN PLACENTA, AND USES AND METHODS OF TREATMENT USING SAID CELLS | EMBRYONIC-LIKE STEM CELLS DERIVED FROM POST-PARTUM MAMMALIAN PLACENTA, AND USES AND METHODS OF TREATMENT USING SAID CELLS | RENOVATION AND REPOPULATION OF DECELLULARIZED TISSUES AND CADAVERIC ORGANS BY STEM CELLS | RENOVATION AND REPOPULATION OF DECELLULARIZED TISSUES AND CADA VERIC ORGANS BY STEM CELLS | RENOVATION AND REPOPULATION OF DECELLULARIZED TISSUES AND CADAVERIC ORGANS BY STEM CELLS | TISSUE MATRICES COMPRISING PLACENTAL STEM CELLS | RENOVATION AND REPOPULATION OF DECELLULARIZED TISSUES AND CADAVERIC ORGANS BY STEM CELLS | HILL |
|---|---|---|--|---|--|---|--|---------------|
| Australia | Australia | Australia | United States of America | United States of America | United States of America | United States of America | United States of America | COUNTRY |
| 2011202711 | 2008249204 | 2003216286 | 15/141,123 | 14/531,110 | 13/863,308 | 12/823,063 | 11/980,012 | APPL. NO. |
| Feb-13- 2003 | Feb-13- 2003 | Feb-13- 2003 | Apr-28- 2016 | Nov-03- 2014 | Apr-15- 2013 | Jun-24- 2010 | Oct-29- 2007 | FILING |
| Registered | Registered | Registered | Pending | Abandoned | Registered | Registered | Registered | STATUS |
| 2011202711 | 2008249204 | 2003216286 | N/A | N/A | 9,139,813 | 8,435,788 | 7,914,779 | PATENT NO. |
| May-17- 2012 | Jun-23- 2011 | Dec-11- 2008 | N/A | N/A | Sep-22- 2015 | May-07- 2013 | Mar-29- 2011 | ISSUE DATE |

| EMBRYONIC-LIKE STEM CELLS DERIVED FROM POST-PARTUM MAMMALIAN PLACENTA AND USES AND METHODS OF TREATMENT USING SAID CELLS | EMBRYONIC-LIKE STEM CELLS DERIVED FROM POST-PARTUM MAMMALIAN PLACENTA AND USES AND METHODS OF TREATMENT USING SAID CELLS | EMBRYONIC-LIKE STEM CELLS DERIVED FROM POST-PARTUM MAMMALIAN PLACENTA AND USES AND METHODS OF TREATMENT USING SAID CELLS | EMBRYONIC-LIKE STEM CELLS DERIVED FROM POST-PARTUM MAMMALIAN PLACENTA AND USES AND METHODS OF TREATMENT USING SAID CELLS | EMBRYONIC-LIKE STEM CELLS DERIVED FROM POST-PARTUM MAMMALIAN PLACENTA AND USES AND METHODS OF TREATMENT USING SAID CELLS | EMBRYONIC-LIKE STEM CELLS DERIVED FROM POST-PARTUM MAMMALIAN PLACENTA AND USES AND METHODS OF TREATMENT USING SAID CELLS | EMBRYONIC-LIKE STEM CELLS DERIVED FROM POST-PARTUM MAMMALIAN PLACENTA, AND USES AND METHODS OF TREATMENT USING SAID CELLS | TITLE |
|--|--|--|--|--|--|---|---------------|
| Hong Kong | Hong Kong | European Patent Office | European Patent Office | European Patent Office | European Patent Office | Canada | COUNTRY |
| 10110822.1 | 04110033.4 | 10185142.6 | 10184356.3 | 10155478.0 | 03739817.9 | 2,476,553 | APPL. NO. |
| Feb-13- 2003 | FILING |
| Abandoned | STATUS |
| N/A | PATENT NO. |
| N/A | ISSUE DATE |

| EMBRYONIC-LIKE STEM CELLS DERIVED FROM POST-PARTUM MAMMALIAN PLACENTA, AND USES AND METHODS OF TREATMENT USING SAID CELLS | EMBRYONIC-LIKE STEM CELLS DERIVED FROM POST-PARTUM MAMMALIAN PLACENTA, AND USES AND METHODS OF TREATMENT USING SAID CELLS | EMBRYONIC-LIKE STEM CELLS DERIVED FROM POST-PARTUM MAMMALIAN PLACENTA, AND USES AND METHODS OF TREATMENT USING SAID CELLS | EMBRYONIC-LIKE STEM CELLS DERIVED FROM POST-PARTUM MAMMALIAN PLACENTA, AND USES AND METHODS OF TREATMENT USING SAID CELLS | EMBRYONIC-LIKE STEM CELLS DERIVED FROM POST-PARTUM MAMMALIAN PLACENTA, AND USES AND METHODS OF TREATMENT USING SAID CELLS | EMBRYONIC-LIKE STEM CELLS DERIVED FROM POST-PARTUM MAMMALIAN PLACENTA AND USES AND METHODS OF TREATMENT USING SAID CELLS | EMBRYONIC-LIKE STEM CELLS DERIVED FROM POST-PARTUM MAMMALIAN PLACENTA AND USES AND METHODS OF TREATMENT USING SAID CELLS | TITLE |
|---|---|---|---|---|--|--|---------------|
| Mexico | Japan | Japan | Israel | Israel | Hong Kong | Hong Kong | COUNTRY |
| 2004/007732 | 2009-258822 | 2003-568052 | 207763 | 163439 | 11108600.2 | 11109131.8 | APPL. NO. |
| Feb-13- 2003 | Feb-13- 2003 | Feb-13- 2003 | Feb-13- 2003 | Feb-13- 2003 | Feb-13- 2003 | Feb-13- 2003 | FILING |
| Registered | Abandoned | Abandoned | Registered | Registered | Pending | Abandoned | STATUS |
| 270305 | N/A | N/A | 207763 | 163439 | N/A | A/N | PATENT NO. |
| Sep-23- 2009 | N/A | N/A | Nov-01- 2014 | Jul-01-2011 | N/A | N/A | ISSUE DATE |

| EMBRYONIC-LIKE STEM CELLS Republic of DERIVED FROM POST-PARTUM Korea MAMMALIAN PLACENTA, AND USES AND METHODS OF TREATMENT USING SAID CELLS Feb-13-2003 | EMBRYONIC-LIKE STEM CELLS Republic of 2004-7012604 Feb-13- DERIVED FROM POST-PARTUM Korea MAMMALIAN PLACENTA, AND USES AND METHODS OF TREATMENT USING SAID CELLS | EMBRYONIC-LIKE STEM CELLS Patent PCT/US03/04539 Feb-13- DERIVED FROM POST-PARTUM Cooperation MAMMALIANPLACENTA, AND Treaty USES AND METHODS OF TREATMENT USING SAID CELLS Patent PCT/US03/04539 Feb-13- 2003 2003 | EMBRYONIC-LIKE STEM CELLS New 591764 Feb-13- DERIVED FROM POST-PARTUM Zealand MAMMALIAN PLACENTA, AND USES AND METHODS OF TREATMENT USING SAID CELLS | EMBRYONIC-LIKE STEM CELLS New 579705 Feb-13- DERIVED FROM POST-PARTUM Zealand MAMMALIAN PLACENTA, AND USES AND METHODS OF TREATMENT USING SAID CELLS | EMBRYONIC-LIKE STEM CELLS New 534643 Feb-13- DERIVED FROM POST-PARTUM Zealand MAMMALIAN PLACENTA, AND USES AND METHODS OF TREATMENT USING SAID CELLS | EMBRYONIC-LIKE STEM CELLS Mexico MX/a/2009/001668 Feb-13- DERIVED FROM POST-PARTUM MAMMALIAN PLACENTA, AND USES AND METHODS OF TREATMENT USING SAID CELLS | DATE |
|---|---|---|--|--|--|---|------|
| Abandoned | Registered | Completed | Abandoned | Registered | Registered | Registered | |
| N/A | 10-1176146 | N/A | N/A | 579705 | 534643 | 297779 | |
| N/A | Aug-16- 2012 | N/A | N/A | Nov-07- 2011 | Oct-07- 2010 | Apr-03- 2012 | DATE |

| United 14/742,345 Jun-17- States of 2015 America | PLACENTAL STEM CELLS United 14/553,607 Nov-25- Abandor DERIVE FROM POST-PARTUM States of MAMMALIAN PLACENTA, AND America USES AND METHODS OF TREATMENT USING SAID CELLS On the control of | PLACENTAL STEM CELLS United 13/275,246 Oct-17- Abandor DERIVE FROM POST-PARTUM States of MANMALIAN PLACENTA, AND America USES AND METHODS OF TREATMENT USING SAID CELLS | PLACENTAL STEM CELLS United 11/982,007 Oct-31- DERIVED FROM POST-PARTUM States of MAMMALIAN PLACENTA, AND America USES AND METHODS OF TREATMENT USING SAID CELLS United 11/982,007 Oct-31- Register | EMBRYONIC-LIKE STEM CELLS United 10/366,671 Feb-13- Register DERIVED FROM POST-PARTUM States of MAMMALIAN PLACENTA, AND America USES AND METHODS OF TREAMENT USING SAID CELLS | United 60/437,292 Dec-31- States of 2002 America | EMBRYONIC-LIKE STEM CELLS South Africa 2004/6356 Feb-13- Register DERIVED FROM POST-PARTUM MAMMALIAN PLACENTA, AND USES AND METHODS OF TREATMENT USING SAID CELLS South Africa 2004/6356 Feb-13- Register 2003 |
|--|---|---|--|--|--|--|
| Abandoned | Abandoned | Abandoned | Registered | Registered | Expired | Registered |
| N/A | N/A | N/A | 8,057,789 | 7,311,905 | N/A | 2004/6356 |
| N/A | N/A | N/A | Nov-15- 2011 | Dec-25- 2007 | N/A | Jun-28- 2006 |

| MODULATION OF STEM AND PROGENITOR CELL DIFFERENTIATION, ASSAYS, AND USES THEREOF | MODULATION OF STEM AND HO PROGENITOR CELL DIFFERENTIATION, ASSAYS, AND USES THEREOF | AND AYS, | MODULATION OF STEM AND PROGENITOR CELL DIFFERENTIATION, ASSAYS, AND USES THEREOF | MODULATION OF STEM AND PROGENITOR CELL DIFFERENTIATION, ASSAYS, AND USES THEREOF | MODULATION OF STEM AND PROGENITOR CELL DIFFERENTIATION, ASSAYS, AND USES THEREOF | | MODULATION OF STEM AND PROGENITOR CELL DIFFERENTIATION, ASSAYS, AND USES THEREOF | A O A | |
|--|---|-----------------|--|--|--|-----------------|--|--------------------------|---------------|
| China | Hong Kong | Japan | Mexico | New Zealand | New Zealand | Australia | Canada | United States of America | COUNTRY |
| 03813654.6 | 06106330.0 | 2003-584277 | 2004/009997 | 556019 | 536048 | 2003262187 | 2,481,385 | 15/267,695 | APPL. NO. |
| Apr-11- 2003 | Apr-11- 2003 | Apr-11- 2003 | Apr-11- 2003 | Apr-11- 2003 | Apr-11- 2003 | Apr-11- 2003 | Apr-11- 2003 | Sep-16- 2016 | FILING |
| Abandoned | Abandoned | Abandoned | Abandoned | Abandoned | Abandoned | Abandoned | Abandoned | Pending | STATUS |
| N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | PATENT NO. |
| N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | ISSUE DATE |

| | | | | | | CELES |
|---------|-------------|------------|---------|-----------------|---------------|--------------------------|
| | | | 2007 | | Zealand | THEREOF TO CULTURE STEM |
| N/A | N/A | Abandoned | Jun-08- | 573575 | New | PLACENTAL NICHE AND USE |
| | | | 2007 | | | THEREOF TO COLTURE STEM |
| N/A | N/A | Abandoned | Jun-08- | 2007258514 | Australia | PLACENTAL NICHE AND USE |
| | | | | | | CELLS |
| | | | 2007 | | | THEREOF TO CULTURE STEM |
| N/A | N/A | Abandoned | Jun-08- | 2,654,716 | Canada | PLACENTAL NICHE AND USE |
| | | | | | America | CELLDIFFERENTIATION |
| 1 | 1 | Ļ | 2002 | | States of | INHIBITORS TO INDUCE |
| N/A | N/A | Expired | Mav-30- | 60/384.251 | United | METHODS OF USING PDE IV |
| | | | | | | AND USES THEREOF |
| | | | | | America | DIFFERENTIATION, ASSAYS, |
| | | | 2003 | | States of | PROGENITOR CELL |
| N/A | N/A | Abandoned | Apr-11- | 10/511,355 | United | MODULATION OF STEM AND |
| | | | | | | AND USES THEREOF |
| | | | | | Treaty | DIFFERENTIATION, ASSAYS, |
| | | | 2003 | | Cooperation | PROGENITOR CELL |
| N/A | N/A | Completed | Apr-11- | PCT/US03/11190 | Patent | MODULATION OF STEM AND |
| | | | | | | AND USES THEREOF |
| | | | | | | DIFFERENTIATION, ASSAYS, |
| | | | 2003 | | Patent Office | PROGENITOR CELL |
| N/A | N/A | Abandoned | Apr-11- | 03746727.1 | European | MODULATION OF STEM AND |
| | | | | | | AND USES THEREOF |
| | | | | | | DIFFERENTIATION, ASSAYS, |
| | | | 2003 | | Korea | PROGENITOR CELL |
| N/A | N/A | Abandoned | Apr-11- | 10-2004-7016650 | Republic of | MODULATION OF STEM AND |
| | | | | | | AND USES THEREOF |
| | | | | | | DIFFERENTIATION, ASSAYS, |
| | | | 2003 | | | PROGENITOR CELL |
| N/A | N/A | Abandoned | Apr-11- | 164532 | Israel | MODULATION OF STEM AND |
| | | | | | | AND USES THEREOF |
| | | | | | | DIFFERENTIATION, ASSAYS, |
| 2006 | | • | 2003 | | | PROGENITOR CELL |
| Oct-25- | 2004/8368 | Registered | Apr-11- | 2004/8368 | South Africa | MODULATION OF STEM AND |
| DATE | initiatino. | DIGICO | DATE | ALLE, ING. | Cochini | 1111/2 |
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| PLACENTAL NICHE AND USE THEREOF TO CULTURE STEM CELLS | PLACENTAL NICHE AND USE THEREOF TO CULTURE STEM CELLS | PLACENTAL NICHE AND USE THEREOF TO CULTURE STEM CELLS CELLS | PLACENTAL NICHE AND USE THEREOF TO CULTURE STEM CELLS | PLACENTAL NICHE AND USE R THEREOF TO CULTURE STEM CELLS | PLACENTAL NICHE AND USE THEREOF TO CULTURE STEM CELLS | · | PLACENTAL NICHE AND USE THEREOF TO CULTURE STEM CELLS | PLACENTAL NICHE AND USE H THEREOF TO CULTURE STEM CELLS | PLACENTAL NICHE AND USE THEREOF TO CULTURE STEM CELLS | PLACENTAL NICHE AND USE THEREOF TO CULTURE STEM CELLS | тптв с |
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| United States of America | United States of America | Patent Cooperation Treaty | European Patent Office | Republic of Korea | Israel | South Africa | China | Hong Kong | Japan | Mexico | COUNTRY |
| 11/811,447 | 60/812,366 | PCT/US2007/013507 | 07809398.6 | 10-2009-7000342 | 195826 | 2008/10412 | 200780029015.9 | | 2009-514393 | MX/a/2008/015645 | APPL. NO. |
| Jun-08- 2007 | Jun-09- 2006 | Jun-08- 2007 | Jun-08- 2007 | Jun-08- 2007 | Jun-08- 2007 | Jun-08- 2007 | Jun-08- 2007 | Jun-08- 2007 | Jun-08- 2007 | Jun-08- 2007 | FILING DATE |
| Pending | Expired | Completed | Abandoned | Abandoned | Abandoned | Registered | Abandoned | Abandoned | Abandoned | Abandoned | STATUS |
| N/A | N/A | N/A | N/A | N/A | N/A | 2008/10412 | N/A | N/A | N/A | N/A | PATENT NO. |
| N/A | N/A | N/A | N/A | N/A | N/A | Mar-31- 2010 | N/A | N/A | N/A | N/A | ISSUE DATE |

| IMPROVED COMPOSITION FOR COLLECTING AND PRESERVING PLACENTAL STEM CELLS AND METHODS OF USING THE COMPOSITION | IMPROVED COMPOSITION FOR COLLECTING AND PRESERVING PLACENTAL STEM CELLS AND METHODS OF USING THE COMPOSITION | IMPROVED COMPOSITION FOR COLLECTING AND PRESERVING PLACENTAL STEM CELLS AND METHODS OF USING THE COMPOSITION | IMPROVED COMPOSITION FOR COLLECTING AND PRESERVING PLACENTAL STEM CELLS AND METHODS OF USING THE COMPOSITION | IMPROVED COMPOSITION FOR COLLECTING AND PRESERVING PLACENTAL STEM CELLS AND METHODS OF USING THE COMPOSITION | IMPROVED COMPOSITION FOR COLLECTING AND PRESERVING PLACENTAL STEM CELLS AND METHODS OF USING THE COMPOSITION | IMPROVED COMPOSITION FOR COLLECTING AND PRESERVING PLACENTAL STEM CELLS AND METHODS OF USING THE COMPOSITION | CO |
|--|--|--|--|--|--|--|----------------|
| Japan | Peru | Mexico | New Zealand | New Zealand | Australia | Canada | COUNTRY |
| 2008-548747 | 1721-2005 | MX/a/2008/008364 | 596189 | 568619 | 2006332680 | 2,633,980 | APPL. NO. |
| Dec-28- 2006 | Dec-29- 2006 | Dec-28- 2006 | Dec-28- 2006 | Dec-28- 2006 | Dec-28- 2006 | Dec-28- 2006 | FILING DATE |
| Abandoned | STATUS |
| N/A | PATENT NO. |
| N/A | ISSUE DATE |

| IMPROVED COMPOSITION FOR COLLECTING AND PRESERVING PLACENTAL STEM CELLS AND METHODS OF USING THE COMPOSITION | IMPROVED COMPOSITION FOR COLLECTING AND PRESERVING P PLACENTAL STEM CELLS AND METHODS OF USING THE COMPOSITION | IMPROVED COMPOSITION FOR COLLECTING AND PRESERVING PLACENTAL STEM CELLS AND METHODS OF USING THE COMPOSITION | METHOD OF ISOLATING STEM CELLS USING A COMPOSITION COMPRISING A CASPASE INHIBITOR | IMPROVED COMPOSITION FOR S COLLECTING AND PRESERVING PLACENTAL STEM CELLS AND METHODS OF USING THE COMPOSITION | IMPROVED COMPOSITION FOR COLLECTING AND PRESERVING PLACENTAL STEM CELLS AND METHODS OF USING THE COMPOSITION | IMPROVED COMPOSITION FOR COLLECTING AND PRESERVING PLACENTAL STEM CELLS AND METHODS OF USING THE COMPOSITION | TITLE |
|--|--|--|---|--|--|--|----------------|
| Patent Cooperation Treaty | European Patent Office | Republic of Korea | Israel | South Africa | China | Hong Kong | COUNTRY |
| PCT/US2006/049493 | 06848282.7 | 10-2008-7018724 | 191771 | 2008/04717 | 200680052940.9 | 09107387.7 | APPL. NO. |
| Dec-28- 2006 | Dec-28- 2006 | Dec-28- 2006 | Dec-28- 2006 | Dec-28- 2006 | Dec-28- 2006 | Dec-28- 2006 | FILING DATE |
| Completed | Abandoned | Abandoned | Registered | Registered | Abandoned | Abandoned | STATUS |
| N/A | N/A | N/A | 191771 | 2008/04717 | N/A | N/A | PATENT NO. |
| N/A | N/A | N/A | Sep-29- 2012 | Feb-24- 2010 | N/A | N/A | ISSUE DATE |

| PRODUCTION OF OLIGODENDROCYTES FROM PLACENTA-DERIVED STEM CELLS | COMPOSITION FOR COLLECTING AND PRESERVING PLACENTAL STEM CELLS AND METHODS OF USING THE COMPOSITION | COMPOSITION FOR COLLECTING AND PRESERVING PLACENTAL STEM CELLS AND METHODS OF USING THE COMPOSITION | COMPOSITION FOR COLLECTING AND PRESERVING PLACENTAL STEM CELLS AND METHODS OF USING THE COMPOSITION | TITLE |
|---|---|---|---|---|---|---|---|---------------|
| European Patent Office | European Patent Office | China | Canada | Australia | United States of America | United States of America | United States of America | COUNTRY |
| 11154352.6 | 06816898.8 | 200680046133.6 | 2,624,916 | 2006304274 | 12/846,765 | 11/648,812 | 60/754,969 | APPL, NO. |
| Oct-13- 2006 | Oct-13- 2006 | Oct-13- 2006 | Oct-13- 2006 | Oct-13- 2006 | Jul-29- 2010 | Dec-28- 2006 | Dec-29- 2005 | FILING |
| Abandoned | Abandoned | Abandoned | Abandoned | Registered | Pending | Registered | Expired | STATUS |
| N/A | N/A | N/A | N/A | 2006304274 | N/A | 9,598,669 | N/A | PATENT NO. |
| N/A | N/A | N/A | N/A | Nov-29- 2012 | N/A | Mar-21- 2017 | N/A | ISSUE DATE |

| PRODUCTION OF OLIGODENDROCYTES FROM PLACENTA-DERIVED STEM CELLS | TITLE |
|---|---|---|---|---|---|---|---|---|----------------|
| Patent Cooperation Treaty | New Zealand | New Zealand | Mexico | Mexico | Japan | Israel | Hong Kong | Hong Kong | COUNTRY |
| PCT/US2006/040145 | 595140 | 567334 | MX/a/2011/012261 | MX/a/2008/004789 | 2008-535721 | 190731 | 12103063.2 | 09104934.2 | APPL. NO. |
| Oct-13- 2006 | FILING DATE |
| Completed | Abandoned | Registered | Abandoned | Registered | Registered | Registered | Abandoned | Abandoned | STATUS |
| N/A | N/A | 567334 | N/A | 292468 | 5203212 | 190731 | N/A | N/A | PATENT NO. |
| N/A | N/A | Dec-11- 2012 | N/A | Nov-23- 2011 | Feb-22- 2013 | Mar-30- 2012 | N/A | N/A | ISSUE DATE |

| IMMUNOMODULATION USING PLACENTAL STEM CELLS | IMMUNOMODULATION USING | PLACENTA-DERIVED STEM CELLS | OLIGODENDROCYTES FROM | PRODUCTION OF | PLACENTA-DERIVED STEM CELLS | OLIGODENDROCYTES FROM | CELLS | PLACENTA-DERIVED STEM | OLIGODENDROCYTES FROM | PLACENTA-DERIVED STEM CELLS | OLIGODENDROCYTES FROM | CELLS | PLACENTA-DERIVED STEM | PRODUCTION OF | TITLE |
|---|---|---|---|----------------------|----------------------|----------------------|----------------------|----------------------|------------------------|--------------------------------|-----------------------|---------------|-----------------------------|-----------------------|---------|-----------------------|-----------------------|--------------------------------|-----------------------|--------------|-----------------------|-----------------|---------------|
| Australia | Australia | Belgium | Italy | France | Germany | United Kingdom | Сапаца | Canada | Canada | America | States of | United | America | United States of | America | States of | United | | South Attica | South Africa | NOICa | Republic of | COUNTRY |
| 2012203286 | 2006304277 | 06816901.0 | 06816901.0 | 06816901.0 | 06816901.0 | 06816901.0 | 2,030,002 | C39 350 C | 2,624,925 | | | 13/293,037 | | 11/580,625 | | | 60/727,601 | | 2000/03929 | 2000/02020 | | 10-2008-7011437 | APPL. NO. |
| May-30- 2012 | Oct-13- 2006 | Oct-13- 2006 | Oct-13- 2006 | Oct-13- 2006 | Oct-13- 2006 | 2006 | 2014 | 2006 | Oct-13- | | 2011 | Nov-09- | | 2006 | | 2005 | Oct-13- | | 2006 | O 13 | 0000 | Oct-13- | FILING |
| Registered | Registered | Registered | Registered | Registered | Registered | Registered | ı chang | Danding | Registered | | | Abandoned | | Registered | - | | Expired | | Negistered | Docistoral | | Abandoned | STATUS |
| 2012203286 | 2006304277 | 1957633 | 5519/BE/2014 | 1957633 | 602006039713.5 | 195/633 | MA | N/A | 2,624,925 | | | N/A | | 8,0/1,3/6 | | | N/A | | 2008/03929 | 2000/02020 | | N/A | PATENT NO. |
| Jun-11- 2015 | Oct-18- 2012 | Dec-18- 2013 | Dec-18- 2013 | Dec-18- 2013 | Dec-18- 2013 | Dec-18- 2013 | NA | 2014 | Sep-30- | | | N/A | | Dec-06- 2011 | 2 | | N/A | | 2009 | ۶۵ ۵۳۰۷ | | N/A | ISSUE DATE |

| IMMUNOMODULATION USING Denmark PLACENTAL STEM CELLS | IMMUNOMODULATION USING Sweden PLACENTAL STEM CELLS | IMMUNOMODULATION USING Austria PLACENTAL STEM CELLS | IMMUNOMODULATION USING Switzerland PLACENTAL STEM CELLS | IMMUNOMODULATION USING Japan PLACENTAL STEM CELLS | IMMUNOMODULATION USING Peru PLACENTAL STEM CELLS | IMMUNOMODULATION USING Peru PLACENTAL STEM CELLS | PLACENTAL STEM CELLS Mexico PLACENTAL STEM CELLS | IMMUNOMODULATION USING Mexico PLACENTAL STEM CELLS | IMMUNOMODULATION USING Mexico PLACENTAL STEM CELLS | IMMUNOMODULATION USING Mexico PLACENTAL STEM CELLS | IMMUNOMODULATION USING PLACENTAL STEM CELLS Zealand | PLACENTAL STEM CELLS PLACENTAL STEM CELLS Zealand | IMMUNOMODULATION USING PLACENTAL STEM CELLS Zealand | IMMUNOMODULATION USING Australia PLACENTAL STEM CELLS | TITLE COUNTRY |
|---|--|---|---|---|---|---|---|--|--|--|--|--|--|---|---|---|---|---------------|
| 06816901.0 | 06816901.0 | 06816901.0 | 06816901.0 | 2016-027230 | 2014-198303 | 2012-265040 | 2008-535724 | 557.2010 | 1245-2006 | MX/a/2016/015095 | MX/a/2011/012111 | MX/a/2011/004522 | MX/a/2008/004787 | 612132 | 597304 | 567335 | 2015201189 | APPL, NO. |
| Oct-13- 2006 | Oct-13- 2006 | Oct-13- 2006 | Oct-13- 2006 | Jan-16- 2016 | Sep-29- 2014 | Dec-04- 2012 | Oct-13- 2006 | Sep-08- 2010 | Oct-13- 2006 | Nov-17- 2016 | Nov-14- 2011 | Apr-29- 2011 | Oct-13- 2006 | Jun-20- 2013 | Dec-22- 2011 | Oct-13- 2006 | Mar-06- 2015 | DATE |
| Registered | Registered | Registered | Registered | Pending | Abandoned | Abandoned | Abandoned | Abandoned | Registered | Pending | Registered | Registered | Registered | Registered | Registered | Registered | Pending | STATUS |
| 1957633 | 1957633 | E645653 | 1957633 | N/A | N/A | N/A | N/A | N/A | 5783 | N/A | 343814 | 292532 | 286303 | 612132 | 597304 | 567335 | N/A | PATENT NO. |
| Dec-18- 2013 | Dec-18- 2013 | Dec-18- 2013 | Dec-18- 2013 | N/A | N/A | N/A | N/A | N/A | Sep-17- 2010 | N/A | Nov-24- 2016 | Nov-23- 2011 | May-04- 2011 | May-01- 2015 | Oct-01- 2013 | Jun-05- 2012 | N/A | ISSUE DATE |

| IMMUNOMODULATION USING China PLACENTAL STEM CELLS | IMMUNOMODULATION USING Romania PLACENTAL STEM CELLS | IMMUNOMODULATION USING Portugal PLACENTAL STEM CELLS | IMMUNOMODULATION USING Monaco PLACENTAL STEM CELLS | IMMUNOMODULATION USING Iceland PLACENTAL STEM CELLS | IMMUNOMODULATION USING Greece PLACENTAL STEM CELLS | IMMUNOMODULATION USING Cyprus PLACENTAL STEM CELLS | IMMUNOMODULATION USING Bulgaria PLACENTAL STEM CELLS | IMMUNOMODULATION USING Spain PLACENTAL STEM CELLS | IMMUNOMODULATION USING Netherlands PLACENTAL STEM CELLS | PLACENTAL STEM CELLS PLACENTAL STEM CELLS | + | IMMUNOMODULATION USING Finland PLACENTAL STEM CELLS | IMMUNOMODULATION USING Hungary PLACENTAL STEM CELLS | IMMUNOMODULATION USING Hong Kong PLACENTAL STEM CELLS | TITLE COUNTRY |
|---|---|--|--|---|--|--|--|---|---|--|-----------------|---|---|---|---|---|---|---------------|
| 200680045964.1 | a 06816901.0 | 1 06816901.0 | 06816901.0 | 06816901.0 | 06816901.0 | 06816901.0 | a 06816901.0 | 06816901.0 | ds 06816901.0 | лg 06816901.0 | | 06816901.0 | y 06816901.0 | ng 16114083.1 | ng 13106563.9 | ng 13106588.0 | ng 09104938.8 | APPL. NO. |
| Oct-13- 2006 | Oct-13- 2006 | Oct-13- 2006 | Oct-13- 2006 | Oct-13- 2006 | Oct-13- 2006 | Oct-13- 2006 | Oct-13- 2006 | Oct-13- 2006 | Oct-13- 2006 | 2006 | Oct-13- 2006 | Oct-13- 2006 | Oct-13- 2006 | Dec-9- 2016 | Jun-04- 2013 | Jun-04- 2013 | Oct-13- 2006 | FILING |
| Abandoned | Registered | Registered | Registered | Registered | Registered | Registered | Registered | Registered | Registered | Registered | Registered | Registered | Registered | Pending | Abandoned | Abandoned | Abandoned | STATUS |
| N/A | 1957633 | 1957633 | 1957633 | 1957633 | 20140400440 | CY20141100184 | 11323 | ES2452595T3 | 1957633 | 1957633 | 1957633 | 1957633 | E020439 | N/A | N/A | N/A | N/A | PATENT NO. |
| N/A | Dec-18- 2013 | Dec-18- 2013 | Dec-18- 2013 | Dec-18- 2013 | Dec-18- 2013 | Dec-18- 2013 | Dec-18- 2013 | Dec-18- 2013 | Dec-18- 2013 | Dec-18- 2013 | Dec-18- 2013 | Dec-18- 2013 | Dec-18- 2013 | N/A | N/A | N/A | N/A | ISSUE DATE |

