

Key to fields:

PN/ PNFP: Publication Number

PD : Publication Date

PA: Patent Assignee

IN: Inventor

TI: Title

AB: Abstract

GRANTED: Date "B" specification published

RESULTS FOR 1ST JULY 2009-31ST AUGUST 2009

PUBLISHED "A" SPECS

ADULT STEM CELLS -95 Documents

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PN - US2009214483 A1 20090827
PD - 2009-08-27
IN - WEINBERG ROBERT A [US]; MANI SENDURAI A [US]; LIAO MAI-JING [US]
TI - Progenitor Cells and Uses Thereof
AB - Methods for preparing progenitor cells are described where epithelial cells are induced to undergo epithelial-mesenchymal transition as a result of exposure to an inducing agent or introduction of a gene therein that induces epithelial-mesenchymal transition. Progenitor cells resulting therefrom have use in cell-based therapies, among other utilities

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PN - US2009217403 A1 20090827
PD - 2009-08-27
IN - SPITS HERGEN [US]
TI - Means and methods for generating a t cell against an antigen of interest
AB - The invention provides a method for generating a T cell comprising a T cell receptor capable of specifically binding an antigen of interest, comprising: -providing a hematopoietic stem cell and/or a precursor cell of a T cell with a nucleic acid sequence comprising at least part of a rearranged gene encoding a TCR chain, or a functional equivalent thereof; and-allowing for differentiation of said stem cell and/or precursor cell and generation of at least one T cell derived from said stem cell and/or precursor cell.

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PN - US2009214481 A1 20090827
PD - 2009-08-27
IN - MUHS ANDREAS [CH]; WENNDT STEPHAN [DE]
TI - TREATMENT OF ISCHEMIA USING STEM CELLS
AB - The invention features a method for treating or preventing ischemia in a mammal by administering unrestricted somatic stem cells (USSCs) to the mammal.

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PN - US2009215083 A1 20090827
PD - 2009-08-27
IN - NILSSON SUSAN KAYE [AU]; HAYLOCK DAVID NORMAN [AU]
TI - SELECTING, CULTURING AND CREATING LINEAGE COMMITTED
HEMATOPOIETIC STEM CELLS

AB - The present invention provides a method for selecting hematopoietic stem cells (HSCs) comprising providing an agent which binds to alpha9beta1 integrin on the cell surface to a population of cells including HSCs and separating HSCs by virtue of the binding agent. The invention also provides a method of culturing a population of HSCs in the presence of an agent which binds to alpha9beta1, wherein the agent inhibits differentiation of the HSCs. The invention also provides a method of producing a population of lineage committed cells comprising culturing HSCs in the presence of an agent which inhibits or prevents binding to alpha9beta1.

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PN - US2009214493 A1 20090827
PD - 2009-08-27
PA - OSIRIS THERAPEUTICS INC [US]
IN - PITTENGER MARK F [US]; GORDON STEPHEN L [US]; MACKAY ALASTAIR
MORGAN [US]; MARTIN BRADLEY J [US]
TI - Cardiac Muscle Regeneration Using Mesenchymal Stem Cells
AB - Disclosed is a method for producing cardiomyocytes in vivo by administering to the heart of an individual a cardiomyocyte producing amount of mesenchymal stem cells. These cells can be administered as a liquid injectable or as a preparation of cells in a matrix which is or becomes solid or semi-solid. The cells can be genetically modified to enhance myocardial differentiation and integration. Also disclosed is a method for replacing cells ex vivo in a heart valve for implantation.

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PN - US2009214491 A1 20090827
PD - 2009-08-27
IN - BURT RICHARD [US]
TI - Method Of Using Mitotically Inactivated Stem Cells For Damaged Tissue Repair
AB - The present invention is directed to the use of mitotically and/or lethally inactivated stem cells for the repair of damaged organs and/or tissues. Stem cells are mitotically and/or lethally inactivated and transplanted into damaged tissue. Any form of ex vivo inactivation of stem cells may be used such that the stem cells cannot undergo mitosis or cell division before in vivo application. Mitotically and/or lethally inactivated stem may be used to ameliorate numerous disease, injury, traumatic, ischemic, aging, and/or degenerative conditions in different types of organs and/or tissues.

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PN - US2009214649 A1 20090827
PD - 2009-08-27
PA - YISSUM RES DEV CO [IL]
IN - GAZIT DAN [IL]; PELLED GADI [IL]; GAZIT ZULMA [IL]; KIMELMAN-BLEICH
NADAV [IL]
TI - Scaffolds with oxygen carriers, and their use in tissue regeneration
AB - Provided are fibrin or silk matrices comprising an oxygen carrier, and matrices, which comprise an oxygen carrier and mesenchymal stem cells. Also provided are methods of generating and using same for ex vivo or in vivo tissue regeneration and/or repair such as for treating a non-union bone fracture and a condition requiring spinal fusion.

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PN - US2009215783 A1 20090827
PD - 2009-08-27
PA - CHOONGWAE PHARMA CORP [KR]
IN - OH SE WOONG [KR]

TI - COMPOSITION FOR INDUCTION OR INHIBITION OF STEM CELL DIFFERENTIATION

AB - The present invention relates to composition and methods for inducing or inhibiting differentiation of stem cells. The invention also relates to applications in the treatment of medical conditions, e.g., osteoporosis, bone fracture, bone injuries, myocardial infarction, cardiomyopathy, degenerative muscle diseases, myopathy, and urinary incontinence.

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PN - US2009215875 A1 20090827

PD - 2009-08-27

IN - DENEULT ERIC [CA]; CELLOT SONIA [CA]; SAUVAGEAU GUY [CA]

TI - METHODS AND KITS FOR EXPANDING HEMATOPOIETIC STEM CELLS

AB - A method of increasing the expansion and/or differentiation of a hematopoietic stem cell (HSC) comprising: (a) increasing the level and/or activity of a polypeptide encoded by at least one gene selected from trim27, xbp1, sox4, smarcc1, sfpi1, fos, hmgb1, hnrpd1, vps72, tcfec, klf10, zfp472, ap2a2, gpsm2, gpx3, erdr1, tmod1, cnbp1, prdm16, hdac1, pml and ski, or a functional variant of said polypeptide, in said cell; (b) increasing the level of a nucleic acid encoding the polypeptide or functional variant of (a) in said cell; or (c) any combination of (a) and (b).

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PN - US2009214485 A1 20090827

PD - 2009-08-27

IN - GAVRILOVA NATALIE [RU]; SABURINA IRINA [RU]; MIRONOV NIKOLAY [RU]

TI - STEM CELL THERAPY FOR THE TREATMENT OF DIABETIC RETINOPATHY AND DIABETIC OPTIC NEUROPATHY

AB - The invention comprises methods and stem cell compositions for the treatment of diabetic retinopathy and other degenerative diseases of the eye. The invention is practiced in two stages with the first stage comprising the administration of neural stem cells to the eye, and the second stage comprising the administration of mesenchymal cells intravenously.

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PN - US2009214484 A1 20090827

PD - 2009-08-27

IN - MIRONOV NIKOLAY [RU]

TI - STEM CELL THERAPY FOR THE TREATMENT OF CENTRAL NERVOUS SYSTEM DISORDERS

AB - The invention provides a method for treating CNS disorders by administering a neural stem cell composition and a mesenchymal stem cell composition on opposing sides of the blood brain barrier. The neural stem cell composition is administered to the central nervous system, while the mesenchymal stem cell composition is administered to the circulatory system, such as by intravenous injection. The method finds use in the treatment of degenerative CNS disorders, as well as traumatic CNS disorders such as stroke and spinal cord injury.

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PN - WO2009105044 A1 20090827

PD - 2009-08-27

PA - AGENCY SCIENCE TECH & RES [SG]; LIM SAI KIANG [SG]

IN - LIM SAI KIANG [SG]

TI - MESENCHYMAL STEM CELL PARTICLES

AB - We describe a particle secreted by a mesenchymal stem cell and comprising at least one biological property of a mesenchymal stem cell. The biological property may comprise a biological activity of a mesenchymal stem cell conditioned medium (MSC- CM) such as cardioprotection or reduction of infarct size. The particle may comprise a vesicle or an exosome.

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PN - WO2009103818 A1 20090827
PD - 2009-08-27
PA - INST NAT SANTE RECH MED [FR]; RODRIGUEZ ANNE-MARIE [FR]
IN - RODRIGUEZ ANNE-MARIE [FR]
TI - METHODS FOR OBTAINING PROGENITOR CELLS AND USES THEREOF IN THE TREATMENT OF TISSUE OR ORGAN DAMAGE
AB - The present invention relates to methods for obtaining progenitor cells by co-culturing adult human mesenchymal stem cells and adult fully differentiated cells in an appropriate culture medium. The inventive methods have the advantage of being simple and quick, and of providing large amounts of progenitor cells suitable for therapeutic applications. The invention also relates to pharmaceutical compositions comprising such progenitor cells, and methods of using them for the treatment of pathologies, and/or for tissue reconstitution or regeneration.

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PN - EP2091587 A1 20090826
PD - 2009-08-26
PA - UNIV UTAH [US]
IN - BULL DAVID A [US]; CONNORS RAFF C [US]; ERICKSON HAROLD M [US]; YOCKMAN JAMES [US]; KIM SUNG WAN [US]
TI - VENTRICULAR ASSIST DEVICE CAPABLE OF IMPLANTATION OF STEM CELLS
AB - A biologic ventricular assist device that also has the capability to capture, grow, and administer stem cells to regenerate and restore damaged myocardium in the heart. The device works in conjunction with a traditional ventricular assist device and possesses an additional external path or tube that is in-line with the path of the ventricular assist device. The external path allows for the administration of stem cells, genes, genetically modified cells or other therapeutic biologic or pharmacologic agents, as well as leading to a stem cell collecting accessory (14) that captures circulating stem cells. The stem cell collecting accessory is also associated with a chamber (39) for culturing the captured stem cells. The cultured stem cells can be delivered back to the heart by an electro-mechanical or ultrasound/echocardiographic delivery system that runs through the external path back into the ventricular assist device and allows for the delivery of the stem cells, or other therapeutic biologic or pharmacologic agents, directly into the internal chambers of the heart. Administering the stem cells, genes, genetically modified cells or other therapeutic biologic or pharmacologic agents, either alone or in combination, to the heart allows the myocardium to regenerate and repair itself even while the heart is attached to the ventricular assist device, ultimately allowing the heart to regenerate, recover and allow the VAD to be removed.

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PN - US2009196859 A1 20090806
PD - 2009-08-06
PA - MED COLLEGE GEORGIA RES INST [US]
IN - BIEBERICH ERHARD [US]
TI - Oligodendrocyte Precursor Cell Composition and Methods of Use
AB - The present invention provides a cell culture enriched for sphingolipid enhances neural stem cells (SENSe), particularly oligodendrocyte precursor cells (ODPCs), that do not form teratomas after transplanted in vivo. Methods for producing and use of the invention ODPCs or the cell culture enriched with these ODPCs for stem cell therapy are also provided. The invention method comprises culturing a stem cell culture with a cell culture medium comprising a ceramide compound and a S1P receptor agonist in sequence, overlapping intervals or concurrent manners. The present invention further provides a cellular or gene therapy using a composition comprising a ceramide compound in conjunction with a S1P1 agonist to proliferate or differentiate endogenous neural stem cells to ODPCs and further to oligodendrocytes.

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PN - WO2009102493 A2 20090820
PD - 2009-08-20

PA - UNIV LELAND STANFORD JUNIOR [US]; WONG ALBERT J [US]
IN - WONG ALBERT J [US]
TI - USE OF EGFRVIII TO IDENTIFY AND TARGET CANCER STEM CELLS
AB - A set of markers for cancer stem cells are provided. The cells can be prospectively isolated or identified from primary tumor samples, and possess the unique properties of cancer stem cells in functional assays for tumor initiation, cancer stem cell self-renewal and differentiation. In addition, cancer stem cells can be used as a predictor for disease progression. The CSC have the phenotype of being positive for expression of CD133, and for EGFRVIII. In another embodiment of the invention, compositions are provided of a bispecific reagent that recognizes CD133 and EGFRVIII, including bispecific antibodies, which are optionally conjugated to a detectable marker, chemotherapeutic agent or radionuclide for imaging or therapy.

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PN - US2009191627 A1 20090730
PD - 2009-07-30
IN - FADEEV ANDREI GENNADYEVICH [US]; GEHMAN JENNIFER [US];
MELKOUMIAN ZARA [US]; WEBER DAVID MICHAEL [US]; ZHOU YUE [US]
TI - SYNTHETIC SURFACES FOR CULTURING CELLS IN CHEMICALLY DEFINED MEDIA
AB - Synthetic surfaces capable of supporting culture of eukaryotic cells including stem cells and undifferentiated human embryonic stem cells in a chemically defined medium include a swellable (meth)acrylate layer and a polypeptide conjugated to the swellable (meth)acrylate layer. The swellable (meth)acrylate layer may be formed by polymerizing monomers in a composition that includes a carboxyl group-containing (meth)acrylate monomer, a cross-linking (di- or higher-functional) (meth)acrylate monomer, and a hydrophilic monomer capable of polymerizing with the carboxyl group-containing (meth)acrylate monomer and the cross-linking (meth)acrylate monomer. The swellable (meth)acrylate layer has an equilibrium water content in water of between about 5% and about 70%. The conjugated peptide may include an RGD amino acid sequence.

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PN - US2009210956 A1 20090820
PD - 2009-08-20
PA - UNIV TEXAS [US]
IN - GENG YONG-JIAN [US]
TI - COMPOSITION AND METHOD FOR CLUSTERIN-MEDIATED STEM CELL THERAPY FOR TREATMENT OF ATHEROSCLEROSIS AND HEART FAILURE
AB - Methods and compositions are disclosed for inhibiting, deterring or preventing apoptosis of cardiac myocytes, transplanted stem cells, vascular stem cells, and vascular smooth muscle cells by means of expressing or synthesizing clusterin. Also disclosed are methods and compositions for producing recombinant clusterin, or its biologically active peptides, and for induction of clusterin-associated lipoproteins or enzymes for deterring or preventing inflammatory injury and apoptosis induced by oxLDL, oxysterols, cytokines, and Fas Ligand. Also disclosed is an induction method and composition for enhancing expression of ALDH and ALDH-associated enzymes or co-factors to prevent cytotoxicity or detoxification. Therapeutic methods providing new expression or overexpression of clusterin in vascular or cardiac tissue are expected to inhibit the formation of atherosclerotic lesions, stabilize existing atherosclerotic plaques, and repair failing or damaged cardiac tissue.

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PN - US2009208918 A1 20090820
PD - 2009-08-20
IN - KRAFT DANIEL [US]
TI - METHODS AND DEVICES FOR EX-VIVO MAINTENANCE OF BONE MARROW, HEMATOPOIESIS AND BLOOD CELL PRODUCTION
AB - Devices and methods are provided for the ex vivo maintenance of bone marrow 'niches' or normal physiologic home of bone marrow (BM). Intact bone marrow is perfused with a

medium that supports cell viability. Stem and progenitor cells may be maintained, expanded or differentiated within the system, screened for responses to various agents, or used to generate blood products.

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PN - US2009208467 A1 20090820
PD - 2009-08-20
IN - SCADDEN DAVID T [US]; CHENG TAO [US]
TI - P27 AND P21 IN GENE THERAPIES
AB - The expansion of a population of stem cells or progenitor cells, or precursors thereof, may be accomplished by disrupting or inhibiting p21cip1/waf1 and/or p27, cyclin dependent kinase inhibitors. In the absence of p27 activity, progenitor cells move into the cell cycle and proliferate; whereas in the absence of p21 activity, stem cells move into the cell cycle and proliferate without losing their pluripotentiality (i.e., their ability to differentiate into the various cell lines found in the blood stream). Any type of stem cell or progenitor cell, or precursor thereof, including, but not limited to, hematopoietic, gastrointestinal, lung, neural, skin, muscle, cardiac muscle, renal, mesenchymal, embryonic, fetal, or liver cell may be used in accordance with the invention. The present invention provides a method of expanding a cell population, cells with decreased p27 and/or p21 activity, transgenic animals with a disrupted p27 and/or p21 gene, pharmaceutical compositions comprising the cells of the invention, and methods of using these cells in gene therapy (e.g., stem cell gene therapy) and bone marrow transplantation.

