

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 SEPTEMBER 2009-31st OCTOBER 2009

PUBLISHED "A" SPECS

ADULT STEM CELLS- 80 Documents

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PN - US2009269769 A1 20091029
PD - 2009-10-29
IN - PANJA ASIT [US]
TI - Drug Discovery Methods Involving A Preclinical, In Vitro Isolated Gastrointestinal Epithelial Stem Cell-Like Progenitor Cell System
AB - The described invention relate to systems comprising isolated human gastrointestinal segment-specific epithelial stem cell-like progenitor cells and uses thereof in drug discovery.

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PN - WO2009132156 A1 20091029
PD - 2009-10-29
PA - REGENERATIVE RES FOUNDATION [US]; TEMPLE SALLY [US]; SALERO-COCA ENRIQUE L [US]; STERN JEFFREY [US]
IN - TEMPLE SALLY [US]; SALERO-COCA ENRIQUE L [US]; STERN JEFFREY [US]
TI - RETINAL PIGMENT EPITHELIAL STEM CELLS
AB - The present invention relates to a retinal pigment epithelial stem cell isolated from a posterior region of the retinal pigment epithelium of an adult mammal. The invention also relates to a method of inducing differentiation of retinal epithelial stem and progenitor cells in vitro, wherein the cells of the invention are highly plastic, multipotential stem cells. The invention also includes methods for the treatment of retinal diseases and vision loss involving the transplantation of retinal pigment epithelial stem cells or cells differentiated from retinal pigment epithelial stem cells to the retina of a patient in need of treatment.

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PN - US2009269309 A1 20091029
PD - 2009-10-29
IN - EDLUND HELENA [SE]; OESTROEM MARIA [SE]
TI - Retinoic acid stimulates differentiation of pancreatic progenitor cells into insulin producing cells
AB - The invention relates to a method of forming pancreatic hormone-producing endocrine cells in vitro, wherein pancreatic stem cells are treated with one or more retinoids and/or

retinoic acid in vitro and cultured. Especially the dorsal pancreatic bud is used and to the cells obtained by the method. Further, it relates to the use of the pancreatic hormone-producing endocrine cells, for the production of a pharmaceutical composition for transplantation and/or treatment of type 1 and type 2 diabetes. It also relates to a method for treatment of type 1 and type 2 diabetes by administrating the hormone-producing endocrine cells to individuals in need thereof. The invention also regards the use of one or more retinoids and/or retinoic acid for the differentiation, in vitro of pancreatic stem cells into pancreatic hormone-producing endocrine cells, such as glucagon producing cells, and in particular, insulin producing beta-cells.

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PN - US2009269318 A1 20091029
PD - 2009-10-29
PA - TISSUE REGENERATION THERAPEUTI [CA]
IN - DAVIES JOHN E [CA]; BAKSH DOLORES [CA]; SARUGASER RAHUL [CA];
HOSSEINI MORRIS [DE]; LICKORISH ANTONY D S [CA]
TI - PROGENITOR CELLS FROM WHARTON'S JELLY OF HUMAN UMBILICAL CORD
AB - Human progenitor cells are extracted from perivascular tissue of human umbilical cord. The progenitor cell population proliferates rapidly, and harbours osteogenic progenitor cells and MHC-/- progenitor cells, and is useful to grow and repair human tissues including bone.

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PN - US2009269315 A1 20091029
PD - 2009-10-29
IN - FRASER JOHN K [US]; HEDRICK MARC H [US]; ZHU MIN [US]; STREM BRIAN M [US]; DANIELS ERIC [US]; WULUR ISABELLA [US]
TI - METHODS OF USING ADIPOSE TISSUE-DERIVED CELLS IN THE TREATMENT OF CARDIOVASCULAR CONDITIONS
AB - Cells present in processed lipoaspirate tissue are used to treat patients, including patients with cardiovascular conditions, diseases or disorders. Methods of treating patients include processing adipose tissue to deliver a concentrated amount of stem cells obtained from the adipose tissue to a patient. The methods may be practiced in a closed system so that the stem cells are not exposed to an external environment prior to being administered to a patient. Accordingly, in a preferred method, cells present in processed lipoaspirate are placed directly into a recipient along with such additives necessary to promote, engender or support a therapeutic cardiovascular benefit.

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PN - WO2009120762 A2 20091001
PD - 2009-10-01
PA - SINAI SCHOOL MEDICINE [US]; KELLER GORDON [CA]; YANG LEI [US];
KATTMAN STEVEN [CA]
IN - KELLER GORDON [CA]; YANG LEI [US]; KATTMAN STEVEN [CA]
TI - HUMAN CARDIOVASCULAR PROGENITOR CELLS
AB - The present invention provides populations of human cardiovascular progenitor cells, methods of making such cells, and methods of using the cells for production of populations of cardiovascular colonies and populations of cardiomyocytes. Methods of cardiomyocytes replacement therapy are also provided.

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PN - US2009269311 A1 20091029
PD - 2009-10-29
PA - AJOU UNIV IND ACAD COOP FOUND [KR]
IN - LEE PHIL HYU [KR]; BANG OH YOUNG [KR]; AHN YOUNG HWAN [KR]
TI - Method for treating multiple system atrophy
AB - The present invention provides a method for treating multiple system atrophy, comprising administering a therapeutically effective amount of mesenchymal stem cells (MSCs) to a

human in need thereof. Preferably, the administering is performed by an intra-arterial injection of said MSCs and one or more intravenous injections of said MSCs.

EPODOC / EPO

PN - US2009269848 A1 20091029
PD - 2009-10-29
IN - MIYAZAKI KAORU [JP]; HASHIMOTO JUNKO [JP]; KARIYA YOSHINOBU [JP]
TI - TECHNIQUE FOR CULTURE OF MESENCHYMAL STEM CELL UTILIZING LAMININ-5
AB - Disclosed is an agent for improving at least one activity selected from the group consisting of the growth activity, adhesion activity and extension activity of mesenchymal stem cells, which comprises laminin-5 as an active ingredient. A method of culturing mesenchymal stem cells; a method of isolating mesenchymal stem cells; and a medium, vessel or sheet for use in culturing mesenchymal stem cells are also provided.

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PN - EP2111447 A1 20091028
PD - 2009-10-28
PA - UNIV CARDIFF [GB]
IN - ARCHER CHARLES WILLIAM [GB]; HAVEN SAMANTHA NICHOLA [GB]; DOWTHWAITE GARY [GB]
TI - CONNECTIVE TISSUE REPAIR
AB - The invention concerns a human stem cell isolated from the full depth of human cartilage tissue and/or isolated from aged human cartilage; and uses thereof.

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PN - WO2009129288 A1 20091022
PD - 2009-10-22
PA - GENENTECH INC [US]; FONG SHERMAN [US]; PRAETOR ASJA [SG]
IN - FONG SHERMAN [US]; PRAETOR ASJA [SG]
TI - HEMATOPOIETIC STEM CELLS CHARACTERIZED BY JAM-C EXPRESSION
AB - The present invention concerns bone marrow derived hematopoietic stem cells characterized by JAM-C expression, and their isolation, enrichment, purification and use.

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PN - US2009263901 A1 20091022
PD - 2009-10-22
PA - NEURALSTEM BIOPHARMACEUTICALS [US]
IN - YANG RENJI [US]; JOHE KARL K [US]
TI - STABLE NEURAL STEM CELL LINES
AB - A systematic and efficient method for establishing stable neural stem cell lines and neuronal progenitor lines is described. The resulting cell lines provide robust, simple, and reproducible cultures of human and other mammalian neurons in commercially useful mass quantities while maintaining normal karyotypes and normal neuronal phenotypes.

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PN - WO2009128533 A1 20091022
PD - 2009-10-22
PA - UNIV NAGOYA NAT UNIV CORP [JP]; TORIHASHI SHIGEKO [JP]; NINAGAWA NANA [JP]
IN - TORIHASHI SHIGEKO [JP]; NINAGAWA NANA [JP]
TI - MESENCHYMAL STEM CELL AND METHOD FOR PRODUCTION THEREOF
AB - Disclosed is a method for producing a mesenchymal stem cell capable of being differentiated into a myoblast by culturing a pluripotent stem cell derived from a human body or an

animal. The method comprises the following steps i) to iv): i) providing the pluripotent stem cell which has been cryopreserved; ii) subculturing the pluripotent stem cell for a predetermined number of times while keeping the pluripotent stem cell in an undifferentiated state; iii) culturing the subcultured pluripotent stem cell under conditions which enable the induction of the differentiation of the pluripotent stem cell into a fat cell in vitro; and iv) separating and collecting a CD105-positive cell in the culturing step.