| IMMUNOMODULATION USING PLACENTAL STEM CELLS | PLACENTAL STEM CELLS | PLACENTAL STEM CELLS IMMUNOMODUL ATION USING | IMMUNOMODULATION USING | PLACENTAL STEM CELLS | PLACENTAL STEM CELLS | TAMENTOMORIE ATTOMICIONE | IMMUNOMODULATION USING PLACENTAL STEM CELLS | PLACENTAL STEM CELLS | PLACENTAL STEM CELLS | IMMUNOMODULATION USING | IMMUNOMODULATION USING PLACENTAL STEM CELLS | PLACENTAL STEM CELLS | PLACENTAL STEM CELLS | IMMUNOMODULATION USING | PLACENTAL STEM CELLS | IMMUNOMODULATION USING | PLACENTAL STEM CELLS | IMMUNOMODULATION USING | IMMUNOMODULATION USING PLACENTAL STEM CELLS | PLACENTAL STEM CELLS | IMMUNOMODULATION USING | TITLE |
|---|---|---|---|-----------------------|---|------------------------|------------------------|----------------------|--------------------------|---|----------------------|----------------------|------------------------|---|----------------------|----------------------|------------------------|----------------------|------------------------|----------------------|------------------------|---|----------------------|------------------------|---------------|
| Estonia | Lithuania | Latvia | Slovenia | Cooperation Treaty | Patent Office Patent | European | European Patent Office | Patent Office | I dicome Omico | European Patent Office | Republic of Korea | | Albania | Israel | Istaei | 1 | Ireland | | Poland | Republic | Czech | South Africa | | China | COUNTRY |
| 06816901.0 | 06816901.0 | 06816901.0 | 06816901.0 | | PCT/US2006/040148 | 15194777.7 | 13106563.9 | 121/4422.1 | 121744221 | 06816901.0 | 10-2008-7011440 | | 06816901.0 | 242628 | 190/32 | 10010 | 06816901.0 | | 06816901.0 | | 06816901.0 | 2008/03930 | | 201410270795.8 | APPL. NO. |
| Oct-13- 2006 | Oct-13- 2006 | Oct-13- 2006 | Oct-13- 2006 | 2006 | 2015 Oct-13- | Nov-16- | Jun-04- 2013 | 2012 | J. 200 | Oct-13- 2006 | Oct-13- 2006 | 2006 | Oct-13- | Nov-16- 2015 | 2006 | 2006 | Oct-13- | 2006 | Oct-13- | 2006 | Oct-13- | Oct-13- 2006 | 2014 | Jun-17- | FILING |
| Registered | Registered | Registered | Registered | Compresse | Completed | Pending | Abandoned | Abandoned | Abandanad | Registered | Registered | o | Registered | Pending | Kegistered | | Registered | | Registered | c | Registered | Registered | | Pending | STATUS |
| 1957633 | 1957633 | 1957633 | 1957633 | 17/24 | N/A | N/A | N/A | N/A | 77/2 | 1957633 | 10-1378874 | | AL/P/2014/73 | A/N | 190732 | 10030 | 1957633 | | 1957633 | | 1957633 | 2008/03930 | | A/N | PATENT NO. |
| Dec-18- 2013 | Dec-18- 2013 | Dec-18- 2013 | Dec-18- 2013 | A 1 A A | N/A | N/A | N/A | NA | NI/A | Dec-18- 2013 | Mar-21- 2014 | 2013 | Dec-18- | N/A | Apr-01- 2016 | 2013 | Dec-18- | 2013 | Dec-18- | 2013 | Dec-18- | Mar-31- 2010 | | N/A | ISSUE DATE |

| | | | 1010 | | America | 1 11 10 11 1 1 1 1 1 0 1 1 1 1 1 1 1 1 |
|-----|---------------|------------|-----------------|------------|---------------------|--|
| | N/A | Pending | Nov-30- | 15/364,386 | United States of | IMMUNOMODULATION USING |
| | | | | | America | |
| | 9,539,288 | Registered | Oct-22- 2014 | 14/520,934 | United States of | PLACENTAL STEM CELLS |
| | | | | | America | |
| | | | 2012 | | States of | PLACENTAL STEM CELLS |
| | 8,895,256 | Registered | May-17- | 13/474,378 | United | IMMUNOMODULATION USING |
| | | | | | America | STEM CELLS |
| | | , | 2010 | | States of | SCLEROSIS USING PLACENTAL |
| | 8,216,566 | Registered | Jan-14- | 12/687,851 | United | TREATMENT OF MULTIPLE |
| | | | | | America | STEM CELLS |
| | | | 2011 | | States of | ARTHRITIS USING PLACENTAL |
| | A/N | Abandoned | May-13- | 13/107,727 | United | TREATMENT OF RHEUMATOID |
| | | | | | America | |
| | | | 2006 | | States of | PLACENTAL STEM CELLS |
| | 7,682,803 | Registered | Oct-13- | 11/580,588 | United | IMMUNOMODULATION USING |
| | | | | | America | |
| | | | 2006 | | States of | PLACENTAL STEM CELLS |
| | A/N | Expired | Aug-04- | 60/835,628 | United | IMMUNOMODULATION USING |
| l | | | | | America | |
| | | | 2005 | | States of | PLACENTA-DERIVED STEM CEL |
| | A/N | Expired | Oct-13- | 60/727,004 | United | IMMUNOSUPPRESSION USING |
| | | | 2006 | | | PLACENTAL STEM CELLS |
| | 1957633 | Registered | Oct-13- | 06816901.0 | Serbia | IMMUNOMODULATION USING |
| | | | 2006 | | Herzegovina | PLACENTAL STEM CELLS |
| | 1957633 | Registered | Oct-13- | 06816901.0 | Bosnia & | IMMUNOMODULATION USING |
| | | | 2006 | | (F.Y.R.O.M) | PLACENTAL STEM CELLS |
| | MK/P/2014/96 | Registered | Oct-13- | 06816901.0 | Macedonia | IMMUNOMODULATION USING |
| | | | 2006 | | | PLACENTAL STEM CELLS |
| | E16134 | Registered | Oct-13- | 06816901.0 | Slovakia | IMMUNOMODULATION USING |
| | | | 2006 | | | PLACENTAL STEM CELLS |
| ı | 1957633 | Registered | Oct-13- | 06816901.0 | Croatia | IMMUNOMODULATION USING |
| | i Aittini MO. | DIAIDO | DATE | ALLEH MA | COUNTRI | 11100 |
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| TUMOR SUPPRESSION USING PLACENTAL STEM CELLS | CYTOTHERAPEUTICS, CYTOTHERAPEUTIC UNITS AND METHODS FOR TREATMENTS USING THEM | CYTOTHERAPEUTICS, CYTOTHERAPEUTIC UNITS AND METHODS FOR TREATMENTS USING THEM | CYTOTHERAPEUTICS, CYTOTHERAPEUTIC UNITS AND METHODS FOR TREATMENTS USING THEM | CYTOTHERAPEUTICS, CYTOTHERAPEUTIC UNITS AND METHODS FOR TREATMENTS USING THEM | CYTOTHERAPEUTICS, CYTOTHERAPEUTIC UNITS AND METHODS FOR TREATMENTS USING THEM | CYTOTHERAPEUTICS, CYTOTHERAPEUTIC UNITS AND METHODS FOR TREATMENTS USING THEM | TITLE |
| European Patent Office | European Patent Office | China | Canada | Australia | Australia | United States of America | United States of America | United States of America | Patent Cooperation Treaty | European Patent Office | Republic of Korea | COUNTRY |
| 13171916.3 | 07836619.2 | 200780037355.6 | 2,660,014 | 2013201775 | 2007281920 | 15/362,300 | 11/592,544 | 10/721,144 | PCT/US2003/038143 | 03796533.2 | 10-2009-7017004 | APPL. NO. |
| Aug-06- 2007 | Aug-06- 2007 | Aug-06- 2007 | Aug-06- 2007 | Aug-06- 2007 | Aug-06- 2007 | Nov-28- 2016 | Nov-03- 2006 | Nov-25- 2003 | Nov-25- 2003 | Nov-25- 2003 | Nov-25- 2003 | FILING DATE |
| Abandoned | Registered | Abandoned | Abandoned | Abandoned | Registered | Pending | Registered | Abandoned | Completed | Abandoned | Registered | STATUS |
| N/A | 2054508 | N/A | N/A | N/A | 2007281920 | N/A | 8,617,535 | N/A | N/A | N/A | 10-1042448 | PATENT NO. |
| N/A | Jul-24-2013 | N/A | N/A | N/A | May-08- 2014 | N/A | Dec-31- 2013 | N/A | N/A | N/A | Jun-10- 2011 | ISSUE DATE |

| TUMOR SUPPRESSION USING PLACENTAL STEM CELLS | PLACENTAL STEM CELLS | TUMOR SUPPRESSION USING PLACENTAL STEM CELLS | TITLE |
|--|--|--|--|--|--|--|--|--|--|----------------------|--|--|--|--|--|--|--|---------------|
| New Zealand | New Zealand | New Zealand | Monaco | Mexico | Mexico | Mexico | Malta | Luxembourg | Japan | Italy | Israel | Israel | Ireland | Hong Kong | Germany | France | European Patent Office | COUNTRY |
| 617455 | 595938 | 574951 | 07836619.2 | MX/a/2013/013980 | MX/a/2011/010498 | MX/a/2009/001311 | 07836619.2 | 07836619.2 | 2009-522903 | 07836619.2 | 223158 | 196884 | 07836619.2 | 10110396.7 | 602007031902.1 | 07836619.2 | 13184122.3 | APPL. NO. |
| Aug-06- 2007 | Aug-06- 2007 | Aug-06- 2007 | Aug-06- 2007 | Aug-06- 2007 | Aug-06- 2007 | Aug-06- 2007 | Aug-06- 2007 | Aug-06- 2007 | FILING |
| Abandoned | Registered | Registered | Registered | Abandoned | Registered | Registered | Registered | Registered | Registered | Registered | Abandoned | Registered | Registered | Abandoned | Registered | Registered | Abandoned | STATUS |
| N/A | 595938 | 574951 | 2054508 | N/A | 316423 | 290828 | 2054508 | 2054508 | 5469457 | 5578/BE/2013 | N/A | 196884 | 2054508 | N/A | 2054508 | 2054508 | N/A | PATENT NO. |
| N/A | Mar-04- 2014 | Jul-09-2012 | Jul-24-2013 | N/A | Dec-13- 2013 | Oct-07- 2011 | Jul-24-2013 | Jul-24-2013 | Feb-07- 2014 | Jul-24-2013 | N/A | Mar-01- 2013 | Jul-24-2013 | N/A | Jul-24-2013 | Jul-24-2013 | N/A | ISSUE DATE |

| PLACENTAL STEM CELL POPULATIONS | TUMOR SUPPRESSION USING PLACENTAL STEM CELLS | PLACENTAL STEM CELLS | TUMOR SUPPRESSION USING PLACENTAL STEM CELLS | TUMOR SUPPRESSION USING PLACENTAL STEM CELLS | BIIII |
|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|--|--|--|--|--|--|--|----------------------|--|--|---------------|
| Canada | Canada | Belgium | Austria | Australia | Australia | United States of America | United States of America | United States of America | United Kingdom | Switzerland | Spain | South Africa | South Africa | Republic of Korea | Patent Cooperation Treaty | COUNTRY |
| 2,957,336 | 2,635,253 | 06848281.9 | E735445 | 2014201181 | 2006332678 | 13/164,378 | 11/888,926 | 60/835,627 | 07836619.2 | 07836619.2 | 07836619.2 | 2010/04218 | 2009/00956 | 10-2009-7004531 | PCT/US2007/017622 | APPL., NO. |
| Dec-28- 2006 | Dec-28- 2006 | Dec-28- 2006 | Dec-28- 2006 | Dec-28- 2006 | Dec-28- 2006 | Jun-20- 2011 | Aug-03- 2007 | Aug-04- 2006 | Aug-06- 2007 | Aug-06- 2007 | Aug-06- 2007 | Aug-06- 2007 | Aug-06- 2007 | Aug-06- 2007 | Aug-06- 2007 | FILING DATE |
| Pending | Registered | Registered | Registered | Pending | Registered | Abandoned | Registered | Expired | Registered | Registered | Registered | Registered | Registered | Registered | Completed | STATUS |
| N/A | 2,635,253 | 1976977 | 1976977 | N/A | 2006332678 | N/A | 7,993,918 | N/A | 2054508 | 2054508 | ES2432148T3 | 2010/04218 | 2009/00956 | 10-1438554 | N/A | PATENT NO. |
| N/A | Mar-14- 2017 | Jul-08-2015 | Jul-08-2015 | N/A | Mar-20- 2014 | N/A | Aug-09- 2011 | N/A | Jul-24-2013 | Jul-24-2013 | Jul-24-2013 | Dec-27- 2012 | Sep-29- 2010 | Sep-01- 2014 | N/A | ISSUE DATE |

| PLACENTAL STEM CELL POPULATIONS | POPULATIONS | PLACENTAL STEM CELL | PLACENTAL STEM CELL | PLACENTAL STEM CELL POPULATIONS | TITLE |
|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------|-------------------------|---------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------|
| Hong Kong | Hong Kong | Hong Kong | Hong Kong | Germany | France | Finland | European Patent Office | European Patent Office | European Patent Office | Patent Office | Patent Office Furonean | European | European Patent Office | Czech Republic | China | China | China | China | COUNTRY |
| 12113316.6 | 12113305.9 | 12113309.5 | 09108230.4 | 06848281.9 | 06848281.9 | 06848281.9 | 12150934.3 | 12150928.5 | 12150924.4 | 121000101 | 12150919.4 | 12150912.9 | 06848281.9 | 06848281.9 | 201310405648.2 | 201310024293.2 | 201210477851.6 | 200680053575.3 | APPL. NO. |
| Dec-28- 2006 | 2006 | Dec-28- | Dec-28- | Dec-28- 2006 | Dec-28- 2006 | Dec-28- 2006 | Dec-28- 2006 | Dec-28- 2006 | Dec-28- 2006 | FILING |
| Pending | Pending | Pending | Pending | Registered | Registered | Registered | Pending | Pending | Pending | S. Crients | Pending | Pending | Registered | Registered | Pending | Registered | Registered | Pending | STATUS |
| N/A | N/A | N/A | N/A | 602006045944.0 | 1976977 | 1976977 | N/A | N/A | N/A | 1772 1 | N/A | N/A | 1976977 | 1976977 | N/A | ZL201310024293.2 | ZL201210477851.6 | N/A | PATENT NO. |
| N/A | N/A | N/A | N/A | Jul-08-2015 | Jul-08-2015 | Jul-08-2015 | N/A | N/A | N/A | 17/21 | N/A | N/A | Jul-08-2015 | Jul-08-2015 | N/A | Sep-09- 2015 | Mar-16- 2016 | N/A | ISSUE DATE |

| PLACENTAL STEM CELL POPULATIONS | TITIE |
|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|----------------|
| New Zealand | New Zealand | Netherlands | Mexico | Mexico | Mexico | Mexico | Japan | Japan | Italy | Israel | Israel | Israel | Israel | Israel | Hong Kong | Hong Kong | Hong Kong | COUNTRY |
| 595786 | 569562 | 06848281.9 | MX/a/2017/007160 | MX/a/2014/002006 | MX/a/2013/009297 | MX/a/2008/008365 | 2013-002575 | 2008-548745 | 502015000056937 | 243876 | 223194 | 223156 | 223157 | 192457 | 13112141.8 | 12113313.9 | 12113314.8 | APPL. NO. |
| Dec-28- 2006 | FILING DATE |
| Registered | Registered | Registered | Pending | Pending (Allowed) | Registered | Registered | Registered | Registered | Registered | Pending | Registered | Registered | Registered | Registered | Registered | Pending | Pending | STATUS |
| 595786 | 569562 | 1976977 | N/A | N/A | 338534 | 318152 | 5739918 | 5550235 | 1976977 | N/A | 223194 | 223156 | 223157 | 192457 | HK1184817 | N/A | N/A | PATENT NO. |
| Sep-03- 2013 | Aug-06- 2012 | Jul-08-2015 | N/A | N/A | Apr-21- 2016 | Feb-24- 2014 | May-01- 2015 | May-30- 2014 | Jul-08-2015 | N/A | Sep-01- 2015 | Apr-01- 2016 | May-01- 2016 | Mar-01- 2013 | Aug-26- 2016 | N/A | N/A | ISSUE DATE |

| PLACENTAL STEM CELL POPULATIONS | POPULATIONS | POPULATIONS | PLACENTAL STEM CELL | PLACENTAL STEM CELL POPULATIONS | POPULATIONS | POPULATIONS | PLACENTAL STEM CELL | POPULATIONS | DI ACENTAL STEM CELL | PLACENTAL STEM CELL POPULATIONS | POPULATIONS | DI ACENTAL CTEM CELL | POPULATIONS | PLACENTAL STEM CELL | POPULATIONS | POPULATIONS POPULATIONS | PLACENTAL STEM CELL | ЭЛПТ |
|---------------------------------|---------------------------------|---------------------------------|---------------------------------|-------------|------------------|---------------------|---------------------------------|-----------------|----------------|---------------------|-----------------|----------------------|---------------------------------|-------------|----------------------|-----------------------|---------------------|-------------|--------------------------|---------------------|-------------|---------------------|-------------|---------------------|-------------|---------------------|---------------|
| Switzerland | Sweden | Spain | South Africa | эошп Ашса | Courth A failing | South Africa | South Africa | Korea | Korea | Republic of | Korea | Remidlic of | Poland | reiu | Parii | Cooperation Treaty | Patent | Troi way | Lealand | New | Zealand | New | Zealand | New | Zealand | New | COUNTRY |
| 06848281.9 | 06848281.9 | 06848281.9 | 2017/03181 | 2012/00909 | 3013/00/60 | 2010/04182 | 2008/05794 | 10-2017-7008333 | 10 2017 700025 | 10-2015-7020367 | 10-2000-/010500 | 10-2008-7018508 | 06848281.9 | 1/22-2000 | 1722_2006 | | PCT/US2006/049491 | 00010201.) | 068487810 | 730973 | | 712789 | | 622377 | | 606392 | APPL. NO. |
| Dec-28- 2006 | Dec-28- 2006 | Dec-28- 2006 | Dec-28- 2006 | 2006 | 2000 | Dec-28- | Dec-28- 2006 | 2006 | 2006 | Dec-28- | 2006 | Dec_28_ | Dec-28- 2006 | 2006 | Dec_20_ | 2006 | Dec-28- | 2006 | 2006 Dec-28- | Dec-28- | 2006 | Dec-28- | 2006 | Dec-28- | 2006 | Dec-28- | FILING |
| Registered | Registered | Registered | Pending | гелиш | Dandina | Registered | Registered | гелиш | Danding | Registered | registered | Registered | Registered | Abaildolled | Ahandanad | , | Completed | registered | Registered | Pending | | Pending | , | Registered | • | Registered | STATUS |
| 1976977 | 1976977 | ES2549111T3 | N/A | N/A | NIA | 2010/04182 | 2008/05794 | N/A | N1/A | 10-1722577 | 10-13052+1 | 10-1585241 | 1976977 | N/A | | | N/A | 1010011 | 1976977 | N/A | | N/A | | 622377 | | 606392 | PATENT NO. |
| Jul-08-2015 | Jul-08-2015 | Jul-08-2015 | N/A | IV/A | 2013 | Feb-27- | Nov-24- 2010 | A/NI | 2017 | Mar-28- | 2016 | Ian_07_ | Jul-08-2015 | A/NI | N/A | | N/A | 3th 00 2010 | In1_08_2015 | N/A | | N/A | 2016 | Feb-02- | 2014 | Aug-01- | ISSUE DATE |

| PLACENTAL STEM CELL POPULATIONS | PLACENTAL STEM CELL POPULATIONS | PLACENTAL STEM CELL POPULATIONS | PLACENTA STEM CELL POPULATIONS | PLACENTA STEM CELL POPULATIONS | PLACENTAL STEM CELL POPULATIONS | PLACENTAL STEM CELL POPULATIONS | PLACENTAL STEM CELLS POPULATIONS | PLACENTAL STEM CELL POPULATIONS | PLACENTAL STEM CELL POPULATIONS | PLACENTA-DERIVED STEM CELL POPULATION | PLACENTAL STEM CELL POPULATIONS | THE |
|---------------------------------|---------------------------------|---------------------------------|--------------------------------|--------------------------------|---------------------------------|---------------------------------|----------------------------------|---------------------------------|---------------------------------|---------------------------------------|---------------------------------|---------------|
| United States of America | United States of America | United States of America | United States of America | United States of America | United States of America | United States of America | United States of America | United States of America | United States of America | United States of America | United Kingdom | COUNTRY |
| 14/298,637 | 14/181,159 | 13/480,370 | 13/473,509 | 12/848,007 | 13/276,268 | 11/982,291 | 11/648,804 | 11/648,813 | 60/846,641 | 60/754,968 | 06848281.9 | APPL. NO. |
| Jun-06- 2014 | Feb-14- 2014 | May-24- 2012 | May-16- 2012 | Jul-30- 2010 | Oct-18- 2011 | Oct-31- 2007 | Dec-28- 2006 | Dec-28- 2006 | Sep-22- 2006 | Dec-29- 2005 | Dec-28- 2006 | FILING |
| Abandoned | Registered | Registered | Registered | Registered | Abandoned | Abandoned | Abandoned | Registered | Expired | Expired | Registered | STATUS |
| N/A | 9,078,898 | 8,691,217 | 8,591,883 | 8,202,703 | N/A | N/A | N/A | 8,057,788 | N/A | N/A | 1976977 | PATENT NO. |
| N/A | Jul-14-2015 | Apr-08- 2014 | Nov-26- 2013 | Jun-19- 2012 | N/A | N/A | N/A | Nov-15- 2011 | N/A | N/A | Jul-08-2015 | ISSUE DATE |

| TREATMENT OF INFLAMMATORY DISEASES USING PLACENTAL STEM CELLS | TREATMENT OF INFLAMMATORY DISEASES USING PLACENTAL STEM CELLS | TREATMENT OF INFLAMMATORY DISEASES USING PLACENTAL STEM CELLS | TREATMENT OF INFLAMMATORY DISEASES USING PLACENTAL STEM CELLS | TREATMENT OF INFLAMMATORY DISEASES USING PLACENTAL STEM CELLS | TREATMENT OF INFLAMMATORY DISEASES USING PLACENTAL STEM CELLS | TREATMENT OF INFLAMMATORY DISEASES USING PLACENTAL STEM CELLS | TREATMENT OF INFLAMMATORY DISEASES USING PLACENTAL STEM CELLS | PLACENTAL STEM CELL POPULATIONS | TITLE |
|---|---|---|---|---|---|---|---|---------------------------------|----------------|
| Australia | Australia | Belgium | Italy | France | Germany | United Kingdom | Canada | United States of America | COUNTRY |
| 2014203165 | 2008216749 | 08725458.7 | 5560/BE/2013 | 08725458.7 | 602008024874.8 | 08725458.7 | 2,677,397 | 14/735,727 | APPL. NO. |
| Jun-11- 2014 | Feb-12- 2008 | Jun-10- 2015 | FILING DATE |
| Registered | Pending | STATUS |
| 2014203165 | 2008216749 | 2120977 | 2120977 | 2120977 | 2120977 | 2120977 | 2,677,397 | N/A | PATENT NO. |
| Nov-24- 2016 | Jun-26- 2014 | May-15- 2013 | May-15- 2013 | May-15- 2013 | May-15- 2013 | May-15- 2013 | Apr-05- 2016 | N/A | ISSUE DATE |

| TREATMENT OF INFLAMMATORY DISEASES USING PLACENTAL STEM CELLS | TREATMENT OF INFLAMMATORY DISEASES USING PLACENTAL STEM CELLS | TREATMENT OF INFLAMMATORY DISEASES USING PLACENTAL STEM CELLS | TREATMENT OF INFLAMMATORY DISEASES USING PLACENTAL STEM CELLS | TREATMENT OF INFLAMMATORY DISEASES USING PLACENTAL STEM CELLS | TREATMENT OF INFLAMMATORY DISEASES USING PLACENTAL STEM CELLS | TREATMENT OF INFLAMMATORY DISEASES USING PLACENTAL STEM CELLS | TREATMENT OF INFLAMMATORY DISEASES USING PLACENTAL STEM CELLS | TREATMENT OF INFLAMMATORY DISEASES USING PLACENTAL STEM CELLS | TITLE |
|---|---|---|---|---|---|---|---|---|---------------|
| Switzerland | Japan | Japan | Mexico | Mexico | New Zealand | New Zealand | New Zealand | Australia | COUNTRY |
| 08725458.7 | 2014-136491 | 2009-549140 | MX/a/2013/009114 | MX/a/2009/008563 | 612888 | 597779 | 578819 | 2016256718 | APPL. NO. |
| Feb-12- 2008 | Jul-02- 2014 | Feb-12- 2008 | Aug-07- 2013 | Feb-12- 2008 | Jul-09- 2013 | Jan-24- 2012 | Feb-12- 2008 | Nov-09- 2016 | FILING |
| Registered | Abandoned | Registered | Pending | Registered | Registered | Registered | Registered | Pending | STATUS |
| 2120977 | N/A | 5979811 | N/A | 314705 | 612888 | 597779 | 578819 | N/A | PATENT NO. |
| May-15- 2013 | N/A | Aug-05- 2016 | N/A | Oct-29- 2013 | May-28- 2015 | Oct-30- 2013 | Jun-05- 2012 | N/A | ISSUE DATE |

| TREATMENT OF INFLAMMATORY DISEASES USING PLACENTAL STEM CELLS | TREATMENT OF INFLAMMATORY DISEASES USING PLACENTAL STEM CELLS | TREATMENT OF INFLAMMATORY DISEASES USING PLACENTAL STEM CELLS | TREATMENT OF INFLAMMATORY DISEASES USING PLACENTAL STEM CELLS | TREATMENT OF INFLAMMATORY DISEASES USING PLACENTAL STEM CELLS | TREATMENT OF INFLAMMATORY DISEASES USING PLACENTAL STEM CELLS | TREATMENT OF INFLAMMATORY DISEASES USING PLACENTAL STEM CELLS | TREATMENT OF INFLAMMATORY DISEASES USING PLACENTAL STEM CELLS | TREATMENT OF INFLAMMATORY DISEASES USING PLACENTAL STEM CELLS | TITLE |
|---|---|---|---|---|---|---|---|---|----------------|
| Hungary | Hong Kong | Hong Kong | Hong Kong | Hong Kong | Denmark | Sweden | Norway | Austria | COUNTRY |
| E018337 | 16102595.7 | 14105621.0 | HK14100218.0 | 10103211.5 | 08725458.7 | 08725458.7 | 08725458.7 | E611830 | APPL. NO. |
| Feb-12- 2008 | Mar-07- 2016 | Jun-13- 2014 | Jan-09- 2014 | Feb-12- 2008 | Feb-12- 2008 | Feb-12- 2008 | Feb-12- 2008 | Feb-12- 2008 | FILING DATE |
| Registered | Abandoned | Abandoned | Abandoned | Registered | Registered | Registered | Registered | Registered | STATUS |
| 2120977 | N/A | N/A | N/A | HK1135328 | 2120977 | 2120977 | 2120977 | 2120977 | PATENT NO. |
| May-15- 2013 | N/A | N/A | N/A | Feb-21- 2014 | May-15- 2013 | May-15- 2013 | May-15- 2013 | May-15- 2013 | ISSUE DATE |

| TREATMENT OF INFLAMMATORY DISEASES USING PLACENTAL STEM CELLS | TREATMENT OF INFLAMMATORY DISEASES USING PLACENTAL STEM CELLS | TREATMENT OF INFLAMMATORY DISEASES USING PLACENTAL STEM CELLS | TREATMENT OF INFLAMMATORY DISEASES USING PLACENTAL STEM CELLS | TREATMENT OF INFLAMMATORY DISEASES USING PLACENTAL STEM CELLS | TREATMENT OF INFLAMMATORY DISEASES USING PLACENTAL STEM CELLS | TREATMENT OF INFLAMMATORY DISEASES USING PLACENTAL STEM CELLS | TREATMENT OF INFLAMMATORY DISEASES USING PLACENTAL STEM CELLS | TREATMENT OF INFLAMMATORY DISEASES USING PLACENTAL STEM CELLS | TITLE |
|---|---|---|---|---|---|---|---|---|------------|
| Iceland | Greece | Cyprus | Bulgaria | Spain | Netherlands | Luxembourg | Turkey | Finland | COUNTRY |
| 08725458.7 | 3081444 | | 10353 | 08725458.7 | 08725458.7 | 08725458.7 | 08725458.7 | 08725458.7 | APPL. NO. |
| Feb-12- 2008 | FILING |
| Registered | STATUS |
| 2120977 | 2120977 | CY20131100699 | 2120977 | 2120977 | 2120977 | 2120977 | 2120977 | 2120977 | PATENT NO. |
| May-15- 2013 | ISSUE |

| TREATMENT OF INFLAMMATORY DISEASES USING PLACENTAL STEM CELLS | TREATMENT OF INFLAMMATORY DISEASES USING PLACENTAL STEM CELLS | TREATMENT OF INFLAMMATORY DISEASES USING PLACENTAL STEM CELLS | TREATMENT OF INFLAMMATORY DISEASES USING PLACENTAL STEM CELLS | TREATMENT OF INFLAMMATORY DISEASES USING PLACENTAL STEM CELLS | TREATMENT OF INFLAMMATORY DISEASES USING PLACENTAL STEM CELLS | TREATMENT OF INFLAMMATORY DISEASES USING PLACENTAL STEM CELLS | TREATMENT OF INFLAMMATORY DISEASES USING PLACENTAL STEM CELLS | TREATMENT OF INFLAMMATORY DISEASES USING PLACENTAL STEM CELLS | HILLE |
|---|---|---|---|---|---|---|---|---|----------------|
| South Africa | South Africa | China | China | China | Romania | Portugal | Monaco | Malta | COUNTRY |
| 2010/08540 | 2009/05376 | 201310233685.X | 201310233695.3 | 200880011754.X | 08725458.7 | 08725458.7 | 08725458.7 | 08725458.7 | APPL. NO. |
| Nov-29- 2010 | Feb-12- 2008 | Jun-13- 2013 | Jun-13- 2013 | Feb-12- 2008 | Feb-12- 2008 | Feb-12- 2008 | Feb-12- 2008 | Feb-12- 2008 | FILING DATE |
| Registered | Registered | Pending | Abandoned | Registered | Registered | Registered | Registered | Registered | STATUS |
| 2010/08540 | 2009/05376 | N/A | N/A | ZL200880011754.X | 2120977 | 2120977 | 2120977 | 2120977 | PATENT NO. |
| Nov-28- 2012 | Mar-30- 2011 | N/A | N/A | Jul-03-2013 | May-15- 2013 | May-15- 2013 | May-15- 2013 | May-15- 2013 | ISSUE DATE |