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PN - US2009208464 A1 20090820
PD - 2009-08-20
IN - CENTENO CHRISTOPHER J [US]
TI - MESENCHYMAL STEM CELL ISOLATION AND TRANSPLANTATION METHOD AND SYSTEM TO BE USED IN A CLINICAL SETTING
AB - A system and method for the percutaneous, autologous transplantation of mesenchymal stem cells and progenitor helper cells (PHC) from bone marrow to degenerated intervertebral discs or joints. This method is designed to be used by operating room staff in a clinical setting to isolate a mesenchymal stem cell population and PHC during the same surgical procedure as transplantation. The method can be used as a two step procedure where cells are harvested, then isolated, then reimplanted at a later time. In addition, experimental techniques are described to determine which bone marrow cells should be removed via negative selection to generate a PHC population most likely to regenerate certain tissue types in-vitro as well as which combination of fibrinogen and hyaluronic acid and which degree of gel maceration provides the best matrix for in-vitro and in-vivo regeneration of joints and intervertebral discs.

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PN - US2009208463 A1 20090820
PD - 2009-08-20
IN - PITTENGER MARK F [US]; VARNEY TIMOTHY [US]; AGGARWAL SUDEEPTA [US]
TI - MESENCHYMAL STEM CELLS AND USES THEREFOR
AB - Methods of treating autoimmune diseases, allergic responses, cancer, or inflammatory diseases in an animal, promoting wound healing, repairing epithelial damage and promoting angiogenesis in an organ or tissue of an animal by administering to the animal mesenchymal stem cells in an effective amount.

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PN - WO2009097657 A1 20090813
PD - 2009-08-13
PA - REGENERTECH PTY LTD [AU]; BHASIN VISHAL [AU]
IN - BHASIN VISHAL [AU]

TI - METHOD OF PRODUCING PROGENITOR CELLS FROM DIFFERENTIATED CELLS

AB - The present invention provides a method of producing progenitor cells, such as cells capable of being differentiated into a plurality of different cell types, from differentiated cells. Methods of using progenitor cells in differentiation and/or tissue or organ repair and/or regeneration and/or building are also provided. Methods of using progenitor cells in treatment and prophylaxis of conditions alleviated by administering stem cells or tissue or organ derived from stem cells to a subject or by grafting stem cells or tissue or organ derived from stem cells into a subject or by transplanting stem cells or tissue or organ derived from stem cells into a subject are also provided. Also included are progenitor cells and differentiated cells and/or tissues and/or organs derived therefrom, and kits comprising same.

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PN - US2009202495 A1 20090813

PD - 2009-08-13

IN - BHATIA RAJ KUMAR [IN]; BHATIA VIPEN KUMAR [IN]; VISHNOI ANAND SHANKER [IN]

TI - Hyaluronic Acid Derivative and Neural Stem Cells for SCI and PNT Regeneration

AB - A biomaterial for the treatment of spinal cord or of peripheral nerve injury, obtainable by: a) treating a hyaluronic acid derivative with a coating solution promoting Neuronal Stem Cells adhesion, branching and differentiation; b) contacting isolated Neuronal Stem Cells with the hyaluronic acid derivative obtained from step a) and culturing and expanding the absorbed cells in the presence of growth or neurotrophic factors selected from betaFGF (basic fibroblast growth factor), CNTF (ciliary neurotrophic factor), BDNF (brain derived neurotrophic factor) and GDNF (glial derived neurotrophic factor) or mixtures thereof.

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PN - EP2089041 A2 20090819

PD - 2009-08-19

PA - ALDAGEN INC [US]; UNIV DUKE [US]

IN - KURTZBERG JOANNE [US]; HALEY N REBECCA [US]

TI - METHODS FOR USING ALDHBR CELLS TO SUPPLEMENT STEM CELL TRANSPLANTATION

AB - The present invention relates to methods repairing, regenerating, and reconstituting tissues by transplanting at least two stem cell populations, wherein the first and the second population of stem cells are introduced into a subject separated by a time interval of about 2 to about 24 hours. The first population comprises stem cells derived from umbilical cord. The second population comprises ALDHbr cells. These ALDHbr cells can be administered to a patient immediately after isolation or can be primed in culture using a combination of cytokines for about 2 to about 7 days prior to transplantation. The methods of the invention are useful in accelerating time to neutrophil and/or platelet engraftment and immune reconstitution following myeloablative therapy.

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PN - EP2088864 A2 20090819

PD - 2009-08-19

PA - UNIV LELAND STANFORD JUNIOR [US]

IN - WEISSMAN IRVING L [US]; CZECHOWICZ AGNIESZKA [US]; BHATTACHARYA DEEPTA [US]; KRAFT DANIEL [US]

TI - SELECTIVE IMMUNODEPLETION OF ENDOGENOUS STEM CELL NICHE FOR ENGRAFTMENT

AB - The present invention provides a clinically applicable method of stem cell transplantation that facilitates engraftment and reconstitutes immunocompetence of the recipient without requiring radiotherapy or chemotherapy, and without development of GVHD or graft rejection. Aspects of the present invention are based on the discovery that the depletion of the endogenous stem cell niche facilitates efficient engraftment of stem cells into that niche. In particular, the present invention combines the use of selective ablation of endogenous stem cells, in combination with the

administration to the recipient of exogenous stem cells, resulting in efficient, long-term engraftment and tolerance

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PN - EP2089512 A2 20090819
PD - 2009-08-19
PA - UNIV RUTGERS [US]
IN - SUN DONGMING [US]; YOUNG WISE [US]
TI - LITHIUM STIMULATION OF CORD BLOOD STEM CELL PROLIFERATION AND GROWTH FACTOR PRODUCTION
AB - The present invention provides methods for expanding human umbilical cord blood stem cells and methods for stimulating growth factor production by cord blood stem cells using an in vitro cell culture system comprising a lithium salt. The present invention also provides in vivo methods for enhancing the survival and growth of transplanted cord blood stem cells by treating the cells with a lithium salt prior to transplantation. In vivo methods for reducing rejection of transplanted cord blood stem cells by administering a lithium salt after transplantation are also provided.

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PN - EP2089042 A2 20090819
PD - 2009-08-19
PA - ALDAGEN INC [US]
IN - BALBER ANDREW E [US]
TI - METHODS FOR IMPROVED ENGRAFTMENT FOLLOWING STEM CELL TRANSPLANTATION
AB - The present invention relates to methods repairing, regenerating, and reconstituting tissues by transplanting at least two stem cell populations, wherein the first and the second population of stem cells are introduced into a subject separated by a time interval of about 2 to about 24 hours. The stem cells can be derived from umbilical cord, mobilized peripheral blood, or bone marrow. The cells of at least the second population may be enriched for adult stem and progenitor cells. The methods of the invention are useful in accelerating hematopoietic recovery in subjects following myeloablation or chemotherapy

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PN - EP2089510 A2 20090819
PD - 2009-08-19
PA - UNIV NEW JERSEY MED [US]
IN - WOODBURY DALE [US]; MARCUS AKIVA J [US]
TI - AMNION-DERIVED STEM CELLS AND USES THEREOF
AB - The present invention relates to stem cells obtained from the amnion and their methods of obtaining and culturing. The present invention further relates to compositions comprising amnion-derived stem cells (ADSCs) and to methods of using ADSCs.

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PN - US2009202496 A1 20090813
PD - 2009-08-13
PA - EDEN BIOTECH LTD [BS]
IN - GHEN MITCHELL J [US]; ROSHAN RAMESH [US]; ROSHAN ROMIN [US]
TI - METHOD FOR REGENERATING AN IMMUNE SYSTEM
AB - An isolated and purified cell line of hematopoietic stem cells (HSC) that are incapable of expressing the CCR5 receptor on the cell surface ("the CCR5Delta32 cells" are used to regenerate the immune system in a subject in need thereof and especially to treat a subject infected with human immunodeficiency virus (HIV). The method is carried out by transplanting CCR5Delta32 into the recipient subject. Because mature immune cells derived from CCR5Delta32 cells cannot express functional CCR5 receptors, they will be resistant to infection by HIV and other pathogens that use the CCR5 receptor to infect cells. An embodiment of the invention includes administration of a nutritional

regimen to the patient that optimizes conditions for CCR5Delta32 cell transplantation. Another embodiment of the invention includes co-transplanting mesenchymal cells along with the HSC in order to enhance the growth and development of the transplanted HSC.

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PN - US2009202431 A1 20090813
PD - 2009-08-13
PA - UNIV FLORIDA [US]
IN - GIBBS JR CHARLES PARKER [US]; STEINDLER DENNIS [US]
TI - STEM-LIKE CELLS IN BONE SARCOMAS
AB - Isolation and purification of stem cells from within a bulk sarcoma tumor. These cells express the marker genes of pluripotent embryonic stem cells, Stat 3, Oct 3/4, and Nanog. A subset of these cells show the surface marker of mesenchymal stem cells Stro-1, as well as express attributes of mesodermal, ectodermal, and endodermal differentiation. The isolation, purification and characterization of these stem cells now provides the ideal target for the development of highly effective therapies against tumors

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PN - US2009202564 A1 20090813
PD - 2009-08-13
PA - STELIC INST OF REGENERATIVE ME
IN - YONEYAMA HIROYUKI [JP]
TI - METHODS OF ISOLATING STEM CELLS
AB - The present inventors discovered for the first time that labeling cell nuclei makes it possible to efficiently isolate stem cells. Namely, it was elucidated that stem cells with labeled nuclei remained labeled even after cell division, and showed self-renewing and long-living abilities characteristic of stem cells. Efficient isolation of stem cells is possible, for instance, by labeling the nuclear of each cell in a heterogeneous cellular group followed by selecting those cells that maintain a labeled state even after cell division. The present invention provides methods for enabling visualization of stem cells of animal tissues in a living state by labeling using the essential functions of the stem cells, and methods for simply and easily isolating the stem cells in a fresh state without using at all genetic manipulation or artificial markers.

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PN - US2009203130 A1 20090813
PD - 2009-08-13
PA - UNIV MINNESOTA [US]; ABT HOLDING COMPANY [US]
IN - FURCHT LEO T [US]; VERFAILLIE CATHERINE M [BE]; REYES MORAYMA [US]
TI - MULTIPOTENT ADULT STEM CELLS AND METHODS FOR ISOLATION
AB - The invention provides isolated stem cells of non-embryonic origin that can be maintained in culture in the undifferentiated state or differentiated to form cells of multiple tissue types. Also provided are methods of isolation and culture, as well as therapeutic uses for the isolated cells.

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PN - US2009203129 A1 20090813
PD - 2009-08-13
PA - REGENTS OF THE UNIVERSITY OF M [US]; ABT HOLDING COMPANY [US]
IN - FURCHT LEO T [US]; VERFAILLIE CATHERINE M [BE]; REYES MORAYMA [US]
TI - MULTIPOTENT ADULT STEM CELLS AND METHODS FOR ISOLATION
AB - The invention provides isolated stem cells of non-embryonic origin that can be maintained in culture in the undifferentiated state or differentiated to form cells of multiple tissue types. Also provided are methods of isolation and culture, as well as therapeutic uses for the isolated cells.

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PN - US2009202479 A1 20090813
PD - 2009-08-13
IN - SHI YUFANG [US]; REN GUANGWEN [US]; ZHANG LIYING [US]
TI - Method for modulating immune responses using stem cells and cytokines
AB - The present invention relates to a composition and methods of treatment for inflammation comprising of adult stem cells and inflammatory cytokines. The invention further relates to the treatment of inflammation associated with autoimmune disorders, allergies, sepsis, cancer as well as to preventing, reducing or treating transplant rejection and/or graft-versus-host disease (GvHD).

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PN - US2009203002 A1 20090813
PD - 2009-08-1
PA - UNIV COLUMBIA [US]
IN - BROWN STEPHEN [US]
TI - MESENCHYMAL STEM CELLS AS A VEHICLE FOR ION CHANNEL TRANSFER IN SYNCYTIAL STRUCTURES
AB - The present invention provides a method of selectively amplifying fetal DNA sequences from a mixed, fetal-maternal source. This method utilizes differential methylation to allow for the selective amplification of trophoblast/fetal specific sequences from DNA mixtures that contain a high proportion of non-trophoblast/fetal DNA. The invention also provides methods of using the amplified fetal DNA sequences for aneuploidy detection.

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PN - EP2087098 A2 20090812
PD - 2009-08-12
PA - UNIV JOHNS HOPKINS [US]
IN - MARBAN EDUARDO [US]
TI - DEDIFFERENTIATION OF ADULT MAMMALIAN CARDIOMYOCYTES INTO CARDIAC STEM CELLS
AB - Dedifferentiation is a mechanism whereby specialized cells regain properties of their ancestors, including, in the extreme, stemness. We found that highly-purified cardiomyocytes isolated from adult mammalian hearts dedifferentiated rapidly when cultured in mitogen-rich medium. Such myocytes reentered the cell cycle and proliferated, expressing stem cell surface markers such as c-kit and early cardiac transcription factors including GATA and NKx2.5. These myocyte-derived cells (MDC) were capable of re-differentiating into myocytes and endothelial cells. Contrary to prevailing dogma, cardiomyocyte dedifferentiation yields proliferative cells expressing stem cell markers and capable of multilineage differentiation. Cardiomyocyte dedifferentiation is a potential source of endogenous stem cells in the adult heart.

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PN - EP2086332 A2 20090812
PD - 2009-08-12
PA - MULTIPLE SCLEROSIS RES CT OF N [US]
IN - SADIQ SAUD A [US]; HARRIS VIOLANE K [US]
TI - BONE MARROW-DERIVED MESENCHYMAL STEM CELLS AS A SOURCE OF NEURAL PROGENITORS
AB - Methods are provided for treating and/or reducing the severity of multiple sclerosis in a human, by administering autologous mesenchymal stem cell-derived neural precursors. Also described is an in vitro method for differentiating mesenchymal stem-cell derived neural precursor oligodendroglial and neuronal cell types.

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PN - EP2087100 A1 20090812
PD - 2009-08-12
PA - DKFZ DEUTSCHES KREBSFORSCHUNGS [DE]; LANDESSTIFTUNG BADEN
WUERTTEMBERG [DE]
IN - STARK HANS-JUERGEN [DE]; MUFFLER SONJA [DE]; AMOROS-ALONSO MARA
[DE]; FUSENIG NORBERT [DE]; BOUKAMP PETRA [DE]
TI - LABELING OF HUMAN EPIDERMAL STEM CELLS
AB - The present invention provides skin equivalents comprising human epidermal stem
cells which are specifically labeled. The labeling is carried out with a marker capable of labeling slowly
proliferating cells, e.g. iododeoxyuridine or PKH26. Particularly, the invention provides skin
equivalents comprising labeled epidermal stem cells. The invention also provides corresponding uses
and methods of using such cultures, e.g. in the fields of research and medical treatment of skin
diseases.

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PN - US2009196857 A1 20090806
PD - 2009-08-0
PA - AZIENDA OSPEDALIERO UNIVERSITA [IT]
IN - ROMAGNANI PAOLA [IT]; MAGGI ENRICO [IT]; ROMAGNANI SERGIO [IT]
TI - Kidney-Derived Stem Cell Population, Identification and Therapeutic Use
AB - A novel population of kidney-derived cells is described that exhibits surface co-
expression of CD133 and CD24 markers; said cells possess stem cell capacity and are capable of
undergoing tubulogenic, adipogenic, osteogenic and neurogenic differentiation.

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PN - US2009191626 A1 20090730
PD - 2009-07-30
IN - SHOGBON CHRISTOPHER BANKOLE [US]; ZHOU YUE [US]; BRANDENBERGER
RALPH [US]
TI - Synthetic Surfaces for Culturing Stem Cell Derived Oligodendrocyte Progenitor Cells
AB - Synthetic surfaces suitable for culturing stem cell derived oligodendrocyte progenitor
cells contain acrylate polymers formed from one or more acrylate monomers. The acrylate surfaces,
in many cases, are suitable for culturing stem cell derived oligodendrocyte progenitor cells in
chemically defined media.

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PN - US2009191633 A1 20090730
PD - 2009-07-30
IN - SHOGBON CHRISTOPHER BANKOLE [US]; ZHOU YUE [US]; BRANDENBERGER
RALPH [US]
TI - Synthetic Surfaces for Culturing Stem Cell Derived Cardiomyocytes
AB - Synthetic surfaces suitable for culturing stem cell derived cardiomyocytes contain
acrylate polymers formed from one or more acrylate monomers. The acrylate surfaces, in many
cases, are suitable for culturing stem cell derived cardiomyocytes in chemically defined media.