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PN - EP2110431 A1 20091021
PD - 2009-10-21
PA - OSIRIS THERAPEUTICS INC [US]; UNIV CASE WESTERN RESERVE [US]
IN - GOLDBERG VICTOR M [US]; CAPLAN ARNOLD I [US]; BARRY FRANCIS P [US]; FINK DAVID J [US]; MARSHAK DANIEL R [US]; BURNS JAMES S [US]
TI - Cartilage regeneration using human mesenchymal stem cells
AB - For repair of cartilage damaged as part of the degenerative effects of osteoarthritis, the inventors have found that the human mesenchymal stem cell approach makes it possible to: 1) regenerate both shallow cartilage chondral defects and full thickness cartilage defects (osteochondral lesions); 2) broaden the suitable clinical population to routinely include middle-aged patients; 3) eliminate the use of autologous tissue grafts (mature cartilage and the periosteal covering) to repair an articular cartilage injury; 4) regenerate other types of injured cartilage such as patellar and spinal disk cartilage; 5) regenerate articular joint cartilage in older patients with osteoarthritis; and 6) form new cartilage and subchondral bone which fully integrate into the adjacent normal tissue.

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PN - EP2109668 A2 20091021
PD - 2009-10-21
PA - RAVEN BIOTECHNOLOGIES [US]
IN - MATHER JENNIE P [US]; ROBERTS PENELOPE [US]
TI - HUMAN CANCER STEM CELLS
AB - This invention discloses isolated populations of human cancer stem cells. Methods for characterizing, isolating and culturing human cancer stem cells are also disclosed. Uses for human cancer stem cells are provided.

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PN - WO2009126310 A2 20091015
PD - 2009-10-15
PA - MASSACHUSETTS INST TECHNOLOGY [US]; WHITEHEAD BIOMEDICAL INST [US]; GUPTA PIYUSH [US]; ONDER TAMER T [US]; LANDER ERIC S [US]; WEINBERG ROBERT [US]; MANI SENDURAI [US]; LIAO MAI-JING [US]
IN - GUPTA PIYUSH [US]; ONDER TAMER T [US]; LANDER ERIC S [US]; WEINBERG ROBERT [US]; MANI SENDURAI [US]; LIAO MAI-JING [US]
TI - METHODS FOR IDENTIFICATION AND USE OF AGENTS TARGETING CANCER STEM CELLS
AB - The invention relates to methods for identifying compounds and compositions that target cancer stem cells. In some aspects, the invention relates to treatment methods that use compounds and compositions that specifically target cancer stem cells for inhibiting the growth and/or survival of cancer stem cells in a subject in need thereof. Other aspects of the invention relate to the use of cancer stem cell biomarkers in the selection of a treatment for inhibiting the growth and/or survival of cancer stem cells in a subject in need thereof.

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PN - US2009257989 A1 20091015
PD - 2009-10-15
IN - VANGURI PADMAVATHY [US]; MOSCA JOSEPH D [US]
TI - Intraperitoneal Delivery Of Genetically Engineered Mesenchymal Stem Cells

AB - A method of expressing at least one protein in an animal by intraperitoneal administration of mesenchymal stem cells genetically engineered with at least one polynucleotide encoding the at least one protein. The method may be employed in treating lysosomal storage disorders, such as Fabry Disease, or arthritic disorders, or hemophilia, for example.

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PN - WO2009125877 A1 20091015
PD - 2009-10-15
PA - UNIV KEIO [JP]; MARUYAMA TETSUO [JP]; ONO MASANORI [JP]
IN - MARUYAMA TETSUO [JP]; ONO MASANORI [JP]
TI - METHOD FOR ISOLATION OF SMOOTH MUSCLE STEM CELL
AB - Disclosed is a method for isolating a smooth muscle stem cell derived from a mammalian smooth muscle. The method comprises the steps of: contacting a mammalian smooth muscle cell with an anti-CD45 antibody, an anti-CD34 antibody and an anti-CD49f antibody each of which is labeled with a fluorescent dye; and isolating a cell which is not bound to the anti-CD45 antibody but is bound to the anti-CD34 antibody and the anti-CD49f antibody.

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PN - WO2009125859 A1 20091015
PD - 2009-10-15
PA - JAPAN HEALTH SCIENCES FOUNDATI [JP]; NAKASHIMA MISAKO [JP]; NAKAMURA HIROSHI [JP]
IN - NAKASHIMA MISAKO [JP]; NAKAMURA HIROSHI [JP]
TI - DRUG, DENTAL MATERIAL, AND SCREENING METHOD
AB - Disclosed is a dental material for the treatment of pulpitis and/or the promotion of dentin formation. The dental material contains, as an active ingredient, at least one member selected from a protein having a matrix metalloproteinase 3 activity and a matrix metalloproteinase 3 precursor protein. The dental material contains a carrier having a biological affinity. The dental material may additionally contain at least one member selected from a dental pulp cell, a dental pulp stem cell, a dental pulp progenitor cell, a cell capable of being differentiated into a dental pulp cell, an odontoblast and a cell capable of being differentiated into an odontoblast

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PN - WO2009125804 A1 20091015
PD - 2009-10-15
PA - TAKEDA PHARMACEUTICAL [JP]; UNIV TOKAI EDUCATIONAL SYSTEM [JP]; TSUKADA SHIZU [JP]; KITA SHUNBUN [JP]; ASAHARA TAKAYUKI [JP]; MASUDA HARUCHIKA [JP]
IN - TSUKADA SHIZU [JP]; KITA SHUNBUN [JP]; ASAHARA TAKAYUKI [JP]; MASUDA HARUCHIKA [JP]
TI - SCREENING METHOD
AB - Disclosed are: the identification of a molecule which can be expressed specifically in an endothelial progenitor cell (EPC) and can influence on the differentiation/proliferation of an EPC, the recruitment of an EPC into a peripheral blood or the like; a method for the screening of a modulator for the molecule; a means for the prevention/treatment of a disease associated with the dysfunction of an EPC by using the modulator; a method for the selection/quantification of an EPC by employing the molecule as an indicator; and a method for the diagnosis of an EPC-related disease. Specifically disclosed are: a method for the screening of a substance capable of modulating the differentiation/proliferation of an EPC or increasing the quantity of an EPC in a peripheral blood, which is characterized by using GPR120 or a partial peptide thereof or a cell capable of producing the protein or the partial peptide thereof; and a method for determining the quantity of an EPC in a cell-containing sample collected from a mammal, which is characterized by measuring GPR120 protein or the expression of a gene for GPR120 protein in the sample.

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PN - EP2108044 A2 20091014
PD - 2009-10-14
PA - ISTITUTO NAZ DI GENETICA MOLEC [IT]
IN - ABRIGNANI SERGIO [IT]; CROSTI MARIACRISTINA [IT]; MORO MONICA [IT]
TI - SUB -POPULATION OF HEMATOPOIETIC STEM CELLS THAT EXPRESS THE CRISP-1 PROTEIN
AB - The subject of the present invention is a sub- population of isolated hematopoietic stem cells that express the CRISP-1 gene and produce the CRISP-1 protein on the cytoplasmic membrane of the cell, their isolation and their application in the therapeutic/diagnostic/prognostic field.

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PN - WO2009124213 A2 20091008
PD - 2009-10-08
PA - UNIV COLUMBIA [US]; MAO JEREMY J [US]; YANG RUJING [CN]; LEE CHANG HUN [US]; KENNEDY SARAH [US]
IN - MAO JEREMY J [US]; YANG RUJING [CN]; LEE CHANG HUN [US]; KENNEDY SARAH [US]
TI - DENTAL STEM CELL DIFFERENTIATION
AB - Provided is a method of preparing an embryonic stem cell-like cell, a method of preparing an insulin-secreting cell or pancreatic beta-like cell, a method of preparing a chondrocyte-like cell, a method of preparing a myocyte-like cell, and a method of preparing a hair follicle-like cell. A composition comprising a dental stem cell and an insulin-secreting cell or a pancreatic beta-like cell is also provided. Further, a composition comprising (a) a dental stem cell and (b) a chondrocyte-like cell, a myocyte-like cell, or a hair follicle-like cell is provided. Additionally provided is an insulin-secreting cell or a pancreatic beta-like cell differentiated from a dental stem cell. Further provided is a chondrocyte-like cell, a myocyte-like cell, or a hair follicle-like cell, derived from a dental stem cell.