| TREATMENT OF INFLAMMATORY DISEASES USING PLACENTAL STEM CELLS | TREATMENT OF INFLAMMATORY DISEASES USING PLACENTAL STEM CELLS | TREATMENT OF INFLAMMATORY DISEASES USING PLACENTAL STEM CELLS | TREATMENT OF INFLAMMATORY DISEASES USING PLACENTAL STEM CELLS | TREATMENT OF INFLAMMATORY DISEASES USING PLACENTAL STEM CELLS | TREATMENT OF INFLAMMATORY DISEASES USING PLACENTAL STEM CELLS | TREATMENT OF INFLAMMATORY DISEASES USING PLACENTAL STEM CELLS | TREATMENT OF INFLAMMATORY DISEASES USING PLACENTAL STEM CELLS | TREATMENT OF INFLAMMATORY DISEASES USING PLACENTAL STEM CELLS | TITLE |
|---|---|---|---|---|---|---|---|---|---------------|
| Republic of Korea | Albania | Israel | Israel | Israel | Israel | Ireland | Poland | Czech Republic | COUNTRY |
| 10-2009-7018749 | 08725458.7 | 248463 | 233376 | 233377 | 200338 | 08725458.7 | 08725458.7 | 08725458.7 | APPL. NO. |
| Feb-12- 2008 | Feb-12- 2008 | Oct-25- 2016 | Jun-25- 2014 | Jun-25- 2014 | Feb-12- 2008 | Feb-12- 2008 | Feb-12- 2008 | Feb-12- 2008 | FILING |
| Registered | Registered | Pending | Registered | Registered | Registered | Registered | Registered | Registered | STATUS |
| 10-1569168 | 4460 | N/A | 233376 | 233377 | 200338 | 2120977 | 2120977 | 2120977 | PATENT NO. |
| Nov-09- 2015 | May-15- 2013 | N/A | Jan-30- 2016 | TBD | Nov-01- 2014 | May-15- 2013 | May-15- 2013 | May-15- 2013 | ISSUE DATE |

| TREATMENT OF INFLAMMATORY DISEASES USING PLACENTAL STEM CELLS | TREATMENT OF INFLAMMATORY DISEASES USING PLACENTAL STEM CELLS | TREATMENT OF INFLAMMATORY DISEASES USING PLACENTAL STEM CELLS | TREATMENT OF INFLAMMATORY DISEASES USING PLACENTAL STEM CELLS | TREATMENT OF INFLAMMATORY DISEASES USING PLACENTAL STEM CELLS | TREATMENT OF INFLAMMATORY DISEASES USING PLACENTAL STEM CELLS | TREATMENT OF INFLAMMATORY DISEASES USING PLACENTAL STEM CELLS | TREATMENT OF INFLAMMATORY DISEASES USING PLACENTAL STEM CELLS | TREATMENT OF INFLAMMATORY DISEASES USING PLACENTAL STEM CELLS | TITLE |
|---|---|---|---|---|---|---|---|---|----------------|
| Slovenia | Patent Cooperation Treaty | European Patent Office | Republic of Korea | Republic of Korea | COUNTRY |
| P200831012 | PCT/US2008/001831 | 16166462.8 | 14193036.2 | 13178020.7 | 13162384.5 | 08725458.7 | 10-2017-7001612 | 10-2015-7005148 | APPL. NO. |
| Feb-12- 2008 | Feb-12- 2008 | Apr-21- 2016 | Nov-13- 2014 | Jul-25- 2013 | Apr-04- 2013 | Feb-12- 2008 | Jan-18- 2017 | Feb-26- 2015 | FILING DATE |
| Registered | Completed | Pending | Abandoned | Abandoned | Abandoned | Registered | Pending | Pending | STATUS |
| 2120977 | N/A | N/A | N/A | N/A | N/A | 2120977 | N/A | N/A | PATENT NO. |
| May-15- 2013 | N/A | N/A | N/A | N/A | N/A | May-15- 2013 | N/A | N/A | ISSUE DATE |

| TREATMENT OF INFLAMMATORY DISEASES USING PLACENTAL STEM CELLS | TREATMENT OF INFLAMMATORY DISEASES USING PLACENTAL STEM CELLS | TREATMENT OF INFLAMMATORY DISEASES USING PLACENTAL STEM CELLS | TREATMENT OF INFLAMMATORY DISEASES USING PLACENTAL STEM CELLS | TREATMENT OF INFLAMMATORY DISEASES USING PLACENTAL STEM CELLS | TREATMENT OF INFLAMMATORY DISEASES USING PLACENTAL STEM CELLS | TREATMENT OF INFLAMMATORY DISEASES USING PLACENTAL STEM CELLS | TREATMENT OF INFLAMMATORY DISEASES USING PLACENTAL STEM CELLS | TREATMENT OF INFLAMMATORY DISEASES USING PLACENTAL STEM CELLS | TITLE |
|---|---|---|---|---|---|---|---|---|---------------|
| Serbia | Montenegro | Bosnia & Herzegovina | Macedonia (F.Y.R.O.M) | Slovakia | Croatia | Estonia | Lithuania | Latvia | COUNTRY |
| P-2013/344 | TBD | E01218 | MK/P/2013/322 | 08725458.7 | P20130765A | 08725458.7 | 08725458.7 | 08725458.7 | APPL. NO. |
| Feb-12- 2008 | FILING |
| Registered | STATUS |
| 52921 | P/2013/92 | BA/EP2120977 | 2120977 | E15010 | 2120977 | 2120977 | 2120977 | 2120977 | PATENT NO. |
| May-15- 2013 | ISSUE DATE |

| HEPATOCYTES AND CHONDROCYTES FROM ADHERENT PLACENTAL STEM CELLS; AND CD34+,CD45- PLACENTAL STEM CELL- ENRICHED CELL POPULATIONS | TREATMENT OF INFLAMMATORY DISEASES USING PLACENTAL STEM CELLS | TREATMENT OF INFLAMMATORY DISEASES USING PLACENTAL STEM CELLS | TREATMENT OF INFLAMMATORY DISEASES USING PLACENTAL STEM CELLS | TREATMENT OF PSORIASIS USING PLACENTAL STEM CELLS | TREATMENT OF INFLAMMATORY DISEASES USING PLACENTAL STEM CELLS | TREATMENT OF INFLAMMATORY DISEASES USING PLACENTAL STEM CELLS | TREATMENT OF INFLAMMATORY DISEASES USING PLACENTAL STEM CELLS | TITLE |
|---|---|---|---|---|---|---|---|---------------|
| Canada | United States of America | United States of America | United States of America | United States of America | United States of America | United States of America | United States of America | COUNTRY |
| 2,677,679 | 15/271,429 | 14/550,524 | 13/891,732 | 13/107,778 | 12/030,161 | 60/901,067 | 61/546,009 | APPL. NO. |
| Feb-12- 2008 | Sep-21- 2016 | Nov-21- 2014 | May-10- 2013 | May-13- 2011 | Feb-12- 2008 | Feb-12- 2007 | Oct-11- 2011 | FILING |
| Abandoned | Pending | Abandoned | Registered | Registered | Registered | Expired | Expired | STATUS |
| N/A | N/A | N/A | 8,916,146 | 8,753,883 | 8,460,650 | N/A | N/A | PATENT NO. |
| N/A | N/A | N/A | Dec-23- 2014 | Jun-17- 2014 | Jun-11- 2013 | N/A | N/A | ISSUE DATE |

| HEPATOCYTES AND CHONDROCYTES FROM ADHERENT PLACENTAL STEM CELLS; AND CD34+,CD45- PLACENTAL STEM CELL- ENRICHED CELL POPULATIONS | HEPATOCYTES AND CHONDROCYTES FROM ADHERENT PLACENTAL STEM CELLS; AND CD34+,CD45- PLACENTAL STEM CELL- ENRICHED CELL POPULATIONS | HEPATOCYTES AND CHONDROCYTES FROM ADHERENT PLACENTAL STEM CELLS; AND CD34+,CD45- PLACENTAL STEM CELL- ENRICHED CELL POPULATIONS | HEPATOCYTES AND CHONDROCYTES FROM ADHERENT PLACENTAL STEM CELLS; AND CD34+,CD45- PLACENTAL STEM CELL- ENRICHED CELL POPULATIONS | HEPATOCYTES AND CHONDROCYTES FROM ADHERENT PLACENTAL STEM CELLS; AND CD34+,CD45- PLACENTAL STEM CELL- ENRICHED CELL POPULATIONS | HEPATOCYTES AND CHONDROCYTES FROM ADHERENT PLACENTAL STEM CELLS; AND CD34+,CD45- PLACENTAL STEM CELL- ENRICHED CELL POPULATIONS | TITLE |
|---|---|---|---|---|---|---------------|
| China | Hong Kong | Japan | Mexico | New Zealand | Australia | COUNTRY |
| 200880011764.3 | 10104643.1 | 2009-549139 | MX/a/2009/008559 | 578818 | 2008216748 | APPL. NO. |
| Feb-12- 2008 | Feb-12- 2008 | Feb-12- 2008 | Feb-12- 2008 | Feb-12- 2008 | Feb-12- 2008 | FILING |
| Abandoned | Abandoned | Abandoned | Abandoned | Abandoned | Abandoned | STATUS |
| N/A | N/A | N/A | N/A | N/A | N/A | PATENT NO. |
| N/A | NA | N/A | N/A | N/A | N/A | ISSUE DATE |

| _ - | | | | | | ENRICHED CELL POPULATIONS |
|----------------|------------|------------|---------|-------------------|---------------|---------------------------|
| | | | | | | PLACENTAL STEM CELL- |
| | | | | | • | CELLS; AND CD34+,CD45- |
| | | | | | Treaty | ADHERENT PLACENTAL STEM |
| | | ı | 2008 | | Cooperation | CHONDROCYTES FROM |
| V/N | N/A | Completed | Feb-12- | PCT/US2008/001830 | Patent | HEPATOCYTES AND |
| | | | | | | ENRICHED CELL POPULATIONS |
| | | | | | | PLACENTAL STEM CELL- |
| | | | | | | CELLS; AND CD34+,CD45- |
| | | | | | | ADITENTAL LEACTIVE OF THE |
| | | | 1 | | | ADHERENT PLACENTAL STEM |
| | | | 2008 | | Patent Office | CHONDROCYTES FROM |
| N/A | N/A | Abandoned | Feb-12- | 08725457.9 | European | HEPATOCYTES AND |
| | | | | | | ENRICHED CELL POPULATIONS |
| | | | | | | PLACENTAL STEM CELL- |
| | | | | | | CELLS; AND CD34+,CD45- |
| | | | | | | ADHERENT PLACENTAL STEM |
| | | | 2008 | | Korea | CHONDROCYTES FROM |
| N/A | N/A | Abandoned | Feb-12- | 10-2009-7018748 | Republic of | HEPATOCYTES AND |
| | | | | | | ENRICHED CELL POPULATIONS |
| | | | | | | PLACENTAL STEM CELL- |
| | | | | | | CELLS; AND CD34+,CD45- |
| | | | | | | ADHERENT PLACENTAL STEM |
| | | | 2008 | | | CHONDROCYTES FROM |
| N/A | N/A | Abandoned | Feb-12- | 200336 | Israel | HEPATOCYTES AND |
| | | | | | | ENRICHED CELL POPULATIONS |
| | | | | | | PLACENTAL STEM CELL- |
| | | | | | | CELLS; AND CD34+,CD45- |
| | | | | | | ADHERENT PLACENTAL STEM |
| 2012 | | | 2008 | | | CHONDROCYTES FROM |
| Sep-26- | 2010/08539 | Registered | Feb-12- | 2010/08539 | South Africa | HEPATOCYTES AND |
| | | | | | | ENRICHED CELL POPULATIONS |
| | | | | | | PLACENTAL STEM CELL- |
| | | | | | | CELLS; AND CD34+,CD45- |
| | | | | | | ADHERENT PLACENTAL STEM |
| 2011 | | | 2008 | | | CHONDROCYTES FROM |
| Mar-30- | 2009/05374 | Registered | Feb-12- | 2009/05374 | South Africa | HEPATOCYTES AND |
| DATE | | 0.00 | DATE | | 00000 | |
| 411551 | PATENT NO | STATUS | FILING | APPI. NO | COUNTRY | TITLE |

| METHODS AND COMPOSITIONS FOR TREATMENT OF BONE DEFECTS WITH PLACENTAL CELL POPULATIONS | METHODS AND COMPOSITIONS FOR TREATMENT OF BONE DEFECTS WITH PLACENTAL CELL POPULATIONS | METHODS AND COMPOSITIONS FOR TREATMENT OF BONE DEFECTS WITH PLACENTAL CELL POPULATIONS | ADHERENT PLACENTAL STEMCELLS; AND CD34 +, CD45- PLACENTAL STEM CELL- ENRICHED CELL POPULATIONS | HEPATOCYTES AND | PLACENTA-DERIVED STEM CELLS | PRODUCTION OF | | PLACENTAL STEM CELL POPULATIONS | CD34+CD45- CELLS AND METHODS OF USE THEREOF | POPULATIONS ENRICHED IN | DI LOINTAL CONTA OFFI | POPULATIONS | PLACENTAL STEM CELL | PLACENTA-DERIVED STEM CELLS | HEPATOCYTES FROM | PRODUCTION OF | TITLE |
|--|--|--|--|---------------------|-----------------------------|------------------|---------|---------------------------------|---|-------------------------|-----------------------|-------------|---------------------|-----------------------------|------------------|---------------|------------|
| Canada | Australia | Australia | States of America | United | America | United States of | America | United States of | America | States of | America | States of | United | America | States of | United | COUNTRY |
| 2,667,359 | 2014201880 | 2007309447 | | 12/030,170 | | 60/966,577 | | 60/905,664 | | 00/901,076 | | | 60/901,066 | | | 60/906,064 | APPL. NO. |
| Oct-23- 2007 | Oct-23- 2007 | Oct-23- 2007 | 2008 | Feb-12- | | Aug-28- 2007 | | Mar-07- 2007 | | 2007 | 5 | 2007 | Feb-12- | | 2007 | Mar-08- | FILING |
| Registered | Abandoned | Registered | to revive pending) | Abandoned (Petition | | Expired | | Expired | | Expired | | , | Expired | | | Expired | STATUS |
| 2,667,359 | | 2007309447 | | N/A | | N/A | | N/A | | N/A | **/ | | N/A | | | N/A | PATENT NO. |
| Jul-22-2014 | | Jul-17-2014 | | N/A | | N/A | | N/A | | N/A | X1/A | | N/A | | | N/A | ISSUE |

| METHODS AND COMPOSITIONS | | | | | | | 4 |
|---|-------|-----------|--|---------|----------------|---------------|--------------------------|
| COUNTRY APPL.NO. FILING DATE STATUS PATENT NO. Canada 2,850,793 Oct-23- Abandoned N/A China 200780047519.3 Oct-23- Abandoned N/A China 201210150325.9 Oct-23- Abandoned N/A China 201410225195.X Oct-23- Abandoned N/A European 07867275.5 Oct-23- Do07 Abandoned N/A European Patent Office 11177955.9 Oct-23- Do07 Abandoned N/A European Patent Office 11177991.4 Oct-23- Do07 Abandoned N/A European Patent Office 11178000.3 Oct-23- Do07 Abandoned N/A European Patent Office 11178000.3 Oct-23- Do07 Abandoned N/A Hong Kong 10106329.7 Oct-23- Do07 Abandoned N/A | | | | | | | CELL POPULATIONS |
| COLINTRY APPL. NO. FILING DATE STATUS PATENT NO. Canada 2.850,793 Oct-23- Abandoned N/A China 200780047519.3 Oct-23- Abandoned N/A China 201210150325.9 Oct-23- Abandoned N/A China 201410225193.X Oct-23- Abandoned N/A European Patent Office 07867275.5 Oct-23- Door Pending N/A European Patent Office 11177955.9 Oct-23- Door Abandoned N/A European Patent Office 11178000.3 Oct-23- Door Abandoned N/A European Patent Office 11178000.3 Oct-23- Door Abandoned N/A Hong Kong 10106329.7 Oct-23- Oct-23- Abandoned N/A | | | | 2007 | | | FOR TREATMENT OF BONE |
| COUNTRY APPL. NO. FILING DATE STATUS PATENT NO. Canada 2.850,793 Oct-23- Abandoned N/A China 200780047519.3 Oct-23- Abandoned N/A China 201210150325.9 Oct-23- Abandoned N/A China 201410225195.X Oct-23- Abandoned N/A European Patent Office 07867275.5 Oct-23- Dot-23- Abandoned N/A European Patent Office 11177991.4 Oct-23- Dot-23- Abandoned N/A European Patent Office 11178000.3 Oct-23- Dot-23- Abandoned N/A European Patent Office 11178000.3 Oct-23- Dot-23- Abandoned N/A | N/A | N/A | Abandoned | Oct-23- | 10106329.7 | Hong Kong | METHODS AND COMPOSITIONS |
| COLINTRY APPL.NO. FILING DATE STATUS PATENT NO. Canada 2.850,793 Oct-23- Abandoned N/A China 200780047519.3 Oct-23- Abandoned N/A China 201210150325.9 Oct-23- Abandoned N/A China 201410225195.X Oct-23- Abandoned N/A European Patent Office 07867275.5 Oct-23- Dorr Pending N/A European Patent Office 11177955.9 Oct-23- Dorr Abandoned N/A European Patent Office 11177991.4 Oct-23- Dorr Abandoned N/A European Patent Office 11178000.3 Oct-23- Abandoned N/A European Patent Office 11178000.3 Oct-23- Abandoned N/A | | | | | | | CELL POPULATIONS |
| COUNTRY APPL. NO. FILING DATE STATUS PATENT NO. Canada 2,850,793 Oct-23- Abandoned N/A China 200780047519.3 Oct-23- Abandoned N/A China 201210150325.9 Oct-23- Abandoned N/A China 201410225195.X Oct-23- Abandoned N/A European 07867275.5 Oct-23- Don's Abandoned N/A European 11177955.9 Oct-23- Don's Abandoned N/A European 11177991.4 Oct-23- Don's Abandoned N/A European 11178000.3 Oct-23- Don's Abandoned N/A European 11178000.3 Oct-23- Don's Abandoned N/A | | | | | | | DEFECTS WITH PLACENTAL |
| COUNTRY APPL. NO. FILING DATE STATUS PATENT NO. Canada 2,850,793 Oct-23- Abandoned N/A China 200780047519.3 Oct-23- Abandoned N/A China 201210150325.9 Oct-23- Abandoned N/A China 201410225195.X Oct-23- Abandoned N/A European Parent Office 07867275.5 Oct-23- 2007 Pending N/A European Parent Office 11177955.9 Oct-23- 2007 Abandoned N/A European Parent Office 11177991.4 Oct-23- 2007 Abandoned N/A European Parent Office 11178000.3 Oct-23- Abandoned N/A | | | | 2007 | | Patent Office | FOR TREATMENT OF BONE |
| COUNTRY APPL. NO. FILING DATE STATUS PATENT NO. Canada 2,850,793 Oct-23- Abandoned N/A China 200780047519.3 Oct-23- Abandoned N/A China 201210150325.9 Oct-23- Abandoned N/A China 201410225195.X Oct-23- Abandoned N/A European Patent Office 07867275.5 Oct-23- D07 Abandoned N/A European Patent Office 11177955.9 Oct-23- Abandoned N/A European Patent Office 11177991.4 Oct-23- Abandoned N/A European Patent Office 11177991.4 Oct-23- Abandoned N/A | A/N | A/N | Abandoned | Oct-23- | 11178000.3 | European | METHODS AND COMPOSITIONS |
| COUNTRY APPL. NO. FILING DATE STATUS PATENT NO. Canada 2.850,793 Oct-23- 2007 Abandoned N/A China 200780047519.3 Oct-23- 2007 Abandoned N/A China 201210150325.9 Oct-23- 2007 Abandoned N/A China 201410225195.X Oct-23- 2007 Abandoned N/A European Patent Office 07867275.5 Oct-23- 2007 Pending N/A European Patent Office 11177955.9 Oct-23- 2007 Abandoned N/A European Patent Office 11177991.4 Oct-23- 2007 Abandoned N/A | | | | | | | CELL POPULATIONS |
| COUNTRY APPL.NO. FILING DATE STATUS PATENT NO. Canada 2,850,793 Oct-23- 2007 Abandoned N/A China 200780047519.3 Oct-23- 2007 Abandoned N/A China 201210150325.9 Oct-23- 2007 Abandoned N/A China 201410225195.X Oct-23- 2007 Abandoned N/A European 07867275.5 Oct-23- 2007 Pending N/A European 11177955.9 Oct-23- 2007 Abandoned N/A European 11177991.4 Oct-23- 2007 Abandoned N/A European 11177991.4 Oct-23- 2007 Abandoned N/A | _ | | | | | | DEFECTS WITH PLACENTAL |
| COUNTRY APPL.NO. FILING DATE STATUS PATENT NO. Canada 2,850,793 Oct-23- Abandoned N/A China 200780047519.3 Oct-23- Abandoned N/A China 201210150325.9 Oct-23- Abandoned N/A China 201410225195.X Oct-23- Abandoned N/A European Patent Office 07867275.5 Oct-23- 2007 Pending N/A European Patent Office 11177955.9 Oct-23- 2007 Abandoned N/A European Patent Office 11177955.9 Oct-23- Abandoned N/A European Patent Office 11177991.4 Oct-23- Abandoned N/A | | | | 2007 | | Patent Office | FOR TREATMENT OF BONE |
| COUNTRY APPL. NO. FILING DATE STATUS PATENT NO. Canada 2.850.793 Oct-23- 2007 Abandoned N/A China 200780047519.3 Oct-23- 2007 Abandoned N/A China 201210150325.9 Oct-23- 2007 Abandoned N/A China 201410225195.X Oct-23- 2007 Abandoned N/A European Patent Office 07867275.5 Oct-23- 2007 Pending N/A European Patent Office 11177955.9 Oct-23- 2007 Abandoned N/A | N/A | N/A | Abandoned | Oct-23- | 11177991.4 | European | METHODS AND COMPOSITIONS |
| COUNTRY APPL. NO. FILING DATE STATUS PATENT NO. Canada 2,850,793 Oct-23- 2007 Abandoned N/A China 200780047519.3 Oct-23- 2007 Abandoned N/A China 201210150325.9 Oct-23- 2007 Abandoned N/A China 201410225195.X Oct-23- 2007 Abandoned N/A European Patent Office 07867275.5 Oct-23- 2007 Pending N/A European Patent Office 11177955.9 Oct-23- 2007 Abandoned N/A | _ | | | | | | CELL POPULATIONS |
| COUNTRY APPL. NO. FILING DATE STATUS PATENT NO. Canada 2,850,793 Oct-23- 2007 Abandoned N/A China 200780047519.3 Oct-23- 2007 Abandoned N/A China 201210150325.9 Oct-23- 2007 Abandoned N/A China 201410225195.X Oct-23- 2007 Abandoned N/A European Patent Office 07867275.5 Oct-23- 2007 Pending N/A European Patent Office 11177955.9 Oct-23- 2007 Abandoned N/A | | | | | | | DEFECTS WITH PLACENTAL |
| COUNTRY APPLNO. FILING DATE STATUS PATENT NO. Canada 2.850,793 Oct-23- 2007 Abandoned N/A China 200780047519.3 Oct-23- 2007 Abandoned N/A China 201210150325.9 Oct-23- 2007 Abandoned N/A China 201410225195.X Oct-23- 2007 Abandoned N/A European 07867275.5 Oct-23- 2007 Pending N/A European 11177955.9 Oct-23- Abandoned N/A | | | | 2007 | | Patent Office | FOR TREATMENT OF BONE |
| COUNTRY APPL. NO. FILING DATE STATUS PATENT NO. Canada 2,850,793 Oct-23- 2007 Abandoned N/A China 200780047519.3 Oct-23- 2007 Abandoned N/A China 201210150325.9 Oct-23- 2007 Abandoned N/A China 201410225195.X Oct-23- 2007 Abandoned N/A European Patent Office 07867275.5 Oct-23- 2007 Pending N/A | N/A | N/A | Abandoned | Oct-23- | 11177955.9 | European | METHODS AND COMPOSITIONS |
| COUNTRY APPL. NO. FILING DATE STATUS PATENT NO. Canada 2,850,793 Oct-23- 2007 Abandoned N/A China 200780047519.3 Oct-23- 2007 Abandoned N/A China 201210150325.9 Oct-23- 2007 Abandoned N/A China 201410225195.X Oct-23- 2007 Abandoned N/A European 07867275.5 Oct-23- 2007 Pending N/A | | | | | | | CELL POPULATIONS |
| COUNTRY APPL. NO.: FILING DATE STATUS PATENT NO. Canada 2,850,793 Oct-23- 2007 Abandoned N/A China 200780047519.3 Oct-23- 2007 Abandoned N/A China 201210150325.9 Oct-23- 2007 Abandoned N/A China 201410225195.X Oct-23- 2007 Abandoned N/A European Patent Office 07867275.5 Oct-23- 2007 Pending N/A | | | | | | | DEFECTS WITH PLACENTAL |
| COUNTRY APPL. NO. FILING DATE STATUS PATENT NO. Canada 2,850,793 Oct-23- 2007 Abandoned N/A China 200780047519.3 Oct-23- 2007 Abandoned N/A China 201210150325.9 Oct-23- 2007 Abandoned N/A China 201410225195.X Oct-23- 2007 Abandoned N/A European 07867275.5 Oct-23- 2007 Pending N/A | | | | 2007 | | Patent Office | FOR TREATMENT OF BONE |
| COUNTRY APPL. NO. FILING DATE DATE STATUS PATENT NO. Canada 2,850,793 Oct-23- 2007 Abandoned N/A China 200780047519.3 Oct-23- 2007 Abandoned N/A China 201210150325.9 Oct-23- 2007 Abandoned N/A China 201410225195.X Oct-23- 2007 Abandoned N/A China 201410225195.X Oct-23- 2007 Abandoned N/A | N/A | N/A | Pending | Oct-23- | 07867275.5 | European | METHODS AND COMPOSITIONS |
| COUNTRY APPL. NO. FILING DATE STATUS PATENT NO. Canada 2,850,793 Oct-23- 2007 Abandoned N/A China 200780047519.3 Oct-23- 2007 Abandoned N/A China 201210150325.9 Oct-23- 2007 Abandoned N/A China 201410225195.X Oct-23- 2007 Abandoned N/A | | | | | | | CELL POPULATIONS |
| COUNTRY APPL. NO. FILING DATE STATUS PATENT NO. Canada 2,850,793 Oct-23- 2007 Abandoned N/A China 200780047519.3 Oct-23- 2007 Abandoned N/A China 201210150325.9 Oct-23- 2007 Abandoned N/A China 201410225195.X Oct-23- Abandoned Abandoned N/A | | | | | | | DEFECTS WITH PLACENTAL |
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| COUNTRY APPL. NO. FILING STATUS PATENT NO. Canada 2,850,793 Oct-23- 2007 Abandoned N/A China 200780047519.3 Oct-23- 2007 Abandoned N/A China 201210150325.9 Oct-23- 2007 Abandoned N/A China 201210150325.9 Oct-23- 2007 Abandoned N/A | A/N | A/N | Abandoned | Oct-23- | 201410225195.X | China | METHODS AND COMPOSITIONS |
| COUNTRY APPL. NO. FILING DATE DATE STATUS PATENT NO. Canada 2,850,793 Oct-23- 2007 Abandoned N/A China 200780047519.3 Oct-23- 2007 Abandoned N/A China 201210150325.9 Oct-23- 2007 Abandoned N/A China 201210150325.9 Oct-23- 2007 Abandoned N/A | _ | | | | | | CELL POPULATIONS |
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| COUNTRY APPL. NO. FILING DATE STATUS PATENT NO. Canada 2,850,793 Oct-23- Abandoned N/A China 200780047519.3 Oct-23- Abandoned N/A China 201210150325.9 Oct-23- Abandoned N/A | | | | 2007 | | | FOR TREATMENT OF BONE |
| COUNTRY APPL. NO. FILING DATE STATUS PATENT NO. Canada 2,850,793 Oct-23- Abandoned N/A China 200780047519.3 Oct-23- Abandoned N/A China 200780047519.3 Oct-23- Abandoned N/A | N/A | N/A | Abandoned | Oct-23- | 201210150325.9 | China | METHODS AND COMPOSITIONS |
| COUNTRY APPL.NO. FILING STATUS PATENT NO. Canada 2,850,793 Oct-23- 2007 Abandoned N/A China 200780047519.3 Oct-23- 2007 Abandoned N/A | | | | | | | CELL POPULATIONS |
| COUNTRY APPL. NO. FILING DATE STATUS PATENT NO. Canada 2,850,793 Oct-23- 2007 Abandoned N/A China 200780047519.3 Oct-23- 2007 Abandoned N/A China 200780047519.3 Oct-23- Abandoned N/A | | | | | | | DEFECTS WITH PLACENTAL |
| COUNTRY APPL. NO. FILING DATE STATUS PATENT NO. Canada 2,850,793 Oct-23- Abandoned N/A China 200780047519.3 Oct-23- Abandoned N/A | | | | 2007 | | | FOR TREATMENT OF BONE |
| Country APPL. NO. FILING DATE Canada 2,850,793 Oct-23- Abandoned N/A 2007 | N/A | N/A | Abandoned | Oct-23- | 200780047519.3 | China | METHODS AND COMPOSITIONS |
| Canada 2,850,793 Oct-23- Abandoned N/A 2007 | | | | | | | CELL POPULATIONS |
| COUNTRY APPL. NO. FILING STATUS PATENT NO. DATE DATE Oct-23- Abandoned N/A | _ | | | | | | DEFECTS WITH PLACENTAL |
| COUNTRY APPL. NO. FILING STATUS PATENT NO. DATE DATE N/A | | | | 2007 | | | FOR TREATMENT OF BONE |
| COUNTRY APPL.NO. FILING STATUS PATENT NO. DATE | N/A | N/A | Abandoned | Oct-23- | 2,850,793 | Canada | METHODS AND COMPOSITIONS |
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| METHODS AND COMPOSITIONS Mexico FOR TREATMENT OF BONE DEFECTS WITH PLACENTAL CELL POPULATIONS | METHODS AND COMPOSITIONS FOR TREATMENT OF BONE DEFECTS WITH PLACENTAL CELL POPULATIONS Japan Japan Japan | METHODS AND COMPOSITIONS FOR TREATMENT OF BONE DEFECTS WITH PLACENTAL CELL POPULATIONS Japan FOR TREATMENT OF BONE | METHODS AND COMPOSITIONS FOR TREATMENT OF BONE DEFECTS WITH PLACENTAL CELL POPULATIONS Israel | METHODS AND COMPOSITIONS FOR TREATMENT OF BONE DEFECTS WITH PLACENTAL CELL POPULATIONS Israel | USE OF ISOLATED PLACENTAL STEM CELLS IN THE MANUFACTURE OF A MEDICAMENT FOR TREATMENT OF BONE DEFECT | METHODS AND COMPOSITIONS Hong Kong FOR TREATMENT OF BONE DEFECTS WITH PLACENTAL CELL POPULATIONS | METHODS AND COMPOSITIONS FOR TREATMENT OF BONE DEFECTS WITH PLACENTAL CELL POPULATIONS Hong Kong Hong Kong | METHODS AND COMPOSITIONS Hong Kong FOR TREATMENT OF BONE DEFECTS WITH PLACENTAL CELL POPULATIONS | TITLE COUNTRY |
|---|--|--|---|---|--|--|--|--|---------------|
| MX/a/2009/004238 | 2013-110672 | 2009-534633 | 224586 | 224585 | 198008 | 12107225.8 | 12107709.3 | 12107706.6 | APPL. NO. |
| Oct-23- 2007 | Oct-23- 2007 | Oct-23- 2007 | Oct-23- 2007 | Oct-23- 2007 | Oct-23- 2007 | Oct-23- 2007 | Oct-23- 2007 | Oct-23- 2007 | FILING |
| Abandoned | Abandoned | Abandoned | Abandoned | Abandoned | Registered | Abandoned | Abandoned | Abandoned | STATUS |
| N/A | N/A | N/A | N/A | N/A | 198008 | N/A | N/A | N/A | PATENT NO. |
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| COUNTRY APPLNO. FILING DATE STATUS PATENT NO. United States of America 11/877.475 Oct-23- 2007 Registered 8.562.972 United States of America 14/028.228 Sep-16- 2007 Registered 9,339,520 United States of America 15/093,185 Apr-07- 2016 Pending N/A Lunited America 15/093,185 Apr-07- 2016 Pending N/A States of America 2016 Aug-20- 2016 Pending N/A States of America 2017 Aug-20- 2009 Pending N/A Australia 2015268614 Dec-09- Pending N/A New 591294 Aug-20- Aug-20- Registered 2009283217 New 591294 Aug-20- Aug-20- Abandoned N/A Mexico MX/a/2011/001991 Aug-20- Aug-20- Registered 326385 Peru 181.2011 Aug-20- Aug-20- Abandoned N/A Papan 2015-062462 Mar-25- Mar-25- Pending N/A Papan 2015-062462 Aug-20- Aug-20- Registered 5 | N/A | V/N | Pending | Jun-22- 2015 | 2015124156 | Russian | TREATMENT OF STROKE USING |
| COUNTRY APPL.NO. FILING DATE STATUS PATENT NO. United States of America 11/877,475 Oct-23- 2007 Registered 8.562,972 United States of America 14/028,228 Sep-16- 2007 Registered 9,339,520 United States of America 15/093,185 Apr-07- Apr-07- Pending N/A United States of America 2016 N/A N/A Lunited States of America 15/093,185 Apr-07- Pending N/A Lunited States of America 2013 Aug-20- Pending N/A Lunited States of America 201526614 Dec-09- Pending N/A Lunited States of America 201526614 Dec-09- Pending N/A New Caland 2015268614 Dec-09- Pending N/A New Caland 591294 Aug-20- Abandoned N/A Mexico MX/A2011/001991 Aug-20- Aband | Aug-10- 2015 | 2558778 | Registered | Aug-20- 2009 | 2011110390 | Russian Federation | TREATMENT OF STROKE USING ISOLATED PLACENTAL CELLS |
| COUNTRY APPL.NO. FILING DATE STATUS PATENT NO. United States of America 11/877,475 Oct-23- America Registered 8.562.972 United States of America 14/028,228 Sep-16- Sep-16- Sep-16- States of America Registered 9.339,520 United States of America 15/093,185 Apr-07- Apr-07- Pending N/A Canada 2,734,237 Aug-20- Pending N/A Canada 2,734,237 Aug-20- Pending N/A New Caland 2005283217 Aug-20- Pending N/A New Sep-16- | N/A | N/A | Pending | Mar-25- 2015 | 2015-062462 | Japan | TREATMENT OF STROKE USING ISOLATED PLACENTAL CELLS |
| COUNTRY APPL. NO. FILING DATE STATUS PATENT NO. United States of America 11/877,475 Oct-23- America Registered 8,562,972 United States of America 14/028,228 Sep-16- States of America Registered 9,339,520 United States of America 15/093,185 Apr-07- Apr-07- Pending N/A States of America 15/093,185 Apr-07- Apr-07- Pending N/A Canada 2,734,237 Aug-20- Pending N/A Australia 2009283217 2009 Pending N/A New Zealand 2015268614 Dec-09- Pending N/A New Sealand 601921 Aug-20- Aug-20- Registered 2009283217 Mexico MX/a/2011/001991 Aug-20- Aug-20- Abandoned N/A Mexico MX/a/2013/011500 Oct-03- Pending N/A Pending N/A 326385 Aug-20- Aug-20- Aug-20- Aug-20- Abandoned N/A Aug-20- Aug-20- Aug-20- Abandoned N/A | Jun-17- 2016 | 5950577 | Registered | Aug-20- 2009 | 2011-523816 | Japan | TREATMENT OF STROKE USING ISOLATED PLACENTAL CELLS |
| COUNTRY APPL.NO. FILING DATE STATUS PATENT NO. United States of America 11/877.475 Oct-23-2007 Registered 8.562.972 United States of America 14/028,228 Sep-16-3007 Registered 9.339,520 United States of America 15/093,185 Apr-07-401 Pending N/A Canada 2,734,237 Aug-20-40-401 Pending N/A Australia 2009283217 Aug-20-40-401 Pending N/A New Sep-16-5 Dec-09-40-501 Pending N/A N/A New Sep-16-6 Aug-20-60-70-70-70-70-70-70-70-70-70-70-70-70-70 | N/A | N/A | Abandoned | Aug-20- 2009 | 181.2011 | Peru | TREATMENT OF STROKE USING ISOLATED PLACENTAL CELLS |
| COUNTRY APPL. NO. FILING DATE STATUS PATENT NO. United States of America 11/877,475 Oct-23- 2007 Registered 8.562,972 United States of America 14/028,228 Sep-16- 2013 Registered 9,339,520 United States of America 15/093,185 Apr-07- Apr-07- Pending Pending N/A Canada 2,734,237 Aug-20- Pending N/A Australia 2009283217 Aug-20- Pending N/A New Zealand 591294 Aug-20- Pending N/A New Zealand 601921 Aug-20- Registered 591294 Zealand MX/a/2011/001991 Aug-20- Registered 591294 Mexico MX/a/2011/001991 Aug-20- Registered 326385 | N/A | N/A | Pending | Oct-03- 2013 | MX/a/2013/011500 | Mexico | TREATMENT OF STROKE USING ISOLATED PLACENTAL CELLS |
| COUNTRY APPL. NO. FILING DATE STATUS PATENT NO. United States of America 11/877,475 Oct-23-207 Registered 8.562,972 United America 14/028,228 Sep-16-307 Registered 9,339,520 United States of America 15/093,185 Apr-07-40 Pending N/A States of America 15/093,185 Apr-07-50 Pending N/A Canada 2,734,237 Aug-20-60 Pending N/A Australia 2009283217 Aug-20-70 Registered 2009283217 Australia 2015268614 Dec-09-70 Pending N/A New 591294 Aug-20-70 Registered 591294 New 601921 Aug-20-70 Abandoned N/A New 601921 Aug-20-70 Abandoned N/A | Dec-17- 2014 | 326385 | Registered | Aug-20- 2009 | MX/a/2011/001991 | Mexico | TREATMENT OF STROKE USING ISOLATED PLACENTAL CELLS |
| COUNTRY APPL.NO. FILING DATE STATUS PATENT NO. United States of America 11/877,475 Oct-23- 2007 Registered 8.562,972 United States of America 14/028,228 Sep-16- 2013 Registered 9,339,520 United States of America 15/093,185 Apr-07- Apr-07- Pending Pending N/A Canada 2,734,237 Aug-20- Pending N/A Australia 2009283217 Aug-20- Registered 2009283217 New 591294 Aug-20- Registered 591294 New 591294 Aug-20- Registered 591294 | N/A | N/A | Abandoned | Aug-20- 2012 | 601921 | New Zealand | TREATMENT OF STROKE USING ISOLATED PLACENTAL CELLS |
| COUNTRY APPL. NO. FILING DATE STATUS PATENT NO. United States of America 11/877,475 Oct-23- 2007 Registered 8,562,972 United States of America 14/028,228 Sep-16- 2013 Registered 9,339,520 United States of America 15/093,185 Apr-07- 2016 Pending N/A States of America 15/093,185 Apr-07- 2016 Pending N/A Canada 2,734,237 Aug-20- Pending N/A Australia 2009283217 Aug-20- Registered 2009283217 Australia 2015268614 Dec-09- Pending N/A | Jan-29- 2013 | 591294 | Registered | Aug-20- 2009 | 591294 | New Zealand | TREATMENT OF STROKE USING ISOLATED PLACENTAL CELLS |
| COUNTRY APPL. NO. FILING DATE STATUS PATENT NO. United States of America 11/877,475 Oct-23- 2007 Registered 8,562,972 United States of America 14/028,228 Sep-16- 2013 Registered 9,339,520 United States of America 15/093,185 Apr-07- Pending Pending N/A Canada 2,734,237 Aug-20- Pending N/A Australia 2009283217 Aug-20- Registered 2009283217 | N/A | N/A | Pending | Dec-09- 2015 | 2015268614 | Australia | TREATMENT OF STROKE USING ISOLATED PLACENTAL CELLS |
| COUNTRY APPL. NO. FILING DATE STATUS PATENT NO. United States of America 11/877,475 Oct-23-2007 Registered 8,562,972 United States of America 14/028,228 Sep-16-2013 Registered 9,339,520 United States of America 15/093,185 Apr-07-2016 Pending N/A Canada 2,734,237 Aug-20-2009 Pending N/A | Jan-07- 2016 | 2009283217 | Registered | Aug-20- 2009 | 2009283217 | Australia | TREATMENT OF STROKE USING ISOLATED PLACENTAL CELLS |
| COUNTRY APPL. NO. FILING DATE STATUS PATENT NO. United States of America 11/877,475 Oct-23- 2007 Registered 8,562,972 United States of America 14/028,228 Sep-16- Registered 9,339,520 United States of America 15/093,185 Apr-07- Pending N/A | N/A | N/A | Pending | Aug-20- 2009 | 2,734,237 | Canada | TREATMENT OF STROKE USING ISOLATED PLACENTAL CELLS |
| COUNTRY APPL.NO. FILING BATENT NO. United 11/877,475 Oct-23- Registered 8,562,972 America 2007 United 14/028,228 Sep-16- Registered 9,339,520 States of America 2013 | N/A | N/A | Pending | Apr-07- 2016 | 15/093,185 | United States of America | METHODS AND COMPOSITIONS FOR TREATMENT OF BONE DEFECTS WITH PLACENTAL CELL POPULATIONS |
| COUNTRY APPL. NO. FILING STATUS PATENT NO. United United States of America PATENT NO. DATE Oct-23- Registered 8,562,972 2007 | May-17- 2016 | 9,339,520 | Registered | Sep-16- 2013 | 14/028,228 | United States of America | METHODS AND COMPOSITIONS FOR TREATMENT OF BONE DEFECTS WITH PLACENTAL CELL POPULATIONS |
| COUNTRY APPL. NO. FILING STATUS PATENT NO. DATE | Oct-22- 2013 | 8,562,972 | Registered | Oct-23- 2007 | 11/877,475 | United States of America | METHODS AND COMPOSITIONS FOR TREATMENT OF BONE DEFECTS WITH PLACENTAL CELL POPULATIONS |
| | ISSUE DATE | PATENT NO. | STATUS | FILING | APPL. NO. | COUNTRY | ЭЛП |