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PN - WO2009097136 A1 20090806
PD - 2009-08-06
PA - UNIV LELAND STANFORD JUNIOR [US]; CLARKE MICHAEL [US]; SHIMONO
YOHEI [US]
IN - CLARKE MICHAEL [US]; SHIMONO YOHEI [US]
TI - METHODS AND COMPOSITIONS RELATING TO CARCINOMA STEM CELLS
AB - MicroRNA markers of breast cancer stem cells (BCSC) are provided herein. The
markers are polynucleotides that are differentially expressed in BCSC as compared to normal
counterpart cells. Uses of the markers include use as targets for therapeutic intervention; as targets

for drug development, and for diagnostic or prognostic methods relating to breast cancer and BCSC cell populations. BCSCs have the phenotype of having lower expression of certain miRNAs compared to normal breast epithelial cells, or to cancer cells that are not cancer stem cells.

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PN - WO2009097135 A1 20090806
PD - 2009-08-06
PA - UNIV LELAND STANFORD JUNIOR [US]; DIEHN MAXIMILLIAN [US]; CLARKE MICHAEL [US]; WEISSMAN IRVING L [US]
IN - DIEHN MAXIMILLIAN [US]; CLARKE MICHAEL [US]; WEISSMAN IRVING L [US]
TI - METHODS AND COMPOSITIONS FOR TREATING CARCINOMA STEM CELLS
AB - Cancer stem cells (CSCs) have been prospectively isolated or identified from primary tumor samples, and shown to possess the unique properties of self-renewal and differentiation, and can form unique histological microdomains useful in cancer diagnosis. Such cancer stem cells are shown herein to have the phenotype of containing decreased levels of reactive oxygen species (ROS) relative to non-tumorigenic (non-stem cell) cancer cells, as well as expression of other protective pathways. The CSCs are further shown to be more resistant to ionizing radiation (IR) and certain chemotherapies and to express high levels of ROS genes.

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PN - WO2009096445 A1 20090806
PD - 2009-08-06
PA - KYOWA HAKKO KIRIN CO LTD [JP]; ONODERA HIDEYUKI; ICHIMURA MICHIO; BABA KOUJI; AGATSUMA TSUTOMU; SASHO SETSUYA; SUZUKI MAKOTO; IWAMOTO SUSUMU; KAKITA SHINGO
IN - ONODERA HIDEYUKI; ICHIMURA MICHIO; BABA KOUJI; AGATSUMA TSUTOMU; SASHO SETSUYA; SUZUKI MAKOTO; IWAMOTO SUSUMU; KAKITA SHINGO
TI - NERVE TRUNK CELL PROPAGATION ACCELERATOR
AB - Disclosed are a neural stem cell propagation accelerator which contains a compound produced by Penicillium sp. strain CND1007 (FERM BP-10917) or a pharmacologically acceptable salt thereof, a novel compound produced by Penicillium sp. strain CND1007 or a pharmacologically acceptable salt thereof as an effective component, and a method for the production of neural stem cells in which the neural stem cells are cultured and propagated in the presence of a compound produced by Penicillium sp. CND1007 or a pharmacologically acceptable salt thereof, and the neural stem cells are collected from the culture material.

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PN - US2009191173 A1 20090730
PD - 2009-07-30
IN - EISENBACH-SCHWARTZ MICHAL [IL]; ARNON RUTH [IL]; BUTOVSKY OLEG [IL]; ZIV YANIV [IL]; KIPNIS JONATHAN [IL]; RON NOGA [IL]; EILAM RAYA [IL]; AHARONI RINA [IL]
TI - Induction Of Neurogenesis And Stem Cell Therapy In Combination With Copolymer 1
AB - A method for inducing and enhancing neurogenesis and/or oligodendrogenesis from endogenous as well as from exogenously administered stem cells comprises administering to an individual in need thereof an agent selected from the group consisting of Copolymer 1, a Copolymer 1-related polypeptide, a Copolymer 1-related peptide, and activated T cells which have been activated by Copolymer 1, a Copolymer 1-related polypeptide, or a Copolymer 1-related peptide. The method is particularly useful for stem cell therapy in combination with the agent.

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PN - US2009191165 A1 20090730
PD - 2009-07-30
IN - CHENG HENRICH [TW]; HUANG SHIANG-SUO [TW]; TSAI SHEN-KOU [TW]
TI - FIBRIN GLUE COMPOSITION FOR REPAIRING NERVE DAMAGE AND METHODS THEREOF

AB - A fibrin glue composition is for repairing nerve damage, and/or enhancing the functional recovery of a damaged nerve which includes fibrin glue and an amount of bone marrow stem cells (BMSCs) effective for repairing the nerve damage and/or enhancing at least partially the functional recovery. A method is also for repairing nerve damage, and/or enhancing the functional recovery of a damaged nerve in a subject which includes topically applying to the damaged nerve the fibrin glue composition of the invention.

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PN - US2009191164 A1 20090730
PD - 2009-07-30
IN - MAJETI RAVINDRA [US]; WEISSMAN IRVING L [US]
TI - HUMAN HEMATOPOIETIC MULTIPOTENT PROGENITOR CELLS
AB - A substantially enriched human multipotent progenitor cell population is provided, which is characterized as a progenitor cell capable of giving rise to the multipotent lineage but which lacks certain long-term self-renewal properties of the hematopoietic stem cell. Methods are provided for the isolation and culture of these cells. The cell enrichment methods employ reagents that specifically recognize CD34, CD38, CD90 and CD45RA, in conjunction with lineage specific markers. These cells give rise to all types of hematopoietic cells, e.g. myeloid and lymphoid cells, in vivo.

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PN - US2009191628 A1 20090730
PD - 2009-07-30
PA - CRYO CELL INT [US]
IN - WALTON MERCEDES A [US]; ALLICKSON JULIE G [US]
TI - Methods for co-culturing cord blood derived cells with menstrual stem cells
AB - Methods are provided for obtaining expanded human cord blood cells expressing CD34. The methods involve seeding a sufficient amount of cord blood cells with a sufficient amount of menstrual cells under co-culture conditions suitable to promote expansion of the cord blood cells, and co-culturing the cord blood cells with the menstrual cells under culture conditions that support at least two or more population doublings of the cord blood cells. Methods are also provided for growing expanded human cord blood cells to give rise to any one of colony forming units, colony forming unit granulocyte macrophages (CFU-GM), burst forming unit erythroids (BFU-E), and colony forming unit granulocyte erythrocyte macrophage megakaryocyte (CFU-GEMM) blood lineage precursor cells. The expanded cells may express CD34, SSEA-4, and HLA-II. Compositions of the expanded cells are also provided.

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PN - US2009193532 A1 20090730
PD - 2009-07-30
IN - ABUIN ALEJANDRO [US]; EDWARDS JOEL A [US]; MONTGOMERY CHARLES [US]; RANGEL CAROLINA [US]; SANDS ARTHUR T [US]; SHI ZHENG-ZHENG [US]; SPARKS MARY JEAN [US]; VOGEL PETER [US]; ZAMBROWICZ BRIAN [US]
TI - Genetically Engineered and Phenotyped Mice and Stem Cell Clones for Producing the Same
AB - The current invention relates to genetically engineered mice, cells derived from those mice, and polynucleotides and polypeptides corresponding to genes affected by the engineered mutation. The invention also relates to antibodies raised in a mouse of the invention. The invention further provides methods for using the mice, cells, polynucleotides, polypeptides and antibodies of the invention.

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PN - WO2009092789 A1 20090730
PD - 2009-07-30
PA - CELL MED RES GMBH [AT]; RUBIOLO CRISTINA [AT]; STADELMANN SILKE [AT]
IN - RUBIOLO CRISTINA [AT]; STADELMANN SILKE [AT]

TI - MEDIUM FOR PROPAGATING AND EXPANDING STEM CELLS
AB - The present invention relates to a growth medium for in vitro stem cell expansion comprising: Selenium 5ng/ml to 0.1mg/mL, Transferrin 5mg/ml to 100mg/mL, Insulin 2.5[μ]g/ml to 1mg/mL, Pyruvate, preferably sodium pyruvate, 0.05 to 1 mM, L-glutamine 0.5 to 10 mM, Nucleosides 1 to 100 [μ]g/ml at least one amino acid, preferably non-essential amino acid 5 to 1000 [μ]g/ml, Iscove's modified Dulbecco ' s medium (IMDM) up to 1L.

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PN - EP2083071 A1 20090729
PD - 2009-07-29
PA - CELL MED RES GMBH [AT]
IN - RUBIOLO CRISTINA [AT]; STADELMANN SILKE [AT]
TI - Medium for propagating and expanding stem cells
AB - The present invention relates to a growth medium for in vitro stem cell expansion comprising: selenium-transferrin-insulin (1-20%), pyruvate, preferably sodium pyruvate (0.05-1 mM), L-glutamine (0.5-10 mM), nucleosides (1-100 μ g/ml), at least one amino acid, preferably non-essential amino acid (5-1000 μ g/ml), and Iscove's modified Dulbecco's medium (IMDM) (up to 100%), is new.

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PN - EP2081590 A2 20090729
PD - 2009-07-29
PA - STEMLINE THERAPEUTICS INC [US]
IN - CIRRITO THOMAS P [US]; BERGSTEIN IVAN [US]
TI - CANCER STEM CELL-TARGETED CANCER THERAPY
AB - The present invention provides methods for stabilizing, reducing or eliminating cancer cells. In particular, the present invention provides prophylactically and/or therapeutically effective regimens for the prevention, treatment and/or management of cancer, the regimens comprising administering one or more cancer therapies to a subject to reduce a cancer cell population. The therapy(ies) in the prophylactically and/or therapeutically effective regimen can be administered at a lower dose than currently used or known to one of skill in the art and/or for a longer period of time and/or more frequently than currently administered or known to one of skill in the art.

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PN - EP2083076 A1 20090729
PD - 2009-07-29
PA - RIKEN [JP]
IN - WAKAO HIROSHI [JP]; FUJII SHIN-ICHIRO [JP]; SHIMIZU KANAKO [JP]; KOSEKI HARUHIKO [JP]; TANIGUCHI MASARU [JP]; OGURA ATSUO [JP]; KAWAMOTO HIROSHI [JP]
TI - IN VITRO DIFFERENTIATION/INDUCTION OF LYMPHOCYTE FROM STEM CELL HAVING GENOTYPE PROVIDED AFTER GENE RECONSTITUTION
AB - The present invention provides a production method of a functional differentiated cell having a post-rearrangement genotype of a particular antigen receptor gene, which includes culturing a stem cell having the genotype in a medium to give the differentiated cell derived from the stem cell. As the stem cell having the genotype, a stem cell (e.g., ES cell) established by transplantation of the nucleus of a cell having the genotype is preferable. As the differentiated cell, NKT cell is preferable.

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PN - EP2082227 A1 20090729
PD - 2009-07-29
PA - IST SUPERIORE SANITA [IT]
IN - MARCHIANO RUGGERO DE MARIA [IT]
TI - DIGESTIVE SYSTEM CANCER STEM CELLS AND TESTS AND USES THEREFOR

AB - The CD133 marker has been found to be diagnostic of tumourigenic digestive system cancers, particularly malignant colorectal cancers. Tests to show such cells and uses for such cells are disclosed.

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PN - WO2009092092 A1 20090723
PD - 2009-07-23
PA - UNIV MINNESOTA [US]; HU WEI-SHOU [US]; SUBRAMANIAN KARTIK [US]; VERFAILLIE CATHERINE M [BE]
IN - HU WEI-SHOU [US]; SUBRAMANIAN KARTIK [US]; VERFAILLIE CATHERINE M [BE]
TI - STEM CELL AGGREGATES AND METHODS FOR MAKING AND USING
AB - The invention is directed to compositions of cell aggregates and methods for making and using the cell aggregates where the aggregates comprise cells that are not embryonic stem cells but can differentiate into cell types of at least two of ectodermal, endodermal, and mesodermal embryonic germ layers, e.g., stem cells.

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PN - US2009186006 A1 20090723
PD - 2009-07-23
IN - MURPHY MICHAEL P [US]
TI - PLACENTAL VASCULAR LOBULE STEM CELLS
AB - The present invention provides isolated populations of stem and progenitor cells from fetal vascular lobules of the placenta. The isolated populations of stem and progenitor cells of the invention express the markers CD144, CD105, and/or CD31 and lack expression of the hematopoietic-lineage marker CD45. Under specific conditions, cells of the invention may function as endothelial precursors and may provide therapeutic preparations, for example, in the treatment of ischemia.

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PN - US2009186356 A1 20090723
PD - 2009-07-23
PA - UNIV EBERHARD KARLS
IN - WENDEL HANS-PETER [DE]; GUO KETAI [DE]; SCHAEFER RICHARD [DE]
TI - DEVICE AND SUBSTANCE FOR THE IMMOBILIZATION OF MESENCHYMAL STEM CELLS (MSCs)
AB - The invention relates to a device comprising at least one surface which comes into contact with biological tissue and/or liquid, which is at least partially coated with a substance which mediates the binding of mesenchymal stem cells (MSCs), a method for the binding and/or isolation of MSCs from biological tissue and/or liquid, a nucleic acid molecule which selectively and highly specifically binds to MSCs, the use of the nucleic acid molecule for the binding and/or isolation of MSCs from biological tissue and/or liquid, as well as a method for the production of a device mentioned at the outset.

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PN - US2009186005 A1 20090723
PD - 2009-07-23
IN - KIM HEE TAE [KR]; KIM KYUNG SUK [KR]; KIM SEUNG HYUN [KR]; CHAI YOUNG GYU [KR]; KOH SEONG HO [KR]; KIM HYUN YOUNG [KR]; CHOI MI RAN [KR]; PARK JI-YOON [KR]; JUNG KYOUNG HWA [KR]
TI - Methods and Compositions For Treating Motor Neuron Diseases Comprising Mesenchymal Stem Cells
AB - Disclosed herein are a composition for treating motor neuron diseases, particularly amyotrophic lateral sclerosis (ALS), using mesenchymal stem cells, and a method for treating motor

neuron diseases using the composition. The composition and treatment method can provide effective therapy for motor neuron diseases, particularly for amyotrophic lateral sclerosis (ALS).

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PN - US2009186004 A1 20090723
PD - 2009-07-23
PA - STEMCELL INST INC [JP]
IN - FUKUI AKIRA [JP]; YOKOO TAKASHI [JP]; OKABE MASATAKA [JP]; HOSOYA TATSUO [JP]
TI - Method For Preparing An Organ For Transplantation
AB - The present invention provides a method for preparing an organ, particularly a kidney, for transplantation into mammals. In detail, the present invention provides a method for preparing autotransplantation of autologous organs, particularly a kidney, wherein the isolated autologous mesenchymal stem cells are transplanted into an embryo inside a pregnant mammalian host or into an embryo dissected from a pregnant mammalian host at a desired site to induce differentiation, which is then transplanted into the individual.

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PN - US2009186017 A1 20090723
PD - 2009-07-23
PA - UNIV TSUKUBA [JP]
IN - SHIBUYA AKIRA [JP]; KOJIMA HIROSHI [JP]
TI - Graft-Versus-Host Disease Predicting Marker and Use Thereof
AB - A test method that provides data useful in predicting the probability of onset of acute graft-versus-host disease (GVHD) is described along with a kit for performing the method, and a pharmaceutical preparation and a molecular targeted therapy for treating or preventing GVHD. The test method includes measuring the blood DNAM-1 concentration of a patient of hematopoietic stem cell transplantation from bone marrow or the like over a period after the transplantation to provide data concerning the transition of the concentration to an abnormally high level deviating from the normal range, whereby the probability of the development of acute graft-versus-host disease is predicted, the risk of the development is estimated, or therapeutic effects after the development are evaluated. Concerning the molecular targeted therapy and pharmaceutical preparation used therefor wherein blood DNAM-1 of a GVHD patient or a graft recipient that is a possible patient is used as a target molecule, GVHD is treated or prevented by administering an anti-DNAM-1 antibody that is a neutralizing antibody.

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PN - US2009186334 A1 20090723
PD - 2009-07-23
PA - MORAGA BIOTECHNOLOGY CORP [US]
IN - YOUNG HENRY E [US]; BLACK ASA [US]
TI - Non-Embryonic Totipotent Blastomere-Like Stem Cells And Methods Therefor
AB - Human non-embryonic adult totipotent and pluripotent stem cells are isolated in a simplified serum-free and feeder cell-free process. Most remarkably, certain stem cells, and especially BLSCs, are extremely small, fail to exclude trypan blue, but are nevertheless able to proliferate from even high dilutions. Therefore, so obtained stem cells can be used to prepare true monoclonal stem cell populations, which are useful in numerous uses, including therapeutic, prophylactic, diagnostic, and research uses.