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PN - WO2009124213 A2 20091008
PD - 2009-10-08
PA - UNIV COLUMBIA [US]; MAO JEREMY J [US]; YANG RUJING [CN]; LEE CHANG HUN [US]; KENNEDY SARAH [US]
IN - MAO JEREMY J [US]; YANG RUJING [CN]; LEE CHANG HUN [US]; KENNEDY SARAH [US]
TI - DENTAL STEM CELL DIFFERENTIATION
AB - Provided is a method of preparing an embryonic stem cell-like cell, a method of preparing an insulin-secreting cell or pancreatic beta-like cell, a method of preparing a chondrocyte-like cell, a method of preparing a myocyte-like cell, and a method of preparing a hair follicle-like cell. A composition comprising a dental stem cell and an insulin-secreting cell or a pancreatic beta-like cell is also provided. Further, a composition comprising (a) a dental stem cell and (b) a chondrocyte-like cell, a myocyte-like cell, or a hair follicle-like cell is provided. Additionally provided is an insulin-secreting cell or a pancreatic beta-like cell differentiated from a dental stem cell. Further provided is a chondrocyte-like cell, a myocyte-like cell, or a hair follicle-like cell, derived from a dental stem cell.

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PN - WO2009121503 A2 20091008
PD - 2009-10-08
PA - BADER AUGUSTINUS [DE]
IN - BADER AUGUSTINUS [DE]
TI - METHOD AND COMPOSITION FOR REGENERATING TISSUE WITH THE AID OF STEM OR BONE MARROW CELLS
AB - The invention relates to a novel polymerizable composition, comprising substantially blood or blood plasma, and stem cells or cells of the bone marrow, and to a method for regenerating tissue with the aid of such compositions. Such mixtures can polymerize into viscous gels under the influence of endogenic or exogenic polymerization factors, such as thrombin, calcium ions or cell detritus, said gels being very advantageous for the development and differentiation of the stem or

bone marrow cells into tissue-specific cells. Such polymers, comprising particularly also erythropoietin (EPO) or similarly acting growth factors, exhibit excellent properties in the use thereof for tissue regeneration or the regeneration of bone defects.

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PN - US2009252716 A1 20091008
PD - 2009-10-08
PA - CLARIAN HEALTH PARTNERS INC D [IN]
IN - BRIGHT JOHN J [US]
TI - METHODS FOR IDENTIFYING NUCLEAR RECEPTOR/LIGAND COMBINATIONS FOR TARGETING BRAIN TUMOR STEM CELLS AND FOR THEIR USE
AB - An in vitro method is provided for identifying nuclear receptors abnormally expressed by brain tumor stem cells and a corresponding ligand which, if administered to brain tumor stem cells (BTSC's), is capable of inhibiting cell proliferation. Once the nuclear receptor/ligand combination has been identified, it can be utilized in vitro and in vivo to inhibit the proliferation and survival of the cancerous stem cells and ultimately affect proliferation and survival of tumors. The method can be utilized alone or in combination with other treatment methods. The method can also be utilized with regard to other forms of cancer which have cancerous stem cells associated therewith and which abnormally express one or more nuclear receptors.

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PN - US2009253147 A1 20091008
PD - 2009-10-08
IN - OKADA AMI [US]; MCCONNELL SUSAN [US]; WEIMANN JAMES [US]
TI - Marker for stem cells
AB - Methods and compositions are provided for the identification of stem cells, including neural, muscle and hair follicle stem cells.

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PN - US2009253151 A1 20091008
PD - 2009-10-08
PA - STEMPEUTICS RES PRIVATE LTD [IN]
IN - TOTEY SATISH [IN]; PRASANNA JYOTHI [IN]
TI - Self-Renewing Master Adult Pluripotent Stem Cells
AB - The present invention relates to a method for obtaining master adult pluripotent stem (MAPS) cells from adult human corneal epithelial tissues. The MAPS cells are obtained on the basis of pluripotent markers. Further the invention provides MAPS cells that are capable of self renewal and differentiation and have characteristics similar to that of human embryonic stem cells. The MAPS cells also retain the ability to differentiate into cells of different lineages. The composition comprising MAPS cells are useful for therapeutic purposes. Further, the invention provides a culture medium for proliferation of MAPS cells

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PN - WO2009120879 A1 20091001
PD - 2009-10-01
PA - AMS RES CORP [US]; KOULLICK EDOUARD A [US]; SCHROEDER TANIA MARIE [US]; SAUNTER NATALIE ANN [US]
IN - KOULLICK EDOUARD A [US]; SCHROEDER TANIA MARIE [US]; SAUNTER NATALIE ANN [US]
TI - TREATMENT OF PELVIC FLOOR DISORDERS WITH AN ADIPOSE-DERIVED CELL COMPOSITION
AB - A method for treating a pelvic floor disease comprises removing adipose tissue from a patient, processing a first portion of the adipose tissue to obtain a heterogeneous mixture of cells that includes adipose-derived stem cells, combining the heterogeneous mixture of cells with a second, unprocessed portion of the adipose tissue in a ratio of from approximately 1:1 to 1:4 to produce a cell

composition, wherein the second portion of the adipose tissue is structured to provide a natural scaffold, and administering the cell composition to the patient to treat a pelvic floor

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PN - EP2105498 A1 20090930
PD - 2009-09-30
PA - JAPAN CHEM RES [JP]; MIRACURE INC [JP]
IN - KURODA MASAHIKO [JP]; TAKANASHI MASAKATSU [JP]; SUDO KATSUKO [JP]; YAMAUCHI SHIGEKI [JP]
TI - Therapeutic composition for atopic dermatitis
AB - A novel type of therapeutic agent, human mesenchymal stem cells, and a composition containing the same for the treatment of atopic dermatitis is disclosed. A method for the treatment of atopic dermatitis in patient is also disclosed.

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PN - US2009246179 A1 20091001
PD - 2009-10-01
PA - CLEVELAND CLINIC FOUNDATION
IN - PENN MARC S [US]
TI - METHOD OF TREATING MYOCARDIAL INJURY
AB - A method of treating a myocardial injury of a subject includes administering a population of at least one of mesenchymal stem cells (MSCs), multipotent adult progenitor cells (MAPCs), embryonic stem cells (ESCs), induced pluripotent stem cells (iPSs), which have down-regulated expression of disabled-2 (Dab2), to the subject.

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PN - US2009246178 A1 20091001
PD - 2009-10-01
PA - RENEURON INC [US]
IN - TSANG WEN-GHIH [US]; ZHENG TIANLI [US]; LIU WEI [US]
TI - CD56 POSITIVE HUMAN ADULT PANCREATIC ENDOCRINE PROGENITOR CELLS
AB - The invention relates to the discovery of a selective cell surface marker that permits the selection of a unique subset of pancreatic stems cells having a high propensity to differentiate into insulin producing cells or into insulin producing cell aggregates.

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PN - WO2009120043 A2 20091001
PD - 2009-10-01
PA - UNIV KYUNG HEE UNIV IND COOP [KR]; SON YOUNG SOOK [KR]; HONG HYUN SOOK [KR]; AHN WOO SUNG [KR]
IN - SON YOUNG SOOK [KR]; HONG HYUN SOOK [KR]; AHN WOO SUNG [KR]
TI - USE FOR CD45+ CELLS OR A CD45+ CELL CULTURE FLUID FOR PROMOTING THE GROWTH OF MESENCHYMAL STEM CELLS
AB - The present invention relates to a use for CD45+ cells or a CD45+ cell culture fluid for promoting the growth of mesenchymal stem cells; a composition for promoting the growth of mesenchymal stem cells comprising CD45+ cells or a CD45+ cell culture fluid; and a culturing method for promoting the growth of mesenchymal stem cells by adding CD45+ cells or a CD45+ cell culture fluid to mesenchymal stem cells and allowing culturing to proceed. If culturing is carried out by adding CD45+ cells or a CD45+ cell culture fluid to mesenchymal stem cells, then the colony-forming ability of the mesenchymal stem cells is increased by at least three times as compared with culturing of mesenchymal stem cells alone. Moreover, CD29+ cells which have been cultured with treatment by CD45+ cells or a CD45+ cell culture fluid maintain, unchanged, the morphological characteristics of mesenchymal stem cells, cell markers, and inherent characteristics such as pluripotency. Thus

CD45+ cells or a CD45+ cell culture fluid can be used to promote the growth of mesenchymal stem cells, and a culturing method in which CD45+ cells or a CD45+ cell culture fluid is added to mesenchymal stem cells and culturing is allowed to proceed can be used to grow mesenchymal stem cells in sufficient number to allow them to be used in cell therapy.