| AMNION DERIVED ADHERENT CELLS | AMNION DERIVED ADHERENT CELLS | TREATMENT OF STROKE USING PLACENTAL STEM CELLS | TREATMENT OF STROKE USING ISOLATED PLACENTAL CELLS | TITLE |
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| Australia | Canada | United States of America | United States of America | United States of America | United States of America | Patent Cooperation Treaty | European Patent Office | Republic of Korea | Israel | South Africa | China | China | India | Hong Kong | COUNTRY |
| 2009316541 | 2,743,566 | 14/936,803 | 14/449,795 | 12/545,029 | 61/090,565 | PCT/US2009/004741 | 09789173.3 | 10-2011-7006316 | 211312 | 2011/01207 | 201610172204.2 | 200980141316.X | 1817/CHENP/2011 | 11112399.9 | APPL, NO. |
| Nov-19- 2009 | Nov-19- 2009 | Nov-10- 2015 | Aug-01- 2014 | Aug-20- 2009 | Aug-20- 2008 | Aug-20- 2009 | Aug-20- 2009 | Aug-20- 2009 | Aug-20- 2009 | Aug-20- 2009 | Mar-24- 2016 | Aug-20- 2009 | Aug-20- 2009 | Aug-20- 2009 | FILING |
| Registered | Abandoned (can be reinstated by 08/12/2017) | Abandoned | Abandoned | Registered | Expired | Completed | Pending | Pending (Allowed) | Registered | Registered | Pending | Pending | Pending | Pending | STATUS |
| 2009316541 | N/A | N/A | N/A | 8,828,376 | N/A | N/A | N/A | N/A | 211312 | 2011/01207 | N/A | N/A | N/A | N/A | PATENT NO. |
| Nov-19- 2015 | N/A | N/A | N/A | Sep-09- 2014 | N/A | N/A | N/A | N/A | N/A | Apr-30- 2014 | N/A | N/A | N/A | N/A | ISSUE DATE |

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| Patent Cooperation Treaty | European Patent Office | Republic of Korea | Israel | South Africa | China | India | Brazil | Hong Kong | Russian Federation | Russian Federation | Japan | Mexico | Mexico | New Zealand | New Zealand | Australia | Australia | COUNTRY |
| PCT/US2009/065152 | 09760674.3 | 10-2011-7014012 | 212765 | 2011/03410 | 200980154477.2 | 4191/CHENP/2011 | PI0922184-0 | 11110617.9 | 2015130665 | 2011124524 | 2011-537618 | MX/a/2013/006992 | MX/a/2011/005229 | 602455 | 592726 | 2013203199 | 2013203200 | APPL. NO. |
| Nov-19- 2009 | Nov-19- 2009 | Nov-19- 2009 | Nov-19- 2009 | Nov-19- 2009 | Nov-19- 2009 | Nov-19- 2009 | Nov-19- 2009 | Nov-19- 2009 | Jul-23- 2015 | Nov-19- 2009 | Nov-19- 2009 | Jun-18- 2013 | Nov-19- 2009 | Sep-17- 2012 | Nov-19- 2009 | Apr-09- 2013 | Apr-09- 2013 | FILING |
| Completed | Pending | Pending | Registered | Registered | Pending | Pending | Pending | Pending | Pending | Registered | Abandoned | STATUS |
| N/A | N/A | N/A | 212765 | 2011/03410 | N/A | N/A | N/A | N/A | N/A | 2562154 | 5869342 | 320491 | 312851 | 602455 | 592726 | 2013203199 | N/A | PATENT NO. |
| N/A | N/A | N/A | Jul-01-2016 | Jul-30-2014 | N/A | N/A | N/A | N/A | N/A | Sep-10- 2015 | Jan-15- 2016 | May-26- 2014 | Aug-30- 2013 | Jul-01-2014 | Mar-22- 2013 | Aug-04- 2016 | N/A | ISSUE DATE |

| TUMOR SUPPRESSION USING HUMAN PLACENTAL PERFUSATE AND HUMAN PLACENTA-DERIVED INTERMEDIATE NATURAL KILLER CELLS | TUMOR SUPPRESSION USING HUMAN PLACENTAL PERFUSATE AND HUMAN PLACENTA-DERIVED INTERMEDIATE NATURAL KILLER CELLS | TUMOR SUPPRESSION USING HUMAN PLACENTAL PERFUSATE AND HUMAN PLACENTA-DERIVED INTERMEDIATE NATURAL KILLER CELLS | TREATMENT OF RADIATION INJURY USING AMNION DERIVED ADHERENT CELLS | AMNION DERIVED ADHERENT CELLS | AMNION DERIVED ADHERENT CELLS | AMNION DERIVED ADHERENT CELLS | AMNION DERIVED ADHERENT CELLS | TITLE |
|--|--|--|---|----------------------------------|----------------------------------|----------------------------------|----------------------------------|------------|
| European Patent Office | Estonia | China | United States of America | United States of America | United States of America | United States of America | United States of America | COUNTRY |
| 13188706.9 | 08834753.9 | 200880118399.6 | 13/940,920 | 14/919,884 | 13/727,217 | 12/622,352 | 61/116,248 | APPL. NO. |
| Sep-29- 2008 | Sep-29- 2008 | Sep-29- 2008 | Jul-12-2013 | Oct-22- 2015 | Dec-26- 2012 | Nov-19- 2009 | Nov-19- 2008 | FILING |
| Pending | Registered | Registered | Abandoned | Pending | Registered | Registered | Expired | STATUS |
| N/A | 2203176 | ZL200880118399.6 | N/A | N/A | 9,198,938 | 8,367,409 | N/A | PATENT NO. |
| N/A | Nov-26- 2014 | Nov-20- 2013 | N/A | N/A | Dec-01- 2015 | Feb-05- 2013 | N/A | ISSUE |

| TUMOR SUPPRESSION USING HUMAN PLACENTAL PERFUSATE AND HUMAN PLACENTA-DERIVED INTERMEDIATE NATURAL KILLER CELLS | TUMOR SUPPRESSION USING HUMAN PLACENTAL PERFUSATE AND HUMAN PLACENTA-DERIVED INTERMEDIATE NATURAL KILLER CELLS | TUMOR SUPPRESSION USING HUMAN PLACENTAL PERFUSATE AND HUMAN PLACENTA-DERIVED INTERMEDIATE NATURAL KILLER CELLS | TUMOR SUPPRESSION USING HUMAN PLACENTAL PERFUSATE AND HUMAN PLACENTA-DERIVED INTERMEDIATE NATURAL KILLER CELLS | TUMOR SUPPRESSION USING HUMAN PLACENTAL PERFUSATE AND HUMAN PLACENTA-DERIVED INTERMEDIATE NATURAL KILLER CELLS | TUMOR SUPPRESSION USING HUMAN PLACENTAL PERFUSATE AND HUMAN PLACENTA-DERIVED INTERMEDIATE NATURAL KILLER CELLS | TITLE |
|--|--|--|--|--|--|---------------|
| Russian Federation | Mexico | Mexico | Republic of Korea | Hong Kong | Greece | COUNTRY |
| 2010116757 | MX/a/2016/005091 | MX/a/2013/000346 | 10-2016-7021613 | 15103283.3 | 08834753.9 | APPL. NO. |
| Sep-29- 2008 | Sep-29- 2008 | Sep-29- 2008 | Sep-29- 2008 | Sep-29- 2008 | Sep-29- 2008 | FILING DATE |
| Registered | Pending | Pending | Pending | Pending | Registered | STATUS |
| 2536242 | N/A | N/A | N/A | N/A | 2203176 | PATENT NO. |
| Dec-20- 2014 | N/A | N/A | N/A | N/A | Nov-26- 2014 | ISSUE DATE |

| METHODS AND COMPOSITIONS FOR TREATMENT OF BONE DEFECTS WITH PLACENTAL CELL POPULATIONS | METHODS AND COMPOSITIONS FOR TREATMENT OF BONE DEFECTS WITH PLACENTAL CELL POPULATIONS | METHODS AND COMPOSITIONS FOR TREATMENT OF BONE DEFECTS WITH PLACENTAL CELL POPULATIONS | METHODS AND COMPOSITIONS FOR TREATMENT OF BONE DEFECTS WITH PLACENTAL CELL POPULATIONS | METHODS AND COMPOSITIONS FOR TREATMENT OF BONE DEFECTS WITH PLACENTAL CELL POPULATIONS | TUMOR SUPPRESSION USING HUMAN PLACENTAL PERFUSATE AND HUMAN PLACENTA-DERIVED INTERMEDIATE NATURAL KILLER CELLS | TUMOR SUPPRESSION USING HUMAN PLACENTAL PERFUSATE AND HUMAN PLACENTA-DERIVED INTERMEDIATE NATURAL KILLER CELLS | TUMOR SUPPRESSION USING HUMAN PLACENTAL PERFUSATE AND HUMAN PLACENTA-DERIVED INTERMEDIATE NATURAL KILLER CELLS | TITLE |
|--|--|--|--|--|--|--|--|---------------|
| Germany | Germany | United Kingdom | United Kingdom | Canada | United Kingdom | Slovenia | Russian Federation | COUNTRY |
| 602009032940.5 | 602009016071.0 | 13162390.2 | 09789192.3 | 2,734,446 | 08834753.9 | P200831388 | 2014136984 | APPL. NO. |
| Apr-04- 2013 | Aug-24- 2009 | Apr-04- 2013 | Aug-24- 2009 | Aug-24- 2009 | Sep-29- 2008 | Sep-29- 2008 | Sep-29- 2008 | FILING DATE |
| Registered | Registered | Registered | Registered | Pending (Allowed) | Registered | Registered | Pending | STATUS |
| 2633861 | 2331109 | 2633861 | 2331109 | N/A | 2203176 | 2203176 | N/A | PATENT NO. |
| Aug-12- 2015 | May-29- 2013 | Aug-12- 2015 | May-29- 2013 | N/A | Nov-26- 2014 | Nov-26- 2014 | N/A | ISSUE DATE |

| METHODS AND COMPOSITIONS FOR TREATMENT OF BONE DEFECTS WITH PLACENTAL CELL POPULATIONS | METHODS AND COMPOSITIONS FOR TREATMENT OF BONE DEFECTS WITH PLACENTAL CELL POPULATIONS | METHODS AND COMPOSITIONS FOR TREATMENT OF BONE DEFECTS WITH PLACENTAL CELL POPULATIONS | METHODS AND COMPOSITIONS FOR TREATMENT OF BONE DEFECTS WITH PLACENTAL CELL POPULATIONS | METHODS AND COMPOSITIONS FOR TREATMENT OF BONE DEFECTS WITH PLACENTAL CELL POPULATIONS | METHODS AND COMPOSITIONS FOR TREATMENT OF BONE DEFECTS WITH PLACENTAL CELL POPULATIONS | METHODS AND COMPOSITIONS FOR TREATMENT OF BONE DEFECTS WITH PLACENTAL CELL POPULATIONS | METHODS AND COMPOSITIONS FOR TREATMENT OF BONE DEFECTS WITH PLACENTAL CELL POPULATIONS | METHODS AND COMPOSITIONS FOR TREATMENT OF BONE DEFECTS WITH PLACENTAL CELL POPULATIONS | TITLE |
|--|--|--|--|--|--|--|--|--|----------------|
| Mexico | Mexico | New Zealand | New Zealand | Australia | Italy | Italy | France | France | COUNTRY |
| MX/a/2013/007445 | MX/a/2011/001992 | 601596 | 591293 | 2009283161 | 502015000068896 | 5562/BE/2013 | 13162390.2 | 09789192.3 | APPL. NO. |
| Jun-25- 2013 | Aug-24- 2009 | Aug-02- 2012 | Aug-24- 2009 | Aug-24- 2009 | Apr-04- 2013 | Aug-24- 2009 | Apr-04- 2013 | Aug-24- 2009 | FILING DATE |
| Registered | Registered | Abandoned | Registered | Abandoned | Registered | Registered | Registered | Registered | STATUS |
| 339068 | 313417 | N/A | 591293 | N/A | 2633861 | 2331109 | 2633861 | 2331109 | PATENT NO. |
| May-10- 2016 | Sep-18- 2013 | N/A | Jan-29- 2013 | N/A | Aug-12- 2015 | May-29- 2013 | Aug-12- 2015 | May-29- 2013 | ISSUE DATE |

| TAL TAL | METHODS AND COMPOSITIONS FOR TREATMENT OF BONE DEFECTS WITH PLACENTAL CELL POPULATIONS | METHODS AND COMPOSITIONS FOR TREATMENT OF BONE DEFECTS WITH PLACENTAL CELL POPULATIONS | METHODS AND COMPOSITIONS R FOR TREATMENT OF BONE DEFECTS WITH PLACENTAL CELL POPULATIONS | METHODS AND COMPOSITIONS FOR TREATMENT OF BONE DEFECTS WITH PLACENTAL CELL POPULATIONS | METHODS AND COMPOSITIONS FOR TREATMENT OF BONE DEFECTS WITH PLACENTAL CELL POPULATIONS | METHODS AND COMPOSITIONS FOR TREATMENT OF BONE DEFECTS WITH PLACENTAL CELL POPULATIONS Swi | METHODS AND COMPOSITIONS FOR TREATMENT OF BONE DEFECTS WITH PLACENTAL CELL POPULATIONS | METHODS AND COMPOSITIONS FOR TREATMENT OF BONE DEFECTS WITH PLACENTAL CELL POPULATIONS | ппте со |
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| Hungary | Hong Kong | Hong Kong | Russian Federation | Denmark | Sweden | Switzerland | Japan | Peru | COUNTRY |
| TBD | HK14100225.1 | 11113331.8 | 2011110736 | 09789192.3 | 09789192.3 | 09789192.3 | 2011-523827 | 185.2011 | APPL. NO. |
| Aug-24- 2009 | Jan-09- 2014 | Aug-24- 2009 | Aug-24- 2009 | Aug-24- 2009 | Aug-24- 2009 | Aug-24- 2009 | Aug-24- 2009 | Aug-24- 2009 | FILING DATE |
| Registered | Registered | Registered | Pending | Registered | Registered | Registered | Abandoned | Abandoned | STATUS |
| E09789192 | HK1187252 | HK1158931 | N/A | 2331109 | 2331109 | 2331109 | N/A | N/A | PATENT NO. |
| May-29- 2013 | Aug-05- 2016 | Feb-21- 2014 | N/A | May-29- 2013 | May-29- 2013 | May-29- 2013 | N/A | N/A | ISSUE DATE |

| METHODS AND COMPOSITIONS FOR TREATMENT OF BONE DEFECTS WITH PLACENTAL CELL POPULATIONS | METHODS AND COMPOSITIONS FOR TREATMENT OF BONE DEFECTS WITH PLACENTAL CELL POPULATIONS | METHODS AND COMPOSITIONS FOR TREATMENT OF BONE DEFECTS WITH PLACENTAL CELL POPULATIONS | METHODS AND COMPOSITIONS FOR TREATMENT OF BONE DEFECTS WITH PLACENTAL CELL POPULATIONS | METHODS AND COMPOSITIONS FOR TREATMENT OF BONE DEFECTS WITH PLACENTAL CELL POPULATIONS | METHODS AND COMPOSITIONS FOR TREATMENT OF BONE DEFECTS WITH PLACENTAL CELL POPULATIONS | METHODS AND COMPOSITIONS FOR TREATMENT OF BONE DEFECTS WITH PLACENTAL CELL POPULATIONS | METHODS AND COMPOSITIONS FOR TREATMENT OF BONE DEFECTS WITH PLACENTAL CELL POPULATIONS | METHODS AND COMPOSITIONS FOR TREATMENT OF BONE DEFECTS WITH PLACENTAL CELL POPULATIONS | С |
|--|--|--|--|--|--|--|--|--|---------------|
| Monaco | Malta | Iceland | India | Spain | Spain | Netherlands | Luxembourg | Finland | COUNTRY |
| 09789192.3 | 09789192.3 | 09789192.3 | 1859/CHENP/2011 | 13162390.2 | ES2426241T3 | 09789192.3 | 09789192.3 | 09789192.3 | APPL. NO. |
| Aug-24- 2009 | Aug-24- 2009 | Aug-24- 2009 | Aug-24- 2009 | Apr-04- 2013 | Aug-24- 2009 | Aug-24- 2009 | Aug-24- 2009 | Aug-24- 2009 | FILING |
| Registered | Registered | Registered | Pending | Registered | Registered | Registered | Registered | Registered | STATUS |
| 2331109 | 2331109 | 2331109 | N/A | ES2552556 T3 | 2331109 | 2331109 | 2331109 | 2331109 | PATENT NO. |
| May-29- 2013 | May-29- 2013 | May-29- 2013 | N/A | Aug-12- 2015 | May-29- 2013 | May-29- 2013 | May-29- 2013 | May-29- 2013 | ISSUE DATE |

| IONS Slovenia NE TAL | TIONS Patent NE Cooperation TAL Treaty | METHODS AND COMPOSITIONS FOR TREATMENT OF BONE DEFECTS WITH PLACENTAL CELL POPULATIONS European Patent Office | METHODS AND COMPOSITIONS FOR TREATMENT OF BONE DEFECTS WITH PLACENTAL CELL POPULATIONS European (| METHODS AND COMPOSITIONS Republic of FOR TREATMENT OF BONE Korea DEFECTS WITH PLACENTAL CELL POPULATIONS | METHODS AND COMPOSITIONS FOR TREATMENT OF BONE DEFECTS WITH PLACENTAL CELL POPULATIONS Israel | METHODS AND COMPOSITIONS Ireland FOR TREATMENT OF BONE DEFECTS WITH PLACENTAL CELL POPULATIONS | METHODS AND COMPOSITIONS FOR TREATMENT OF BONE DEFECTS WITH PLACENTAL CELL POPULATIONS 2 | METHODS AND COMPOSITIONS China 200 FOR TREATMENT OF BONE DEFECTS WITH PLACENTAL CELL POPULATIONS China 200 | TITLE COUNTRY / |
|----------------------------|--|---|---|--|---|--|--|--|-----------------|
| P200930697 | PCT/US2009/004801 | 13162390.2 | 09789192.3 | 10-2011-7006417 | 211273 | 09789192.3 | 2011/01209 | 200980140287.5 | APPL. NO. |
| Aug-24- 2009 | Aug-24- 2009 | Apr-04- 2013 | Aug-24- 2009 | Aug-24- 2009 | Aug-24- 2009 | Aug-24- 2009 | Aug-24- 2009 | Aug-24- 2009 | FILING DATE |
| Registered | Completed | Registered | Registered | Abandoned | Registered | Registered | Abandoned | Abandoned | STATUS |
| 2331109 | N/A | 2633861 | 2331109 | N/A | 211273 | 2331109 | N/A | N/A | PATENT NO. |
| May-29- 2013 | N/A | Aug-12- 2015 | May-29- 2013 | N/A | Jul-01-2015 | May-29- 2013 | N/A | N/A | ISSUE DATE |

| METHODS AND COMPOSITIONS FOR TREATMENT OF BONE DEFECTS WITH PLACENTAL CELL POPULATIONS United States of America | METHODS AND COMPOSITIONS FOR TREATMENT OF BONE DEFECTS WITH PLACENTAL CELL POPULATIONS United States of America | METHODS AND COMPOSITIONS FOR TREATMENT OF BONE DEFECTS WITH PLACENTAL CELL POPULATIONS United States of America | METHODS AND COMPOSITIONS FOR TREATMENT OF BONE DEFECTS WITH PLACENTAL CELL POPULATIONS United States of America | OSTEOGENIC PLACENTAL United ADHERENT CELLS FROM States of CHORION AND USES THEREOF America | METHODS AND COMPOSITIONS FOR TREATMENT OF BONE DEFECTS WITH PLACENTAL CELL POPULATIONS Macedonia (F.Y.R.O.M) | METHODS AND COMPOSITIONS FOR TREATMENT OF BONE DEFECTS WITH PLACENTAL CELL POPULATIONS Croatia | METHODS AND COMPOSITIONS FOR TREATMENT OF BONE DEFECTS WITH PLACENTAL CELL POPULATIONS Lithuania | METHODS AND COMPOSITIONS FOR TREATMENT OF BONE DEFECTS WITH PLACENTAL CELL POPULATIONS Latvia | TITLE COUNTRY |
|---|---|---|---|--|--|--|--|---|----------------|
| 15/013,590 | 14/218,465 | 12/546,556 | 61/090,898 | 61/090,897 | 09789192.3 | P20130812A | 09789192.3 | 09789192.3 | APPL. NO. |
| Feb-02- 2016 | Mar-18- 2014 | Aug-24- 2009 | Aug-22- 2008 | Aug-22- 2008 | Aug-24- 2009 | Aug-24- 2009 | Aug-24- 2009 | Aug-24- 2009 | FILING DATE |
| Abandoned | Abandoned | Registered | Expired | Expired | Registered | Registered | Registered | Registered | STATUS |
| N/A | N/A | 8,728,805 | N/A | N/A | 2331109 | 2331109 | 2331109 | 2331109 | PATENT NO. |
| N/A | N/A | May-20- 2014 | N/A | N/A | May-29- 2013 | May-29- 2013 | May-29- 2013 | May-29- 2013 | ISSUE DATE |

| TUMOR SUPPRESSION USING HUMAN PLACENTA-DERIVED INTERMEDIATE NATURAL KILLER CELLS AND IMMUNOMODULATORY COMPOUNDS | TUMOR SUPPRESSION USING HUMAN PLACENTA-DERIVED INTERMEDIATE NATURAL KILLER CELLS AND IMMUNOMODULATORY COMPOUNDS | TUMOR SUPPRESSION USING HUMAN PLACENTA-DERIVED INTERMEDIATE NATURAL KILLER CELLS AND IMMUNOMODULATORY COMPOUNDS | TUMOR SUPPRESSION USING HUMAN PLACENTA-DERIVED INTERMEDIATE NATURAL KILLER CELLS AND IMMUNOMODULATORY COMPOUNDS | TUMOR SUPPRESSION USING HUMAN PLACENTA-DERIVED INTERMEDIATE NATURAL KILLER CELLS AND IMMUNOMODULATORY COMPOUNDS | TREATMENT OF DISEASES, DISORDERS OR CONDITIONS OF THE LUNG USING PLACENTAL CELLS United America | TITLE COUNTRY |
|---|---|---|---|---|---|---------------|
| ean 10722830.6 Office | da 2,756,594 | alia 2016216536 | alia 2013203190 | alia 2010229711 | ed 12/624,359 s of ica | TRY APPL. NO. |
| Mar-26- 2010 | Mar-26- 2010 | Mar-26- 2010 | Mar-26- 2010 | Mar-26- 2010 | Nov-23- 2009 | FILING DATE |
| Pending | Pending | Pending | Registered | Registered | Abandoned | STATUS |
| N/A | N/A | N/A | 2013203190 | 2010229711 | N/A | PATENT NO. |
| N/A | N/A | N/A | Sep-01- 2016 | Sep-17- 2015 | N/A | ISSUE DATE |