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PN - WO2009090933 A1 20090723
PD - 2009-07-23
PA - JAPAN SCIENCE & TECH AGENCY [JP]; TAKAHASHI KATSUHITO [JP]; YAMAMURA HISAKO [JP]; INOUE MASAHIRO [JP]
IN - TAKAHASHI KATSUHITO [JP]; YAMAMURA HISAKO [JP]; INOUE MASAHIRO [JP]

TI - VIRUS GROWING IN HYPOXIC CELL OR VIRUS VECTOR EXPRESSING GENE THEREIN
AB - Provided are a virus or a virus vector capable of expressing a gene specifically in a cell having a replication ability in a hypoxic state such as a cancer stem cell and injuring the cell, and a medicinal composition containing the same. A virus or a virus vector which comprises a gene encoding a fused protein of ODD with a protein essentially required for the growth of the virus, and a medicinal composition containing the same.

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PN - WO2009089476 A1 20090716
PD - 2009-07-16
PA - KARDIA THERAPEUTICS INC [US]; SCHWARZ RICHARD P [US]; SCHNEIDER MICHAEL D [GB]; NOSEDA MICHELA [GB]
IN - SCHWARZ RICHARD P [US]; SCHNEIDER MICHAEL D [GB]; NOSEDA MICHELA [GB]
TI - ADULT HUMAN CARDIAC-DERIVED PROGENITOR CELLS
AB - The present invention is based, in part, on the discovery that cardiac progenitor cells are present in and can be isolated from adult human heart. Accordingly, a cell of the present invention comprises a human adult cardiac-derived progenitor cell capable of differentiating into a cardiac myocyte where said cell is isolated according to the expression of specific biomarkers, identified elsewhere herein. The present invention also includes methods of use of an adult cardiac-derived progenitor cell in the treatment of heart disease.

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PN - WO2009088837 A2 20090716
PD - 2009-07-16
PA - UNIV LOUISVILLE RES FOUND [US]; BATES PAULA J [US]; CHOI ENID [US]
IN - BATES PAULA J [US]; CHOI ENID [US]
TI - METHODS AND PRODUCTS TO TARGET, CAPTURE AND CHARACTERIZE STEM CELLS
AB - A method for identifying cancer stem cells comprises reacting a plurality of cells comprising cancer stem cells with an anti-nucleolin agent to bind the anti-nucleolin agent to the cancer stem cells; and identifying the cancer stem cells that are bound to the anti-nucleolin agent from remaining cells of the plurality of cells.

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PN - WO2009087213 A1 20090716
PD - 2009-07-16
PA - BONE THERAPEUTICS S A [BE]; BADOER CINDY [BE]; BASTIANELLI ENRICO [BE]; PESESSE XAVIER [BE]
IN - BADOER CINDY [BE]; BASTIANELLI ENRICO [BE]; PESESSE XAVIER [BE]
TI - OSTEOGENIC DIFFERENTIATION OF BONE MARROW STEM CELLS AND MESENCHYMAL STEM CELLS USING A COMBINATION OF GROWTH FACTORS
AB - The invention relates to methods for osteogenic differentiation of human bone marrow stem cells (BMSC) or mesenchymal stem cells (MSC), in particular using human plasma or serum and FGF and TGFB growth factors. The invention also provides the so-obtained cells and cell populations, as well as further products comprising such and uses thereof in bone therapy.

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PN - EP2079831 A2 20090722
PD - 2009-07-22
PA - KECK GRADUATE INST [US]
IN - PHILLIPS MICHAEL IAN [US]; TANG YAO LIANG [US]
TI - ENRICHED STEM CELL AND PROGENITOR CELL POPULATIONS, AND METHODS OF PRODUCING AND USING SUCH POPULATIONS

AB - The present invention provides a novel method to isolate and expand pure progenitor/stem cells from a primary tissue explant, which produces a population enriched in multipotent functional progenitor/stem cells free of contaminating fibroblasts and other cell types. Cardiac progenitor/stem cells isolated by this method maintain their self-renewal and clonogenic character in vitro and differentiate into normal cells in myocardium, including cardiomyocytes, endothelial cells, and smooth muscle cells, after transplantation into ischemic hearts. The present invention also includes substantially pure populations of multipotent progenitor/stem cells, e.g., cardiac progenitor/stem cells, and their use to treat and prevent diseases and injuries, including those resulting from myocardial infarction.

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PN - EP2079829 A2 20090722
PD - 2009-07-22
PA - UNIV KANSAS [US]
IN - MITCHELL KATHY E [US]; HOYNOWSKI STEVEN M [US]
TI - DIFFERENTIATION OF STEM CELLS FROM UMBILICAL CORD MATRIX INTO HEPATOCYTE LINEAGE CELLS
AB - The invention relates to methods for differentiating umbilical cord matrix cells into hepatocyte-like cells and compositions and methods for using such hepatocyte-like cells.

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PN - EP2079484 A2 20090722
PD - 2009-07-22
PA - STEMLINE THERAPEUTICS INC [US]
IN - CIRRITO THOMAS P [US]; BERGSTEIN IVAN [US]
TI - MONITORING CANCER STEM CELLS
AB - The present invention is directed to methods of monitoring cancer stem cells in patients undergoing cancer therapy to determine whether the cancer therapy is an effective cancer therapy. The present invention relates to methods for monitoring the amount of cancer stem cells prior to, during, and/or following cancer treatment of a patient. In particular, the methods provide measuring the amount of cancer stem cells i) in a sample obtained from a patient and/or ii) in a patient via in vivo imaging, e.g. at different time points before, during or after a treatment regimen for cancer. The change in amount of cancer stem cells over time allows the physician to judge the effectiveness of the treatment regimen and then to decide to continue, alter, or halt the treatment regimen if need be. The present invention also provides kits for monitoring cancer stem cells prior to, during, and/or following cancer treatment of a patient. The present invention also provides for a method of treatment of cancer, wherein such method involves the use of a therapeutic agent that stabilizes or reduces the amount of cancer stem cells in or from a patient.

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PN - EP2079832 A2 20090722
PD - 2009-07-22
PA - COGNATE THERAPEUTICS INC [US]
IN - MITCHELL JAMES B II [US]
TI - ISOLATION AND PURIFICATION OF HEMATOPOIETIC STEM CELLS FROM POST-LIPOSUCTION LIPOASPIRATES
AB - The present invention relates to a method of isolating hematopoietic stem cells from adipose tissue. The method yields a notably high number of CD34<+>, ALDH
 and/or ABCG2-expressing cells, comprising hematopoietic stem cells, permitting the use of the cells with no or minimal expansion.

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PN - US2009181087 A1 20090716
PD - 2009-07-16
PA - VIACELL INC [US]

IN - KRAUS MOREY [US]; BEER MARC D [US]; CLARK PAUL T [US]
TI - Use of human cord blood-derived pluripotent cells for the treatment of disease
AB - The present invention features methods of organ tissue regeneration using pluripotent cells derived from umbilical cord blood, compositions of these pluripotent cells, methods for further transforming these cells, and uses for these transformed cells.

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PN - US2009180998 A1 20090716
PD - 2009-07-16
IN - ANVERSA PIERO [US]; LERI ANNAROSA [US]; KAJSTURA JAN [US]
TI - METHODS OF ISOLATING NON-SENESCENT CARDIAC STEM CELLS AND USES THEREOF
AB - The invention describes the isolation and methods of use of a non-senescent pool of adult cardiac stem cells. Methods for repairing aged myocardium or damaged myocardium using the isolated non-senescent adult cardiac stem cells are also disclosed. In addition, the invention describes a method for preventing or treating heart failure.

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PN - US2009181456 A1 20090716
PD - 2009-07-16
IN - HEDRICK MARC H [US]; KATZ ADAM J [US]; LLUIL RAMON [ES]; FUTRELL J WILLIAM [US]; BENHAIM PROSPER [US]; LORENZ HERMANN PETER [US]; ZHU MIN [US]
TI - Adipose-derived stem cells and lattices
AB - The present invention provides adipose-derived stem cells (ADSCs), adipose-derived stem cell-enriched fractions (ADSC-EF) and adipose-derived lattices, alone and combined with the ADSCs of the invention. In one aspect, the present invention provides an ADSC substantially free of adipocytes and red blood cells and clonal populations of connective tissue stem cells. The ADSCs can be employed, alone or within biologically-compatible compositions, to generate differentiated tissues and structures, both in vivo and in vitro. Additionally, the ADSCs can be expanded and cultured to produce molecules such as hormones, and to provide conditioned culture media for supporting the growth and expansion of other cell populations. In another aspect the present invention provides a adipose-derived lattice substantially devoid of cells, which includes extracellular matrix material from adipose tissue. The lattice can be used as a substrate to facilitate the growth and differentiation of cells, whether in vivo or in vitro, into anlagen or even mature tissues or structures.

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PN - US2009175836 A1 20090709
PD - 2009-07-09
PA - UNIV COLORADO [US]
IN - BRODSKY GARY [US]
TI - PRELAMIN A PRE PEPTIDE AS A UNIVERSAL STEM CELL DIFFERENTIATION SIGNAL
AB - Disclosed is the use of prelamins A pre peptide and homologues or analogs thereof for the induction of cell differentiation and tissue or organ growth and repair processes. The invention extends to virtually any cell, including both embryonic and non-embryonic stem cells, such as stem cells that are progenitors for a wide variety of cell and tissue types. Also disclosed is the use of prelamins A pre peptide and prelamins A to determine and establish cell morphology and tissue architecture. Treatment of a variety of diseases and conditions, as well as cosmetic, general health, and anti-aging applications are described.

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PN - US2009175833 A1 20090709
PD - 2009-07-09
IN - DORE-DUFFY PAULA [US]; KATYSHEV ANDRE [US]; WANG XUEQIAN [US]
TI - PERICYTES FOR USE AS STEM CELLS

AB - A method of promoting pericyte differentiation by selectively culturing pericytes in an enriched environment containing a promoter specific to a type of differentiation. Isolated and purified multipotent pericytes or pericyte precursors are provided. A stem cell therapy replacement comprising isolated and purified multipotent pericytes. A treatment of disease comprising an effective amount of isolated and purified multipotent pericytes or pericyte precursors is provided.

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PN - US2009175832 A1 20090709
PD - 2009-07-09
PA - UNIV ILLINOIS [US]
IN - ZHAO YONG [US]; MAZZONE THEODORE [US]
TI - Isolated Embryonic-Like Stem Cells Derived From Human Umbilical Cord Blood
AB - The present invention is related generally to embryonic-like stem cells isolated from human umbilical cord blood, designated herein as cord blood-stem cells (CB-SC's), which display the characteristics of embryonic stem cells and hematopoietic cells. These cells have the capability of proliferation and are able to differentiate to multiple types of cells. In addition, the CB-SC display low immunogenicity and immune regulation. These cells are, therefore, suitable for use in stem cell-based therapies for the treatment of diseases such as Parkinson's disease, diabetes, spinal cord damage, multiple sclerosis, cardiovascular disease, stroke and birth defects, and for preventing, treating and/or reducing an autoimmune disease in a mammalian subject.

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PN - WO2009086333 A2 20090709
PD - 2009-07-09
PA - STEMCELLS CALIFORNIA INC [US]; UCHIDA NOBUKO [US]; TAMAKI STANLEY [US]; JACOBS YAKOP [US]
IN - UCHIDA NOBUKO [US]; TAMAKI STANLEY [US]; JACOBS YAKOP [US]
TI - ANTIBODIES AND METHODS FOR IDENTIFYING AND TRACKING ENGRAFTMENT, MIGRATATION, AND DIFFERENTIATION OF HUMAN STEM, PROGENITOR, AND ENGRAFTING CELL POPULATIONS
AB - Antibodies that bind a protein Reticulon 3 are disclosed. Preferably, the antibodies are monoclonal antibodies of an IgG1 isotype and bind human Reticulon 3. In a preferred embodiment, an antibody of the invention binds an epitope recognized by a monoclonal antibody SC121, produced by a hybridoma SC121 (ATTC Accession No. PTA-8617). Pharmaceutical compositions comprising the antibodies of the invention are also disclosed. The antibodies of the invention are useful for isolating, characterizing, and tracking the progeny of human cells. Nucleic acid molecules encoding anti-Reticulon 3 antibodies, or portions thereof, as well as expression vectors and host cells incorporating said nucleic acid molecules, are also encompassed by the invention.

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PN - WO2009086284 A1 20090709
PD - 2009-07-09
PA - UNIV ROCHESTER [US]; GOLDMAN STEVEN A [US]; SIM FRASER [US]; AUVERGNE ROMANE MELANIE [US]
IN - GOLDMAN STEVEN A [US]; SIM FRASER [US]; AUVERGNE ROMANE MELANIE [US]
TI - CD24 AS A BRAIN TUMOR STEM CELL MARKER AND A DIAGNOSTIC AND THERAPEUTIC TARGET IN PRIMARY NEURAL AND GLIAL TUMORS OF THE BRAIN
AB - The present invention is directed to methods of treating a primary brain tumor and preventing the migratory spread of a primary brain tumor in a subject. These methods involve utilizing the CD24 surface protein selectively expressed on tumor progenitor cells as a therapeutic target as well as a means for directing oncolytic therapeutics directly to the tumor site. The present invention further relates to methods of diagnosing the presence of a brain tumor and monitoring the status of the brain tumor in a subject based on CD24 expression in tumor progenitor cells.

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PN - WO2009085969 A2 20090709
PD - 2009-07-09
PA - REGENERATIVE SCIENCES LLC [US]; CENTENO CHRISTOPHER J [US]
IN - CENTENO CHRISTOPHER J [US]
TI - COMPOSITIONS AND METHODS TO PROMOTE IMPLANTATION AND ENGRAFTMENT OF STEM CELLS
AB - Tissue repair in-vivo depends on acute inflammation, but in many clinical situations the other major components of healing such as blood supply, anabolic hormones, growth factors, and stem cells are lacking. This invention includes compositions consisting of an agent which induces an inflammatory healing response combined with an autologous platelet lysate at a specific concentration which may have demonstrated in-vitro abilities to expand autologous tissue repair cells.

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PN - EP2076587 A2 20090708
PD - 2009-07-08
PA - UNIV FLORIDA [US]
IN - SCHEFFLER BJORN [DE]; GOETZ ANTJE KATRIN [US]; STEINDLER DENNIS A [US]
TI - ISOLATION, EXPANSION AND USES OF TUMOR STEM CELLS
AB - Disclosed are methods for isolating cell populations enriched in tumor stem cells (cancer stem cells), and isolated cell populations substantially enriched in cancer stem cells that are tumorigenic in vivo. Also provided are new methods of tumor diagnosis and classification and personalized methods of treatment for subjects with tumors, based on the availability of populations of cancer stem cells derived from the subject's tumor using the disclosed methods.

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PN - EP2076588 A1 20090708
PD - 2009-07-08
PA - THANKSTEM S R L [IT]
IN - GAMBACURTA ALESSANDRA [IT]; POLETTINI MARCO [IT]
TI - EXPANSION METHOD FOR ADULT STEM CELLS FROM BLOOD, PARTICULARLY PERIPHERAL BLOOD, AND RELATIVE APPLICATION IN MEDICAL FIELD
AB - Method for the expansion of adult stem cells from blood, particularly but not only peripheral blood, comprising a first step of expansion of the stem cells of blood, immediately after they have been taken, by means of the in-vitro treatment with MCSF in a concentration comprised between 8-15 nM and a second step of purification of the expanded stem cells.

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PN - US2009170930 A1 20090702
PD - 2009-07-02
PA - UNIV PLA 2ND MILITARY MEDICAL [CN]
IN - HE CHENG [CN]; ZHANG WEIDONG [CN]; XU XIAOHUI [CN]; ZHANG WEI [CN]; SU JUAN [CN]; ZHANG CHUAN [CN]
TI - METHODS FOR DIRECTING DIFFERENTIATION OF CLONOGENIC NEURAL STEM CELLS WITH COUMARINS
AB - A method for promoting differentiation of clonogenic neural stem cells (NSCs), comprising administering to a patient in the need of such promoting a coumarin compound represented by formula I or by formula II. The representative coumarin compounds include 7-hydroxycoumarin, daphnoretin, scopoletin, edgeworin, aesculetin and esculetin-6-beta-D-glucopyranoside. The coumarin compounds showed significant activity of directing the differentiation of NSCs in pharmacological test and thereof could be used to prepare drugs to direct NSCs differentiated to oligodendrocyte progenitor cells (OPCs) for the treatment of demyelinating diseases or spinal cord injury. The drug could be a pure coumarin compound or a pharmaceutical composition comprising a therapeutical dose of a coumarin compound as active ingredients and a

pharmaceutically-acceptable carrier. The content of the active ingredients in the pharmaceutical composition is between 0.1% and 99.5% by weight.