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PN - WO2009118543 A1 20091001
PD - 2009-10-01
PA - SMITH & NEPHEW [GB]; GENEVER PAUL [GB]; BRAY HELEN [GB]
IN - GENEVER PAUL [GB]; BRAY HELEN [GB]
TI - INCREASING THE PLASTICITY OF STEM CELLS
AB - The invention relates to methods of culturing non-embryonic cells to increase their plasticity and their potential to differentiate into multi-lineage cell types.

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PN - EP2105138 A2 20090930
PD - 2009-09-30
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-7.

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PN - WO2009117553 A2 20090924
PD - 2009-09-24
PA - UNIV FLORIDA [US]; BARTELMEZ STEPHEN H [US]; GRANT MARIA [US]
IN - BARTELMEZ STEPHEN H [US]; GRANT MARIA [US]
TI - ENHANCING VESSEL LESION HOMING AND REPAIR POTENTIAL OF STEM CELLS
AB - Disclosed herein are methods of enhancing repair of vascular lesions involving the administration of cells in which TGF-ss expression and/or activity has been transiently blocked. Other methods involve the administration of a TGF-ss blocking agent to a subject who has a vascular lesion or is at risk of developing a vascular lesion. Alternatively, a TGF-ss blocking agent and treated cells are co-administered to a subject in need thereof.

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PN - US2009238801 A1 20090924
PD - 2009-09-24
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 stems cells (ADSCs) and to methods of using ADSCs.

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PN - US2009238800 A1 20090924
PD - 2009-09-24
PA - SCHEPENS EYE RES INST [US]
IN - LASHKARI KAMERAN [US]; SHATOS MARIE [US]; NG TAT FONG [US]
TI - ISOLATION AND THERAPEUTIC APPLICATION OF ADULT RETINAL STEM CELLS COLLECTED FROM EXTRA-RETINAL TISSUES
AB - The present invention is directed to an adult retinal cell line isolated from extra-retinal ocular tissue, and methods of isolating adult retinal cells from extra-retinal ocular tissue. The present invention is further directed to adult retinal stem cells isolated from vestigial tissue dissected from the eye of a donor mammal suffering from persistent fetal vasculature. The present invention is further directed to a culture medium for growing or maintaining retinal stem cells, and methods of maintaining adult retinal cells in culture. The present invention is further directed to methods of treating a treating an eye with retinal dystrophy using retinal stem cells, and an eye with glaucomatous injury with retinal stem cells. The present invention is further directed to kits for harvesting extra-retinal ocular tissue comprising a sterile container and a harvesting solution, wherein the kit allows the survival of the tissue until later dissociation of cells from the tissue.

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PN - US2009239207 A1 20090924
PD - 2009-09-24
IN - LEESE HENRY J [GB]; HOUGHTON FRANCESCA D [GB]
TI - METHOD OF ASSESSING THE VIABILITY OF THAWED CELLS
AB - The invention relates to a method of assessing the viability of a thawed cell wherein the cell is a gamete, an embryo, a karyoplast, a putative stem cell population, a stem cell precursor population or a stem cell population. The method includes incubating the thawed cell in a culture medium including a plurality of amino acids and determining the change in concentration in the medium of at least one amino acid.

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PN - US2009239217 A1 20090924
PD - 2009-09-24
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 - WO2009116951 A2 20090924
PD - 2009-09-24
PA - AGENCY SCIENCE TECH & RES [SG]; OH STEVE [SG]; LECINA MARTI [SG]; CHOO ANDRE [SG]; REUVENY SHAUL [SG]; ZWEIGERT ROBERT [SG]; CHEN ALLEN [SG]
IN - OH STEVE [SG]; LECINA MARTI [SG]; CHOO ANDRE [SG]; REUVENY SHAUL [SG]; ZWEIGERT ROBERT [SG]; CHEN ALLEN [SG]
TI - MICROCARRIERS FOR STEM CELL CULTURE

AB - We disclose a particle comprising a matrix coated thereon and having a positive charge, the particle being of a size to allow aggregation of primate or human stem cells attached thereto. The particle may comprise a substantially elongate, cylindrical or rod shaped particle having a longest dimension of between 50[μm] and 400[μm], such as about 200[μm]. It may have a cross sectional dimension of between 20[μm] and 30[μm]. The particle may comprise a substantially compact or spherical shaped particle having a size of between about 20[μm] and about 120[μm], for example about 65 [μm]. We also disclose a method of propagating primate or human stem cells, the method comprising: providing first and second primate or human stem cells attached to first and second respective particles, allowing the first primate or human stem cell to contact the second primate or human stem cell to form an aggregate of cells and culturing the aggregate to propagate the primate or human stem cells for at least one passage. A method of propagating human embryonic stem cells (hESCs) in long term suspension culture using microcarriers coated in Matrigel or hyaluronic acid is also disclosed. We also disclose a method for differentiating stem cells.

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PN - WO2009116088 A2 20090924
PD - 2009-09-24
PA - SMT G R DOSHI AND SMT K M MEHT [IN]; H L TRIVEDI INST OF TRANSPLANT [IN]; TRIVEDI H L [IN]; VANIKAR ARUNA [IN]
IN - TRIVEDI H L [IN]; VANIKAR ARUNA [IN]
TI - A NOVEL COMPOSITION OF STEM CELLS TRANSPLANTATION TOLERANCE
AB - The present invention provides a simple, economical yet efficient method of creating transplant tolerance in organ transplant patients without the continuous need for costly immunosuppressive drugs with serious adverse effects. The invention essentially deals with the administration of a novel composition to the patient which consists of adipose tissue derived Mesenchymal Stem Cells (MSC) combined with bone marrow derived Haematopoietic Stem Cells(HSC) and MSC and peripheral blood stem cells (PBSC). This helps in creating transplant tolerance ie. Stable adequate allograft function with minimum /no rejection using very low dose of immunosuppressive medication. The invention also deals with a simple method of isolating Mesenchymal Stem cells from human adipose tissue without using any xenogenic material.

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PN - WO2009116087 A1 20090924
PD - 2009-09-24
PA - SMT G R DOSHI AND SMT K M MEHT [IN]; H L TRIVEDI INST OF TRANSPLANT [IN]; TRIVEDI H L [IN]; VANIKAR ARUNA [IN]
IN - TRIVEDI H L [IN]; VANIKAR ARUNA [IN]
TI - HUMAN ADIPOSE DERIVED INSULIN MAKING MESENCHYMAL STEM CELLS FOR TREATING DIABETES MELLITUS
AB - The invention provides a novel therapeutic composition comprising of insulin producing mesenchymal stem cells obtained from human adipose tissue along with Hematopoietic stem cells for the treatment of diabetic patients especially insulinopenic patients. The invention also describes a simple and efficient process for the isolation, proliferation and differentiation of insulin producing mesenchymal stem cells from human adipose tissue. Unfiltered extract of adipose tissue is used in the process with a medium totally free from xenogenic material; the serial passages of the cells are avoided in the process.

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PN - WO2009115581 A2 20090924
PD - 2009-09-24
PA - CRYO SAVE AG [CH]; WOUTERS GUY [BE]; VAN WEMMEL KELLY [BE]; DE WAELE PETER [BE]
IN - WOUTERS GUY [BE]; VAN WEMMEL KELLY [BE]; DE WAELE PETER [BE]
TI - IMPROVED CRYOPRESERVATION OF ADIPOSE TISSUE FOR THE ISOLATION OF MESENCHYMAL STEM CELLS

AB - The present invention relates to a method and composition for the cryopreservation of adipose tissue with the intention to use this tissue in the culturing of stem and/or progenitor cells. The method uses a specific cryoprotection medium to prevent damage of the original tissue during the cryopreservation while still maintaining a high viability of the stem and/or progenitor cells obtained from the cryopreserved adipose tissue. Furthermore the cryoprotection medium of the present invention does not contain any kind of xenogeneic sera, a critical factor since it is the intention of that the cryopreserved tissue is used for obtaining stem and/or progenitor cells that can be used in medicine.