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| COUNTRY APPL.NO. FILING DATE DATE | | | | | | | INTERMEDIATE NATURAL |
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| COUNTRY APPL. NO. DATE STATUS PATENT NO. DATE | | | | | | | IMMUNOMODULATORY |
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| Hong Kong 12106606.9 Mar-26- Pending N/A | | | | | | Treaty | INTERMEDIATE NATURAL |
| Hong Kong 12106606.9 Mar-26- Pending N/A | | | , | 2010 | | Cooperation | HUMAN PLACENTA-DERIVED |
| Hong Kong 12106606.9 Mar-26- Pending N/A Israel 215228 Mar-26- Registered 215228 Israel 248842 Mar-26- Pending N/A Israel 248842 Mar-26- Pending N/A New | A/N | A/N | Completed | Mar-26- | PCT/US2010/028885 | Patent | TUMOR SUPPRESSION USING |
| COUNTRY APPL.NO. DATE STATUS PATENT NO. DATE | | | | | | | COMPOUNDS |
| COUNTRY APPL.NO. FILING DATE STATUS PATENT NO. Hong Kong 12106606.9 Mar-26- Pending N/A Israel 215228 Mar-26- Pending N/A Israel 248842 Mar-26- Pending N/A New Zealand 595440 Mar-26- Pending Registered 595440 | | | | | | | IMMUNOMODULATORY |
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| COUNTRY APPL. NO. FILING DATE STATUS PATENT NO. Hong Kong 12106606.9 Mar-26- Pending N/A Israel 215228 Mar-26- Registered 215228 Israel 248842 Mar-26- Pending N/A New Zealand 595440 Mar-26- Registered 595440 | | | | | | | INTERMEDIATE NATURAL |
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| COUNTRY APPL. NO. FILING DATE STATUS PATENT NO. Hong Kong 12106606.9 Mar-26- 2010 Pending N/A Israel 215228 Mar-26- 2010 Registered 215228 Israel 248842 Mar-26- 2010 Pending N/A | | | | | | | COMPOUNDS |
| COUNTRY APPL. NO. FILING DATE STATUS PATENT NO. Hong Kong 12106606.9 Mar-26- 2010 Pending N/A Israel 215228 Mar-26- 2010 Registered 215228 Israel 248842 Mar-26- 2010 Pending N/A | | | | | | | IMMUNOMODULATORY |
| COUNTRY APPL. NO. FILING DATE STATUS PATENT NO. Hong Kong 12106606.9 Mar-26- Pending Pending N/A Israel 215228 Mar-26- Registered 215228 Israel 248842 Mar-26- Pending Pending Israel 248842 Mar-26- Pending Pending | | | | | | | KILLER CELLS AND |
| COUNTRY APPL. NO. FILING DATE STATUS PATENT NO. Hong Kong 12106606.9 Mar-26- Pending 2010 Pending N/A N/A Israel 215228 Mar-26- Registered 2010 215228 Israel 248842 Mar-26- Pending Pending N/A N/A | | | | | | | INTERMEDIATE NATURAL |
| COUNTRY APPL. NO. FILING DATE STATUS PATENT NO. Hong Kong 12106606.9 Mar-26- Pending Pending N/A Israel 215228 Mar-26- Registered 215228 Israel 248842 Mar-26- Pending Pending | | | | 2010 | | | HUMIAN FLACENTA-DERIVED |
| Hong Kong 12106606.9 Mar-26- | . 17.2.2 | 1.77 2.18 | ı cucung | 2010 2010 | 10001 | 101 001 | HIMAN DI ACENTA DEDIVED |
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| COUNTRY APPL. NO. FILING DATE STATUS PATENT NO. Hong Kong 12106606.9 Mar-26- 2010 Pending N/A Israel 215228 Mar-26- Registered 215228 | | | | | | | COMPOUNDS |
| COUNTRY APPL. NO. FILING DATE STATUS PATENT NO. Hong Kong 12106606.9 Mar-26- 2010 Pending N/A Israel 215228 Mar-26- Registered 215228 | | | | | | | IMMUNOMODULATORY |
| COUNTRY APPL. NO. FILING DATE STATUS PATENT NO. Hong Kong 12106606.9 Mar-26- 2010 Pending N/A Israel 215228 Mar-26- Registered 215228 | | | | | | | KILLER CELLS AND |
| COUNTRY APPL. NO. FILING DATE STATUS PATENT NO. Hong Kong 12106606.9 Mar-26- 2010 Pending N/A Israel 215228 Mar-26- Registered 215228 | | | | | | | INTERMEDIATE NATURAL |
| COUNTRY APPL. NO. FILING DATE STATUS PATENT NO. Hong Kong 12106606.9 Mar-26- 2010 Pending N/A Israel 215228 Mar-26- Registered Registered 215228 | 2017 | | | 2010 | | | HUMAN PLACENTA-DERIVED |
| Hong Kong 12106606.9 Mar-26- Pending N/A 2010 | Mar-01- | 215228 | Registered | Mar-26- | 215228 | Israel | TUMOR SUPPRESSION USING |
| Hong Kong 12106606.9 Mar-26- 2010 Pending N/A | | | | | | | COMPOUNDS |
| Hong Kong 12106606.9 Har-26- 2010 Parter N/A PATENT NO. BILING DATE Pending N/A | | | | | | | IMMUNOMODULATORY |
| COUNTRYAPPL. NO.FILING DATESTATUSPATENT NO.Hong Kong12106606.9Mar-26- 2010PendingN/A | | | | | | | KILLER CELLS AND |
| COUNTRY APPL. NO. FILING DATE STATUS PATENT NO. Hong Kong 12106606.9 Mar-26-2010 Pending N/A | | | | | | | INTERMEDIATE NATURAL |
| COUNTRY APPL. NO. FILING STATUS PATENT NO. Hong Kong 12106606.9 Mar-26- Pending N/A | | | | 2010 | | | HUMAN PLACENTA-DERIVED |
| COUNTRY APPL. NO. FILING STATUS PATENT NO. | N/A | N/A | Pending | Mar-26- | 12106606.9 | Hong Kong | I UMOR SUPPRESSION USING |
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| IMPROVED CELL COMPOSITION AND METHODS OF MAKING THE SAME | IMPROVED CELL COMPOSITION AND METHODS OF MAKING THE SAME | TUMOR SUPPRESSION USING HUMAN PLACENTA-DERIVED INTERMEDIATE NATURAL KILLER CELLS AND IMMUNOMODULATORY COMPOUNDS | TUMOR SUPPRESSION USING HUMAN PLACENTA-DERIVED INTERMEDIATE NATURAL KILLER CELLS AND IMMUNOMODULATORY COMPOUNDS | TUMOR SUPPRESSION USING HUMAN PLACENTAL-DERIVED INTERMEDIATE NATURAL KILLER CELLS AND IMMUNOMODULATORY COMPOUNDS | TUMOR SUPPRESSION USING HUMAN PLACENTA-DERIVED INTERMEDIATE NATURAL KILLER CELLS AND IMMUNOMODULATORY COMPOUNDS | TUMOR SUPPRESSION USING HUMAN PLACENTA-DERIVED INTERMEDIATE NATURAL KILLER CELLS AND IMMUNOMODULATORY COMPOUNDS | TITLE |
|--|--|---|---|--|---|---|----------------|
| Australia | Canada | United States of America | United States of America | United States of America | South Africa | South Africa | COUNTRY |
| 2009283216 | 2,734,236 | 13/071,437 | 61/397,692 | 61/163,449 | 2015/04633 | 2011/06982 | APPL. NO. |
| Aug-20- 2009 | Aug-20- 2009 | Mar-24- 2011 | Mar-26- 2010 | Mar-25- 2009 | Mar-26- 2010 | Mar-26- 2010 | FILING DATE |
| Registered | Pending | Pending | Expired | Expired | Pending | Pending | STATUS |
| 2009283216 | N/A | N/A | N/A | N/A | N/A | N/A | PATENT NO. |
| Jul-16-2015 | N/A | N/A | N/A | N/A | N/A | N/A | ISSUE DATE |

| IMPROVED CELL COMPOSITION AND METHODS OF MAKING THE SAME | IMPROVED CELL COMPOSITION AND METHODS OF MAKING THE SAME | IMPROVED CELL COMPOSITION AND METHODS OF MAKING THE SAME | IMPROVED CELL COMPOSITION AND METHODS OF MAKING THE SAME | IMPROVED CELL COMPOSITION AND METHODS OF MAKING THE SAME | IMPROVED CELL COMPOSITION AND METHODS OF MAKING THE SAME | IMPROVED CELL COMPOSITION AND METHODS OF MAKING THE SAME | TITLE |
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| Hong Kong | Russian Federation | Russian Federation | Japan | Japan | Peru | Mexico | Mexico | New Zealand | New Zealand | New Zealand | Australia | COUNTRY |
| 11113177.5 | 2015134559 | 2011110455 | 2015-134742 | 2011-523815 | 182.2011 | MX/a/2013/014346 | MX/a/2011/001990 | 620353 | 601497 | 591292 | 2013203191 | APPL. NO. |
| Aug-20- 2009 | Aug-17- 2015 | Aug-20- 2009 | Jul-03- 2015 | Aug-20- 2009 | Aug-20- 2009 | Dec-06- 2013 | Aug-20- 2009 | Jan-24- 2014 | Jul-27- 2012 | Aug-20- 2009 | Apr-09- 2013 | FILING |
| Pending | Pending | Registered | Pending | Pending | Abandoned | Registered | Registered | Abandoned | Registered | Registered | Registered | STATUS |
| N/A | N/A | 2563518 | N/A | N/A | N/A | 339624 | 318954 | N/A | 601497 | 591292 | 2013203191 | PATENT NO. |
| N/A | N/A | Sep-20- 2015 | N/A | N/A | N/A | Jun-02- 2016 | Apr-02- 2014 | N/A | Jul-01-2014 | Jan-29- 2013 | Feb-18- 2016 | ISSUE DATE |

| IMPROVED CELL COMPOSITION AND METHODS OF MAKING THE SAME | IMPROVED CELL COMPOSITION AND METHODS OF MAKING THE SAME | IMPROVED CELL COMPOSITION AND METHODS OF MAKING THE SAME | IMPROVED CELL COMPOSITION AND METHODS OF MAKING THE SAME | IMPROVED CELL COMPOSITION AND METHODS OF MAKING THE SAME | IMPROVED CELL COMPOSITION AND METHODS OF MAKING THE SAME | IMPROVED CELL COMPOSITION AND METHODS OF MAKING THE SAME | IMPROVED CELL COMPOSITION AND METHODS OF MAKING THE SAME | IMPROVED CELL COMPOSITION AND METHODS OF MAKING THE SAME | IMPROVED CELL COMPOSITION AND METHODS OF MAKING THE SAME | IMPROVED CELL COMPOSITION AND METHODS OF MAKING THE SAME | IMPROVED CELL COMPOSITION AND METHODS OF MAKING THE SAME | TITLE |
|--|--|--|--|--|--|--|--|--|--|--|--|---------------|
| Patent Cooperation Treaty | European Patent Office | European Patent Office | Republic of Korea | Republic of Korea | Israel | Israel | South Africa | South Africa | China | China | India | COUNTRY |
| PCT/US2009/004740 | 16190626.8 | 09789172.5 | 10-2017-7004680 | 10-2011-7006317 | 252119 | 211272 | 2012/01067 | 2011/01210 | 201610137317.9 | 200980141716.0 | 1812/CHENP/2011 | APPL. NO. |
| Aug-20- 2009 | Sep-26- 2016 | Aug-20- 2009 | Aug-20- 2009 | Aug-20- 2009 | Aug-20- 2009 | Aug-20- 2009 | Feb-14- 2012 | Aug-20- 2009 | Mar-10- 2016 | Aug-20- 2009 | Aug-20- 2009 | FILING |
| Completed | Pending | Registered (Validation due 1/26/2017) | Pending | Abandoned | Pending | Pending (Allowed) | Pending | Registered | Pending | Registered | Pending | STATUS |
| N/A | N/A | 2330889 | N/A | N/A | N/A | N/A | N/A | 2011/01210 | N/A | ZL200980141716.0 | N/A | PATENT NO. |
| N/A | N/A | Oct-26- 2016 | N/A | N/A | N/A | N/A | N/A | May-30- 2012 | N/A | Mar-16- 2016 | N/A | ISSUE DATE |

| TREATMENT OF SARCOIDOSIS USING PLACENTAL STEM CELLS | IMPROVED CELL COMPOSITION AND METHODS OF MAKING THE SAME | IMPROVED CELL COMPOSITION AND METHODS OF MAKING THE SAME | TITLE |
|---|---|---|---|---|---|---|---|---|---|--|--|---------------|
| China | Argentina | Venezuela | Hong Kong | Japan | Mexico | New Zealand | New Zealand | Australia | Canada | United States of America | United States of America | COUNTRY |
| 201180027566.8 | P110101179 | 2011-000456 | 13107526.3 | 2013-503868 | MX/a/2012/011543 | 629942 | 602798 | 2011237743 | 2,795,401 | 12/544,949 | 61/090,577 | APPL. NO. |
| Apr-06- 2011 | Apr-07- 2011 | Apr-07- 2011 | Apr-06- 2011 | Apr-06- 2011 | Apr-06- 2011 | Sep-17- 2014 | Apr-06- 2011 | Apr-06- 2011 | Apr-06- 2011 | Aug-20- 2009 | Aug-20- 2008 | FILING |
| Abandoned | Pending | Pending | Pending | Abandoned | Abandoned | Abandoned | Registered | Abandoned | Abandoned | Pending | Expired | STATUS |
| N/A | 602798 | N/A | N/A | N/A | N/A | PATENT NO. |
| N/A | Feb-03- 2015 | N/A | N/A | N/A | N/A | ISSUE DATE |

| | 2556145 | Registered | Apr-06- 2011 | 11766619.8 | Germany | ANGIOGENESIS USING PLACENTAL STEM CELLS |
|---|------------|------------|-----------------|-------------------|---------------------------------|---|
| | 2556145 | Registered | Apr-06- 2011 | 11766619.8 | United Kingdom | ANGIOGENESIS USING PLACENTAL STEM CELLS |
| | N/A | Pending | Apr-06- 2011 | 2,795,518 | Canada | ANGIOGENESIS USING PLACENTAL STEM CELLS |
| | N/A | Abandoned | Sep-16- 2013 | 14/027,787 | United States of America | TREATMENT OF SARCOIDOSIS USING PLACENTAL STEM CELLS |
| | 8,562,973 | Registered | Apr-06- 2011 | 13/081,422 | United States of America | TREATMENT OF SARCOIDOSIS USING PLACENTAL STEM CELLS |
| | N/A | Expired | Apr-08- 2010 | 61/322,272 | United States of America | TREATMENT OF SARCOIDOSIS USING PLACENTAL STEM CELLS |
| | N/A | Completed | Apr-06- 2011 | PCT/US2011/031330 | Patent Cooperation Treaty | TREATMENT OF SARCOIDOSIS USING PLACENTAL STEM CELLS |
| | N/A | Pending | Apr-06- 2011 | 11714479.0 | European Patent Office | TREATMENT OF SARCOIDOSIS USING PLACENTAL STEM CELLS |
| | N/A | Abandoned | Apr-06- 2011 | 10-2012-7029205 | Republic of Korea | TREATMENT OF SARCOIDOSIS USING PLACENTAL STEM CELLS |
| | N/A | Abandoned | Apr-06- 2011 | 100112128 | Taiwan | TREATMENT OF SARCOIDOSIS USING PLACENTAL STEM CELLS |
| | N/A | Abandoned | Apr-06- 2011 | 222324 | Israel | TREATMENT OF SARCOIDOSIS USING PLACENTAL STEM CELLS |
| | N/A | Abandoned | Nov-18- 2013 | 2013/08653 | South Africa | TREATMENT OF SARCOIDOSIS USING PLACENTAL STEM CELLS |
| | 2012/07534 | Registered | Apr-06- 2011 | 2012/07534 | South Africa | TREATMENT OF SARCOIDOSIS USING PLACENTAL STEM CELLS |
| • | PATENT NO. | STATUS | FILING DATE | APPL. NO. | COUNTRY | TITLE |

| ANGIOGENESIS USING PLACENTAL STEM CELLS | ANGIOGENESIS USING S PLACENTAL STEM CELLS | ANGIOGENESIS USING PLACENTAL STEM CELLS | PLACENTAL STEM CELLS | ANGIOGENESIS USING | ANGIOGENESIS USING PLACENTAL STEM CELLS | ANGIOGENESIS USING PLACENTAL STEM CELLS | PLACENTAL STEM CELLS | Š | 8 | ANGIOGENESIS USING PLACENTAL STEM CELLS | ANGIOGENESIS USING PLACENTAL STEM CELLS | |
|---|---|---|---|---|---|---|---|---|---|---|--------------------|---|---|----------------------|-----------------|-----------------|---|---|---------------|
| Denmark | Sweden | Norway | Austria | Switzerland | Japan | Japan | Mexico | Mexico | Mexico | Zealand | New | New Zealand | Australia | Australia | Australia | Belgium | Italy | France | COUNTRY |
| 11766619.8 | 11766619.8 | 11766619.8 | 11766619.8 | 11766619.8 | 2016-108620 | 2013-503871 | MX/a/2017/005314 | MX/a/2016/001882 | MX/a/2012/011542 | 1 | 630009 | 602808 | 2016216517 | 2013203479 | 2011237747 | 11766619.8 | 11766619.8 | 11766619.8 | APPL. NO. |
| Apr-06- 2011 | Apr-06- 2011 | Apr-06- 2011 | Apr-06- 2011 | Apr-06- 2011 | May-31- 2016 | Apr-06- 2011 | Apr-24- 2017 | Feb-11- 2016 | Apr-06- 2011 | 2014 | Sep-18- | Apr-06- 2011 | Aug-15- 2016 | Apr-10- 2013 | Apr-06- 2011 | Apr-06- 2011 | Apr-06- 2011 | Apr-06- 2011 | FILING |
| Registered | Registered | Registered | Registered | Registered | Pending | Registered | Pending | Pending (Allowed) | Registered | o | Registered | Registered | Pending | Registered | Registered | Registered | Registered | Registered | STATUS |
| 2556145 | 2556145 | 2556145 | 2556145 | 2556145 | N/A | 6097684 | N/A | N/A | 337172 | 1 | 630009 | 602808 | N/A | 2013203479 | 2011237747 | 2556145 | 2556145 | 2556145 | PATENT NO. |
| Jul-20-2016 | Jul-20-2016 | Jul-20-2016 | Jul-20-2016 | Jul-20-2016 | N/A | ТВD | N/A | N/A | Feb-16- 2016 | 2016 | Aug-30- | Feb-03- 2015 | N/A | Sep-01- 2016 | Nov-05- 2015 | Jul-20-2016 | Jul-20-2016 | Jul-20-2016 | ISSUE DATE |

| Registered 2556145 Registered 2556145 | Apr-06- 2011 Apr-06- 2011 | 117666108 | MOHIGHIA | PLACENTAL STEM CELLS |
|---|------------------------------------|-------------|-------------|--|
| Registered Registered Registered Registered Registered Registered | Apr-06- 2011 | 11766619.8 | Portugal | ANGIOGENESIS USING PLACENTAL STEM CELLS ANGIOGENESIS HSING |
| Registered Registered Registered Registered Registered | | 11766619.8 | Monaco | ANGIOGENESIS USING PLACENTAL STEM CELLS |
| Registered Registered Registered Registered | Apr-06- 2011 | 11766619.8 | Malta | ANGIOGENESIS USING PLACENTAL STEM CELLS |
| Registered Registered Registered | Apr-06- 2011 | 11766619.8 | Iceland | ANGIOGENESIS USING PLACENTAL STEM CELLS |
| | Apr-06- 2011 | 11766619.8 | Greece | ANGIOGENESIS USING PLACENTAL STEM CELLS |
| | Apr-06- 2011 | 11766619.8 | Cyprus | ANGIOGENESIS USING PLACENTAL STEM CELLS |
| | Apr-06- 2011 | 11766619.8 | Bulgaria | ANGIOGENESIS USING PLACENTAL STEM CELLS |
| Registered 2556145 | Apr-06- 2011 | 11766619.8 | Spain | ANGIOGENESIS USING PLACENTAL STEM CELLS |
| Registered 2556145 | Apr-06- 2011 | 11766619.8 | Netherlands | ANGIOGENESIS USING PLACENTAL STEM CELLS |
| Registered 2556145 | Apr-06- 2011 | 11766619.8 | Luxembourg | ANGIOGENESIS USING PLACENTAL STEM CELLS |
| Registered 2556145 | Apr-06- 2011 | 11766619.8 | Turkey | ANGIOGENESIS USING PLACENTAL STEM CELLS |
| Registered 2556145 | Apr-06- 2011 | 11766619.8 | Finland | ANGIOGENESIS USING PLACENTAL STEM CELLS |
| Pending | Apr-07- 2011 | P110101178 | Argentina | ANGIOGENESIS USING PLACENTAL STEM CELLS |
| Registered 2556145 | Apr-06- 2011 | 11766619.8 | Hungary | ANGIOGENESIS USING PLACENTAL STEM CELLS |
| Pending | Apr-07- 2011 | 2011-000455 | Venezuela | ANGIOGENESIS USING PLACENTAL STEM CELLS |
| Pending (to be issued) | Apr-06- 2011 | 13108122.9 | Hong Kong | ANGIOGENESIS USING PLACENTAL STEM CELLS |
| STATUS PATENT NO. | FILING | APPL. NO. | COUNTRY | TITLE |

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|---|---|---|---|---|---------------------------|---------------------------------------|---------------------|--------------------|---|---|----------------------|----------------------|--------------------|---|----------------------|---------------------|--------------------|----------------------|--------------------|----------------------|-----------------------|--------------------|---------------|
| ANGIOGENESIS USING PLACENTAL STEM CELLS | PLACENTAL STEM CELLS | PLACENTAL STEM CELLS | ANGIOGENESIS LISING | ANGIOGENESIS USING | ANGIOGENESIS USING PLACENTAL STEM CELLS | ANGIOGENESIS USING PLACENTAL STEM CELLS | PLACENTAL STEM CELLS | PLACENTAL STEM CELLS | ANGIOGENESIS USING | ANGIOGENESIS USING PLACENTAL STEM CELLS | PLACENTAL STEM CELLS | ANGIOGENESIS LISING | ANGIOGENESIS USING | PLACENTAL STEM CELLS | ANGIOGENESIS USING | PLACENTAL STEM CELLS | ANGIOCENIEGIS LIGINIC | ANGIOGENESIS USING | TITLE |
| Estonia | Lithuania | Latvia | Slovenia | Patent Cooperation Treaty | European Patent Office | Patent Office | Furonean | Republic of | Taiwan | Taiwan | Albāniā | A 11 | Israel | Israel | Holalid | Treland | Poland | Republic | Czech | Soull Allica | | South Africa | COUNTRY |
| 11766619.8 | 11766619.8 | 11766619.8 | 11766619.8 | PC1/US2011/031335 | 16160000.2 | 11/00017.0 | 117666108 | 10-2012-7029076 | 105113546 | 100112127 | 11/00019.8 | 11766000 | 250234 | 222321 | 11/0001/10 | 117666198 | 11766619.8 | | 11766619.8 | 2010/00733 | 2017/07/202 | 2012/07492 | APPL. NO. |
| Apr-06- 2011 | Apr-06- 2011 | Apr-06- 2011 | Apr-06- 2011 | Apr-06- 2011 | 2016 | 2011 | 2011 | Apr-06- | Apr-29- 2016 | Apr-06- 2011 | Apr-06- 2011 | 2017 | Jan-23- | Apr-06- 2011 | 2011 | 2011 Apr-06- | Apr-06- | 2011 | Apr-06- | зер-26- 2016 | 2011 | Apr-06- | FILING |
| Registered | Registered | Registered | Registered | Completed | Pending | i i i i i i i i i i i i i i i i i i i | Parietared | Pending | Pending | Pending | Registered | D | Pending | Pending (Allowed) | Tro Store Con | Registered | Registered | , | Registered | renang | stage) | Pending (in grant | STATUS |
| 2556145 | 2556145 | 2556145 | 2556145 | N/A | N/A | 2000170 | 2556175 | N/A | N/A | N/A | 2336143 | 0556115 | N/A | N/A | 2000170 | 2556145 | 2556145 | | 2556145 | N/A | 27/4 | N/A | PATENT NO. |
| Jul-20-2016 | Jul-20-2016 | Jul-20-2016 | Jul-20-2016 | N/A | N/A | Jan-20-2010 | In1-20-2016 | N/A | N/A | N/A | Jul-20-2016 | F. 30 3017 | N/A | N/A | 3 m 20 20 10 | Inl-20-2016 | Jul-20-2016 | | Jul-20-2016 | NA | N7/ A | N/A | ISSUE DATE |

| TREATMENT OF BONE- RELATED CANCERS USING PLACENTAL STEM CELLS | ANGIOGENESIS USING PLACENTAL STEM CELLS | TITLE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---------------|
| Hong Kong | Japan | Mexico | New Zealand | Australia | Canada | United States of America | United States of America | United States of America | Serbia | Macedonia (F.Y.R.O.M) | Slovakia | San Marino | Croatia | COUNTRY |
| 13106542.5 | 2012-551220 | MX/a/2012/008636 | 601435 | 2011209819 | 2,787,992 | 14/978,723 | 13/081,415 | 61/321,822 | 11766619.8 | 11766619.8 | 11766619.8 | 11766619.8 | 11766619.8 | APPL. NO. |
| Jan-25- 2011 | Jan-25- 2011 | Jan-25- 2011 | Jan-25- 2011 | Jan-25- 2011 | Jan-25- 2011 | Dec-22- 2015 | Apr-06- 2011 | Apr-07- 2010 | Apr-06- 2011 | Apr-06- 2011 | Apr-06- 2011 | Apr-06- 2011 | Apr-06- 2011 | FILING |
| Pending | Abandoned | Abandoned | Abandoned | Abandoned | Abandoned | Pending | Registered | Expired | Registered | Registered | Registered | Registered | Registered | STATUS |
| N/A | N/A | N/A | N/A | N/A | N/A | N/A | 9,254,302 | N/A | 2556145 | 2556145 | 2556145 | 2556145 | 2556145 | PATENT NO. |
| N/A | N/A | N/A | N/A | N/A | N/A | N/A | Feb-09- 2016 | N/A | Jul-20-2016 | Jul-20-2016 | Jul-20-2016 | Jul-20-2016 | Jul-20-2016 | ISSUE DATE |

| RELATED CANCERS USING PLACENTAL STEM CELLS | | | | | RELATED CANCERS USING S | TREATMENT OF BONE- | | RELATED CANCERS USING S | TREATMENT OF BONE- | | ଦ | | RELATED CANCERS USING Pat | TREATMENT OF BONE- | PLACENTAL STEM CELLS | <u> </u> | | PLACENTAL STEM CELLS | RELATED CANCERS USING | TREATMENT OF BONE- | PLACENTAL STEM CELLS | <u>ଦ</u> | | PLACENTAL STEM CELLS | RELATED CANCERS USING | TREATMENT OF BONE- | PLACENTAL STEM CELLS | RELATED CANCERS USING | TREATMENT OF BONE- A | PLACENTAL STEM CELLS | <u>G</u> | TREATMENT OF BONE- V | TITLE |
|--|------------|-----------|------------|---------|-------------------------|--------------------|---------|-------------------------|--------------------|--------|-------------|-------------------|-----------------------------|--------------------|----------------------|----------|-----------------|----------------------|-----------------------|--------------------|----------------------|----------|--------------|----------------------|-----------------------|--------------------|----------------------|-----------------------|----------------------|----------------------|----------|----------------------|---------------|
| States of America | America | States of | United | America | States of | United | America | States of | United | Treaty | Cooperation | Patent | Patent Office | European | | Korea | Republic of | | | Israel | | | South Africa | | | China | | • | Argentina | | | Venezuela | COUNTRY |
| 13/013,721 | 12/012 721 | | 61/352,768 | | | Feb-24-2010 | | | 61/298,517 | | | PCT/US2011/022333 | | 11701732.7 | | | 10-2012-7022210 | | | 221100 | | | 2012/05571 | | | 201180016168.6 | | | P110100255 | | | 2011-000080 | APPL. NO. |
| 2011 | Ion 25 | 2010 | Jun-08- | | | 61/307,821 | | 2010 | Jan-26- | | 2011 | Jan-25- | 2011 | Jan-25- | | 2011 | Jan-25- | | 2011 | Jan-25- | | 2011 | Jan-25- | | 2011 | Jan-25- | | 2011 | Jan-26- | | 2011 | Jan-26- | FILING |
| Kegistered | Dacistand | ٠ | Expired | | | Expired | | ı | Expired | | , | Completed | , | Pending | | | Abandoned | | | Abandoned | | | Abandoned | | | Abandoned | | | Pending | | | Pending | STATUS |
| 9,121,007 | 0 121 007 | | N/A | | | N/A | | | N/A | | | N/A | | N/A | | | N/A | | | N/A | | | N/A | | | N/A | | | N/A | | | N/A | PATENT NO. |
| 2015 | San Oi | | N/A | | | A/N | | | N/A | | | A/N | | N/A | | | N/A | | | N/A | | | N/A | | | N/A | | | N/A | | | N/A | ISSUE DATE |