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PN - US2009170193 A1 20090702
PD - 2009-07-02
PA - OMNICYTE LTD [GB]
IN - GORDON MYRTLE [GB]; HABIB NAGY [GB]
TI - STEM CELLS
AB - The present invention relates to an isolated stem cell population wherein said stem cells are CD34+, capable of self regeneration, capable of differentiation into ectodermal, mesodermal and endodermal cells and capable of adhering to tissue-culture grade plastic as well as to methods of isolation of said cells, methods of culturing and differentiation thereof, the progeny of such methods of differentiation as well as uses, including therapeutic uses of the stem cells and their differentiated

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PN - US2009169525 A1 20090702
PD - 2009-07-02
IN - ANVERSA PIERO [US]; LERI ANNAROSA [US]; KAJSTURA JAN [US]
TI - METHODS OF REDUCING TRANSPLANT REJECTION AND CARDIAC ALLOGRAFT VASCULOPATHY BY IMPLANTING AUTOLOGOUS STEM CELLS
AB - The invention provides novel methods of reducing transplant rejection and cardiac allograft vasculopathy in humans by employing the implantation of autologous progenitor cells into the transplanted donor heart. The autologous progenitor cells can be vascular progenitor cells (VPCs) and/or myocyte progenitor cells (MPCs) isolated from the recipient's explanted heart. Alternatively, bone marrow progenitor cells (BMPCs) isolated from the recipient may also be used.

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PN - US2009170205 A1 20090702
PD - 2009-07-02
PA - RIKEN [JP]
IN - MIYOSHI HIROYUKI [JP]; SHIMIZU NATSUMI [JP]; KODAMA HIROAKI [JP]
TI - METHOD OF MAINTENANCE AND EXPANSION OF HEMATOPOIETIC STEM CELLS
AB - [Problem] Provided are a method of maintaining/expanding hematopoietic stem cells, a hematopoietic stem cell population obtained by the method, a hematopoietic function ameliorating agent based on administration of the hematopoietic stem cell population to a living organism, and the like. [Solving Means] A method of maintaining/expanding hematopoietic stem cells, comprising culturing hematopoietic stem cells in the presence of the HSC activity supporting factor of the present invention, which comprises the same or substantially the same amino acid sequence as an amino acid sequence shown by SEQ ID NO:2 or 4, or in the co-presence of a mammalian cell, preferably a stromal cell, incorporating an expression vector harboring a nucleic acid that encodes the HSC activity supporting factor, a cell population containing expanded hematopoietic stem cells obtained by the method, and a hematopoietic function ameliorating agent comprising the cell population.

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PN - US2009169613 A1 20090702
PD - 2009-07-02
IN - REZNIK BORIS N [US]; ICHIM THOMAS [US]; DOUGHERTY CHRISTOPHER [US]
TI - TARGETING OF TUMOR STEM CELLS THROUGH SELECTIVE SILENCING OF BORIS EXPRESSION
AB - The present invention provides compositions useful for the treatment of cancer that inhibit tumor stem cells through suppression of an activity or the expression of BORIS. The compositions target tumor stem cells through molecules that are specific to tumor stem cells. Specifically, the invention provides immunoliposomes specific to tumor stem cells that include nucleic

acid compositions capable of eliciting the process of RNA interference of BORIS expression. Also provided are immunoliposomes specific to tumor stem cells that include anti-BORIS ribozymes, antisense oligonucleotides, decoy oligonucleotides or small molecule inhibitors. Methods of manufacturing, delivering, and use of such compositions in the treatment of cancer are also provided.

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PN - US2009169523 A1 20090702
PD - 2009-07-02
IN - VERFAILLIE CATHERINE [BE]; SCHOEMANS HELENE [BE]; SNOECKX RIKKERT [BE]
TI - HSC SELF-RENEWAL
AB - The invention is related to methods for culturing stem cells, more particularly hematopoietic stem cells (HSC). The invention relates to methods for HSC expansion and the use of RASSF8 to increase the retention and/or expansion of KLS cells in vitro. The invention is also directed to cells produced by the methods of the invention. The cells are useful, among other things, for treatment of disorders or diseases (e.g. leukemia). The invention also relates to the development of small molecules that may increase HSC self renewal in vitro and in vivo.

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PN - US2009170148 A1 20090702
PD - 2009-07-02
IN - SMIRNOVA YULIA A [RU]; ZINOVIEVA RIRA D [RU]; MILYUSHINA LYUBOV ALEXAUDROVNA [RU]; ALEXANDROVA MARIA ANATOLIEVNA [RU]
TI - Nanog+, OCT-4+ Retinal Pigment Epithelial Stem Cells and Methods for Their Use and Manufacture
AB - Retinal stem cells having embryonic-like characteristics are disclosed. The retinal stem cells express one or more of the embryonic stem cell markers Nanog and OCT-4. The retinal stem cells may be obtained from retinal pigment epithelium. Methods of making and using retinal stem cells are also disclosed.

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PN - US2009170148 A1 20090702
PD - 2009-07-02
IN - SMIRNOVA YULIA A [RU]; ZINOVIEVA RIRA D [RU]; MILYUSHINA LYUBOV ALEXAUDROVNA [RU]; ALEXANDROVA MARIA ANATOLIEVNA [RU]
TI - Nanog+, OCT-4+ Retinal Pigment Epithelial Stem Cells and Methods for Their Use and Manufacture
AB - Retinal stem cells having embryonic-like characteristics are disclosed. The retinal stem cells express one or more of the embryonic stem cell markers Nanog and OCT-4. The retinal stem cells may be obtained from retinal pigment epithelium. Methods of making and using retinal stem cells are also disclosed.

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PN - US2009170200 A1 20090702
PD - 2009-07-02
PA - KAOHSIUNG MEDICAL UNIVERSITY [TW]
IN - YEH CHING-HUA [TW]; WANG GWO-JAW [TW]; HO MEI-LING [TW]; CHANG JE-KEN [TW]; CHEN CHUNG-HWAN [TW]
TI - STEM CELL MEDIUM
AB - A medium for culturing stem cell. The stem cell medium of the invention comprises a fetal bovine serum, one or plurality of amino acid, one or plurality of vitamin, one or plurality of growth factor, one or plurality of inorganic salt, one or plurality of antioxidant, wherein the stem cell medium has a calcium concentration of less than about 1.8 mM, and the fetal bovine serum is present in an amount of less than about 10% by volume of the medium. The stem cell medium of the invention can

maintain the proliferative and self-renewal capacity of the stem cells and keep stem cells at a steady stage.

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PN - US2009170177 A1 20090702
PD - 2009-07-02
PA - KAOHSIUNG MEDICAL UNIVERSITY [TW]
IN - HO MEI-LING [TW]; WANG GWO-JAW [TW]; CHANG JE-KEN [TW]; WANG YAN-HSIUNG [TW]
TI - STEM CELL TRANSFECTION METHOD
AB - Stem cell transfection method. The stem cell infection method of the invention comprises providing a stem cell; positioning the stem cell at a buffer, wherein the buffer contains a foreign material; electroporating the stem cell in the buffer; and culturing the stem cell.

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PN - US2009169522 A1 20090702
PD - 2009-07-02
IN - DANILKOVITCH ALLA [US]; CARTER DIANE [US]; TYRELL ALICIA [US]; BUBNIC SIMON [US]; MARCELINO MICHELLE [US]; MONROY RODNEY [US]
TI - MESENCHYMAL STEM CELLS EXPRESSING TNF-A RECEPTOR
AB - Mesenchymal stem cells which express TNF-alpha receptor Type I in an amount of at least 13 pg/10⁶ cells. Such mesenchymal stem cells inhibit the proliferation of lymphocytes and may be employed, in particular, in the treatment of graft-versus-host disease.

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PN - US2009170059 A1 20090702
PD - 2009-07-02
IN - KLINGEMANN HANS [US]
TI - Methods for Preparing Cord Matrix Stem Cells (CMSC) for Long Term Storage and for Preparing a Segment of umbilical cord for cryopreservation
AB - Methods and kits are provided for preparation of umbilical cord fragments and cells using autologous blood or blood products, and for storage of these materials with autologous cells and blood or blood products in containers having a plurality of separable chambers.

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PN - WO2009080794 A1 20090702
PD - 2009-07-02
PA - MC2 CELL APS [DK]; EL-SABBAN MARWAN [DK]; SINDET-PEDERSEN STEEN [GB]
IN - EL-SABBAN MARWAN [DK]; SINDET-PEDERSEN STEEN [GB]
TI - METHOD FOR PREPARING CELL-SPECIFIC EXTRACELLULAR MATRICES
AB - The invention is in the field of stem cell technology. This invention is directed to an in vitro method for inducing cells of human origin to produce cell-specific extracellular matrices and differentiating factors. This extract is suitable for use in differentiating human stem cells into desired tissue cells, such as differentiating bone marrow-derived stem cells into chondrocytes.

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PN - WO2009079922 A1 20090702
PD - 2009-07-02
PA - SHANGHAI GUOJIAN BIO TECH INST [CN]; GUO YAJUN [CN]; QIAN WEIZHU [CN]; HOU SHENG [CN]; LI BOHUA [CN]; WANG HAO [CN]; MA JING [CN]
IN - GUO YAJUN [CN]; QIAN WEIZHU [CN]; HOU SHENG [CN]; LI BOHUA [CN]; WANG HAO [CN]; MA JING [CN]

TI - HUMANIZED ANTI-CD34 MONOCLONAL ANTIBODY, THE PREPARATION AND USES THEREOF

AB - Provided are a humanized anti-CD34 monoclonal antibody and the preparation thereof. The humanized anti-CD34 monoclonal antibody keeps the affinity and specificity of its original murine monoclonal antibody. The antibody can be conjugated with magnetic nano material to make immunomagnetic beads to screen marrow hemopoietic stem cells. It can effectively reduce the incidence rate of HAMA and improve the security of clinical transplantation of hemopoietic stem cells and can be used in treatment of some malignant hematologic diseases and solid tumors.

EMBRYONIC STEM CELLS- 32 DOCUMENTS

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PN - US2009215872 A1 20090827

PD - 2009-08-27

IN - LEE JEANNIE T [US]

TI - Methods for Controlling Stem Cell Differentiation

AB - Disclosed herein are methods for controlling stem cell differentiation through the introduction of transgenes having Xic, Tsix, or Xite sequences to block differentiation and the removal of the transgenes to allow differentiation. Also disclosed are small RNA molecules and methods for using the small RNA molecules to control stem cell differentiation. Also disclosed are stem cells genetically modified by the introduction of Xic, Tsix, or Xite sequences.

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PN - US2009215640 A1 20090827

PD - 2009-08-27

IN - WEST MICHAEL D [US]; CHAPMAN KAREN B [US]; LARocca DAVID [US]

TI - METHODS FOR IDENTIFYING LIGANDS FOR STEM CELLS AND CELLS DERIVED THEREFROM

AB - The present invention provides methods for the identification of novel ligands to pluripotent stem cells such as human embryonic stem cells, human embryo-derived cells, and from cells differentiated from such cells, and the use of such ligands in identifying differentiation conditions, purifying cells, and for eliminating such cells from mixtures of varied cell types. The invention also provides methods for the identification of target progenitor cells and cells identified thereby.

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PN - US2009214490 A1 20090827

PD - 2009-08-27

PA - AGENCY SCIENCE TECH & RES [SG]

IN - CHOO ANDRE [SG]

TI - HUMAN EMBRYONIC STEM CELL METHODS AND PODXL EXPRESSION

AB - A method of identifying an undifferentiated human embryonic stem cell in a sample which may contain such cells, the method comprising identifying the cell or cells within the sample that express podocalyxin-like protein (PODXL) on their surface. A method of isolating an undifferentiated human embryonic stem cell from a sample containing such cells, the method comprising isolating the cell or cells within the sample that express PODXL on their surface. Typically, the methods use an antibody which binds to PODXL. Undifferentiated human embryonic stem cells isolated by the method may be useful in cell therapy. Also, in particular, compositions of cells differentiated from a human embryonic stem cell but which composition has been depleted of undifferentiated human embryonic stem cells are provided which are useful in cell therapy.

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PN - US2009217404 A1 20090827

PD - 2009-08-27

IN - LOWE SCOTT W [US]; CARMELL MICHELLE A [US]; HANNON GREGORY J [US]; PADDISON PATRICK [US]; ZILFOU JACK [US]; FRIDMAN JORDAN [US]; DICKINS ROSS [AU]; HEMANN MICHAEL [US]; ROSENQUIST THOMAS A [US]; PREMSRIRUT PREM [US]
TI - Cell-based RNA interference and related methods and compositions
AB - The invention provides, among other things, methods for performing RNA interference (RNAi) in stem cells (such as embryonic stem cells) and methods for using such stem cells in vivo. The invention also provides various animal models based on conditional/inducible, reversible, tissue-specific/spacial, and/or developmental stage-specific/temporal RNAi of certain target genes, which animal model may be useful for, e.g., drug target identification and/or validation.

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PN - WO2009104907 A2 20090827
PD - 2009-08-27
PA - SNU INDUSTRY FOUNDATION [KR]; NOH DONG-YOUNG [KR]; HAN WONSHIK [KR]; KO EUNYOUNG [KR]; KIM JONG BIN [KR]; LEE KYUNG-MIN [KR]
IN - NOH DONG-YOUNG [KR]; HAN WONSHIK [KR]; KO EUNYOUNG [KR]; KIM JONG BIN [KR]; LEE KYUNG-MIN [KR]
TI - PLURIPOTENT CANCER STEM CELL LINE, AND A PRODUCTION METHOD THEREFOR
AB - The present invention relates to a pluripotent cancer stem cell line which is derived from breast-cancer tissue and which expresses breast-cancer stem-cell marking factor. The present invention also relates to a production method for a pluripotent cancer stem cell line, comprising: (1) a stage involving the isolation of breast-cancer cells from previously extracted breast-cancer tissue; (2) a stage involving a first culturing of the isolated breast-cancer cells in a suspended state in a medium for suspension culturing; (3) a stage involving the recovery of the cells in the suspended state from the first culture; and (4) a stage involving the production of a pluripotent cancer stem cell line by passaging the recovered cells for more than a predetermined number of times in a suspended state in a medium for suspension culturing.

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PN - WO2009104825 A1 20090827
PD - 2009-08-27
PA - KOREA INST SCIENCE TECHNOLOGY [KR]; HAN YONG-MAHN [KR]; PARK SANG-WOOK [KR]; LEE EUN-YOUNG [KR]
IN - HAN YONG-MAHN [KR]; PARK SANG-WOOK [KR]; LEE EUN-YOUNG [KR]
TI - METHOD FOR INDUCING THE DEFFERENTIATION OF EMBRYONIC STEM CELLS INTO HEMANGIOBLAST
AB - The present invention relates to a composition for inducing embryonic stem cell differentiation comprising a MEK/ERK (mitogen-activated protein kinase kinase/extracellular regulated kinase) signal transduction inhibitor and BMP (bone morphogenetic protein), and a method for inducing differentiation of embryonic stem cells into mesodermal cells using the same. Further, the mesodermal cells obtained by the above method are able to differentiate into various mesenchymal tissue cells. In particular, the present invention relates to a method for inducing differentiation into hemangioblast by culturing the mesodermal cells obtained by the above method in the presence of VEGF (vascular endothelial cell growth factor) and bFGF (basic fibroblast growth factor). The differentiated hemangioblasts can be further differentiated into vascular endothelial cells, vascular smooth muscle cells, and hematopoietic stem cells under various culture conditions.

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PN - US2009209643 A1 20090820
PD - 2009-08-20
PA - SUCAMPO AG [CH]
IN - UENO RYUJI [US]; KUNO SACHIKO [US]
TI - METHOD FOR MODULATING STEM CELL GROWTH
AB - In one embodiment, provided is a composition comprising a prostaglandin compound for modulating stem cell proliferation and/or differentiation in a mammalian subject. In another

embodiment, the instant application is a composition comprising a prostaglandin compound for, which comprises a prostaglandin compound for modulating proliferation and/or differentiation of stem cells of a mammalian subject, in which the stem cells are contacted directly or indirectly with the composition of the invention.