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PN - WO2009115522 A1 20090924
PD - 2009-09-24
PA - SALES ENGINEERING AG [CH]; POLETTINI MARCO [IT]; GAMBACURTA ALESSANDRA [IT]
IN - POLETTINI MARCO [IT]; GAMBACURTA ALESSANDRA [IT]
TI - KIT FOR COLLECTING BLOOD, PREFERABLY PERIPHERAL BLOOD, FOR THE PRODUCTION OF STEM CELLS
AB - A kit (10) for collecting blood, preferably peripheral blood, for the production of pluripotent stem cells comprises at least a first container (12), able to contain the blood taken, which contains an anticoagulant and the substance MCSF (Macrophage Colony Stimulating Factor).

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PN - WO2009114860 A2 20090917
PD - 2009-09-17
PA - TRUSTEES OF THE UNIVERSITY OF [US]; BARTHOLOMEW AMELIA [US]; POLCHERT DAVID [US]; SZILAGYI ERZSEBET [US]
IN - BARTHOLOMEW AMELIA [US]; POLCHERT DAVID [US]; SZILAGYI ERZSEBET [US]
TI - ACTIVATED MESENCHYMAL STEM CELLS FOR THE PREVENTION AND REPAIR OF INFLAMMATORY STATES
AB - Inflammatory cytokines e.g. IFN- γ serve as initiating stimuli for MSC immunosuppressive activity in vivo. Other inflammatory cytokines, such as TNF alpha, the molecule hemoxygenase I, and TLR ligation of MSC may also provide such a response.

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PN - WO2009114725 A2 20090917
PD - 2009-09-17
PA - CHILDRENS HOSP MEDICAL CENTER [US]; ZHENG YI [US]
IN - ZHENG YI [US]
TI - MOBILIZATION OF HEMATOPOIETIC STEM CELLS
AB - Methods, processes, uses, and pharmaceutical compositions are provided herein for mobilizing hematopoietic progenitor cells and/or cancer stem cells from bone marrow into peripheral blood, comprising the administration of an effective amount of an inhibitor of GTPases, such as a Cdc-42 specific inhibitor alone or in combination with one or more additional agents. Specifically, methods are disclosed for mobilizing hematopoietic stem cells into a subject's peripheral blood. In particular, embodiments of the method involve specific inhibition of the Cdc42 GTPase to increase the numbers of hematopoietic stem cells into a subject's peripheral blood of a subject.

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PN - WO2009114673 A2 20090917
PD - 2009-09-17
PA - GEN HOSPITAL CORP [US]; CHIEN KENNETH [US]; NAKANO ATSUSHI [US]; NAKANO HARUKO [US]
IN - CHIEN KENNETH [US]; NAKANO ATSUSHI [US]; NAKANO HARUKO [US]

TI - METHODS FOR PRODUCTION OF ATRIAL PROGENITORS AND THEIR DIFFERENTIATION INTO SMOOTH MUSCLE CELLS AND CARDIOMYOCYTES

AB - The present invention generally relates to methods to identify and isolate atrial progenitors, and in some embodiments to the atrial progenitors are positive for both Islet 1 (Isl1) and sarcolipin (SLN). One aspect of the present invention relates to methods to differentiate progenitors into Isl1+/SLN+ atrial progenitors. Another aspect of the invention relates to methods to differentiate Isl1+/SLN+ atrial progenitors to smooth muscle and cardiomyocyte phenotypes. A further aspect of the invention relates to reprogramming postnatal and mature atrial myocytes to atrial progenitors positive for Isl1+/SLN+, and the subsequent differentiation of Isl1+/SLN+ atrial progenitors to smooth muscle and cardiomyocyte phenotypes. Another aspect of the invention relates to a composition comprising an isolated population of Islet1+, SLN+ atrial progenitor cells, and uses thereof.

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PN - US2009233989 A1 20090917

PD - 2009-09-17

IN - LOPEZ RICARDO AUGUSTIN [AR]

TI - Oligonucleotides stimulatory of the mesenchymal stem cell proliferation and uses thereof

AB - Oligonucleotides having the ability to greatly stimulate the proliferation of pluripotent mesenchymal stem cells "in vitro" and "in vivo" of animals, including humans, are disclosed. These oligonucleotides can be used in a wide range of clinical procedures such as (1) regeneration of mesenchymal tissues which have been damaged through acute injury, abnormal genetic expression or acquired disease by inoculation of the ODNs of this invention; (2) treatment of a host with damaged mesenchymal tissue by removal of small aliquots of bone marrow, isolation of their mesenchymal stem cells and treatment of the damaged tissue with MSCs culture-expanded by incubation with one or more of the ODNs of this invention combined with a biocompatible carrier suitable for delivering the MSCs to the damaged body site(s); (3) production "in vitro" of various mesenchymal tissues by directed differentiation of the MSCs culture-expanded by incubation with one or more of the ODNs of this invention, to replace and restore tissue damage or defects with say "in vitro" obtained mesenchymal tissues combined with a biocompatible carrier suitable for delivering the "in vitro" produced tissues to the damaged body site(s); and (4) treatment of a host with abnormal genetic expression with MSCs culture-expanded by incubation with one or more of the ODNs of this invention and transformed by genetic engineering procedures to express a protein able to replace the genetic defect.

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PN - US2009233279 A1 20090917

PD - 2009-09-17

PA - SIDNEY KIMMEL CANCER CT [US]

IN - GLINSKII GENNADI V [US]

TI - Methods and Compositions for Predicting Death from Cancer and Prostate Cancer Survival Using Gene Expression Signatures

AB - The emerging concept of cancer stem cells suggests that activation in transformed cells of "stemness" genetic pathways (e.g., normal stem cells' self-renewal pathways) may contribute to the survival life cycle of cancer stem cells, and to tumor progression and metastasis of the malignancy. Thus, activation of "stemness" genes in cancer cells may be associated with aggressive clinical behavior and increased likelihood of therapy failure. General methods and kits associated with prediction of clinical outcome for a disease state of a subject based on gene expression analysis are described. The invention includes determining expression of at least three genes selected from the group consisting of GBX2, MKI67, CCNB1, BUB1, KNTC2, USP22, HCFC1, RNF2, ANK3, FGFR2, and CES1, and mouse homologs thereof.

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PN - US2009232773 A1 20090917

PD - 2009-09-17

IN - KATO YUKIO [JP]; KAWAMOTO TAKESHI [JP]; TSUJI KOICHIRO [JP]; IGARASHI AKIRA [JP]; SHIMIZU MASAKAZU [JP]
TI - Method for Distinguishing Mesenchymal Stem Cell Using Molecular Marker and Use Thereof
AB - Disclosed is a method for distinguishing a mesenchymal stem cell comprising, using at least one gene selected from the genes having the nucleotide sequences indicated by the accession numbers shown in Table 1 as a distinguish marker, detecting the difference in expression of the distinguish marker between a mesenchymal stem cell and a connective tissue cell to distinguish the mesenchymal stem cell from the connective tissue cell. This method enables to distinguish an undifferentiated mesenchymal stem cell from other connective tissue cell such as fibroblasts, osteoblasts, chondrocytes and adipose cells with good accuracy. A mesenchymal stem cell given by this method or a composition comprising the mesenchymal stem cell can be used as a therapeutic for use in the regenerative medicine.

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PN - US2009233354 A1 20090917
PD - 2009-09-17
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 - US2009233360 A1 20090917
PD - 2009-09-17
PA - UTI LTD PARTNERSHIP
IN - BAGHBADERANI BEHNAM A [CA]; SEN ARINDOM [CA]; KALLOS MICHAEL S [CA]; BEHIE LEO A [CA]
TI - Methods and Compositions for Culturing of neural Precursor Cells
AB - The present invention provides methods and compositions for the propagation and expansion of neural precursor cells (NPCs). NPCs may be used in the clinical implementation of stem cell therapy to treat disorders such as Parkinson's disease, Huntington's disease, neuropathic pain and other diseases of the central nervous system. The large-scale production of NPCs in bioreactors allows for the generation of clinical quantities of these cells.

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PN - US2009232782 A1 20090917
PD - 2009-09-17
IN - FU YU-SHOW [TW]
TI - Method for treating brain ischemic injury through transplantation of human umbilical mesenchymal stem cells
AB - A method for treating or preventing an ischemic brain injury or neurological damage due to ischemia in a subject includes transplanting a therapeutically effective amount of human umbilical mesenchymal stem cells (HUMSCs) obtained from Wharton's Jelly to the ischemic areas of the brain injury or the neurological damage of the subject. Recovery from neurological behavior deficits also is improved according by the method.