| TREATMENT OF SPINAL CORD INJURY AND TRAUMATIC BRAIN INJURY USING PLACENTAL STEM CELLS | TREATMENT OF SPINAL CORD INJURY AND TRAUMATIC BRAIN INJURY USING PLACENTAL STEM CELLS | TREATMENT OF SPINAL CORD INJURY AND TRAUMATIC BRAIN INJURY USING PLACENTAL STEM CELLS | TREATMENT OF SPINAL CORD INJURY AND TRAUMATIC BRAIN INJURY USING PLACENTAL STEM CELLS | TREATMENT OF SPINAL CORD INJURY AND TRAUMATIC BRAIN INJURY USING PLACENTAL STEM CELLS | TREATMENT OF SPINAL CORD INJURY AND TRAUMATIC BRAIN INJURY USING PLACENTAL STEM CELLS | TREATMENT OF SPINAL CORD INJURY AND TRAUMATIC BRAIN INJURY USING PLACENTAL STEM CELLS | TREATMENT OF SPINAL CORD INJURY AND TRAUMATIC BRAIN INJURY USING PLACENTAL STEM CELLS | TREATMENT OF BONE- RELATED CANCERS USING PLACENTAL STEM CELLS | TITLE |
|---|---|---|---|---|---|---|---|---|---------------|
| Israel | China | Hong Kong | Japan | Mexico | New Zealand | Australia | Canada | United States of America | COUNTRY |
| 226875 | 201180067894.0 | HK14100244.8 | 2013-544781 | MX/a/2013/006595 | 611858 | 2011343739 | 2,821,818 | 14/792,067 | APPL. NO. |
| Dec-15- 2011 | Jul-06- 2015 | FILING DATE |
| Abandoned | Abandoned | Abandoned | Abandoned | Pending | Abandoned | Abandoned | Abandoned | Pending | STATUS |
| N/A | N/A | PATENT NO. |
| N/A | N/A | ISSUE DATE |

| | | | 2011 | | | DISORDERS USING AMNION DERIVED ADHERENT CELLS |
|-------------|-------------|--|---------|---|---------------|---|
| Jul-13-2016 | 2652126 | Registered | Dec-15- | 11849864.1 | Germany | TREATMENT OF IMMUNE- |
| | | | | | | DISORDERS USING AMNION DERIVED ADHERENT CELLS |
| | | • | 2011 | | Kingdom | RELATED DISEASES AND |
| Jul-13-2016 | 2652126 | Registered | Dec-15- | 11849864.1 | United | TREATMENT OF IMMUNE- |
| | | | | | | DERIVED ADHERENT CELLS |
| | | | 2011 | | | DISORDERS USING AMNION |
| N/A | N/A | Pending | Dec-15- | 2,821,809 | Canada | TREATMENT OF IMMUNE- |
| | | | | | | PLACENTAL STEM CELLS |
| | | | | | America | BRAIN INJURY USING |
| ; | | | 2014 | 1 | States of | INJURY AND TRAUMATIC |
| N/A | N/A | Abandoned | Nov-07- | 14/535.896 | United | TREATMENT OF SPINAL CORD |
| | | | | | | PLACENTAL STEM CELLS |
| | | | | | America | BRAIN INJURY USING |
| | | | 2011 | | States of | INJURY AND TRAUMATIC |
| N/A | N/A | Abandoned | Dec-15- | 13/327,245 | United | TREATMENT OF SPINAL CORD |
| | | | | | | PLACENTAL STEM CELLS |
| | | | | | America | BRAIN INJURY USING |
| | | , | 2010 | | States of | INJURY AND TRAUMATIC |
| N/A | N/A | Expired | Dec-17- | 61/424,559 | United | TREATMENT OF SPINAL CORD |
| | | | | | , | PLACENTAL STEM CELLS |
| | | | | | Treaty | BRAIN INJURY USING |
| | | • | 2011 | | Cooperation | INJURY AND TRAUMATIC |
| N/A | N/A | Completed | Dec-15- | PCT/US2011/065170 | Patent | TREATMENT OF SPINAL CORD |
| | | | | | | PLACENTAL STEM CELLS |
| | | | | | | BRAIN INJURY USING |
| | | | 2011 | | Patent Office | INJURY AND TRAUMATIC |
| N/A | N/A | Abandoned | Dec-15- | 11848627.3 | European | TREATMENT OF SPINAL CORD |
| | | | | | | PLACENTAL STEM CELLS |
| | | | | | | BRAIN INJURY USING |
| | | • | 2011 | | Korea | INJURY AND TRAUMATIC |
| N/A | N/A | Pending | Dec-15- | 10-2013-7018583 | Republic of | TREATMENT OF SPINAL CORD |
| DATE | i Albaino. | DIMICO | DATE | AHLEANO. | COCHERI | 111170 |
| 166115 | ON TRAITAGE | STATE OF THE STATE | | ADD NO | COLNEDA | |

| TREATMENT OF IMMUNE- RELATED DISEASES AND DISORDERS USING AMNION DERIVED ADHERENT CELLS | TREATMENT OF IMMUNE- RELATED DISEASES AND DISORDERS USING AMNION DERIVED ADHERENT CELLS | TREATMENT OF IMMUNE- RELATED DISEASES AND DISORDERS USING AMNION DERIVED ADHERENT CELLS | TREATMENT OF IMMUNE- RELATED DISEASES AND DISORDERS USING AMNION DERIVED ADHERENT CELLS | TREATMENT OF IMMUNE- RELATED DISEASES AND DISORDERS USING AMNION DERIVED ADHERENT CELLS | ò Z | TREATMENT OF IMMUNE- RELATED DISEASES AND DISORDERS USING AMNION DERIVED ADHERENT CELLS | TREATMENT OF IMMUNE- RELATED DISEASES AND DISORDERS USING AMNION DERIVED ADHERENT CELLS | TREATMENT OF IMMUNE- RELATED DISEASES AND DISORDERS USING AMNION DERIVED ADHERENT CELLS | TITLE COU |
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| Switzerland | Japan | Mexico | New Zealand | New Zealand | New Zealand | Australia | Italy | France | COUNTRY |
| 11849864.1 | 2013-544778 | MX/a/2013/006791 | 726211 | 707468 | 611981 | 2011343736 | 11849864.1 | 11849864.1 | APPL. NO. |
| Dec-15- 2011 | Dec-15- 2011 | Dec-15- 2011 | Nov-16- 2016 | Apr-29- 2015 | Dec-15- 2011 | Dec-15- 2011 | Dec-15- 2011 | Dec-15- 2011 | FILING DATE |
| Registered | Abandoned | Pending | Pending | Abandoned | Registered | Abandoned | Registered | Registered | STATUS |
| 2652126 | N/A | N/A | N/A | N/A | 611981 | N/A | 2652126 | 2652126 | PATENT NO. |
| Jul-13-2016 | N/A | N/A | N/A | N/A | Nov-03- 2015 | N/A | Jul-13-2016 | Jul-13-2016 | ISSUE DATE |

PATENT

REEL: 044780 FRAME: 0367

| TREATMENT OF IMMUNE- RELATED DISEASES AND DISORDERS USING AMNION DERIVED ADHERENT CELLS | TREATMENT OF IMMUNE- RELATED DISEASES AND DISORDERS USING AMNION DERIVED ADHERENT CELLS | TREATMENT OF IMMUNE- RELATED DISEASES AND DISORDERS USING AMNION DERIVED ADHERENT CELLS | TREATMENT OF IMMUNE- RELATED DISEASES AND DISORDERS USING AMNION DERIVED ADHERENT CELLS | TREATMENT OF IMMUNE- RELATED DISEASES AND DISORDERS USING AMNION DERIVED ADHERENT CELLS | TREATMENT OF IMMUNE- RELATED DISEASES AND DISORDERS USING AMNION DERIVED ADHERENT CELLS | TREATMENT OF IMMUNE- RELATED DISEASES AND DISORDERS USING AMNION DERIVED ADHERENT CELLS | TREATMENT OF IMMUNE- RELATED DISEASES AND DISORDERS USING AMNION DERIVED ADHERENT CELLS | TREATMENT OF IMMUNE- RELATED DISEASES AND DISORDERS USING AMNION DERIVED ADHERENT CELLS | COU |
|---|---|---|---|---|---|---|---|---|----------------|
| United States of America | Patent Cooperation Treaty | European Patent Office | Republic of Korea | Israel | Ireland | China | Spain | Hong Kong | COUNTRY |
| 61/424,593 | PCT/US2011/065158 | 11849864.1 | 10-2013-7018646 | 226951 | 11849864.1 | 201180067916.3 | 11849864.1 | 13113144.3 | APPL: NO. |
| Dec-17- 2010 | Dec-15- 2011 | FILING DATE |
| Expired | Completed | Registered | Pending | Abandoned | Registered | Abandoned | Registered | Pending (to be issued) | STATUS |
| N/A | N/A | 2652126 | N/A | N/A | 2652126 | N/A | 2652126 | N/A | PATENT NO. |
| N/A | N/A | Jul-13-2016 | N/A | N/A | Jul-13-2016 | N/A | Jul-13-2016 | N/A | ISSUE DATE |

| METHODS FOR CRYOPRESERVING AND ENCAPSULATING CELLS | METHODS FOR CRYOPRESERVING AND ENCAPSULATING CELLS | METHODS FOR CRYOPRESERVING AND ENCAPSULATING CELLS | METHODS FOR CRYOPRESERVING AND ENCAPSULATING CELLS | TREATMENT OF IMMUNE- RELATED DISEASES AND DISORDERS USING AMNION DERIVED ADHERENT CELLS | TIFLE |
|--|--|--|--|--|--|--|--|--|--|--|--|----------------|
| Republic of Korea | Israel | China | Argentina | Venezuela | Hong Kong | Japan | Mexico | New Zealand | Australia | Canada | United States of America | COUNTRY |
| 10-2013-7020036 | 227240 | 201180068083.2 | P110105029 | 2011-001779 | 13113138.1 | 2013-547658 | MX/a/2013/007611 | 612634 | 2011352154 | 2,823,540 | 13/327,315 | APPL. NO. |
| Dec-29- 2011 | Dec-29- 2011 | Dec-29- 2011 | Dec-29- 2011 | Dec-29- 2011 | Dec-29- 2011 | Dec-29- 2011 | Dec-29- 2011 | Dec-29- 2011 | Dec-29- 2011 | Dec-29- 2011 | Dec-15- 2011 | FILING DATE |
| Pending | Abandoned | Abandoned | Pending | Pending | Abandoned | Abandoned | Abandoned | Abandoned | Abandoned | Abandoned | Pending | STATUS |
| N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | PATENT NO. |
| N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | ISSUE DATE |

| METHODS OF GENERATING NATURAL KILLER CELLS | NATURAL KILLER CELLS | NATURAL KILLER CELLS | METHODS OF GENERATING | METHODS OF GENERATING NATURAL KILLER CELLS | MODULATORY RNA MOLECULES | STEM CELL POTENCY USING | ENHANCEMENT OF PLACENTAL | MODULATORY RNA MOLECULES | STEM CELL POTENCY USING | ENHANCEMENT OF PLACENTAL | MOLECULES | MODULATORY RNA | STEM CELL POTENCY USING | INTERFERING RNA'S | STEM CELL POTENCY USING | ENHANCEMENT OF PLACENTAL | MODULATORY RNA MOLECULES | STEM CELL POTENCY USING | ENHANCEMENT OF PLACENTAL | MOLECULES MOLECULES | STEM CELL POTENCY USING | ENHANCEMENT OF PLACENTAL | TITE |
|--|--|--|--|----------------------|----------------------|-----------------------|--|--------------------------|-------------------------|--------------------------|-----------------------------|-------------------------|--------------------------|-----------|----------------|-------------------------|-------------------|-------------------------|--------------------------|-----------------------------|-------------------------|--------------------------|----------------------|-------------------------|--------------------------|---------------|
| Hong Kong | European Patent Office | China | Canada | Brazil | : | Australia | Australia | America | States of | United | America | States of | United | | America | United States of | America | States of | United | Treaty | Cooperation | Patent | | Patent Office | European | COUNTRY |
| 13112451.2 | 11738896.7 | 201180043919.3 | 2,804,750 | BR 1120130008229 | | 2015271985 | 2011279201 | | | 15/272/763 | | | 14/598,357 | | | 13/340,589 | | | 61/429,070 | | | PCT/US2011/067867 | | | 11810776.2 | APPL. NO. |
| Jul-13- 2011 | Jul-13- 2011 | Jul-13- 2011 | Jul-13- 2011 | 2011 | 2011 | Jul-13- | Jul-13- 2011 | | 2016 | Sep-22- | | 2015 | Jan-16- | | | Dec-29- 2011 | | 2010 | Dec-31- | | 2011 | Dec-29- | | 2011 | Dec-29- | FILING |
| Pending | Pending | Pending | Pending | Pending | : | Pending | Registered | | | Pending | | | Abandoned | | | Registered | | | Expired | | ٠ | Completed | | | Abandoned | STATUS |
| N/A | N/A | N/A | N/A | N/A | | N/A | 2011279201 | | | N/A | | | N/A | | | 8,969,315 | | | A/N | | | N/A | | | N/A | PATENT NO. |
| N/A | N/A | N/A | N/A | N/A | | N/A | May-05- 2016 | | | N/A | | | N/A | | | Mar-03- 2015 | | | N/A | | | N/A | | | N/A | ISSUE DATE |

| METHODS OF GENERATING NATURAL KILLER CELLS A | METHODS OF GENERATING NATURAL KILLER CELLS S A | METHODS OF GENERATING NATURAL KILLER CELLS A | METHODS OF GENERATING Sou NATURAL KILLER CELLS | METHODS OF GENERATING Sou NATURAL KILLER CELLS | METHODS OF GENERATING Re NATURAL KILLER CELLS | LER | | METHODS OF GENERATING NATURAL KILLER CELLS Z | | METHODS OF GENERATING | <u>С</u>) | METHODS OF GENERATING NATURAL KILLER CELLS | METHODS OF GENERATING NATURAL KILLER CELLS | METHODS OF GENERATING NATURAL KILLER CELLS | METHODS OF GENERATING NATURAL KILLER CELLS | | METHODS OF GENERATING Ho NATURAL KILLER CELLS | TITLE |
|--|--|--|---|---|--|-----------------------|-------------------|--|------------------|-----------------------|-----------------|---|--|--|--|-----------------|---|---------------|
| United States of America | United States of America | United States of America | South Africa | South Africa | Republic of Korea | Cooperation Treaty | Patent | New Zealand | Zealand | New | New | Mexico | Mexico | Japan | Japan | Israel | Hong Kong | COUNTRY |
| 13/182,250 | 61/497,897 | 61/363,981 | TBD | 2013/00284 | 10-2013-7003509 | 1 | PCT/US2011/043831 | 722643 | 4 4 4 | 703888 | 605505 | MX/a/2016/013699 | MX/a/2013/000395 | 2016-133008 | 2013-519790 | 224204 | 13112553.9 | APPL. NO. |
| Jul-13- 2011 | Jun-16- 2011 | Jul-13- 2010 | Jul-13- 2011 | Jul-13- 2011 | Jul-13- 2011 | 2011 | Jul-13- | Jul-13- 2011 | 2011 | Jul-13- | Jul-13- 2011 | Jul-13- 2011 | Jul-13- 2011 | Jul-13- 2011 | Jul-13- 2011 | Jul-13- 2011 | Jul-13- 2011 | FILING |
| Registered | Expired | Expired | Pending | Pending (Allowed) | Pending | | Completed | Pending | q | Registered | Registered | Pending | Registered | Pending | Registered | Pending | Pending | STATUS |
| 8,926,964 | N/A | N/A | N/A | N/A | N/A | | N/A | N/A | 4 1 4 4 | 703888 | 605505 | N/A | 342995 | N/A | 5996533 | N/A | N/A | PATENT NO. |
| Jan-06- 2015 | N/A | N/A | N/A | N/A | N/A | | N/A | N/A | 2017 | Mar-24- | May-28- | N/A | Oct-21- 2016 | N/A | Sep-02- 2016 | N/A | N/A | ISSUE DATE |

| NATURAL KILLER CELLS AND USES THEREOF | DEVICES AND METHODS FOR THAWING BIOLOGICAL MATERIAL | DEVICES AND METHODS FOR THAWING BIOLOGICAL MATERIAL | DEVICES AND METHODS FOR THAWING BIOLOGICAL MATERIAL | DEVICES AND METHODS FOR THAWING BIOLOGICAL MATERIAL | DEVICES AND METHODS FOR THAWING BIOLOGICAL MATERIAL | TREATMENT OF PAIN USING PLACENTAL STEM CELLS | TREATMENT OF PAIN USING PLACENTAL STEM CELLS | TREATMENT OF PAIN USING PLACENTAL STEM CELLS | TITLE |
|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---|---|---|---|---|--|--|--|---------------|
| New Zealand | Australia | Canada | United States of America | United States of America | United States of America | United States of America | Patent Cooperation Treaty | European Patent Office | Hong Kong | United States of America | United States of America | United States of America | COUNTRY |
| 704729 | 2013302853 | 2,881,792 | 61/799,211 | 61/682,706 | 14/380,018 | 61/601,406 | PCT/US2013/026819 | 13752471.6 | 15102360.1 | 14/951,655 | 14/692,307 | 13/485,161 | APPL. NO. |
| Aug-13- 2013 | Aug-13- 2013 | Aug-13- 2013 | Mar-15- 2013 | Aug-13- 2012 | Feb-20- 2013 | Feb-21- 2012 | Feb-20- 2013 | Feb-20- 2013 | Feb-20- 2013 | Nov-25- 2015 | Apr-21- 2015 | May-31- 2012 | FILING |
| Pending | Pending | Pending | Expired | Expired | Pending | Expired | Completed | Pending | Pending | Pending | Abandoned | Registered | STATUS |
| N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | 9,040,035 | PATENT NO. |
| N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | May-26- 2015 | ISSUE DATE |

| ANOIKIS RESISTANT PLACENTAL STEM CELLS AND USES THEREOF | ANOIKIS RESISTANT PLACENTAL STEM CELLS AND USES THEREOF | ANOIKIS RESISTANT PLACENTAL STEM CELLS AND USES THEREOF | TREATMENT OF AMYOTROPHIC LATERAL SCLEROSIS USING PLACENTAL STEM CELLS | TREATMENT OF AMYOTROPHIC LATERAL SCLEROSIS USING PLACENTAL STEM CELLS | NATURAL KILLER CELLS AND USES THEREOF | TITLE |
|---|---|---|---|---|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------|
| New Zealand | Australia | Canada | United States of America | Patent Cooperation Treaty | United States of America | Patent Cooperation Treaty | European Patent Office | Republic of Korea | China | Brazil | Hong Kong | Russian Federation | Japan | Mexico | COUNTRY |
| 709113 | 2013359076 | 2,895,106 | 14/343,283 | PCT/US2012/054493 | 14/421,059 | PCT/US2013/054677 | 13829894.8 | 2015-7006395 | 201380053349.5 | BR1120150031498 | 15112433.3 | 2015108761 | 2015-527530 | MX/a/2015/001871 | APPL. NO. |
| Dec-13- 2013 | Dec-13- 2013 | Dec-13- 2013 | Sep-10- 2012 | Sep-10- 2012 | Aug-13- 2013 | FILING |
| Pending | Abandoned | Pending | Pending | Completed | Pending | Completed | Pending | STATUS |
| N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | PATENT NO. |
| N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | ISSUE DATE |

| N/A | Z | Completed | Oct-18- 2013 | PCT/US2013/065653 | Patent Cooperation Treaty | TREATMENT OF PAIN USING AMNION DERIVED ADHERENT CELLS |
|-----|-----------|-----------|-----------------|-------------------|---------------------------------|---|
| N/A | Z | Pending | Oct-18- 2013 | 13846458.1 | European Patent Office | TREATMENT OF PAIN USING AMNION DERIVED ADHERENT CELLS |
| N/A | Z | Pending | Oct-18- 2013 | 16102183.5 | Hong Kong | TREATMENT OF PAIN USING AMNION DERIVED ADHERENT CELLS |
| N/A | Z | Pending | Oct-18- 2013 | 2015-538056 | Japan | TREATMENT OF PAIN USING AMNION DERIVED ADHERENT CELLS |
| N/A | Z | Pending | Oct-18- 2013 | 2,888,772 | Canada | TREATMENT OF PAIN USING AMNION DERIVED ADHERENT CELLS |
| N/A | Z | Pending | Dec-13- 2013 | 14/651,891 | United States of America | ANOIKIS RESISTANT PLACENTAL STEM CELLS AND USES THEREOF |
| N/A | Z | Expired | Dec-14- 2012 | 61/737,498 | United States of America | ANOIKIS RESISTANT PLACENTAL STEM CELLS AND USES THEREOF |
| N/A | Z | Completed | Dec-13- 2013 | PCT/US2013/074892 | Patent Cooperation Treaty | ANOIKIS RESISTANT PLACENTAL STEM CELLS AND USES THEREOF |
| N/A | z | Pending | Dec-13- 2013 | 13862498.6 | European Patent Office | ANOIKIS RESISTANT PLACENTAL STEM CELLS AND USES THEREOF |
| N/A | Z | Pending | Dec-13- 2013 | 201380072901.5 | China | ANOIKIS RESISTANT PLACENTAL STEM CELLS AND USES THEREOF |
| N/A | Z | Abandoned | Dec-13- 2013 | 2015128273 | Russian Federation | ANOIKIS RESISTANT PLACENTAL STEM CELLS AND USES THEREOF |
| N/A | Z | Pending | Dec-13- 2013 | 2015-547970 | Japan | ANOIKIS RESISTANT PLACENTAL STEM CELLS AND USES THEREOF |
| 7 | PATENT NO | STATUS | FILING DATE | APPL. NO. | COUNTRY | TITLE |

| N/A | Pending | Mar-13- 2014 | 14773405.7 | European Patent Office | ENHANCED PLACENTAL STEM CELLS AND USES THEREOF |
|----------------|-------------------|-----------------|-------------------|---------------------------------|---|
| A/N | Pending | Mar-13- 2014 | 2016-501784 | Japan | ENHANCED PLACENTAL STEM CELLS AND USES THEREOF |
| N/A | Pending (Allowed) | Feb-04- 2014 | 14/764,873 | United States of America | NATURAL KILLER CELLS FROM PLACENTA |
| N/A | Expired | Mar-13- 2013 | 61/780,115 | United States of America | NATURAL KILLER CELLS FROM PLACENTA |
| N/A | Completed | Feb-04- 2014 | PCT/US2014/014632 | Patent Cooperation Treaty | NATURAL KILLER CELLS FROM PLACENTA |
| N/A | Pending | Feb-04- 2014 | 14748811.8 | European Patent Office | NATURAL KILLER CELLS FROM PLACENTA |
| N/A | Pending | Feb-04- 2014 | 201480020211.X | China | NATURAL KILLER CELLS FROM PLACENTA |
| N/A | Pending | Feb-04- 2014 | 16106559.2 | Hong Kong | NATURAL KILLER CELLS FROM PLACENTA |
| N/A | Pending | Feb-04- 2014 | 2015-556222 | Japan | NATURAL KILLER CELLS FROM PLACENTA |
| N/A | Pending | Feb-04- 2014 | 2014215458 | Australia | NATURAL KILLER CELLS FROM PLACENTA |
| N/A | Expired | Feb-05- 2013 | 61/761,176 | United States of America | NATURAL KILLER CELLS FROM PLACENTA |
| N/A | Abandoned | Apr-17- 2015 | 14/436,746 | United States of America | TREATMENT OF PAIN USING AMNION DERIVED ADHERENT CELLS |
| N/A | Expired | Mar-14- 2013 | 61/783,752 | United States of America | TREATMENT OF PAIN USING AMNION DERIVED ADHERENT CELLS |
| N/A | Expired | Oct-19- 2012 | 61/716,091 | United States of America | TREATMENT OF PAIN USING AMNION DERIVED ADHERENT CELLS |
| FAIENI NO. | SIAIUS | DATE | APPL. NO. | COUNTRY | HILE |
| PATENT NO. | STATUS | FILE | APPL, NO. | COUNTRY | |

| PLACENTA-DERIVED ADHERENT CELL EXOSOMES AND USES THEREOF | PLACENTA-DERIVED ADHERENT CELL EXOSOMES AND USES THEREOF | PLACENTA-DERIVED ADHERENT CELL EXOSOMES AND USES THEREOF | USE OF PLACENTAL STEM CELLS IN TREATMENT OF ACUTE KIDNEY INJURY | USE OF PLACENTAL STEM CELLS IN TREATMENT OF ACUTE KIDNEY INJURY | USE OF PLACENTAL STEM CELLS IN TREATMENT OF ACUTE KIDNEY INJURY | USE OF PLACENTAL STEM CELLS IN TREATMENT OF ACUTE KIDNEY INJURY | USE OF PLACENTAL STEM CELLS IN TREATMENT OF ACUTE KIDNEY INJURY | USE OF PLACENTAL STEM CELLS IN TREATMENT OF ACUTE KIDNEY INJURY | ENHANCED PLACENTAL STEM CELLS AND USES THEREOF | ENHANCED PLACENTAL STEM CELLS AND USES THEREOF | ENHANCED PLACENTAL STEM CELLS AND USES THEREOF | TITLE |
|--|--|--|---|---|---|---|---|---|--|--|--|------------|
| Unites States of America | United States of America | Patent Cooperation Treaty | United States of America | United States of America | Patent Cooperation Treaty | European Patent Office | Hong Kong | Japan | United States of America | United States of America | Patent Cooperation Treaty | COUNTRY |
| 15/517,438 | 62/062,046 | PCT/US2015/054629 | 14/774,262 | 61/785,252 | PCT/US2014/025266 | 14775592.0 | 16108271.5 | 2016-501805 | 14/774,250 | 61/785,222 | PCT/US2014/025202 | APPL. NO. |
| Oct-08- 2015 | Oct-09- 2014 | Oct-08- 2015 | Sep-10- 2015 | Mar-14- 2013 | Mar-13- 2014 | Mar-13- 2014 | Mar-13- 2014 | Mar-13- 2014 | Sep-10- 2015 | Mar-14- 2013 | Mar-13- 2014 | FILING |
| Pending | Expired | Published | Pending | Expired | Completed | Pending | Pending | Pending | Pending | Expired | Completed | STATUS |
| N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | PATENT NO. |
| N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | ISSUE |

| NATURAL KILLER CELLS AND USES THEREOF | NATURAL KILLER CELLS AND USES THEREOF | NATURAL KILLER CELLS AND USES THEREOF | METHODS FOR QUANTIFYING PARTICULATES IN CELL CULTURE | PLACENTA-DERIVED ADHERENT CELL EXOSOMES AND USES THEREOF | TITLE |
|---------------------------------------|---------------------------------------|---------------------------------------|--|--|--|--|--|--|--|--|--|---------------|
| United States of America | Patent Cooperation Treaty | Indonesia | Europe | United States of America | United States of America | Patent Cooperation Treaty | Europe | China | Japan | Australia | Canada | COUNTRY |
| 62/098,560 | PCT/US2015/068055 | P00201605694 | 15840678.5 | 15/505,343 | 62/049,895 | PCT/US2015/049621 | 15849339.5 | 201580054280.7 | 2017-518955 | 2015330855 | TBD | APPL. NO. |
| Dec-31- 2014 | Dec-30- 2015 | Dec-30- 2015 | Mar-14- 2017 | Feb-21- 2017 | Sep-12- 2014 | Sep-11- 2015 | Oct-08- 2015 | Oct-08- 2015 | Oct-08- 2015 | Oct-08- 2015 | Oct-08- 2015 | FILING |
| Expired | Pending | Pending | Pending | Pending | Expired | Pending | Pending | Pending | Pending | Pending | Pending | STATUS |
| N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | PATENT NO. |
| N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | ISSUE DATE |

| METHODS OF TREATING ACUTE MYELOID LEUKEMIA AND MUTLIPLE MYELOMA USING NATURAL KILLER CELLS | METHODS OF TREATING ACUTE MYELOID LEUKEMIA USING NATURAL KILLER CELLS | METHODS OF TREATING ACUTE MYELOID LEUKEMIA USING NATURAL KILLER CELLS | CELL POTENCY ASSAY | CELL POTENCY ASSAY | TREATMENT OF DIABETIC FOOT ULCER USING PLACENTAL STEM CELLS | TREATMENT OF DIABETIC FOOT ULCER USING PLACENTAL STEM CELLS | TREATMENT OF DIABETIC FOOT ULCER USING PLACENTAL STEM CELLS | TREATMENT OF DIABETIC FOOT ULCER USING PLACENTAL STEM CELLS | TREATMENT OF DIABETIC FOOT ULCER USING PLACENTAL STEM CELLS | TREATMENT OF DIABETIC FOOT ULCER USING PLACENTAL STEM CELLS | TITLE |
|--|---|---|--------------------------|---------------------------------|---|---|---|---|---|---|---------------|
| United States of America | United States of America | United States of America | United States of America | Patent Cooperation Treaty | European Patent Office | United States of America | United States of America | United States of America | United States of America | United States of America | COUNTRY |
| 62/415,918 | 62/333,187 | 62/333,186 | 62/234,404 | PCT/US2016/054058 | 15844825.8 | 15/509,710 | 62/170,757 | 62/151,726 | 62/145,551 | 62/056,008 | APPL. NO. |
| Nov-01- 2016 | May-07- 2016 | May-07- 2016 | Sep-29- 2015 | Sep-28- 2016 | Mar-24- 2017 | Mar-8- 2017 | Jun-4-2015 | Apr-23- 2015 | Apr-10- 2015 | Sep-26- 2014 | FILING |
| Pending | Expired | Expired | Expired | Completed | Pending | Pending | Expired | Expired | Expired | Expired | STATUS |
| N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | PATENT NO. |
| N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | ISSUE DATE |

| America | NATURAL KILLER CELLS States of | GENETICALLY MODIFIED United | CELLS | USING PLACENTAL ADHERENT America | AND RELATED CONDITIONS States of | TREATMENT OF LYMPHEDEMA United | America | States of | CELL CULTURE APPARATUSES United | NATURAL KILLER CELLS | MULTIPLE MYELOMA USING Treaty | MYELOID LEUKEMIA AND Cooperation | METHODS OF TREATING ACUTE Patent | NATURAL KILLER CELLS | MULTIPLE MYELOMA USING America | MYELOID LEUKEMIA AND States of | METHODS OF TREATING ACUTE United | TITLE COUNTRY |
|---------|--------------------------------|-----------------------------|-------|------------------------------------|----------------------------------|--------------------------------|---------|-----------|---------------------------------|----------------------|-------------------------------|------------------------------------|------------------------------------|----------------------|----------------------------------|--------------------------------|------------------------------------|---------------|
| | | 62/440,909 | | | | 62/430,123 | | | 62/440,687 | | | | PCT/US2017/031255 | | | | 62/415,954 | APPL. NO. |
| | 2016 | Dec-30- | | | 2016 | Dec-5- | | 2016 | Dec-30- | | | 2017 | May-5- | | | 2016 | Nov-01- | FILING |
| | | Pending | | | | Pending | | | Pending | | | | Pending | | | | Pending | STATUS |
| | | N/A | | | | N/A | | | N/A | | | | N/A | | | | N/A | PATENT NO. |
| | | N/A | | | | N/A | | | N/A | | | | N/A | | | | N/A | ISSUE DATE |