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PN - WO2009100128 A1 20090813
PD - 2009-08-13
PA - MASSACHUSETTS INST TECHNOLOGY [US]; CHILDRENS MEDICAL CENTER [US]; DA SILVA FERRIERA LINO [PT]; KOHANE DANIEL [US]; LANGER ROBERT [US]
IN - DA SILVA FERRIERA LINO [PT]; KOHANE DANIEL [US]; LANGER ROBERT [US]
TI - PARTICULATE DELIVERY VEHICLES FOR EMBRYOID BODIES
AB - The present invention provides a vehicle for delivering various chemicals, compositions and proteins to stem cells and embryoid bodies. The vehicle may be biocompatible and biodegradable polymer microparticles. Typically the particles will contain at least a growth factor for delivery to the embryoid bodies,, and generally the growth factor induces differentiation of the cells in the embryoid body along a specific lineage. The present invention also provides methods for directing differentiation of the cells in the embryoid body.

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PN - US2009191634 A1 20090730
PD - 2009-07-30
IN - MARTIN ARTHUR W [US]; MELKOUMIAN ZARA [US]; SHOGBON CHRISTOPHER B [US]; ZHOU YUE [US]
TI - (METH)ACRYLATE SURFACES FOR CELL CULTURE, METHODS OF MAKING AND USING THE SURFACES
AB - A synthetic cell culture surface, prepared from a polymerized blend of at least two (meth)acrylate monomers is provided, which supports the growth of undifferentiated human embryonic stem cells in defined media augmented with fetal bovine serum. The cell culture surface forms a uniform layer over the growth area of a typical cell culture vessel.

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PN - US2009208465 A1 20090820
PD - 2009-08-20
PA - UNIV KEIO [JP]; UNIV KYOTO [JP]
IN - OKANO HIDEYUKI [JP]; NAKAMURA MASAYA [JP]; TSUJI OSAHIKO [JP]; YAMANAKA SHINYA [JP]; MIURA KYOKO [JP]
TI - METHOD OF TREATING NEURAL DEFECTS
AB - The present invention provides a therapeutic agent for a nerve injury and a method for treating a nerve injury. One aspect of the invention is the method for treating a nerve injury by administering to a patient with a nerve injury a therapeutic agent for a nerve injury containing a differentiated cell-derived pluripotent cell obtained by forced expression of reprogramming genes such as a combination of the Oct3/4 gene, Sox2 gene, Klf4, and c-myc gene. in a differentiated cell; or cells obtained by inducing the aforementioned differentiated cell-derived pluripotent cells to differentiate into an embryoid body or a neurosphere.

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PN - WO2009098149 A2 20090813
PD - 2009-08-13
PA - HENKEL AG & CO KGAA [DE]; KESLER-BECKER DANIELA [DE]; PETERSOHN DIRK [DE]; BOHLEN HERIBERT [DE]; JOENSSON KRISTINA [DE]; EHLICH ANDREAS [DE]
IN - KESLER-BECKER DANIELA [DE]; PETERSOHN DIRK [DE]; BOHLEN HERIBERT [DE]; JOENSSON KRISTINA [DE]; EHLICH ANDREAS [DE]
TI - METHOD FOR EXTRACTING OLFACTORY EPITHELIAL CELLS FROM NON-HUMAN EMBRYONIC STEM CELLS

AB - The present invention relates to a method for extracting olfactory epithelial cells from non-human embryonic stem cells, olfactory epithelial cells extracted by way of the method according to the invention, and testing systems for cosmetic and/or pharmaceutical preparations based on olfactory epithelial cells extracted by way of the method according to the invention.

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PN - EP2088191 A1 20090812
PD - 2009-08-12
PA - UNIV BONN [DE]
IN - SCHORLE HUBERT [DE]; WOYNECKI TATIANA [DE]; EGERT ANGELA [DE];
BUHL SANDRA [DE]
TI - Induced blastocyst-like structures, methods of production and uses of the same
AB - The present invention relates to a method of producing an induced blastocyst-like structure; an induced blastocyst-like structure and uses thereof; a method of producing a non-human embryo or non-human animal; a kit suitable for the production of an induced blastocyst-like structure, a non-human embryo or non-human animal; and the use of a modified embryonic stem cell for the production of an induced blastocyst-like structure, a non-human embryo or a non-human animal.

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PN - US2009202498 A1 20090813
PD - 2009-08-13
PA - ES CELL INT PTE LTD [SG]
IN - DAVIDSON BRUCE PAUL [SG]; GRAICHEN RALPH EBERHARD [SG];
ZWEIGERDT ROBERT [SG]; XU XIUQIN [SG]; MUMMERY CHRISTINE LINDSAY [NL]; SUN
WILLIAM [SG]
TI - DIRECT DIFFERENTIATION OF CARDIOMYOCYTES FROM HUMAN EMBRYONIC
STEM CELLS
AB - The present invention relates to the induction of differentiation in stem cells to cardiomyocytes and factors such as prostaglandin alone or in combination with other factors including essential minerals selected from the group including transferrin and selenium, small molecules selected from the group including a p38 MAPK inhibitor such as SB203580 and protein growth factors of the FGF, IGF and BMP families such as but not limited to IGF1, FGF2, BMP2, BMP4 and BMP6. and insulin that influence the process of differentiation to cardiomyocytes. Media that is appropriate for the induction of differentiation of cardiomyocytes from stem cells is also provided wherein the media contains these factors. The use of cardiomyocytes and cardiac progenitors produced by the directed differentiation in transplantation and screening for cardiac compounds is also provided.

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PN - EP2088190 A1 20090812
PD - 2009-08-12
PA - JAPAN GOVERNMENT [JP]; MITSUBISHI TANABE PHARMA CORP [JP]
IN - YUO AKIRA [JP]; TOBE KUMIKO [JP]; SAEKI KOICHI [JP]; NAKAHARA MASAKO
[JP]; NAKAMURA NAOKO [JP]; YOGISASHI YOSHIKO [JP]; MATSUYAMA SATOKO [JP]; YONEDA
ASAKO [JP]
TI - METHOD FOR CULTURE AND PASSAGE OF PRIMATE EMBRYONIC STEM
CELL, AND METHOD FOR INDUCTION OF DIFFERENTIATION OF THE EMBRYONIC STEM CELL
AB - The present invention provides a method for subculturing primate embryonic stem cells, and a method for inducing differentiation of the same cell into a vascular endothelial cell and a blood cell. The present invention provides a method comprising culturing primate embryonic stem cells in a medium containing a protein component without using feeder cells and cytokines in a container coated with an extracellular matrix, detaching colonies of the resulting embryonic stem cells in the presence of a cytodetachment agent, and plating the colonies in the similar medium, and a method comprising culturing primate embryonic stem cells in a serum-containing or not containing medium in the presence of cytokine, adhesion-culturing the resulting embryoid body or embryoid body-analogous cellular aggregate in the presence of a cytokine to obtain specific precursor cells, and

separating non-adherent cells and adherent cells from the specific precursor cells to obtain blood cells and vascular endothelial precursor cells.

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PN - EP2087099 A1 20090812
PD - 2009-08-12
PA - ADELAIDE RES & INNOVATION PTY [AU]
IN - VASSILIEV IVAN [AU]; NOTTLE MARK BRENTON [AU]
TI - METHOD FOR THE ISOLATION OF PLURIPOTENT CELLS FROM A PRE-IMPLANTATION EMBRYO IN A CULTURE MEDIUM FREE FROM ANIMAL SERUM
AB - The present invention provides a method of isolating a pluripotent cell from a pre-implantation embryo without isolation of the pluripotent cells from other cells, the method including propagating a whole pre-implantation embryo including one or more pluripotent cells, embedded in a feeder cell layer and cultivated in a medium substantially free of serum, and isolating a pluripotent cell from the one or more pluripotent cells. The present invention also provides pluripotent cells generated by the method and uses thereof

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PN - US2009196860 A1 20090806
PD - 2009-08-06
PA - TECHNION RES & DSEVELOPMENT [IL]
IN - AMIT MICHAL [IL]; ITSKOVITZ-ELDOR JOSEPH [IL]
TI - Isolated Primate Embryonic Cells and Methods of Generating and Using Same
AB - An isolated primate embryonic cell is provided as well as cell cultures and cell lines derived therefrom. Also provided are methods of generating and using such cells

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PN - US2009197334 A1 20090806
PD - 2009-08-06
PA - ES CELL INT PTE LTD [SG]
IN - PERA MARTIN FREDERICK [AU]
TI - METHODS OF CULTURING EMBRYONIC STEM CELLS AND CONTROLLED DIFFERENTIATION
AB - The present invention provides a preparation of undifferentiated embryonic stem (ES) cells sustainable for a prolonged period in an undifferentiated state which will undergo stem cell renewal or somatic differentiation. Preferably the cells are capable of somatic differentiation in vitro and are inclined to differentiate away from an extraembryonic lineage. The present invention also provides method of culturing embryonic stem (ES) cells to improve stem cell maintenance and persistence in culture. The method also provides a culture of ES cells prepared by the method as well as differentiated cells derived from the embryonic cells resulting from directed differentiation procedures provided by the present invention.

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PN - WO2009096902 A1 20090806
PD - 2009-08-06
PA - ES CELL INTERNATIOANAL PTE LTD [SG]; CHIPPERFIELD HIRAM [SG]; DUNN NORRIS RAY [SG]
IN - CHIPPERFIELD HIRAM [SG]; DUNN NORRIS RAY [SG]
TI - METHOD OF DIFFERENTIATING STEM CELLS
AB - There is provided an improved efficient method for differentiating stem cells into pancreatic endoderm cells and pancreatic hormone expressing and secreting cells which express Pdx-1 and C-peptide. The invention further provides screening methods for detecting factors of interest that will affect the differentiation of the stem cells into pancreatic endoderm cells.

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PN - US2009191159 A1 20090730
PD - 2009-07-30
IN - SAKURADA KAZUHIRO [JP]; MASAKI HIDEKI [JP]; ISHIKAWA TETSUYA [JP];
TAKAHASHI SHUNICHI [JP]
TI - Multipotent/pluripotent cells and methods
AB - Described herein are multipotent stem cells, e.g., human and other mammalian
pluripotent stem cells, and related methods.

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PN - US2009186414 A1 20090723
PD - 2009-07-23
IN - SRIVASTAVA DEEPAK [US]; IVEY KATHRYN N [US]
TI - Methods of Generating Cardiomyocytes and Cardiac Progenitors and Compositions
AB - The present disclosure provides methods of inducing cardiomyogenesis in a stem cell
or progenitor cell, or in a population of stem cells or progenitor cells; and methods for expansion of
(increasing the numbers of) cardiac progenitors. Cell compositions are also provided.

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PN - US2009186407 A1 20090723
PD - 2009-07-23
PA - BRESAGEN INC [US]
IN - MITALIPOVA MAISAM [US]; LYONS IAN [US]
TI - Alternative Compositions and Methods for the Culture of Stem Cells
AB - Methods and cell culture medium for the generation and maintenance of human
pluripotent embryonic stem cells are disclosed. Human embryonic stem cells are cultured with human
feeder cell conditioned medium, and the embryonic stem cells maintain their pluripotent phenotype.
The human pluripotent embryonic stem cells can be cultured without feeder cells, and in the presence
of supplemental growth factors.

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PN - US2009186801 A1 20090723
PD - 2009-07-23
PA - CHILDREN S MEMORIAL HOSPITAL [US]
IN - HENDRIX MARY JESSICA [US]; POSTOVIT LYNNE MARIE [CA]; SEFTOR
RICHARD EDWARD BARNET [US]; SEFTOR ELISABETH ANN [US]
TI - Methods of Inhibiting Tumor Cell Aggressiveness Using The Microenvironment of
Human Embryonic Stem Cells
AB - The invention provides compositions comprising one or more isolated factors from a
microenvironment of human embryonic stem cells (hESCs), including, but not limited to, Lefty and
inhibitors of Nodal. The invention also provides methods of utilizing factors derived from human
embryonic stem cells (hESC) and their microenvironment to treat and prevent tumor formation and
progression and to inhibit tumor cell aggressiveness. The invention further provides methods of
inhibiting tumor cell growth and/or treating aggressive tumors in a mammal comprising administering
to the mammal, having at least one tumor cell present in its body, an effective amount of an inhibitor
of Nodal activity.

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PN - WO2009090424 A1 20090723
PD - 2009-07-23
PA - UNIV BRIGHTON [GB]; MACFARLANE WENDY MARGARET [GB]; HARRISON
MOIRA [GB]; MARRIOTT CLAIRE ELIZABETH [GB]
IN - MACFARLANE WENDY MARGARET [GB]; HARRISON MOIRA [GB]; MARRIOTT
CLAIRE ELIZABETH [GB]
TI - CELL CULTURE SYSTEM FOR PANCREATIC ISLANDS

AB - Three-dimensional (3D) insulin-producing cell clusters derived from stem cells (preferably human embryonic stem cells) are provided by this invention, together with a method for their production using a microgravity bioreactor cell culture system.

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PN - WO2009089067 A2 20090716
PD - 2009-07-16
PA - GEN HOSPITAL CORP [US]; LEE JEANNIE T [US]; ZHANG LI-FENG [US]
IN - LEE JEANNIE T [US]; ZHANG LI-FENG [US]
TI - METHODS AND COMPOSITIONS FOR IDENTIFYING UNDIFFERENTIATED STEM CELLS AND ASSESSING CELL HEALTH
AB - Disclosed herein are methods and compositions for the identification of teloRNA marks to assess the differentiation status of an individual stem cell or a population of stem cells, to diagnose whether and to what extent a stem cell or stem cell culture has already initiated cell differentiation, and to monitor the differentiation status of an individual stem cell or a stem cell culture during passage. The use of these methods and compositions to monitor the pluripotency and differentiation status of a stem cell or stem cell culture during differentiation enables the identification of undifferentiated and pluripotent stem cells prior to the initiation of differentiation. The methods and compositions can also be used to assess and maintain cell viability; to identify cells or a population of cells that are in a state of poor cell health; and to reduce cell growth or treat a diseased cell including, for example, pre-cancerous cells, cancerous cells, apoptotic cells, aging cells, cells undergoing stress, and otherwise diseased or dysfunctional cells.

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PN - WO2009087681 A2 20090716
PD - 2009-07-16
PA - RELIANCE LIFE SCIENCES PVT LTD [IN]; MURALI KRISHNA; RAJARSHI PAL; APARNA KHANNA
IN - MURALI KRISHNA; RAJARSHI PAL; APARNA KHANNA
TI - METHODS FOR CHARACTERISATION OF MAMMALIAN EMBRYONIC STEM CELLS BY MULTIPLEX PCR
AB - The present disclosure relates to a rapid, cost effective, robust and sensitive method for routine testing of embryonic stem cells. The present disclosure in particular provides a simple inexpensive and definitive multitasked semi-quantitative multiplex RT-PCR system for human ES cell characterization.

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PN - US2009176260 A1 20090709
PD - 2009-07-09
IN - WU JOSEPH CHING-MING [US]; CAO FENG [US]
TI - Double-fusion human embryonic stem cells, methods of making double-fusion human embryonic stem cells, triple-fusion human embryonic stem cells, methods of making triple-fusion human embryonic stem cells, and methods of monitoring double-fusion human embryonic stem cells and triple-fusion human embryonic stem cells
AB - Embodiments of the present disclosure include double-fusion human embryonic stem cells, methods of imaging double-fusion human embryonic stem cells, double-fusion polynucleotides, double-fusion proteins, triple-fusion human embryonic stem cells, methods of imaging triple-fusion human embryonic stem cells, triple-fusion polynucleotides, triple-fusion proteins, methods of monitoring the progression of human embryonic stem cells, methods of making isolated double-fusion human embryonic stem cells, methods of making isolated triple-fusion human embryonic stem cells, and the like.

© EPODOC / EPO

PN - US2009175834 A1 20090709
PD - 2009-07-09

PA - CALIFORNIA STEM CELL INC [US]
IN - POOLE ALEKSANDRA JOVANOVIC [US]
TI - NEURONAL PROGENITOR CELLS AND METHODS OF DERIVATION AND PURIFICATION OF NEURONAL PROGENITOR CELLS FROM EMBRYONIC STEM CELLS
AB - The invention provides neuronal progenitor cells, populations and cultures of cells, cell compositions and methods of producing neuronal progenitor cells. Neuronal progenitor cells can be prepared from embryonic stem cells, such as human embryonic stem cells.