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PN - US2009232781 A1 20090917
PD - 2009-09-17
IN - FU YU-SHOW [TW]

TI - Treatment of liver diseases through transplantation of human umbilical mesenchymal stem cells
AB - A method for treating liver diseases or liver damage, including but not limited to liver fibrosis, and/or aiding recovery from liver diseases, including but not limited to liver fibrosis, or liver damage in a subject, includes transplanting human umbilical mesenchymal stem cells (HUMSCs) obtained from Wharton's Jelly to the area of liver disease or damage of the subject.

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PN - US2009232777 A1 20090917
PD - 2009-09-17
IN - LUNDGREN-AKERLUND EVY [SE]; KJELLMAN CHRISTIAN [SE]
TI - Expansion and Differentiation of Mesenchymal Stem Cells
AB - A cell culture system for expanding and differentiating mammalian mesenchymal stem cells to chondrocytes is provided. Said cell culture system comprises a subpopulation of isolated MSC selected for their expression of integrin alpha 10, as well as additives promoting expansion and differentiation to chondrocytes. Methods and uses of said expanded and differentiated cells with a chondrogen phenotype are also provided, as well as compositions comprising said expanded and differentiated chondrocyte cells.

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PN - WO2009113595 A1 20090917
PD - 2009-09-17
PA - RIKEN [JP]; KATSURA YOSHIMOTO [JP]; KAWAMOTO HIROSHI [JP]; IKAWA TOMOKATSU [JP]
IN - KATSURA YOSHIMOTO [JP]; KAWAMOTO HIROSHI [JP]; IKAWA TOMOKATSU [JP]
TI - METHOD FOR PRODUCING CELLS HAVING CHARACTERISTIC OF HEMATOPOIETIC STEM CELLS/PROGENITOR CELLS
AB - Provided are a novel method for producing cells having a characteristic of hematopoietic stem cells/progenitor cells for use in hematopoietic stem cell transplantation; and hematopoietic stem cell/progenitor cell-like cells produced by the method. Particularly, provided are a method for producing hematopoietic stem cell/progenitor cell-like cells maintaining pluripotency and replication competence, comprising (1) a step of providing mammalian pro-B cells or progenitor cells thereof and (2) a step of culturing the cells of the step (1) under conditions capable of inducing differentiation into B cells, wherein, in the step (2), the function and/or expression of a transcription factor E2A is suppressed at least at the pre-pro B cell stage or pro-B cell stage; hematopoietic stem cell/progenitor cell-like cells produced by the method; an immunotherapeutic agent comprising the hematopoietic stem cell/progenitor cell-like cells; etc.

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PN - WO2009111030 A1 20090911
PD - 2009-09-11
PA - OSIRIS THERAPEUTICS INC [US]; VARNEY TIMOTHY R [US]; MILLS CHARLES R [US]; DANILKOVITCH ALLA [US]
IN - VARNEY TIMOTHY R [US]; MILLS CHARLES R [US]; DANILKOVITCH ALLA [US]
TI - USE OF MESENCHYMAL STEM CELLS FOR TREATING GENETIC DISEASES AND DISORDERS
AB - A method of treating a genetic disease or disorder such as, for example, cystic fibrosis, Wilson's disease, amyotrophic lateral sclerosis, or polycystic kidney disease, in an animal comprising administering to said animal mesenchymal stem cells in an amount effective to treat the genetic disease or disorder in the animal.

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PN - EP2099901 A1 20090916
PD - 2009-09-16

PA - MEDIPOST CO LTD [KR]
IN - OH WONIL [KR]; YANG YOON-SUN [KR]; CHANG JONG WOOK [KR]; CHOI SOO JIN [KR]; KIM JU-YEON [KR]
TI - USE OF A COMPOSITION CONTANING HUMAN UMBILICAL CORD BLOOD-DERIVED MESENCHYMAL STEM CELL FOR INDUCING DIFFERENTIATION AND PROLIFERATION OF NEURAL PRECURSOR CELLS OR NEURAL STEM CELLS TO NEURAL CELLS
AB - A use of a composition comprising umbilical cord blood-derived mesenchymal stem cells for inducing differentiation and proliferation of neural precursor cells or neural stem cells to neural cells is provided, the composition being effective for the treatment of nerve injury diseases.

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PN - EP2099465 A2 20090916
PD - 2009-09-16
PA - ACADEMIA SINICA [TW]
IN - TZU-BI SHIN DANIEL [US]; CHEN WAN-YU [US]; WONG CHI-HUEY [US]
TI - REISHI-MEDIATED ENHANCEMENT OF HUMAN TISSUE PROGENITOR CELL ADHESION AND DIFFERENTIATION
AB - The present disclosure provides medicinally active extracts and fractions, and methods for using the same to increase eukaryotic cell adhesion, to increase differentiation of eukaryotic cells to produce increased numbers of B cells dendritic cells and chodrocytes, and to maintain undifferentiated hematopoietic cells. These methods are useful for modulating immune response, modulating hematopoietic activity, and engineering certain types of eukaryotic tissues.

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PN - US2009226536 A1 20090910
PD - 2009-09-10
IN - ARENAS ERNESTO A [SE]; CASTELO BRANCO GONCALO [SE]; RAWAL NINA [SE]
TI - METHODS AND MATERIALS RELATING TO ENHANCED PRODUCTION OF DOPAMINE NEURONS
AB - Induction of neuronal fate in neural stem cells or neural progenitor or precursor cells, or other stem cells, and enhancement of induction of a specific neuronal phenotype, and particularly to induction and enhancement of induction of a midbrain dopaminergic neuronal phenotype. Expressing a nuclear receptor of the Nurr1 subfamily above basal levels within the cell, and regulating GSK-3beta inhibition within the cell other than by means of a ligand for a Frizzled receptor.

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PN - US2009226402 A1 20090910
PD - 2009-09-10
IN - PECORA ANDREW [US]; PRETI ROBERT [US]
TI - Compositions and Methods of Vascular Injury Repair
AB - The present invention relates to pharmaceutical compositions comprising a chemotactic hematopoietic stem cell product comprising an enriched population of CD34+ cells containing a subpopulation of cells having chemotactic activity, methods of preparing these compositions and use of these compositions to treat or repair vascular injury, including infarcted myocardium.

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PN - US2009226406 A1 20090910
PD - 2009-09-10
IN - HARIRI ROBERT J [US]; STIRLING DAVID I [US]; MOUTOUTH-DE PARSEVAL LAURE A [US]; CHAN KYLE W H [US]
TI - MODULATION OF STEM AND PROGENITOR CELL DIFFERENTIATION, ASSAYS, AND USES THEREOF

AB - The present invention relates to methods of modulating mammalian stem cell and progenitor cell differentiation. The methods of the invention can be employed to regulate and control the differentiation and maturation of mammalian, particularly human stem cells along specific cell and tissue lineages. The methods of the invention relate to the use of certain small organic molecules to modulate the differentiation of stem or progenitor cell populations along specific cell and tissue lineages, and in particular, to the differentiation of embryonic-like stem cells originating from a postpartum placenta or for the differentiation of early progenitor cells to a granulocytic lineage. Finally, the invention relates to the use of such differentiated stem or progenitor cells in transplantation and other medical treatments.

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PN - US2009227019 A1 20090910
PD - 2009-09-10
PA - UNIV MICHIGAN [US]
IN - YILMAZ OMER H [US]; KIEL MARK J [US]; MORRISON SEAN [US]; IWASHITA TOSHIHIDE [US]
TI - HEMATOPOIETIC STEM CELL IDENTIFICATION AND ISOLATION
AB - The present invention relates to methods of identifying, collecting and isolating hematopoietic stem cells (HSCs) and compositions of purified HSCs. Specifically, the present invention provides methods of isolating and purifying CD150+ HSCs, CD48- HSCs, and CD244- HSCs. The present invention also relates to purified cell samples with enriched CD150+ HSCs, CD48- HSCs, and CD244- HSCs populations, as well as methods of treating subjects with such compositions.

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PN - US2009226914 A1 20090910
PD - 2009-09-10
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 - EP2097535 A2 20090909
PD - 2009-09-09
PA - UNIV LELAND STANFORD JUNIOR [US]
IN - WEISSMAN IRVING L [US]; HOSEN NAOKI [JP]
TI - IDENTIFICATION AND ISOLATION OF ACUTE MYELOID LEUKEMIA STEM CELLS
AB - Acute myeloid leukemia stem cells (AMLSC) are identified. The cells can be prospectively isolated or identified from patient samples, and are shown to possess the unique properties of cancer stem cells in functional assays for cancer stem cell self-renewal and differentiation, and in cancer diagnosis.