| NATIVE (TELOPEPTIDE) PLACENTAL COLLAGEN COMPOSITIONS | TITLE |
|--|--|--|--|--|--|--|--|--|--|------------|
| European Patent Office | Germany | China | China | China | Switzerland | Canada | Australia | Australia | Australia | COUNTRY |
| 07867216.9 | 07867216.9 | 201410764559.1 | 201410766691.6 | 2007800448801.6 | 07867216.9 | 2,665,369 | 2013203211 | 2013203210 | 2007318210 | APPL, NO. |
| Oct-09- 2007 | FILING |
| Registered | Registered | Pending | Pending | Abandoned | Registered | Abandoned (to be reinstated by 11/3/17) | Registered | Registered | Registered | STATUS |
| 2076279 | 602007038355.2 | N/A | N/A | N/A | 2076279 | N/A | 2013203211 | 2013203210 | 2007318210 | PATENT NO. |
| Aug-27-2014 | Aug-27-2014 | N/A | N/A | N/A | Aug-27-2014 | N/A | Sep-10-2015 | Sep-10-2015 | Jun-05-2014 | ISSUE DATE |

| NATIVE (TELOPEPTIDE) PLACENTAL COLLAGEN COMPOSITIONS |
|--|--|--|--|--|--|--|--|--|--|--|
| Israel | Israel | Ireland | Hong Kong | Hong Kong | Hong Kong | European Patent Office | European Patent Office | United Kingdom | France | Spain |
| 216687 | 198015 | 07867216.9 | 14104267.2 | 14104672.1 | 09106857.0 | 13166686.9 | 13166669.5 | 07867216.9 | 07867216.9 | 07867216.9 |
| Oct-09- 2007 |
| Registered | Registered | Registered | Pending | Pending | Registered | Pending | Pending | Registered | Registered | Registered |
| 216687 | 198015 | 2076279 | N/A | N/A | HK1127561 | N/A | N/A | 2076279 | 2076279 | ES2516698T3 |
| Feb-01-2014 | Nov-30-2013 | Aug-27-2014 | N/A | N/A | Jul-24-2015 | N/A | N/A | Aug-27-2014 | Aug-27-2014 | Aug-27-2014 |

| NATIVE (TELOPEPTIDE) PLACENTAL COLLAGEN COMPOSITIONS |
|--|--|--|--|--|--|--|--|--|--|--|
| Mexico | Mexico | Republic of Korea | Republic of Korea | Republic of Korea | Japan | Japan | Japan | Italy | Israel | Israel |
| MX/a/2012/000998 | MX/a/2009/003588 | 10-2016-7020634 | 10-2014-7013124 | 10-2009-7009276 | 2016-223803 | 2015-126133 | 2009-531491 | 07867216.9 | 227836 | 227835 |
| Oct-09- 2007 | Oct-09- 2007 | Oct-09- 2007 | Oct-09- 2007 | Oct-09- 2007 | Nov-17- 2016 | Oct-09- 2007 | Oct-09- 2007 | Oct-09- 2007 | Oct-09- 2007 | Oct-09- 2007 |
| Registered | Registered | Pending | Registered | Registered | Pending | Abandoned | Registered | Registered | Registered | Registered |
| 308651 | 300053 | N/A | 10-1644985 | 10-1595108 | N/A | N/A | 5769925 | 502014000002155 | 227836 | 227835 |
| Apr-12-2013 | Jun-08-2012 | N/A | Jul-27-2016 | Feb-11-2016 | N/A | N/A | Jul-03-2015 | Aug-27-2014 | Sep-01-2016 | Dec-25-2016 |

| N/A | N/A | Abandoned | Oct-09- 2007 | 206'54717 | United States of America | HUMAN PLACENTAL COLLAGEN COMPOSITIONS, AND METHODS OF MAKING AND USING THE SAME |
|-------------|---------|------------|-----------------|-------------------|---------------------------------|--|
| N/A | N/A | Expired | Oct-06- 2006 | 60/850,131 | United States of America | HUMAN PLACENTAL COLLAGEN COMPOSITIONS, AND METHODS OF MAKING AND USING THE SAME |
| Aug-27-2014 | 2076279 | Registered | Oct-09- 2007 | 07867216.9 | Sweden | NATIVE (TELOPEPTIDE) PLACENTAL COLLAGEN COMPOSITIONS |
| N/A | N/A | Completed | Oct-09- 2007 | PCT/US2007/021677 | Patent Cooperation Treaty | NATIVE (TELOPEPTIDE) PLACENTAL COLLAGEN COMPOSITIONS |
| N/A | N/A | Pending | Oct-09- 2007 | 723023 | New Zealand | NATIVE (TELOPEPTIDE) PLACENTAL COLLAGEN COMPOSITIONS |
| N/A | N/A | Abandoned | Oct-09- 2007 | 704082 | New Zealand | NATIVE (TELOPEPTIDE) PLACENTAL COLLAGEN COMPOSITIONS |
| May-28-2015 | 612094 | Registered | Oct-09- 2007 | 612094 | New Zealand | NATIVE (TELOPEPTIDE) PLACENTAL COLLAGEN COMPOSITIONS |
| Jan-07-2014 | 597223 | Registered | Oct-09- 2007 | 597223 | New Zealand | NATIVE (TELOPEPTIDE) PLACENTAL COLLAGEN COMPOSITIONS |
| Jun-05-2012 | 576372 | Registered | Oct-09- 2007 | 576372 | New Zealand | NATIVE (TELOPEPTIDE) PLACENTAL COLLAGEN COMPOSITIONS |
| N/A | N/A | Pending | Oct-09- 2007 | MX/a/2015/005927 | Mexico | NATIVE (TELOPEPTIDE) PLACENTAL COLLAGEN COMPOSITIONS |
| Jun-23-2015 | 330973 | Registered | Oct-09- 2007 | MX/a/2012/012396 | Mexico | NATIVE (TELOPEPTIDE) PLACENTAL COLLAGEN COMPOSITIONS |

| advised of filings) Expired |
|---|
| Aug-25- Completed 2015 (Natl. Stage entered by HLL; Celgene not |
| Registered |
| Pending |
| Abandoned |
| Feb-26- Pending 2013 |
| Pending |
| Registered |
| Aug-18- Registered 2011 |

| N/A | N/A | Abandoned | Feb-25- 2015 | 14/631,496 | United States of America | TREATMENT OF LEG ULCERS USING PLACENTA DERIVED COLLAGEN BIOFABRIC |
|-------------|-----------|------------|-----------------|-------------------|---------------------------------|---|
| N/A | N/A | Abandoned | Dec-11- 2012 | 13/711,331 | United States of America | TREATMENT OF LEG ULCERS USING PLACENTA DERIVED COLLAGEN BIOFABRIC |
| N/A | N/A | Abandoned | Apr-18- 2011 | 13/089,029 | United States of America | TREATMENT OF LEG ULCERS USING PLACENTA DERIVED COLLAGEN BIOFABRIC |
| Apr-19-2011 | 7,928,280 | Registered | Jul-12- 2006 | 11/485,840 | United States of America | TREATMENT OF LEG ULCERS USING PLACENTA DERIVED COLLAGEN BIOFABRIC |
| N/A | N/A | Expired | Jul-13- 2005 | 60/699,441 | United States of America | TREATMENT OF LEG ULCERS USING PLACENTA DERIVED COLLAGEN BIOFABRIC |
| N/A | N/A | Completed | Jul-12- 2006 | PCT/US2006/027364 | Patent Cooperation Treaty | TREATMENT OF LEG ULCERS USING PLACENTA DERIVED COLLAGEN BIOFABRIC |
| N/A | N/A | Pending | Sep-14- 2015 | 14/775,875 | United States of America | IMPROVED METHOD OF MAKING EXTRACELLULAR MATRIX COMPOSITIONS |
| N/A | N/A | Expired | Mar-15- 2013 | 61/800,532 | United States of America | METHOD OF MAKING EXTRACELLULAR MATRIX COMPOSITIONS |
| N/A | N/A | Completed | Mar-14- 2014 | PCT/US2014/027102 | Patent Cooperation Treaty | IMPROVED METHOD OF MAKING EXTRACELLULAR MATRIX COMPOSITIONS |
| N/A | N/A | Pending | Mar-14- 2014 | 16108378.7 | Hong Kong | IMPROVED METHOD OF MAKING EXTRACELLULAR MATRIX COMPOSITIONS |
| N/A | N/A | Pending | Mar-14- 2014 | 14771007.3 | European Patent Office | IMPROVED METHOD OF MAKING EXTRACELLULAR MATRIX COMPOSITIONS |

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| TREATMENT OF ORAL LESIONS USING PLACENTAL EXTRACELLULAR MATRIX COMPOSITIONS | TREATMENT OF ORAL LESIONS USING PLACENTAL EXTRACELLULAR MATRIX COMPOSITIONS | TREATMENT OF ORAL LESIONS USING PLACENTAL EXTRACELLULAR MATRIX COMPOSITIONS | TREATMENT OF ORAL LESIONS USING PLACENTAL EXTRACELLULAR MATRIX COMPOSITIONS | TREATMENT OF ORAL LESIONS USING PLACENTAL EXTRACELLULAR MATRIX COMPOSITIONS | TREATMENT OF ORAL LESIONS USING PLACENTAL EXTRACELLULAR MATRIX COMPOSITIONS | TREATMENT OF ORAL LESIONS USING PLACENTAL EXTRACELLULAR MATRIX COMPOSITIONS | TREATMENT OF ORAL LESIONS USING PLACENTAL EXTRACELLULAR MATRIX COMPOSITIONS | TREATMENT OF LEG ULCERS USING PLACENTAL DERIVED COLLAGEN BIOFABRIC |
| Russian Federation | Patent Cooperation Treaty | Japan | Hong Kong | European Patent Office | China | Canada | Brazil | United States of America |
| 2015127077 | PCT/US2013/073593 | 2015-545874 | 16103392.0 | 13861269.2 | 201380071838.3 | 2,894,160 | BR1120150131255 | 14/696,836 |
| Dec-06- 2013 | Apr-27- 2015 |
| Pending | Completed | Pending | Pending | Pending | Pending | Pending | Pending | Pending |
| N/A | N/A |
| N/A | N/A |

| MICRO-ORGANOIDS, AND METHODS OF MAKING AND USING THE SAME United States of America | MICRO-ORGANOIDS, AND METHODS OF MAKING AND USING THE SAME Patent PCT/I Cooperation Treaty | MICRO-ORGANOIDS, AND METHODS OF MAKING AND USING THE SAME | MICRO-ORGANOIDS, AND METHODS OF MAKING AND USING THE SAME Mexico MX/i | MICRO-ORGANOIDS, AND METHODS OF MAKING AND USING THE SAME Republic of Korea | MICRO-ORGANOIDS, AND METHODS OF MAKING AND USING THE SAME | MICRO-ORGANOIDS, AND METHODS OF MAKING AND USING THE SAME | MICRO-ORGANOIDS, AND METHODS OF MAKING AND USING THE SAME Luropean Patent Office | MICRO-ORGANOIDS, AND METHODS OF MAKING AND USING THE SAME Eurasian Patent Organization | MICRO-ORGANOIDS, AND METHODS OF MAKING AND USING THE SAME | METHODS OF MAKING AND USING THE SAME |
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| 61/938,536 | PCT/US2015/015157 | 722957 | MX/a/2016/010293 | 10-2016-7024573 | 2016-552310 | | 15749333.9 | 201691607 | 201580019073.8 | |
| Feb-11- 2014 | Feb-10- 2015 | Feb-10- 2015 | Feb-10- 2015 | Feb-10- 2015 | Feb-10- 2015 | Feb-10- 2015 | Feb-10- 2015 | Feb-10- 2015 | Feb-10- 2015 | 2015 |
| Expired | Completed | Pending | Pending | Pending | Pending | To Be Filed | Pending | Pending | Pending | (|
| N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | |
| N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | |

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| ORGANOIDS COMPRISING DECELLULARIZED AND REPOPULATED PLACENTAL VASCULAR SCAFFOLD | ORGANOIDS COMPRISING DECELLULARIZED AND REPOPULATED PLACENTAL VASCULAR SCAFFOLD | METHODS OF TISSUE GENERATION |
| United States of America | United States of America | Russian Federation | Patent Cooperation Treaty | New Zealand | Mexico | Republic of Korea | Japan | Hong Kong | European Patent Office | China | Canada | Australia | Australia |
| 61/592,350 | 61/579,942 | 2015112289 | PCT/US2013/057806 | 705477 | MX/a/2015/002711 | 2015-7008540 | 2015-530135 | 16100365.9 | 13835980.7 | 201380057527.1 | 2,883,567 | 2017201485 | 2013312926 |
| Jan-30- 2012 | Dec-23- 2011 | Sep-03- 2013 | Mar-03- 2017 | Sep-03- 2013 |
| Expired | Expired | Pending | Completed | Pending | Abandoned |
| N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |

| ORGANOIDS COMPRISING DECELLULARIZED AND REPOPULATED PLACENTAL VASCULAR SCAFFOLD | ORGANOIDS COMPRISING DECELLULARIZED AND REPOPULATED PLACENTAL VASCULAR SCAFFOLD | ORGANOIDS COMPRISING DECELLULARIZED AND REPOPULATED PLACENTAL VASCULAR SCAFFOLD | ORGANOIDS COMPRISING DECELLULARIZED AND REPOPULATED PLACENTAL VASCULAR SCAFFOLD | ORGANOIDS COMPRISING DECELLULARIZED AND REPOPULATED PLACENTAL VASCULAR SCAFFOLD | ORGANOIDS COMPRISING DECELLULARIZED AND REPOPULATED PLACENTAL VASCULAR SCAFFOLD | ORGANOIDS COMPRISING DECELLULARIZED AND REPOPULATED PLACENTAL VASCULAR SCAFFOLD | ORGANOIDS COMPRISING DECELLULARIZED AND REPOPULATED PLACENTAL VASCULAR SCAFFOLD | METHODS OF TISSUE GENERATION | METHODS OF TISSUE GENERATION |
|---|---|---|---|---|---|---|---|---------------------------------|---------------------------------|
| United States of America | United States of America | Patent Cooperation Treaty | Japan | Hong Kong | European Patent Office | China | Canada | United States of America | United States of America |
| 14/367,631 | 61/696,527 | PCT/US2012/071192 | 2014-548937 | 15103985.4 | 12860504.5 | 201280070203.7 | 2,859,714 | 14/425,523 | 61/696,487 |
| Dec-21- 2012 | Sep-04- 2012 | Dec-21- 2012 | Dec-21- 2012 | Dec-21- 2012 | Dec-21- 2012 | Dec-21- 2012 | Dec-21- 2012 | Sep-03- 2013 | Sep-04- 2012 |
| Abandoned | Expired | Completed | Pending | Pending | Pending | Pending | Pending | Pending | Expired |
| N/A | N/A | N/A |
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| COLLAGEN BIOFABRIC AND METHODS OF PREPARATION AND USE THEREFOR | COLLAGEN BIOFABRIC AND METHODS OF PREPARATION AND USE THEREFOR | COLLAGEN BIOFABRIC AND METHODS OF PREPARATION AND USE THEREFOR | COLLAGEN BIOFABRIC AND METHODS OF PREPARATION AND USE THEREFOR | COLLAGEN BIOFABRIC AND METHODS OF PREPARATION AND USE THEREFOR | COLLAGEN BIOFABRIC AND METHODS OF PREPARATION AND USE THEREFOR | COLLAGEN BIOFABRIC AND METHODS OF PREPARATION AND USE THEREFOR | COLLAGEN BIOFABRIC AND METHODS OF PREPARATION AND USE THEREFOR | COLLAGEN BIOFABRIC AND METHODS OF PREPARATION AND USE THEREFOR | COLLAGEN BIOFABRIC AND METHODS OF PREPARATION AND USE THEREFOR | ORGANOIDS COMPRISING DECELLULARIZED AND REPOPULATED PLACENTAL VASCULAR SCAFFOLD |
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| Spain | European Patent Office | European Patent Office | European Patent Office | Germany | Switzerland | Canada | Australia | Australia | Australia | United States of America |
| 03745621.7 | 03745621.7 | 13181876.7 | 13182157.1 | 03745621.7 | 03745621.7 | 2,479,903 | 2003226018 | 2011201662 | 2008202604 | 15/182,804 |
| Mar-26- 2003 | Jun-15- 2016 |
| Registered | Registered | Pending | Pending | Registered | Registered | Registered | Registered | Registered | Registered | Pending |
| 1575572 | 1575572 | N/A | N/A | 60346784.9 | 1575572 | 2,479,903 | 2003226018 | 2011201662 | 2008202604 | N/A |
| Sep-24-2014 | Sep-24-2014 | N/A | N/A | Sep-24-2014 | Sep-24-2014 | Aug-23-2016 | Jun-26-2008 | May-23-2013 | Apr-21-2011 | N/A |

| COLLAGEN BIOFABRIC AND METHODS OF PREPARATION AND USE THEREFOR Republic of Korea | COLLAGEN BIOFABRIC AND METHODS OF PREPARATION AND USE THEREFOR | COLLAGEN BIOFABRIC AND METHODS OF PREPARATION AND USE THEREFOR | COLLAGEN BIOFABRIC AND METHODS OF PREPARATION AND USE THEREFOR | COLLAGEN BIOFABRIC AND METHODS OF PREPARATION AND USE THEREFOR | COLLAGEN BIOFABRIC AND METHODS OF PREPARATION AND USE THEREFOR | COLLAGEN BIOFABRIC AND METHODS OF PREPARATION AND USE THEREFOR | COLLAGEN BIOFABRIC AND METHODS OF PREPARATION AND USE THEREFOR | COLLAGEN BIOFABRIC AND METHODS OF PREPARATION AND USE THEREFOR Hong Kong Hong Kong | COLLAGEN BIOFABRIC AND METHODS OF PREPARATION AND USE THEREFOR United Kingdom | METHODS OF PREPARATION AND USE THEREFOR |
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| 10-2004-7015383 | 2003-579744 | 2014-016360 | 2010-156978 | 03745621.7 | 164220 | 03745621.7 | 06103595.7 | 14105942.2 | 03745621.7 | 03745621.7 |
| Mar-26- 2003 | Mar-26- 2003 | Mar-26- 2003 | Mar-26- 2003 | Mar-26- 2003 | Mar-26- 2003 | Mar-26- 2003 | Mar-26- 2003 | Mar-26- 2003 | Mar-26- 2003 | Mar-26- 2003 |
| Registered | Registered | Registered | Registered | Registered | Registered | Registered | Registered | Pending | Registered | Registered |
| 10-0999247 | 4615223 | 5993387 | 5931327 | 1575572 | 164220 | 1575572 | HK1085384 | N/A | 1575572 | 1575572 |
| Dec-01-2010 | Oct-29-2010 | Aug-26-2016 | May-13-2016 | Sep-24-2014 | Feb-01-2013 | Sep-24-2014 | Aug-21-2015 | N/A | Sep-24-2014 | Sep-24-2014 |

| Dec-25-2015 | 213109 | Registered | Dec-05- 2001 | 213109 | Israel | METHOD OF COLLECTING PLACENTAL STEM CELLS |
|-------------|------------|------------|-----------------|-------------------|---------------------------------|--|
| Mar-01-2016 | 208510 | Registered | Dec-05- 2001 | 208510 | Israel | METHOD OF COLLECTING PLACENTAL STEM CELLS |
| Nov-01-2011 | 156303 | Registered | Dec-05- 2001 | 156303 | Israel | METHOD OF COLLECTING PLACENTAL STEM CELLS |
| Sep-07-2006 | 2002220209 | Registered | Dec-05- 2001 | 2002220209 | Australia | METHOD OF COLLECTING PLACENTAL STEM CELLS |
| N/A | N/A | Expired | Dec-31- 2014 | 62/098,795 | United States of America | METHODS FOR ISOLATION OF PLATELETS |
| N/A | N/A | Pending | Dec-30- 2015 | PCT/US2015/068044 | Patent Cooperation Treaty | METHODS FOR ISOLATION OF PLATELETS |
| Aug-30-2006 | 2004/7650 | Registered | Mar-26- 2003 | 2004/7650 | South Africa | COLLAGEN BIOFABRIC AND METHODS OF PREPARATION AND USE THEREFOR |
| N/A | N/A | Abandoned | Mar-26- 2003 | 10/397,867 | United States of America | COLLAGEN BIOFABRIC AND METHODS OF PREPARATION AND USETHEREFOR |
| N/A | N/A | Completed | Mar-26- 2003 | PCT/US03/09304 | Patent Cooperation Treaty | COLLAGEN BIOFABRIC AND METHODS OF PREPARATION AND USE THEREFOR |
| Oct-07-2010 | 535799 | Registered | Mar-26- 2003 | 535799 | New Zealand | COLLAGEN BIOFABRIC AND METHODS OF PREPARATION AND USE THEREFOR |
| Sep-07-2010 | 278788 | Registered | Mar-26- 2003 | 2004/009188 | Mexico | COLLAGEN BIOFABRIC AND METHODS OF PREPARATION AND USE THEREFOR |
| Sep-24-2014 | 1575572 | Registered | Mar-26- 2003 | 03745621.7 | Monaco | COLLAGEN BIOFABRIC AND METHODS OF PREPARATION AND USE THEREFOR |
| Sep-24-2014 | 1575572 | Registered | Mar-26- 2003 | 03745621.7 | Luxembourg | COLLAGEN BIOFABRIC AND METHODS OF PREPARATION AND USE THEREFOR |

| Aug-14-2007 | 7,255,879 | Registered | Dec-05- 2001 | 10/640,428 | United States of America | POST-PARTUM MAMMALIAN PLACENTA, ITS USE AND PLACENTAL STEM CELLS THEREFROM |
|-------------|------------|------------|------------------|-------------------|---------------------------------|--|
| Dec-29-2009 | 7,638,141 | Registered | Jul-21- 2005 | 11/187,400 | United States of America | ISOLATED PLACENTAL PERFUSATE AND PLACENTAL CELLS ISOLATED THEREFROM |
| N/A | N/A | Expired | Mar-18- 2015 | 62/134,943 | United States of America | METHODS OF BANKING PLACENTAL TISSUE AND CELLS |
| N/A | N/A | Pending | Jun-09- 2016 | 15/177,779 | United States of America | METHOD OF COLLECTING PLACENTAL STEM CELLS |
| Jul-12-2016 | 9,387,283 | Registered | Jun-06- 2014 | 14/298,294 | United States of America | METHOD OF COLLECTING PLACENTAL STEM CELLS |
| N/A | N/A | Pending | Mar-17- 2016 | PCT/US2016/022865 | Patent Cooperation Treaty | METHODS OF BANKING PLACENTAL TISSUE AND CELLS |
| N/A | N/A | Abandoned | June-03- 2010 | PCT/US10/37161 | Patent Cooperation Treaty | IMPROVED METHOD OF COLLECTING PLACENTAL CELLS |
| N/A | N/A | Abandoned | June-03- 2010 | 12/793,620 | United States of America | METHOD OF COLLECTING PLACENTAL CELLS |
| May-16-2006 | 7,045,148 | Registered | Dec-05- 2001 | 10/004,942 | United States of America | METHOD OF COLLECTING PLACENTAL STEM CELLS |
| Jun-10-2008 | 257796 | Registered | Dec-05- 2001 | PA/a/2003/005014 | Mexico | METHOD OF COLLECTING PLACENTAL STEM CELLS |
| Aug-27-2009 | 10-0915483 | Registered | Dec-05- 2001 | 2008-7015591 | Republic of Korea | METHOD OF COLLECTING PLACENTAL STEM CELLS |
| Aug-27-2009 | 10-0915482 | Registered | Dec-05- 2001 | 2003-7007561 | Republic of Korea | METHOD OF COLLECTING PLACENTAL STEM CELLS |
| Apr-17-2009 | 4294316 | Registered | Dec-05- 2001 | 14-548091 | Japan | METHOD OF COLLECTING PLACENTAL STEM CELLS |

| TUMOR SUPPRESSION USING HUMAN PLACENTAL PERFUSATE AND HUMAN PLACENTA-DERIVED INTERMEDIATE NATURAL KILLER CELLS | TUMOR SUPPRESSION USING HUMAN PLACENTAL PERFUSATE AND HUMAN PLACENTA-DERIVED INTERMEDIATE NATURAL KILLER CELLS | TUMOR SUPPRESSION USING HUMAN PLACENTAL PERFUSATE AND HUMAN PLACENTA-DERIVED INTERMEDIATE NATURAL KILLER CELLS | TUMOR SUPPRESSION USING HUMAN PLACENTAL PERFUSATE AND HUMAN PLACENTA-DERIVED INTERMEDIATE NATURAL KILLER CELLS | TUMOR SUPPRESSION USING HUMAN PLACENTAL PERFUSATE AND HUMAN PLACENTA-DERIVED INTERMEDIATE NATURAL KILLER CELLS | TUMOR SUPPRESSION USING HUMAN PLACENTAL PERFUSATE AND HUMAN PLACENTA-DERIVED INTERMEDIATE NATURAL KILLER CELLS |
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| Bosnia & Herzegovina | Australia | Australia | Australia | Austria | Albania |
| 08834753.9 | 2016247217 | 2013203209 | 2008307633 | 08834753.9 | 08834753.9 |
| Sep-29- 2008 | Sep-29- 2008 | Sep-29- 2008 | Sep-29- 2008 | Sep-29- 2008 | Sep-29- 2008 |
| Registered | Pending | Abandoned | Registered | Registered | Registered |
| E01644 | N/A | N/A | 2008307633 | 2203176 | AL/P/2015/47 |
| Nov-26-2014 | N/A | N/A | Apr-23-2015 | Nov-26-2014 | Nov-26-2014 |

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| China | Switzerland | Canada | Brazil | Bulgaria | Belgium |
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| 2013 | 08 | | PI | 08 | 08 |
| 201310145616.3 | 08834753.9 | 2,700,617 | P10817751-1 | 08834753.9 | 08834753.9 |
| 6.3 | 9 | | <u> </u> | 9 | 9 |
| Sep-29- 2008 | Sep-29- 2008 | Sep-29- 2008 | Sep-29- 2008 | Sep-29- 2008 | Sep-29- 2008 |
| Registered | Registered | Pending | Pending | Registered | Registered |
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| ZL201310145616. | 2203176 | N/A | N/A | 2203176 | 2203176 |
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| TUMOR SUPPRESSION USING HUMAN PLACENTAL PERFUSATE AND HUMAN PLACENTA-DERIVED INTERMEDIATE NATURAL KILLER CELLS | TUMOR SUPPRESSION USING HUMAN PLACENTAL PERFUSATE AND HUMAN PLACENTA-DERIVED INTERMEDIATE NATURAL KILLER CELLS | TUMOR SUPPRESSION USING HUMAN PLACENTAL PERFUSATE AND HUMAN PLACENTA-DERIVED INTERMEDIATE NATURAL KILLER CELLS | TUMOR SUPPRESSION USING HUMAN PLACENTAL PERFUSATE AND HUMAN PLACENTA-DERIVED INTERMEDIATE NATURAL KILLER CELLS | TUMOR SUPPRESSION USING HUMAN PLACENTAL PERFUSATE AND HUMAN PLACENTA-DERIVED INTERMEDIATE NATURAL KILLER CELLS | TUMOR SUPPRESSION USING HUMAN PLACENTAL PERFUSATE AND HUMAN PLACENTA-DERIVED INTERMEDIATE NATURAL KILLER CELLS |
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| Denmark | Germany | Czech Republic | Cyprus | Croatia | China |
| 08834753.9 | 08834753.9 | 08834753.9 | CY20151100173 | 08834753.9 | 201310495664.5 |
| Sep-29- 2008 | Sep-29- 2008 | Sep-29- 2008 | Sep-29- 2008 | Sep-29- 2008 | Sep-29- 2008 |
| Registered | Registered | Registered | Registered | Registered | Pending |
| 2203176 | 602008035601.9 | 2203176 | CY1116013 | P20150220T | N/A |
| Nov-26-2014 | Nov-26-2014 | Nov-26-2014 | Nov-26-2014 | Nov-26-2014 | N/A |

| TUMOR SUPPRESSION USING HUMAN PLACENTAL PERFUSATE AND HUMAN PLACENTA-DERIVED INTERMEDIATE NATURAL KILLER CELLS | TUMOR SUPPRESSION USING HUMAN PLACENTAL PERFUSATE AND HUMAN PLACENTA-DERIVED INTERMEDIATE NATURAL KILLER CELLS | TUMOR SUPPRESSION USING HUMAN PLACENTAL PERFUSATE AND HUMAN PLACENTA-DERIVED INTERMEDIATE NATURAL KILLER CELLS | TUMOR SUPPRESSION USING HUMAN PLACENTAL PERFUSATE AND HUMAN PLACENTA-DERIVED INTERMEDIATE NATURAL KILLER CELLS | TUMOR SUPPRESSION USING HUMAN PLACENTAL PERFUSATE AND HUMAN PLACENTA-DERIVED INTERMEDIATE NATURAL KILLER CELLS | TUMOR SUPPRESSION USING HUMAN PLACENTAL PERFUSATE AND HUMAN PLACENTA-DERIVED INTERMEDIATE NATURAL KILLER CELLS |
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| Hungary | Hong Kong | France | Finland | Spain | European Patent Office |
| E08834753 | 10106693.5 | 08834753.9 | 08834753.9 | 08834753.9 | 08834753.9 |
| Sep-29- 2008 | Sep-29- 2008 | Sep-29- 2008 | Sep-29- 2008 | Sep-29- 2008 | Sep-29- 2008 |
| Registered | Registered | Registered | Registered | Registered | Registered |
| E024286 | HK1139876 | 2203176 | 2203176 | ES2530995T3 | 2203176 |
| Nov-26-2014 | Oct-28-2016 | Nov-26-2014 | Nov-26-2014 | Nov-26-2014 | Nov-26-2014 |

| TUMOR SUPPRESSION USING HUMAN PLACENTAL PERFUSATE AND HUMAN PLACENTA-DERIVED INTERMEDIATE NATURAL KILLER CELLS | TUMOR SUPPRESSION USING HUMAN PLACENTAL PERFUSATE AND HUMAN PLACENTA-DERIVED INTERMEDIATE NATURAL KILLER CELLS | TUMOR SUPPRESSION USING HUMAN PLACENTAL PERFUSATE AND HUMAN PLACENTA-DERIVED INTERMEDIATE NATURAL KILLER CELLS | TUMOR SUPPRESSION USING HUMAN PLACENTAL PERFUSATE AND HUMAN PLACENTA-DERIVED INTERMEDIATE NATURAL KILLER CELLS | TUMOR SUPPRESSION USING HUMAN PLACENTAL PERFUSATE AND HUMAN PLACENTA-DERIVED INTERMEDIATE NATURAL KILLER CELLS | TUMOR SUPPRESSION USING HUMAN PLACENTAL PERFUSATE AND HUMAN PLACENTA-DERIVED INTERMEDIATE NATURAL KILLER CELLS |
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| Iceland | India | India | Israel | Israel | Ireland |
| 08834753.9 | 3650/CHENP/2015 | 2296/CHENP/2010 | 204860 | 204860 | 08834753.9 |
| Sep-29- 2008 | Sep-29- 2008 | Sep-29- 2008 | Sep-29- 2008 | Sep-29- 2008 | Sep-29- 2008 |
| Registered | Pending | Pending | Pending | Registered | Registered |
| 2203176 | N/A | N/A | N/A | 204860 | 2203176 |
| Nov-26-2014 | N/A | N/A | N/A | May 1, 2017 | Nov-26-2014 |