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PN - WO2009085212 A1 20090709
PD - 2009-07-09
PA - ADVANCED CELL TECH INC [US]; LANZA ROBERT [US]
IN - LANZA ROBERT [US]
TI - METHODS FOR PRODUCING PLURIPOTENT STEM CELL-GENERATED EMBRYOS, AND ANIMALS DERIVED THEREFROM
AB - Methods for generating embryos using pluripotent stem cells are provided. The subject methods include methods for generating chimeric embryos, wherein only a subset of the cells of each embryo are genetically identical to the pluripotent stem cells used in the generation process. The subject methods also include methods for generating embryos that are identical or are essentially genetic clones of the pluripotent stem cells (e.g., the resulting embryos are substantially identical, genetically, to the pluripotent stem cells used in the generation process).

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PN - EP2076770 A1 20090708
PD - 2009-07-08
PA - CELLARTIS AB [SE]
IN - ADLER SARAH [DE]; STREHL RAIMUND [SE]
TI - NOVEL TOXICITY ASSAY BASED ON HUMAN BLASTOCYST-DERIVED STEM CELLS AND PROGENITOR CELLS
AB - The invention relates to an in vitro toxicity assay based on human blastocyst-derived stem cells for the detection of toxicity in the human species, which enables novel detection of in vitro human toxicity for a substance and/or more efficiently detects human toxicity compared to non-human assays. The invention can furthermore enable detection of toxicity for substances, which are known to display inter-species differences and the toxic effect was not detectable by toxicological tests in mice.

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PN - US2009170198 A1 20090702
PD - 2009-07-02
IN - REZANIA ALIREZA [US]
TI - Differentiation of human embryonic stem cells
AB - The present invention provides methods to promote the differentiation of pluripotent stem cells and the products related to or resulting from such methods. In particular, the present invention provides an improved method for the formation of pancreatic hormone expressing cells and pancreatic hormone secreting cells. In addition, the present invention also provides methods to promote the differentiation of pluripotent stem cells without the use of a feeder cell layer and the products related to or resulting from such methods. The present invention also provides methods to promote glucose-stimulated insulin secretion in insulin-producing cells derived from pluripotent stem cells.

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PN - EP2074209 A2 20090701
PD - 2009-07-01
PA - CHILDREN S MEMORIAL HOSPITAL [US]
IN - HENDRIX MARY JESSICA [US]; POSTOVIT LYNNE-MAIRE [CA]; SEFTOR RICHARD EDWARD BARNET [US]; SEFTOR ELISABETH ANN [US]

TI - METHODS OF INHIBITING TUMOR CELL AGGRESSIVENESS USING THE MICROENVIRONMENT OF HUMAN EMBRYONIC STEM CELLS
AB - The invention provides compositions comprising one or more isolated factors from a microenvironment of human embryonic stem cells (hESCs), including, but not limited to, Lefty and inhibitors of Nodal. The invention also provides methods of utilizing factors derived from human embryonic stem cells (hESC) and their microenvironment to treat and prevent tumor formation and progression and to inhibit tumor cell aggressiveness. The invention further provides methods of inhibiting tumor cell growth and/or treating aggressive tumors in a mammal comprising administering to the mammal, having at least one tumor cell present in its body, an effective amount of an inhibitor of Nodal activity

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PN - US2009178150 A1 20090709
PD - 2009-07-09
IN - OHTA HIROSHI [JP]; SAKAIDE YUKO [JP]; YAMAGATA KAZUO [JP]; WAKAYAMA TERUHIKO [JP]
TI - Novel Method for Generating Non-Human ES Animals
AB - The present invention provides a method for generating non-human animals by transferring ES cells to three or four tetraploid embryos to produce chimeric embryos and implanting the chimeric embryos to a pseudopregnant non-human animal.

INDUCED EMBRYONIC STEM CELLS/ DEDIFFERENTIATION OF CELLS - 12 documents

© EPODOC / EPO

PN - WO2009102983 A2 20090820
PD - 2009-08-20
PA - HARVARD COLLEGE [US]; HUANGFU DANWEI [US]; MELTON DOUGLAS A [US]; MAEHR RENE [US]
IN - HUANGFU DANWEI [US]; MELTON DOUGLAS A [US]; MAEHR RENE [US]
TI - EFFICIENT INDUCTION OF PLURIPOTENT STEM CELLS USING SMALL MOLECULE COMPOUNDS
AB - The disclosure features a method of producing an induced pluripotent stem cell from a somatic cell. The method includes contacting a somatic cell with a DNA methyl transferase inhibitor or a histone deacetylase (HDAC) inhibitor, or a combination thereof, to produce a pluripotent stem cell.

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PN - WO2009101407 A2 20090820
PD - 2009-08-20
PA - CAMBRIDGE ENTPR LTD [GB]; SMITH AUSTIN GERARD [GB]; DA SILVA JOSE CARLOS REBELO [GB]; GUO GE [GB]
IN - SMITH AUSTIN GERARD [GB]; DA SILVA JOSE CARLOS REBELO [GB]; GUO GE [GB]
TI - IMPROVED REPROGRAMMING OF MAMMALIAN CELLS, AND THE CELLS OBTAINED
AB - Expression of reprogramming factors such as Sox2, klf4, c-myc, Nanog, LIN28 and Oct4 followed by culture in a MEK inhibitor and a GSK3 inhibitor reprograms tissue cells. The invention provides new uses of these inhibitors, for example in inducing completion of the transcriptional resetting of so-called pre-pluripotent (pre-iPS) stem cells, for example as obtained from mammalian neural stem cells or epiblast stem cells treated with single or combinations of the reprogramming factors, expressed transiently or by integrative vectors. Also provided are systems for reprogramming an epiblast stem cells independently of the use of these inhibitors.

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PN - EP2090649 A1 20090819
PD - 2009-08-19
PA - FOND TELETHON [IT]
IN - LUISS VINAS FREDERIC [IT]; COSMA MARIA PIA [IT]
TI - Method for reprogramming differentiated cells
AB - The present invention discloses a method for reprogramming a differentiated cell to an undifferentiated stem cell comprising fusing a pluripotent cell with a differentiated cell to form a fused cell, wherein the pluripotent cell is pre-treated or the fused cell is treated with a suitable amount of a Wnt/-catenin pathway activator.

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PN - WO2009096614 A1 20090806
PD - 2009-08-06
PA - MIRAE BIOTECH CO LTD [KR]; PARK SE PILL [KR]; KIM EUN YOUNG [KR]; JEON KILSOO [KR]; CHO SSANG-GOO [KR]
IN - PARK SE PILL [KR]; KIM EUN YOUNG [KR]; JEON KILSOO [KR]; CHO SSANG-GOO [KR]
TI - METHOD OF MANUFACTURING INDUCED PLURIPOTENT STEM CELL ORIGINATED FROM SOMATIC CELL
AB - Disclosed is a method for manufacturing stem cells including preparing Oct-4 gene, Sox2 gene, C-myc gene, and Klf-4 gene from mouse embryonic stem cells, and allowing each of the genes to be infected in host cells using a lentiviral vector system to generate viruses in which each of the genes are induced; concentrating or mixing each of the viruses to prepare a virus concentrated mixture, and mixing the virus concentrated mixture and a first culture solution to prepare a virus solution; floating mouse somatic cells having been cultivated in advance in a first culture dish, and mixing and reacting the floated somatic cells and the virus solution to prepare a somatic cell-virus mixture; adding and retaining the somatic cell-virus mixture as is in a second culture dish including a second culture solution to induce the genes in the somatic cells; and cultivating the somatic cells.

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PN - WO2009096049 A1 20090806
PD - 2009-08-06
PA - UNIV KYOTO [JP]; YAMANAKA SHINYA [JP]; AOI TAKASHI [JP]
IN - YAMANAKA SHINYA [JP]; AOI TAKASHI [JP]
TI - DIFFERENTIATED CELLS ORIGINATING IN ARTIFICIAL PLURIPOTENT STEM CELLS
AB - Cells, a tissue, an organ or an individual having a high safety that are obtained via the induction of the differentiation of artificial pluripotent stem cells, which have been obtained by the nucleus initialization of hepatic cells or gastric epithelial cells, and have a reduced or no risk of tumorigenesis.

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PN - US2009191171 A1 20090730
PD - 2009-07-30
IN - MA YUPO [US]
TI - Reprogramming of Differentiated Progenitor or Somatic Cells Using Homologous Recombination
AB - The present invention provides methods and compositions for reprogramming somatic cells to a more primitive state, such as induced pluripotent stem cells, using homologous recombination. The induced pluripotent stem cells generated by the methods of the present invention are useful in a variety of therapeutic applications in the treatment and prevention of diseases and disorders.

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PN - US2009191160 A1 20090730
PD - 2009-07-30
PA - UNIV DAYTON
IN - HONG YILING [US]
TI - Methods of producing pluripotent stem-like cells
AB - The instant invention provides methods and compositions for the production and use of pluripotent stem-like cells from somatic cells, e.g., fibroblasts.

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PN - WO2009093022 A2 20090730
PD - 2009-07-30
PA - UNIV SHEFFIELD [GB]; NA JIE [GB]; ANDREWS PETER [GB]
IN - NA JIE [GB]; ANDREWS PETER [GB]
TI - CELL RE-PROGRAMMING
AB - We disclose methods to re-programme differentiated somatic cells to a stem cell phenotype and also the de-differentiation of cancer cells to a cancer stem cell phenotype.

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PN - WO2009092042 A1 20090723
PD - 2009-07-23
PA - NEVADA CANCER INST [US]; MA YUPO [US]
IN - MA YUPO [US]
TI - REPROGRAMMING OF DIFFERENTIATED PROGENITOR OR SOMATIC CELLS USING HOMOLOGOUS RECOMBINATION
AB - The present invention provides methods and compositions for reprogramming somatic cells to a more primitive state, such as induced pluripotent stem cells, using homologous recombination. The induced pluripotent stem cells generated by the methods of the present invention are useful in a variety of therapeutic applications in the treatment and prevention of diseases and disorders.

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PN - WO2009091659 A2 20090723
PD - 2009-07-23
PA - LIN SHI-LUNG [US]; WU DAVID TS [US]
IN - LIN SHI-LUNG [US]; WU DAVID TS [US]
TI - GENERATION OF TUMOR-FREE EMBRYONIC STEM-LIKE PLURIPOTENT CELLS USING INDUCIBLE RECOMBINANT RNA AGENTS
AB - The present invention generally relates to a method for developing, generating and selecting tumor-free embryonic stem (ES)-like pluripotent cells using electroporation delivery of an inducible tumor suppressor mir-302 agent into mammalian cells. More particularly, the present invention relates to a method and composition for generating a Tet-On/Off recombinant transgene capable of expressing a manually re-designed mir-302 microRNA (miRNA)/shRNA agent under the control of doxycyclin (Dox) in human somatic/cancer cells and thus inducing certain specific gene silencing effects on the differentiation-associated genes and oncogenes of the cells, resulting in reprogramming the cells into an ES-like pluripotent state.

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PN - WO2009086425 A1 20090709
PD - 2009-07-09
PA - FATE THERAPEUTICS INC [US]; RIVES ALEX [US]; ST JOHN TOM [US]; FAROUZ FRANCINE [US]
IN - RIVES ALEX [US]; ST JOHN TOM [US]; FAROUZ FRANCINE [US]
TI - METHODS FOR REPROGRAMMING CELLS TO A PLURIPOTENT STATE AND THERAPEUTIC APPLICATIONS RELATED THERETO

AB - The present invention provides methods for reprogramming cells to a pluripotent state, either in vitro or in vivo, and the application of the methods in stem cell-based therapies, for example, autologous cell therapies and/or in vivo reprogramming of cells. The methods generally involve the induction of pluripotency by modulating the expression and/or activity of one or more pluripotency factors selected from, for example, Sox-2, c-Myc, Oct3/4, Klf4, Lin28, Nanog, and the like, or substrates, cofactors and/or downstream effectors thereof.

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PN - US2009203141 A1 20090813
PD - 2009-08-13
IN - LIN SHI-LUNG [US]; WU DAVID TS [US]
TI - Generation of tumor-free embryonic stem-like pluripotent cells using inducible recombinant RNA agents
AB - The present invention generally relates to a method for developing, generating and selecting tumor-free embryonic stem (ES)-like pluripotent cells using electroporation delivery of an inducible tumor suppressor mir-302 agent into mammalian cells. More particularly, the present invention relates to a method and composition for generating a Tet-On/Off recombinant transgene capable of expressing a manually re-designed mir-302 microRNA (miRNA)/shRNA agent under the control of doxycyclin (Dox) in human somatic/cancer cells and thus inducing certain specific gene silencing effects on the differentiation-associated genes and oncogenes of the cells, resulting in reprogramming the cells into an ES-like pluripotent state.

GRANTED PATENTS- PUBLISHED "B" SPECS

ADULT STEM CELLS- 13 DOCUMENTS

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GRANTED - 21-07-2009
PNFP - US7563619 B2 20090721
PA - (B2)
ANDEL RES INST VAN [US]; WISCONSIN ALUMNI RES FOUND [US]
IN - WILLIAMS BART [US]; ALEXANDER CAROLINE M [US]; LINDVALL CHARLOTTA [US]; MCCONNELL NISHA [US]
TI - Mammary stem cell marker
AB - It is disclosed here that low density lipoprotein receptor-related protein 5 (LRP5) is a cell surface marker for somatic mammary stem cells and mammary tumor stem cells. The disclosure here provides new tools for enriching somatic mammary stem cells and mammary tumor stem cells. Methods of screening for agents that modulate LRP5 activity, of treating mammary tumor or breast cancer, of monitoring somatic mammary stem cells and mammary tumor stem cells in vivo are also provided, and of assessing prognosis of human breast cancer.

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GRANTED - 21-07-2009
PNFP - US7563459 B2 20090721
PA - (B2)
US DEPT OF VETERANS AFFAIRS [US]
IN - (A1)
PHILLIPS CATHERINE [US]; BREILLATT JULIAN P JR [US]
- (B2)
PHILLIPS CATHERINE A [US]
TI - Methods and compositions for regenerating tissue

AB - The present invention is directed to methods for delivering cells to a target tissue in a mammal using glycoconjugate to traffic the cell to a desired organ in the mammal. The methods according to the present invention are especially applicable to administering stem cells such as those derived from the bone marrow or from umbilical cord tissue. The methods are also useful for targeting a gene of interest to a tissue in a mammal by introducing a cell containing the gene of interest and administering a glycoconjugate to the mammal.

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GRANTED - 18-08-2009
PNFP - US7576186 B2 20090818
PA - (B2)
ROGER WILLIAMS HOSPITAL [US]; TRANSTARGET INC [US]
IN - LUM LAWRENCE G [US]; LEE RANDALL J [US]
TI - Compositions and methods for stem cell delivery
AB - This invention provides compositions of matter, articles of manufacture and methods for delivering and/or affixing a stem cell to a target tissue. This invention also provides related nucleic acids, vectors, cell, methods of production, and kits.

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GRANTED - 18-08-2009
PNFP - US7575569 B2 20090818
PA - (B2)
MEDTRONIC INC [US]
IN - EVERSULL CHRISTIAN S [US]; LEEFLANG STEPHEN A [US]; VENTURA CHRISTINE P [US]; MOURLAS NICHOLAS J [US]
TI - APPARATUS AND METHODS FOR DELIVERING STEM CELLS AND OTHER AGENTS INTO CARDIAC TISSUE
AB - Apparatus, systems, and methods are provided for delivering stem cells or other agents to cardiac tissue surrounding a cardiac vessel or to tissue adjacent other body lumens. The apparatus includes an expandable member and a source of one or more agents communicating with a lumen extending between proximal and distal ends of the apparatus. The distal end of the apparatus is advanced through one or more body lumens until the distal end is disposed within or adjacent the target body lumen. The target body lumen is sealed, e.g., by expanding the expandable member, thereby isolating the target body lumen. One or more agents are delivered into the target body lumen with sufficient pressure to extravasate the one or more agents into tissue surrounding the target body lumen.