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PN - WO2009108953 A1 20090903
PD - 2009-09-03
PA - UNIV NEW YORK [US]; RUBIN CLINTON [US]; JUDEX STEFAN [US]; LUU YEN KIM [US]
IN - RUBIN CLINTON [US]; JUDEX STEFAN [US]; LUU YEN KIM [US]
TI - METHODS OF APPLYING PHYSICAL STIMULI TO CELLS
AB - We describe herein methods for applying physical stimuli to cells, including mesenchymal stem cells, in culture or in vivo. These methods can be applied in, and are expected to

benefit subjects in, a great variety of circumstances that arise in the context of, for example, traumatic injury (including that induced by surgical procedures), wound healing (of the skin and other tissues), cancer therapies (e.g., chemotherapy or radiation therapy), tissue transplantation (e.g., bone marrow transplantation), and aging. More generally, the present methods apply where patients would benefit from an increase in the number of cells (e.g., stem cells) within a given tissue and, ex vivo, where it is desirable to increase the proliferation of cells (e.g., stem cells) for scientific study, inclusion in devices bearing cells (e.g., polymer or hydrogel-based implants), and administration to patients.

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PN - US2009221076 A1 20090903
PD - 2009-09-03
PA - G C DENTAL IND CORP [JP]; TWO CELLS CO LTD [JP]
IN - KATO YUKIO [JP]; TSUJI KOICHIRO [JP]; YAMANAKA KATSUYUKI [JP]
TI - METHOD OF FABRICATING SHEET FOR CARTILAGE TISSUE REGENERATION
AB - An objective of the present invention is to provide a production method of a sheet for regenerating a cartilage tissue, which uses a conventional sheet-shaped porous body comprising a biological absorbency synthetic high polymer, such as polylactic acid, polyglycolic acid and a copolymer of lactic acid and glycolic acid. The sheet for regenerating the cartilage tissue can differentiate chondrocytes or stem cells without culturing the cells by pressurizing such as a pressurizing culture like the conventional method, and can accumulate the cells in a supporting carrier with high efficiency. The sheet for regenerating the cartilage tissue is produced by the steps of; seeding chondrocytes or stem cells differentiating to the chondrocytes on a sheet-shaped porous body comprising a biological absorbency synthetic high polymer; taking the porous body into a culture liquid; applying acceleration of 100 to 1000 G to the porous body for a predetermined time; and culturing the porous body without applying the acceleration.

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PN - US2009221072 A1 20090903
PD - 2009-09-03
IN - CHEN THOMAS T [US]; CHEN MARIA J M [US]
TI - COMPOSITIONS AND METHODS FOR MODULATING CELL DIFFERENTIATION
AB - Compositions and methods are described for using the Ea4-peptide of pro-IGF-I or human Eb-peptide of pro-IGF-I to inhibit hematopoiesis and to induce differentiation of neuroblastoma cells and neuronal stem cells.

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PN - US2009221909 A1 20090903
PD - 2009-09-03
PA - 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 - A system for delivering an agent to tissue surrounding a target vessel includes an elongate delivery device and a source coupled to a proximal tubular portion of the device. A first lumen extends through the tubular portion and an expandable sheath of the device, wherein the expandable sheath has a proximal end that surrounds and overlies a distal end of the tubular portion. The device further includes a stiffening member, attached to the sheath, and a balloon attached to the stiffening member, at a location spaced apart from the sheath. A second lumen extends, within the tubular portion and the stiffening member, to the balloon. A volume of fluid may be delivered, from the source, through the first lumen and into a section of the target vessel that is downstream from the expandable sheath and upstream of the balloon, in order to expand the sheath, fill the section and apply a pressure sufficient to cause extravasation of the section.

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PN - US2009221074 A1 20090903
PD - 2009-09-03
PA - MORPHOGENESIS INC [US]
IN - LAWMAN MICHAEL J P [US]; LAWMAN PATRICIA [US]
TI - Materials and Procedures for the Purification of Cells
AB - The subject invention provides new materials and methods for the efficient isolation and purification of stem cells. Specifically, conductive immunopolymers with stem cell specific antibodies can be used to remove stem cells from biological fluids.

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PN - US2009220453 A1 20090903
PD - 2009-09-03
PA - JOSLIN DIABETES CENTER INC [US]
IN - WAGERS AMY [US]; MIN IRENE [US]
TI - ENHANCING STEM CELL MOBILIZATION
AB - This invention relates to methods and compositions for enhancing hematopoietic stem cell mobilization by inhibiting early growth response-1 (egr1) activity.

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PN - US2009220565 A1 20090903
PD - 2009-09-03
IN - GULDNER NORBERT W [DE]; KRUSE CHARLI [DE]; KAJAHN JENNIFER [DE]
TI - METHOD FOR PRODUCING AUTONOMOUSLY CONTRACTING CARDIAC MUSCLE CELLS FROM ADULT STEM CELLS, IN PARTICULAR HUMAN ADULT STEM CELLS
AB - A method for producing autonomously contractile heart muscle cells by cultivating and differentiating stem cells obtained from differentiated exocrine gland tissue of an organism is described. Various uses of the heart muscle cells, in particular in regenerative medicine, are also described.

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PN - US2009220466 A1 20090903
PD - 2009-09-03
IN - RATAJCZAK MARIUSZ [US]; KUCIA MAGDALENA [US]; RATAJCZAK JANINA [US]
TI - VERY SMALL EMBRYONIC-LIKE (VSEL) STEM CELLS AND METHODS OF ISOLATING AND USING THE SAME
AB - The presently disclosed subject matter provides populations of stem cells that are purified from bone marrow, peripheral blood, and/or other sources. Also provided are methods of using the stem cells for treating tissue and/or organ damage in a subject.

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PN - US2009220465 A1 20090903
PD - 2009-09-03
PA - GEN HOSPITAL CORP [US]; UNIV NORTH CAROLINA [US]
IN - SCADDEN DAVID T [US]; JANZEN VIKTOR [DE]; FORKERT RANDOLF [DE]; SHARPLESS NORMAN E [US]
TI - METHODS AND COMPOSITIONS FOR MODULATION OF STEM CELL AGING
AB - Methods are described for promoting or maintaining self-renewal of a stem cell expressing or expected to express p16INK4a employing p16INK4a inhibitors. Methods are also described for increasing the amount of self-renewing stem cells in a non-infant subject, as well as for enhancing engraftment of a stem cell expressing p16INK4a. Additionally, methods are described for identifying p16INK4a inhibitors.

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PN - US2009220464 A1 20090903
PD - 2009-09-03
IN - AGGARWAL SUDEEPTA [US]; PITTENGER MARK F [US]; VARNEY TIMOTHY [US]; DANILKOVITCH ALLA [US]
TI - MESENCHYMAL STEM CELLS AND USES THEREFOR
AB - Methods of treating autoimmune diseases, allergic responses, cancer, inflammatory diseases, or fibrosis 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 - US2009221683 A1 20090903
PD - 2009-09-03
PA - CARITAS ST ELIZABETH MEDICAL C [US]
IN - LOSORDO DOUGLAS W [US]
TI - Combination of CXCR4 Antagonist and Morphogen to Increase Angiogenesis
AB - The present invention generally provides methods for preventing, treating or reducing the severity of symptoms associated with tissue ischemia by administering a CXCR4 antagonist in combination with at least one nucleic acid encoding a morphogen or effective fragment thereof. In one embodiment, the methods include elevating peripheral blood endothelial progenitor cells (EPCs), bone marrow-derived stem cells (BMSCs), or both cell types. The invention has a wide spectrum of applications including reducing or eliminating tissue ischemia, especially tissue ischemia associated with a myocardial infarct (heart attack).

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PN - US2009220462 A1 20090903
PD - 2009-09-03
PA - UNIV DUKE [US]
IN - CHUTE JOHN P [US]
TI - STEM CELLS
AB - The present invention relates, in general, to stem cells and, in particular, to a method of expanding stem cells by inhibiting aldehyde dehydrogenase (ALDH). The invention further relates to methods of identifying compounds suitable for use in effecting expansion of stem cells.