| TUMOR SUPPRESSION USING HUMAN PLACENTAL PERFUSATE AND HUMAN PLACENTA-DERIVED INTERMEDIATE NATURAL KILLER CELLS | TUMOR SUPPRESSION USING HUMAN PLACENTAL PERFUSATE AND HUMAN PLACENTA-DERIVED INTERMEDIATE NATURAL KILLER CELLS | TUMOR SUPPRESSION USING HUMAN PLACENTAL PERFUSATE AND HUMAN PLACENTA-DERIVED INTERMEDIATE NATURAL KILLER CELLS | TUMOR SUPPRESSION USING HUMAN PLACENTAL PERFUSATE AND HUMAN PLACENTA-DERIVED INTERMEDIATE NATURAL KILLER CELLS | TUMOR SUPPRESSION USING HUMAN PLACENTAL PERFUSATE AND HUMAN PLACENTA-DERIVED INTERMEDIATE NATURAL KILLER CELLS | TUMOR SUPPRESSION USING HUMAN PLACENTAL PERFUSATE AND HUMAN PLACENTA-DERIVED INTERMEDIATE NATURAL KILLER CELLS |
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| Republic of Korea | Republic of Korea | Japan | Japan | Japan | Italy |
| 10-2015-7019757 | 10-2010-7009228 | 2016-119378 | 2015-003222 | 2010-526968 | 08834753.9 |
| Sep-29- 2008 | Sep-29- 2008 | Sep-29- 2008 | Sep-29- 2008 | Sep-29- 2008 | Sep-29- 2008 |
| Pending | Registered | Pending | Pending | Registered | Registered |
| N/A | 10-1648589 | N/A | N/A | 5795476 | 2203176 |
| N/A | Aug-09-2016 | N/A | N/A | Aug-21-2015 | Nov-26-2014 |

| TUMOR SUPPRESSION USING HUMAN PLACENTAL PERFUSATE AND HUMAN PLACENTA-DERIVED INTERMEDIATE NATURAL KILLER CELLS | TUMOR SUPPRESSION USING HUMAN PLACENTAL PERFUSATE AND HUMAN PLACENTA-DERIVED INTERMEDIATE NATURAL KILLER CELLS | TUMOR SUPPRESSION USING HUMAN PLACENTAL PERFUSATE AND HUMAN PLACENTA-DERIVED INTERMEDIATE NATURAL KILLER CELLS | TUMOR SUPPRESSION USING HUMAN PLACENTAL PERFUSATE AND HUMAN PLACENTA-DERIVED INTERMEDIATE NATURAL KILLER CELLS | TUMOR SUPPRESSION USING HUMAN PLACENTAL PERFUSATE AND HUMAN PLACENTA-DERIVED INTERMEDIATE NATURAL KILLER CELLS | TUMOR SUPPRESSION USING HUMAN PLACENTAL PERFUSATE AND HUMAN PLACENTA-DERIVED INTERMEDIATE NATURAL KILLER CELLS |
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| Macedonia (F.Y.R.O.M) | Montenegro | Monaco | Latvia | Luxembourg | Lithuania |
| P-2015/109 | P-2015-132 | 08834753.9 | 08834753.9 | 08834753.9 | 08834753.9 |
| Sep-29- 2008 | Sep-29- 2008 | Sep-29- 2008 | Sep-29- 2008 | Sep-29- 2008 | Sep-29- 2008 |
| Registered | Registered | Registered | Registered | Registered | Registered |
| 905808 | 02250 | 2203176 | 2203176 | 2203176 | 2203176 |
| Nov-26-2014 | Nov-26-2014 | Nov-26-2014 | Nov-26-2014 | Nov-26-2014 | Nov-26-2014 |

| TUMOR SUPPRESSION USING HUMAN PLACENTAL PERFUSATE AND HUMAN PLACENTA-DERIVED INTERMEDIATE NATURAL KILLER CELLS | TUMOR SUPPRESSION USING HUMAN PLACENTAL PERFUSATE AND HUMAN PLACENTA-DERIVED INTERMEDIATE NATURAL KILLER CELLS | TUMOR SUPPRESSION USING HUMAN PLACENTAL PERFUSATE AND HUMAN PLACENTA-DERIVED INTERMEDIATE NATURAL KILLER CELLS | TUMOR SUPPRESSION USING HUMAN PLACENTAL PERFUSATE AND HUMAN PLACENTA-DERIVED INTERMEDIATE NATURAL KILLER CELLS | TUMOR SUPPRESSION USING HUMAN PLACENTAL PERFUSATE AND HUMAN PLACENTA-DERIVED INTERMEDIATE NATURAL KILLER CELLS | TUMOR SUPPRESSION USING HUMAN PLACENTAL PERFUSATE AND HUMAN PLACENTA-DERIVED INTERMEDIATE NATURAL KILLER CELLS |
|--|--|--|--|--|--|
| New Zealand | Norway | Netherlands | Mexico | Mexico | Malta |
| 584458 | 08834753.9 | 08834753.9 | MX/a/2015/000277 | MX/a/2010/003291 | 08834753.9 |
| Sep-29- 2008 | Sep-29- 2008 | Sep-29- 2008 | Sep-29- 2008 | Sep-29- 2008 | Sep-29- 2008 |
| Registered | Registered | Registered | Pending | Registered | Registered |
| 584458 | 2203176 | 2203176 | N/A | 308099 | 2203176 |
| Jan-04-2013 | Nov-26-2014 | Nov-26-2014 | N/A | Mar-21-2013 | Nov-26-2014 |

| N/A N/A 2203176 | Abandoned Pending Pending Registered | Sep-29- 2008 Sep-29- 2008 Sep-29- 2008 Sep-29- 2008 | 708146 727001 727001 PCT/US2008/011251 08834753.9 | New Zealand New Zealand Patent Cooperation Treaty Poland | PERFUSATE AND HUMAN PERFUSATE AND HUMAN PLACENTA-DERIVED INTERMEDIATE NATURAL KILLER CELLS TUMOR SUPPRESSION USING HUMAN PLACENTAL PERFUSATE AND HUMAN PLACENTA-DERIVED INTERMEDIATE NATURAL KILLER CELLS TUMOR SUPPRESSION USING HUMAN PLACENTAL PERFUSATE AND HUMAN PLACENTA-DERIVED INTERMEDIATE NATURAL KILLER CELLS TUMOR SUPPRESSION USING HUMAN PLACENTAL PERFUSATE AND HUMAN PLACENTA-DERIVED INTERMEDIATE NATURAL KILLER CELLS TUMOR SUPPRESSION USING HUMAN PLACENTAL PERFUSATE AND HUMAN PLACENTA-DERIVED INTERMEDIATE NATURAL PERFUSATE AND HUMAN PLACENTA-DERIVED INTERMEDIATE NATURAL RILLER CELLS TUMOR SUPPRESSION USING HUMAN PLACENTAL PERFUSATE AND HUMAN PLACENTA-DERIVED INTERMEDIATE NATURAL RILLER CELLS |
|-----------------------|---|--|---|---|---|
| 599825 | Registered Registered | Sep-29- 2008 Sep-29- 2008 | 599825 617412 | New Zealand New Zealand | TUMOR SUPPRESSION USING HUMAN PLACENTAL PERFUSATE AND HUMAN PLACENTA-DERIVED INTERMEDIATE NATURAL KILLER CELLS TUMOR SUPPRESSION USING HUMAN PLACENTAL |

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| TUMOR SUPPRESSION USING HUMAN PLACENTAL PERFUSATE AND HUMAN PLACENTA-DERIVED INTERMEDIATE NATURAL KILLER CELLS | TUMOR SUPPRESSION USING HUMAN PLACENTAL PERFUSATE AND HUMAN PLACENTA-DERIVED INTERMEDIATE NATURAL KILLER CELLS | TUMOR SUPPRESSION USING HUMAN PLACENTAL PERFUSATE AND HUMAN PLACENTA-DERIVED INTERMEDIATE NATURAL KILLER CELLS | TUMOR SUPPRESSION USING HUMAN PLACENTAL PERFUSATE AND HUMAN PLACENTA-DERIVED INTERMEDIATE NATURAL KILLER CELLS | TUMOR SUPPRESSION USING HUMAN PLACENTAL PERFUSATE AND HUMAN PLACENTA-DERIVED INTERMEDIATE NATURAL KILLER CELLS | TUMOR SUPPRESSION USING HUMAN PLACENTAL PERFUSATE AND HUMAN PLACENTA-DERIVED INTERMEDIATE NATURAL KILLER CELLS |
| Turkey | Slovakia | Sweden | Serbia | Romania | Portugal |
| 08834753.9 | 08834753.9 | 08834753.9 | 08834753.9 | 08834753.9 | 08834753.9 |
| Sep-29- 2008 | Sep-29- 2008 | Sep-29- 2008 | Sep-29- 2008 | Sep-29- 2008 | Sep-29- 2008 |
| Registered | Registered | Registered | Registered | Registered | Registered |
| 2203176 | E18243 | 2203176 | P01322015 | 2203176 | 2203176 |
| Nov-26-2014 | Nov-26-2014 | Nov-26-2014 | Nov-26-2014 | Nov-26-2014 | Nov-26-2014 |

| TUMOR SUPPRESSION USING HUMAN PLACENTAL PERFUSATE AND HUMAN PLACENTA-DERIVED INTERMEDIATE NATURAL KILLER CELLS | TUMOR SUPPRESSION USING HUMAN PLACENTAL PERFUSATE AND HUMAN PLACENTA-DERIVED INTERMEDIATE NATURAL KILLER CELLS | TUMOR SUPPRESSION USING HUMAN PLACENTAL PERFUSATE AND HUMAN PLACENTA-DERIVED INTERMEDIATE NATURAL KILLER CELLS | TUMOR SUPPRESSION USING HUMAN PLACENTAL PERFUSATE AND HUMAN PLACENTA-DERIVED INTERMEDIATE NATURAL KILLER CELLS | TUMOR SUPPRESSION USING HUMAN PLACENTAL PERFUSATE AND HUMAN PLACENTA-DERIVED INTERMIDIATE NATURAL KILLER CELLS | TUMOR SUPPRESSION USING HUMAN PLACENTAL PERFUSATE AND PLACENTA- DERIVED INTERMEDIATE NATURAL KILLER CELLS |
|--|--|--|--|--|---|
| South Africa | United States of America | United States of America | United States of America | United States of America | United States of America |
| 2010/02304 | 14/942,337 | 13/584,612 | 12/240,956 | 61/090,555 | 60/995,763 |
| Sep-29- 2008 | Nov-16- 2015 | Aug-13- 2012 | Sep-29- 2008 | Aug-20- 2008 | Sep-28- 2007 |
| Registered | Pending | Registered | Registered | Expired | Expired |
| 2010/02304 | N/A | 9,216,200 | 8,263,065 | N/A | N/A |
| Oct-26-2011 | N/A | Dec-22-2015 | Sep-11-2012 | N/A | N/A |

| ANGIOGENIC CELLS FROM HUMAN PLACENTAL PERFUSATE | TUMOR SUPPRESSION USING HUMAN PLACENTAL PERFUSATE AND HUMAN PLACENTA-DERIVED INTERMEDIATE NATURAL KILLER CELLS |
|---|---|---|---|---|---|---|---|---|---|--|
| Japan | Japan | Japan | India | India | Israel | Israel | Israel | Canada | Brazil | South Africa |
| 2016-152885 | 2014-196899 | 2010-526961 | 3377/CHENP/2015 | 2266/CHENP/2010 | 242645 | 242644 | 204762 | 2,700,613 | PI0818191-8 | 2011/05502 |
| Sep-26- 2008 | Sep-29- 2008 |
| Pending | Registered | Registered | Pending | Pending | Pending | Pending | Registered | Pending | Pending | Registered |
| N/A | 5985569 | 5703493 | N/A | N/A | N/A | N/A | 204762 | N/A | N/A | 2011/05502 |
| N/A | Aug-12-2016 | Mar-06-2015 | N/A | N/A | N/A | N/A | Apr-01-2016 | N/A | N/A | May-29-2013 |

| Apr-20-2010 | 7,700,090 | Registered | Dec-28- 2006 | 11/648,802 | United States of America | CO-CULTURE OF PLACENTAL STEM CELLS AND STEM CELLS FROM A SECOND SOURCE |
|-------------|------------|------------|-----------------|-------------------|---------------------------------|--|
| Jun-04-2013 | 8,455,250 | Registered | Dec-28- 2006 | 11/648,824 | United States of America | CO-CULTURE OF PLACENTAL STEM CELLS AND STEM CELLS FROM A SECOND SOURCE |
| Feb-07-2012 | 568618 | Registered | Dec-28- 2006 | 568618 | New Zealand | CO-CULTURE OF PLACENTAL STEM CELLS AND STEM CELLS FROM A SECOND SOURCE |
| Sep-29-2012 | 191770 | Registered | Dec-28- 2006 | 191770 | Israel | A METHOD OF IDENTIFYING A RATIO OF PLACENTAL PERFUSATE STEM CELLS TO STEM CELLS FROM A SECOND SOURCE |
| Sep-28-2011 | 2010/02302 | Registered | Sep-26- 2008 | 2010/02302 | South Africa | ANGIOGENIC CELLS FROM HUMAN PLACENTAL PERFUSATE |
| N/A | N/A | Pending | Sep-26- 2008 | 12/239,679 | United States of America | ANGIOGENIC CELLS FROM HUMAN PLACENTAL PERFUSATE |
| N/A | N/A | Expired | Sep-26- 2007 | 60/995,679 | United States of America | ANGIOGENIC CELLS FROM HUMAN PLACENTAL PERFUSATE |
| N/A | N/A | Completed | Sep-26- 2008 | PCT/US2008/011167 | Patent Cooperation Treaty | ANGIOGENIC CELLS FROM HUMAN PLACENTAL PERFUSATE |
| N/A | N/A | Pending | Sep-26- 2008 | 10-2016-7020487 | Republic of Korea | ANGIOGENIC CELLS FROM HUMAN PLACENTAL PERFUSATE |
| Jul-28-2016 | 10-1645311 | Registered | Sep-26- 2008 | 10-2015-7020016 | Republic of Korea | ANGIOGENIC CELLS FROM HUMAN PLACENTAL PERFUSATE |
| Jul-26-2016 | 10-1644659 | Registered | Sep-26- 2008 | 10-2010-7008970 | Republic of Korea | ANGIOGENIC CELLS FROM HUMAN PLACENTAL PERFUSATE |

| COMPOSITIONS COMPRISING HUMAN PLACENTAL PERFUSATE CELLS, SUBPOPULATIONS THEREOF, AND THEIR USES Hong Kong Hong Kong | COMPOSITIONS COMPRISING HUMAN PLACENTAL PERFUSATE CELLS, SUBPOPULATIONS THEREOF, AND THEIR USES | COMPOSITIONS COMPRISING HUMAN PLACENTAL PERFUSATE CELLS, SUBPOPULATIONS THEREOF, AND THEIR USES | COMPOSITIONS COMPRISING HUMAN PLACENTAL PERFUSATE CELLS, SUBPOPULATIONS THEREOF, AND THEIR USES | COMPOSITIONS COMPRISING HUMAN PLACENTAL PERFUSATE CELLS, SUBPOPULATIONS THEREOF, AND THEIR USES | CO-CULTURE OF PLACENTAL STEM CELLS AND STEM CELLS FROM A SECOND SOURCE South Africa | CO-CULTURE OF PLACENTAL STEM CELLS AND STEM CELLS FROM A SECOND SOURCE United States of America | CO-CULTURE OF PLACENTAL STEM CELLS AND STEM CELLS FROM A SECOND SOURCE United States of America |
|--|---|---|---|---|---|---|---|
| 17102104.0 | 14862931.4 | 201480073194.6 | 2,930,573 | 2014348454 | 2008/04718 | 15/189,914 | 11/982,211 |
| Nov-14- 2014 | Nov-14- 2014 | Nov-14- 2014 | Nov-14- 2014 | Nov-14- 2014 | Dec-28- 2006 | Jun-22- 2016 | Oct-31- 2007 |
| Pending | Pending | Pending | Pending | Pending | Registered | Filed by HLI – Celgene not provided specifics | Abandoned |
| N/A | N/A | N/A | N/A | N/A | 2008/04718 | N/A | N/A |
| N/A | N/A | N/A | N/A | N/A | Apr-28-2010 | N/A | N/A |

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|---|---|---|---|---|---|---|
| COMPOSITIONS COMPRISING HUMAN PLACENTAL PERFUSATE CELLS, SUBPOPULATIONS THEREOF, AND THEIR USES | COMPOSITIONS COMPRISING HUMAN PLACENTAL PERFUSATE CELLS, SUBPOPULATIONS THEREOF, AND THEIR USES | COMPOSITIONS COMPRISING HUMAN PLACENTAL PERFUSATE CELLS, SUBPOPULATIONS THEREOF, AND THEIR USES | COMPOSITIONS COMPRISING HUMAN PLACENTAL PERFUSATE CELLS, SUBPOPULATIONS THEREOF, AND THEIR USES | COMPOSITIONS COMPRISING HUMAN PLACENTAL PERFUSATE CELLS, SUBPOPULATIONS THEREOF, AND THEIR USES | COMPOSITIONS COMPRISING HUMAN PLACENTAL PERFUSATE CELLS, SUBPOPULATIONS THEREOF, AND THEIR USES | COMPOSITIONS COMPRISING HUMAN PLACENTAL PERFUSATE CELLS, SUBPOPULATIONS THEREOF, AND THEIR USES |
| United States of America | Russian Federation | Patent Cooperation Treaty | New Zealand | Mexico | Republic of Korea | Japan |
| 61/905,076 | 2016123361 | PCT/US2014/065665 | 720058 | MX/a/2016/006270 | 10-2016-7015654 | 2016-530925 |
| Nov-15- 2013 | Nov-14- 2014 | Nov-14- 2014 | Nov-14- 2014 | Nov-14- 2014 | Nov-14- 2014 | Nov-14- 2014 |
| Expired | Pending | Completed | Pending | Pending | Pending | Pending |
| N/A | N/A | N/A | N/A | N/Α | N/A | N/A |
| N/A | N/A | N/A | N/A | N/A | N/A | N/A |

| METHOD OF PRODUCING ERYTHROCYTES WITHOUT FEEDER CELLS | METHOD OF PRODUCING ERYTHROCYTES | METHOD OF PRODUCING ERYTHROCYTES | METHOD OF PRODUCING ERYTHROCYTES | TREATMENT OF CONDITIONS AND COMPLICATIONS IN INFANTS | TREATMENT OF CONDITIONS AND COMPLICATIONS IN INFANTS | TREATMENT OF CONDITIONS AND COMPLICATIONS IN INFANTS | COMPOSITIONS COMPRISING HUMAN PLACENTAL PERFUSATE CELLS, SUBPOPULATIONS THEREOF, AND THEIR USES | COMPOSITIONS COMPRISING HUMAN PLACENTAL PERFUSATE CELLS, SUBPOPULATIONS THEREOF, AND THEIR USES | COMPOSITIONS COMPRISING HUMAN PLACENTAL PERFUSATE CELLS, SUBPOPULATIONS THEREOF, AND THEIR USES |
|---|-------------------------------------|-------------------------------------|-------------------------------------|--|--|--|---|---|---|
| | | | · | | | | | | , |
| Argentina | United States of America | United States of America | United States of America | United States of America | United States of America | Patent Cooperation Treaty | South Africa | United States of America | United States of America |
| P100102362 | 14/925,346 | 12/187,337 | 60/963,894 | 15/305,325 | 61/982,144 | PCT/US2015/026610 | 2016/03270 | 15/036,649 | 61/905,077 |
| Jul-01- 2010 | Oct-28- 2015 | Aug-06- 2008 | Aug-06- 2007 | Apr-20- 2015 | Apr-21- 2014 | Apr-20- 2015 | Nov-14- 2014 | Nov-14- 2014 | Nov-15- 2013 |
| Pending | Pending | Registered | Expired | Filed by HLI – Celgene not provided specifics | Expired | Completed | Pending | Pending | Expired |
| N/A | N/A | 9,200,253 | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| N/A | N/A | Dec-01-2015 | N/A | N/A | N/A | N/A | N/A | N/A | N/A |

| METHOD OF PRODUCING ERYTHROCYTES WITHOUT FEEDER CELLS | METHOD OF PRODUCING ERYTHROCYTES WITHOUT FEEDER CELLS | METHOD OF PRODUCING ERYTHROCYTES WITHOUT FEEDER CELLS | METHOD OF PRODUCING ERYTHROCYTES WITHOUT FEEDER CELLS | METHOD OF PRODUCING ERYTHROCYTES WITHOUT FEEDER CELLS | METHOD OF PRODUCING ERYTHROCYTES WITHOUT FEEDER CELLS | METHOD OF PRODUCING ERYTHROCYTES WITHOUT FEEDER CELLS | METHOD OF PRODUCING ERYTHROCYTES WITHOUT FEEDER CELLS | METHOD OF PRODUCING ERYTHROCYTES WITHOUT FEEDER CELLS | METHOD OF PRODUCING ERYTHROCYTES WITHOUT FEEDER CELLS | METHOD OF PRODUCING ERYTHROCYTES WITHOUT FEEDER CELLS |
|---|---|---|---|---|---|---|---|---|---|---|
| Mexico | Japan | Japan | Japan | Israel | Hong Kong | European Patent Office | European Patent Office | Canada | Australia | Australia |
| MX/a/2012/000110 | 2015-078743 | 2016-186243 | 2012-518604 | 217257 | 12111083.1 | 16201418.7 | 10730018.8 | 2,767,014 | 2016213843 | 2010266263 |
| Jul-01- 2010 | Jul-01- 2010 | Jul-01- 2010 | Jul-01- 2010 | Jul-01- 2010 | Jul-01- 2010 | Jul-01- 2010 | Jul-01- 2010 | Jul-01- 2010 | Jul-01- 2010 | Jul-01- 2010 |
| Registered | Pending | Pending | Abandoned | Pending | Abandoned | Pending | Abandoned | Pending | Pending | Registered |
| 317358 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | 2010266263 |
| Jan-22-2014 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | Sep-01-2016 |

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|---|---|---|---|---|---|---|---|---|---|---|
| METHOD OF PRODUCING ERTHYROCYTES WITHOUT FEEDER CELLS | METHOD OF PRODUCING ERTHYROCYTES WITHOUT FEEDER CELLS | METHOD OF PRODUCING ERTHYROCYTES WITHOUT FEEDER CELLS | METHOD OF PRODUCING ERYTHROCYTES WITHOUT FEEDER CELLS | METHOD OF PRODUCING ERYTHROCYTES WITHOUT FEEDER CELLS | METHOD OF PRODUCING ERYTHROCYTES WITHOUT FEEDER CELLS | METHOD OF PRODUCING ERYTHROCYTES WITHOUT FEEDER CELLS | METHOD OF PRODUCING ERYTHROCYTES WITHOUT FEEDER CELLS | METHOD OF PRODUCING ERYTHROCYTES WITHOUT FEEDER CELLS | METHOD OF PRODUCING ERYTHROCYTES WITHOUT FEEDER CELLS | METHOD OF PRODUCING ERYTHROCYTES WITHOUT FEEDER CELLS |
| United States of America | United States of America | United States of America | United States of America | Patent Cooperation Treaty | New Zealand | New Zealand | New Zealand | New Zealand | Mexico | Mexico |
| 14/979,327 | 12/829,326 | 14/052,524 | 61/222,930 | PCT/US2010/040707 | 728595 | 709813 | 619359 | 597436 | MX/a/2014/000827 | MX/a/2013/012849 |
| Dec-22- 2015 | Jul-01- 2010 | Oct-11- 2013 | Jul-02- 2009 | Jul-01- 2010 | Jul-01- 2010 | Jul-01- 2010 | Jul-01- 2010 | Jul-01- 2010 | Jul-01- 2010 | Jul-01- 2010 |
| Pending | Registered | Registered | Expired | Completed | Pending | Abandoned | Registered | Registered | Pending | Pending |
| N/A | 8,586,360 | 9,255,248 | N/A | N/A | N/A | N/A | 619359 | 597436 | | A/N |
| N/A | Nov-19-2013 | Feb-09-2016 | N/A | N/A | N/A | N/A | Nov-03-2015 | Dec-02-2014 | | N/A |

| N/A | N/A | Abandoned | Feb-13- 2004 | 04711187 | European Patent Office | USE OF UMBILICAL CORD BLOOD TO TREAT INDIVIDUALS HAVING A DISEASE, DISORDER OR CONDITION |
|-------------|------------|---|-----------------|----------------|---------------------------|--|
| N/A | N/A | Pending | Nov-07- 2008 | 08847846.6 | European Patent Office | USE OF UMBILICAL CORD BLOOD IN THE TREATMENT OF PREMATURE BIRTH COMPLICATIONS |
| N/A | N/A | Abandoned | Feb-13- 2004 | 2004800009600 | China | USE OF UMBILICAL CORD BLOOD TO TREAT INDIVIDUALS HAVING A DISEASE, DISORDER OR CONDITION |
| N/A | N/A | Pending | Nov-07- 2008 | 201610806430.1 | China | USE OF UMBILICAL CORD BLOOD IN THE TREATMENT OF PREMATURE BIRTH COMPLICATIONS |
| N/A | N/A | Abandoned | Nov-07- 2008 | 200880123939.X | China | USE OF UMBILICAL CORD BLOOD IN THE TREATMENT OF PREMATURE BIRTH COMPLICATIONS |
| N/A | N/A | Reinstateme nt deadline April 18, 2018 | Nov-07- 2008 | 2,704,746 | Canada | USE OF UMBILICAL CORD BLOOD IN THE TREATMENT OF PREMATURE BIRTH COMPLICATIONS |
| N/A | N/A | Pending | Jul-01- 2010 | 2015/00754 | South Africa | METHOD OF PRODUCING ERYTHROCYTES WITHOUT FEEDER CELLS |
| Apr-29-2015 | 2012/00031 | Registered | Jul-01- 2010 | 2012/00031 | South Africa | METHOD OF PRODUCING ERYTHROCYTES WITHOUT FEEDER CELLS |
| N/A | N/A | Pending | Jul-02- 2010 | 2010-001085 | Venezuela | METHOD OF PRODUCING ERYTHROCYTES WITHOUT FEEDER CELLS |

| N/A | N/A | Abandoned | Nov-07- 2008 | 10-2010-7012277 | Republic of Korea | USE OF UMBILICAL CORD BLOOD IN THE TREATMENT OF PREMATURE BIRTH COMPLICATIONS |
|-----|-----|-----------|-----------------|-----------------|----------------------|--|
| N/A | N/A | Pending | Nov-07- 2008 | 10-2016-7008450 | Republic of Korea | USE OF UMBILICAL CORD BLOOD IN THE TREATMENT OF PREMATURE BIRTH COMPLICATIONS |
| N/A | N/A | Abandoned | Feb-13- 2004 | 2006503587 | Japan | USE OF UMBILICAL CORD BLOOD TO TREAT INDIVIDUALS HAVING A DISEASE, DISORDER OR CONDITION |
| N/A | N/A | Abandoned | Nov-07- 2008 | 2010-533099 | Japan | USE OF UMBILICAL CORD BLOOD IN THE TREATMENT OF PREMATURE BIRTH COMPLICATIONS |
| N/A | N/A | Pending | Nov-07- 2008 | 2016-118867 | Japan | USE OF UMBILICAL CORD BLOOD IN THE TREATMENT OF PREMATURE BIRTH COMPLICATIONS |
| N/A | N/A | Pending | Nov-07- 2008 | 2015-006887 | Japan | USE OF UMBILICAL CORD BLOOD IN THE TREATMENT OF PREMATURE BIRTH COMPLICATIONS |
| N/A | N/A | Pending | Nov-07- 2008 | 3300/CHENP/2010 | India | USE OF UMBILICAL CORD BLOOD IN THE TREATMENT OF PREMATURE BIRTH COMPLICATIONS |
| N/A | N/A | Pending | Nov-07- 2008 | 17105867.0 | Hong Kong | USE OF UMBILICAL CORD BLOOD IN THE TREATMENT OF PREMATURE BIRTH COMPLICATIONS |
| N/A | N/A | Pending | Nov-07- 2008 | 10107953.8 | Hong Kong | USE OF UMBILICAL CORD BLOOD IN THE TREATMENT OF PREMATURE BIRTH COMPLICATIONS |

| N/A | N/A | Abandoned | Nov-07- 2008 | 12/267,499 | United States of America | TREATMENT OF PREMATURE BIRTH COMPLICATIONS |
|-----|-----|-----------|-----------------|-------------------|---------------------------------|---|
| N/A | N/A | Expired | Nov-07- 2007 | 61/002,375 | United States of America | TREATMENT OF PREMATURE BIRTH COMPLICATIONS |
| N/A | N/A | Abandoned | Dec-29- 2011 | PCT/US11/67785 | Patent Cooperation Treaty | COMPOSITIONS COMPRISING PLACENTAL STEM CELLS AND PLATELET RICH PLASMA, AND METHODS OF USE THEREOF |
| N/A | N/A | Abandoned | Dec-29- 2011 | 13/340,557 | United States of America | COMPOSITIONS COMPRISING PLACENTAL STEM CELLS AND PLATELET RICH PLASMA, AND METHODS OF USE THEREOF |
| N/A | N/A | Pending | Nov-20- 2013 | 14/085,366 | United States of America | USE OF UMBILICAL CORD BLOOD TO TREAT INDIVIDUALS HAVING A DISEASE, DISORDER OR CONDITION |
| N/A | N/A | Abandoned | Nov-06- 2006 | 11/593,348 | United States of America | USE OF UMBILICAL CORD BLOOD TO TREAT INDIVIDUALS HAVING A DISEASE, DISORDER OR CONDITION |
| N/A | N/A | Abandoned | Feb-13- 2004 | 10/779,369 | United States of America | USE OF UMBILICAL CORD BLOOD TO TREAT INDIVIDUALS HAVING A DISEASE, DISORDER OR CONDITION |
| N/A | N/A | Converted | Feb-13- 2004 | PCT/US04/04388 | Patent Cooperation Treaty | USE OF UMBILICAL CORD BLOOD TO TREAT INDIVIDUALS HAVING A DISEASE, DISORDER OR CONDITION |
| N/A | N/A | Completed | Nov-07- 2008 | PCT/US2008/012540 | Patent Cooperation Treaty | USE OF UMBILICAL CORD BLOOD IN THE TREATMENT OF PREMATURE BIRTH COMPLICATIONS |
| N/A | N/A | Abandoned | Aug-12- 2005 | 20057014947 | Republic of Korea | USE OF UMBILICAL CORD BLOOD TO TREAT INDIVIDUALS HAVING A DISEASE, DISORDER OR CONDITION |

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| THERAPY WITH CELLS FROM HUMAN PLACENTA AND HEMATOPOIETIC CELLS |
|--|--|--|--|--|--|--|--|--|--|
| South Africa | United States of America | United States of America | United States of America | Russian Federation | Patent Cooperation Treaty | New Zealand | Mexico | Republic of Korea | Japan |
| 2016/02151 | 15/026,896 | 61/890,057 | 61/886,648 | 2016116816 | PCT/US2014/058774 | 718571 | MX/a/2016/004209 | 10-2016-7011298 | 2016-519848 |
| Oct-02- 2014 | Oct-02- 2014 | Oct-11- 2013 | Oct-03- 2013 | Oct-02- 2014 | Oct-02- 2014 | Oct-02- 2014 | Oct-02- 2014 | Oct-02- 2014 | Oct-02- 2014 |
| Pending | Pending | Expired | Expired | Pending | Completed | Pending | Pending | Pending | Pending |
| N/A |
| N/A |

RECORDED: 11/09/2017

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