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GRANTED - 22-07-2009
PNFP - EP1605040 B1 20090722
PA - UNIV KEIO [JP]
IN - KUWANA MASATAKA [JP]; KODAMA HIROAKI [JP]
TI - MONOCYTE-ORIGIN MULTIPOTENT CELL MOMC
AB - It is intended to provide a multipotent cell which can be non-invasively, conveniently and stably supplied in a necessary and sufficient amount, is free from any rejection troubles in cell transplantation, and is capable of differentiating into various cells including mesenchymal cells such as bone, cartilage, skeletal muscle and fat, vascular endothelial cells, cardiac muscle cells and nerve cells; mesenchymal cells, vascular endothelial cells, cardiac muscle cells and nerve cells differentiated from the multipotent cell; and a therapeutic agent and a therapeutic method using the same as the active ingredient. Peripheral blood monocyte cells (PBMC) are cultured on a fibronectin-coated plastic plate for 7 to 10 days. The resultant fibroblast-like cells are circulatory CD14<+> monocyte-origin cells showing a characteristic phenotype CD14<+>CD45<+>CD34<+>I type collagen<+>. These cells are capable of differentiating into mesenchymal cells such as bone, cartilage, skeletal muscle and fat, vascular endothelial cells, cardiac muscle cells and nerve cells under definite culture conditions.

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GRANTED - 04-08-2009

PNFP - US7569385 B2 20090804

PA - (B2)

UNIV CALIFORNIA [US]

IN - HAAS MARTIN [US]

TI - Multipotent amniotic fetal stem cells

AB - A source of multipotent amniotic fluid/fetal stem cells (MAFSCs) is disclosed. MAFSC are of fetal origin and have a normal diploid karyotype. These cells are characterized by the following cell surface markers: SSEA3, SSEA4, Tra-1-60, Tra-1-81, Tra-2-54, HLA class I, CD13, CD44, CD49b, CD105 and are distinguished by the absence of the antigen markers CD34, CD45, and HLA Class II, but are distinguished from mouse embryonic stem cells in that these cells do not express the cell surface marker SSEA1. MAFSC express the stem cell transcription factor Oct-4. MAFSC cells can be propagated for an indefinite period of time in continuous culture in an undifferentiated state. The MAFSCs have the ability to differentiate in culture in a regulated manner, into three or more subphenotypes. Cells can then be differentiated into endodermal, mesodermal and ectodermal derived tissues in vitro and in vivo. A method for isolating, identifying, expanding and differentiating MAFSCs is disclosed.

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GRANTED - 14-07-2009

PNFP - US7560280 B2 20090714

PA - (B2)

KOURION THERAPEUTICS GMBH [DE]

IN - WERNET PETER [DE]

TI - Human cord blood derived unrestricted somatic stem cells (USSC)

AB - A composition in human cord and placental blood which comprises unrestricted somatic stem cells is described here which can be amplified in vitro to large quantities sufficient for medical applications as regenerative medicines. Initiation and maintenance as well as ex vivo expansion protocols of such stem cells from cord blood is described. Furthermore, it is shown that from these cells employing varying differentiation induction protocols distinct lineage progenitors for hematopoiesis and endothel, as well as mesenchymal progenitors for muscle bone, cartilage and fat as well as neural progenitors can be cultured and expanded for use in regenerative medicine.

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GRANTED - 26-08-2009

PNFP - EP1592800 B1 20090826

PA - UNIV COLUMBIA [US]; UNIV NEW YORK [US]

IN - ROSEN MICHAEL R [US]; ROBINSON RICHARD B [US]; COHEN IRA S [US];

BRINK PETER [US]

TI - MESECNHYMAL STEM CELLS AS A VEHICLE FOR ION CHANNEL TRANSFER IN SYNCYTIAL STRUCTURES

AB - This invention provides a composition for delivery of a gene to a syncytial structure comprising stem cells incorporated with the gene. This invention also provides a composition for ion channel transfer which comprises stem cells incorporated with a compound in an amount sufficient to create ion channels. This invention also provides for a method of expressing a functional gene product in a syncytial structure comprising administering a composition, comprising stem cells that have been incorporated with a gene, to the syncytial structure. This invention further provides a method of expressing a functional ion channel in a syncytial structure comprising administering a composition, comprising stem cells that have been incorporated with a compound in an amount sufficient to create ion channels, to the syncytial structure. This invention also provides a composition for delivery of small molecules comprising stem cells incorporated with the small molecules or genes encoding the small molecules.

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GRANTED - 05-08-2009
PNFP - EP1442115 B1 20090805
PA - CHILDRENS MEDICAL CENTER [US]
IN - ATALA ANTHONY [US]; DE COPPI PAOLO [IT]
TI - METHODS OF ISOLATION, EXPANSION AND DIFFERENTIATION OF FETAL STEM CELLS FROM CHORIONIC VILLUS, AMNIOTIC FLUID, AND PLACENTA AND THERAPEUTIC USES THEREOF
AB - The present invention is directed to pluripotent fetal stem cells derived from chorionic villus, amniotic fluid, and placenta and the methods for isolating, expanding and differentiating these cells, and their therapeutic uses such as manipulating the fetal stem cells by gene transfection and other means for therapeutic applications.

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GRANTED - 12-08-2009
PNFP - EP1255813 B1 20090812
PA - UNIV MCGILL [CA]
IN - TOMA JEAN [CA]; AKHAVAN MAHNAZ [CA]; FERNANDES KARL J L [CA]; FORTIER MATHIEU [CA]; MILLER FRED A [CA]; GOLSTER ANDREW [CA]
TI - MULTIPOTENT NEURAL STEM CELLS FROM MAMMALIAN SKIN AND USES THEREOF
AB - This invention relates to multipotent neural stem cells, purified from the peripheral nervous system of mammals, capable of differentiating into neural and non-neural cell types. These stem cells provide an accessible source for autologous transplantation into CNS, PNS, and other damaged tissues.

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GRANTED - 26-08-2009
PNFP - EP1207879 B1 20090826
PA - (A1 B1)
UNIV LELAND STANFORD JUNIOR [US]
- (A4)
TRUSTEES OF THE LELAND STANFORD [US]
IN - COOKE JOHN [US]; JOHNSON FRANCES LAURI [US]; PATHAK ANJALI [US]; JANG JAMES [US]; TSAO PHILLIP [US]; HEESCHEN CHRISTOPHER [DE]
TI - NICOTINE RECEPTOR AGONISTS IN STEM CELL AND PROGENITOR CELL RECRUITMENT
AB - The present invention features methods for recruitment of bone marrow-derived stem cells (e.g., endothelial cell precursors, hematopoietic stem cells) by administration of nicotine or other nicotine receptor agonist. The methods of the invention can be used in, for example, treatment of conditions amenable to treatment by recruitment of bone marrow-derived stem cells (e.g., neutropenia). The figure is a graph showing the capillary density (capillaries/myocyte) and the percentage of new vessels incorporating endothelial progenitor cells for saline control animals and nicotine treated animals.

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GRANTED - 01-07-2009
PNFP - EP0953046 B1 20090701
PA - (A1)
AMCELL CORP [US]
- (B1)
MILTENYI BIOTEC GMBH [DE]
IN - MIRAGLIA SHERI [US]; GODFRY WAYNE G [US]; YIN AMY [US]; BUCK DAVID [US]
TI - HUMAN HEMATOPOIETIC STEM AND PROGENITOR CELL ANTIGEN AND METHODS FOR ITS USE

AB - A hematopoietic progenitor cell antigen and reagents, notably antibodies, that specifically bind to the antigen are provided. Expression of the antigen is highly tissue specific. It is only detected on a subset of hematopoietic progenitor cells derived from human bone marrow, fetal bone marrow and liver, cord blood and adult peripheral blood. The subset of cells recognized by AC133 is CD34<bright> and contains substantially all of the CFU-GM activity present in the CD34<+> population. This highly specific distribution of AC133 makes it exceptionally useful as a reagent for isolating and characterizing human hematopoietic progenitor and stem cells. Cells selected for expression of AC133 antigen can be further purified by selection for other hematopoietic stem cell and progenitor cell markers.

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GRANTED - 19-08-2009
PNFP - EP0906415 B1 20090819
PA - OSIRIS THERAPEUTICS INC [US]
IN - KADIYALA SUDHA [US]; BRUDER SCOTT P [US]; MUSCHLER GEORGE F [US]
TI - REGENERATION AND AUGMENTATION OF BONE USING MESENCHYMAL STEM CELLS

AB - Disclosed are compositions and methods for augmenting bone formation by administering isolated human mesenchymal stem cells (hMSCs) with a ceramic material or matrix or by administering hMSCs; fresh, whole marrow; or combinations thereof in a resorbable biopolymer which supports their differentiation into the osteogenic lineage. Contemplated is the delivery of (i) isolated, culture-expanded, human mesenchymal stem cells; (ii) freshly aspirated bone marrow; or (iii) their combination in a carrier material or matrix to provide for improved bone fusion area and fusion mass, when compared to the matrix alone. The material or matrix can be a granular ceramic or three-dimensionally formed ceramic implant. The material or matrix can also be a resorbable biopolymer. The resorbable biopolymer is an absorbable gelatin, collagen or cellulose matrix, can be in the form of a powder or sponge, and is preferably a bovine skin-derived gelatin. The implants can be shaped as a cube, cylinder, block or an anatomical site. The compositions and methods can further include administering a bioactive factor such as a synthetic glucocorticoid, like dexamethasone, or a bone morphogenic protein, like BMP-2, BMP-3, BMP-4, BMP-6 and BMP

EMBRYONIC STEM CELLS- 3 Documents

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GRANTED - 25-08-2009
PNFP - US7579188 B2 20090825
PA - (B2)
UNIV CALIFORNIA [US]
IN - KEIRSTEAD HANS S [US]; NISTOR GABRIEL I [US]
TI - Oligodendrocytes derived from human embryonic stem cells for remyelination and treatment of spinal cord injury
AB - This invention provides populations of neural cells bearing markers of glial cells, such as oligodendrocytes and their precursors. The populations are generated by differentiating pluripotent stem cells such as human embryonic stem cells under conditions that promote enrichment of cells with the desired phenotype or functional capability. Various combinations of differentiation factors and mitogens can be used to produce cell populations bearing markers of oligodendrocyte precursor cells. Upon further differentiation form complex processes characteristic of mature oligodendrocytes. The cells are capable of forming myelin sheaths, and can be used therapeutically improve function of the central nervous system.

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GRANTED - 11-08-2009
PNFP - US7572630 B2 20090811
PA - (A1)
TANABE SEIYAKU CO

- (B2)
MITSUBISHI TANABE PHARMA CORP [JP]
IN - (A1 B2)
NAKAO KAZUWA [JP]; ITOH HIROSHI [JP]; YAMASHITA JUN [JP]; SONE MASAKATSU [JP];
KONDO YASUSHI [JP]; SUZUKI YUTAKA [JP]
TI - Method for differentiating primate embryonic stem cell into vascular cell
AB - To provide a technique of the differentiation from a primate embryonic stem cell into a vascular cell, and techniques using the same. A method for differentiating a primate embryonic stem cell into a vascular cell, comprising differentiating a primate embryonic stem cell into a VEGFR-2-positive and undifferentiated primate embryonic stem cell marker-negative cell, and if need, further differentiating the resulting cell, a method of the differentiation into a vascular cell, and a vascular cell obtained by the method.

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GRANTED - 14-07-2009
PNFP - US7560281 B2 20090714
PA - (B2)
GERON CORP [US]
IN - (A1)
CARPENTER MELISSA K [US]; THIES R S [US]
- (B2)
CARPENTER MELISSA K [US]; THIES R SCOTT [US]
TI - Use of TGF beta superfamily antagonists to make dopaminergic neurons from embryonic stem cells
AB - This invention provides a system for efficiently producing differentiated cells from pluripotent cells, such as human embryonic stem cells. Rather than permitting the cells to form embryoid bodies according to established techniques, differentiation is effected directly in monolayer culture on a suitable solid surface. The cells are either plated directly onto a differentiation-promoting surface, or grown initially on the solid surface in the absence of feeder cells and then exchanged into a medium that assists in the differentiation process. The solid surface and the culture medium can be chosen to direct differentiation down a particular pathway, generating a cell population that is remarkably uniform. The methodology is well adapted to bulk production of committed precursor and terminally differentiated cells for use in drug screening or regenerative medicine.

INDUCED EMBRYONIC STEM CELLS/ DEDIFFERENTIATION OF CELLS - 1 document

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GRANTED - 26-08-2009
PNFP - EP1366144 B1 20090826
PA - TRISTEM TRADING CYPRUS LTD [CY]
IN - ABULJADAYEL ILHAM MOHAMED SALE [GB]
TI - A DEVICE FOR PREPARING CELLS
AB - A device for preparing an undifferentiated cell, the device comprises means for contacting a more committed cell with an agent that causes the more committed cell to redifferentiate into an undifferentiated cell.

ANNEX A

Search strategy

Databases : EPODOC, WPI

SS Results

1 8349 /EC/ECNO OR C12N5/06B2P, C12N5/06B3, C12N5/06B6P, C12N5/06B8P, C12N5/06B11P, C12N5/06B12P, C12N5/06B14P, C12N5/06B18P, C12N5/06B20P, C12N5/06B21P, C12N5/06B22P, C12N5/06B26P, C12N5/06B28P, C12N5/06B30P, C12N5/06B3A
2 8188 *M4/PR/ALL
3 7770 *M4/PR/ALL
4 4213 *M4/PR/ALL
5 0 *M4/PR/ALL
6 0 *M4/PR/ALL
7 0 *M4/PR/ALL
8 2 *M4/PR/ALL
9 12444 1: 8
10 8040 9 AND (STEM? OR PLURIPOT+ OR EMBRYONIC OR PROGENITOR?)
11 29176 (STEM? OR PLURIPOT+ OR EMBRYONIC OR PROGENITOR?) 3D CELL?
12 32434 1 OR 10 OR 11
13 32434 ..LIM 12
14 22747 OR GB/PN, EP/PN, WO/PN, US/PN
15 22747 ..LIM 14
16 431 PD<=2009-08 AND PD>2009-06-30
17 22747 ..LIM 12
18 4188 /PN OR (EP S B?), (GB S B?), (US S B?)
19 4188 ..LIM 18
20 28 200907+/PNFP OR 200908+/PNFP

Key to ECLA classification marks searched:

C12N5/06B2P (1355) [N: Pluripotent cells, e.g. embryonic stem cells (ES)]
C12N5/06B3 . . . (489) [N: Non-embryonic pluripotent cells, e.g. MASC] [N0209]
C12N5/06B6 . . . (87) [N: Muscle cells] [N9703] [C0209]
C12N5/06B6P (269) [N: Stem cells; Progenitor cells, e.g. satellite cells] [N9703]
C12N5/06B8 . . . (451) [N: Cells of the nervous system] [N9703]
C12N5/06B8P (1113) [N: Stem cells; Progenitor cells; Precursor cells] [N9703]
C12N5/06B11 . . . (360) [N: Cells from the blood or the immune system] [N0305]
C12N5/06B11P (1972) [N: Haematopoietic stem cells; Uncommitted or multipotent progenitors]
C12N5/06B12 . . . (285) [N: Epithelial cells (cornea, eye epithelium C12N5/06B8C)]
C12N5/06B12P (239) [N: Stem cells; Progenitor cells; Precursor cells] [N9703]
C12N5/06B14 . . . (674) [N: Hepatocytes] [N9703]
C12N5/06B14P (254) [N: Stem cells; Progenitor cells; Precursor cells; Oval cells]
C12N5/06B18 . . . (651) [N: Osteoblasts; Osteocytes; Odontoblasts]
C12N5/06B18P (164) [N: Stem cells; Progenitor cells; Precursor cells] [N9703]
C12N5/06B20 . . . (1118) [N: Chondrocytes] [N9703]
C12N5/06B20P (53) [N: Stem cells; Progenitor cells; Precursor cells] [N0305]
C12N5/06B21 . . . (104) [N: Cells from bone marrow stroma] [N0305]
C12N5/06B21P (1072) [N: Mesenchymal stem cells] [N0305]
C12N5/06B22 . . . (975) [N: Pancreatic cells]
C12N5/06B22P (173) [N: Stem cells; Progenitor cells; Precursor cells] [N0205]
C12N5/06B26 . . . (325) [N: Fat cells, e.g. adipocytes] [N9703]
C12N5/06B26P (259) [N: Stem cells; Progenitor cells, e.g. adipose stroma progenitors; precursor cells] [N0205]

C12N5/06B28 . . . (661) [*N: Endothelial cells (eye endothelium C12N5/06B8C)*] [*N9703*]
C12N5/06B28P (279) [*N: Stem cells; Progenitor cells; Precursor cells*] [*N0209*]

C12N5/06B30 . . . (548) [*N: Tumour cells; Cancer cells*] [*N9703*] [*C0205*]
C12N5/06B30P (79) [*N: Stem cells; Progenitor cells; Precursor cells*] [*N0608*]