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PN - US2009221428 A1 20090903
PD - 2009-09-03
IN - YOUNG RICHARD A [US]; LEE TONG IHN [US]; GUENTHER MATTHEW [US]; BOYER LAURIE A [US]
TI - Methods of Genome-Wide Location Analysis in Stem Cells
AB - The invention relates to improved methods of identifying the genomic regions to which a protein of interest binds, and in particular, to methods that apply to stem cells such as but not limited to; embryonic stem cells and adult stem cells. The invention also provides methods of identifying agents which modulate differentiation of stem cells. The invention also provides methods of defining the differentiation potential of a cell and of designing array oligonucleotides.

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PN - WO2009107915 A1 20090903
PD - 2009-09-03
PA - AJOU UNIV IND ACAD COOP FOUND [KR]; SIM WOO YOUNG [KR]; YANG SANG SIK [KR]
IN - SIM WOO YOUNG [KR]; YANG SANG SIK [KR]
TI - CELL-CHIP AND AUTOMATIC CONTROLLED SYSTEM CAPABLE OF DETECTING CONDITIONS FOR OPTIMIZING DIFFERENTIATION OF STEM CELL USING MECHANICAL STIMULUS

AB - Provided are a cell chip and a system thereof that are capable of detecting optimal conditions for stem cell differentiation by mechanical stimuli. The cell chip for cell differentiation experimentation includes a plurality of cell chambers for storing cells and culture media, cell and culture medium injection ports for transferring the cells and culture media to corresponding cell chambers, fine passages for moving the cells and the culture media injected into the cell and culture medium injection ports to the cell chambers, pneumatic injection ports for injecting pneumatic pressures applied to the cell chambers, and apertures having circular films for transferring the pneumatic pressures injected through the pneumatic injection ports to corresponding cell chambers. Here, at least two of the apertures may have different areas to vary the magnitude of pneumatic pressure applied to corresponding cell chambers. Therefore, the cell chip and the control system thereof enable stem cell differentiation experiments under various stimulus conditions, such as application of mechanical stimuli having various magnitudes, periods, frequencies, intervals, and duty ratios, to be performed simultaneously in single pneumatic pressure. The cell chip and control system thus conserve stem cells and reduce experimentation time. In addition, the cell chip can automatically inject and change a cell and a culture medium using an integrated micro-valve system and a capacitance pressure sensor, and can measure the magnitude of a stimulus in real time. Further, the stem cell can be stained and placed under a fluorescent microscope installed in the system to observe a differentiation step and its state in real time in a single chip state.

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PN - WO2009106578 A1 20090903
PD - 2009-09-03
PA - VIB VZW [BE]; UNIV GENT [BE]; BERX GEERT [BE]; VANDEWALLE CINDY [BE]; RASPE ERIC [BE]
IN - BERX GEERT [BE]; VANDEWALLE CINDY [BE]; RASPE ERIC [BE]
TI - USE OF SIP1 AS DETERMINANT OF BREAST CANCER STEMNESS
AB - The present invention relates to the diagnosis and treatment of cancer. More specifically, it relates to the use of SIP1 nucleic acid and/or protein for the detection of breast cancer stem cells, and the repression of the gene and/or the inactivation of the protein to repress the differentiation of cells into cancer cells and to inhibit metastasis of breast cancer tumors.

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PN - EP2094839 A1 20090902
PD - 2009-09-02
PA - UNIV ROCHESTER [US]
IN - CALVI LAURA MARIA [US]; O'KEEFE REGIS [US]
TI - EXPANSION OF HEMATOPOIETIC STEM CELLS
AB - Described herein are methods, compositions and kits related to manipulating hematopoietic stem cells and more particularly to methods, compositions and kits related to increasing the number of hematopoietic stem cells in vitro and in vivo. Also described are methods, compositions and kits related to making an expanded population of hematopoietic stem cells (HSCs) and methods, compositions and kits related to using the expanded population of HSCs.

EMBRYONIC STEM CELLS -35 Documents

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PN - WO2009132068 A2 20091029
PD - 2009-10-29
PA - CENTOCOR ORTHO BIOTECH INC [US]; DAVIS JANET E [US]; LIU JIAJIAN [US]
IN - DAVIS JANET E [US]; LIU JIAJIAN [US]
TI - TREATMENT OF PLURIPOTENT CELLS
AB - The present invention is directed to methods to treat pluripotent cells, whereby the pluripotent cells can be efficiently expanded in culture and differentiated by treating the pluripotent cells with an inhibitor of GSK-3B enzyme activity.

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PN - US2009269845 A1 20091029
PD - 2009-10-29
IN - REZANIA ALIREZA [US]
TI - PLURIPOTENT CELLS
AB - The present invention is directed to pluripotent cells that can be readily expanded in culture on tissue culture substrate that is not pre-treated with protein or an extracellular matrix, and do not require a feeder cell line. The present invention also provides methods to derive the pluripotent cell line from human embryonic stem cells.

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PN - WO2009131568 A1 20091029
PD - 2009-10-29
PA - CYTHERA INC [US]; KELLY OLIVIA [US]; BANG ANNE [US]
IN - KELLY OLIVIA [US]; BANG ANNE [US]
TI - METHODS FOR PURIFYING ENDODERM AND PANCREATIC ENDODERM CELLS DERIVED FROM HUMAN EMBRYONIC STEM CELLS
AB - The present disclosure relates to compositions and methods comprising cell surface markers for hES-derived cells, in particular, endoderm lineage cells including pancreatic endoderm-type cells, derived from hES cells.

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PN - US2009269830 A1 20091029
PD - 2009-10-29
PA - CELLARTIS AB [SE]
IN - SEMB HENRIK [SE]; STREHL RAIMUND [SE]; ELLERSTROM CATHARINA [SE]
TI - Culture System and Method for Propagation of Human Blastocyst-Derived Stem Cells
AB - The present invention relates to a culture system for and a method for propagation of human blastocyst-derived stem cells (hBS cells) upon enzymatic dissociation into a single cell suspension. The culture system for propagation of human blastocyst-derived stem (hBS) cells comprises i) human feeder cells at a density of at least 50,000 cells/cm², ii) one or more dissociation agents for dissociation of hBS cell colonies into a single cell suspension, and iii) a supportive culture medium, which culture system makes it possible to propagate hBS cells by dissociation of hBS cell colonies into a single cell suspension at each consecutive passage for an extended time period, while maintaining the significant characteristics of hBS cells.

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PN - US2009271335 A1 20091029
PD - 2009-10-29
PA - ADVANCED CELL TECH INC [US]
IN - WEST MICHAEL D [US]; SARGENT R GEOFFREY [US]
TI - Totipotent, Nearly Totipotent or Pluripotent Mammalian Cells Homozygous or Hemizygous for One or More Histocompatibility Antigen Genes
AB - The present invention relates to totipotent, nearly totipotent and pluripotent stem cells that are hemizygous or homozygous for MHC antigens and methods of making and using them. These cells are useful for reduced immunogenicity during transplantation and cell therapy. The cells of the present invention may be assembled into a bank with reduced complexity in the MHC genes.

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PN - US2009263365 A1 20091022
PD - 2009-10-22
PA - OF HEALTH AND HUMAN SERVICES O [US]
IN - HWU PATRICK [US]; REEVES MARK [US]; ROSENBERG STEVEN A [US]
TI - Methods and compositions for transforming dendritic cells and activating cells

AB - Recombinant dendritic cells are made by transforming a stem cell and differentiating the stem cell into a dendritic cell. The resulting dendritic cell is an antigen presenting cell which activates T cells against MHC class I-antigen targets. Kits, assays and therapeutics are based upon the activation of T cells by the recombinant dendritic cell. Cancer, viral infections and parasitic infections are all ameliorated by the recombinant dendritic cells, or corresponding activated T cells. Therapeutic compositions and pharmaceutical compositions are provided.

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PN - US2009264312 A1 20091022
PD - 2009-10-22
IN - TADA TAKASHI [JP]; NAKATSUJI NORIO [JP]; MATSUMURA HIROYUKI [JP]; TADA MASAKO [JP]
TI - METHOD FOR REMOVING DESIRED CHROMOSOME AND TAILOR-MADE MEDICAL TREATMENT UTILIZING THE SAME
AB - It is intended to provide a regenerable cell in which a desired chromosome has been deleted, a method for producing the cell, and a gene cassette and a kit to be used for the method. More particularly, it is intended to obtain an individual corresponding pluripotent stem cell easily and simply. More specifically, it is intended to efficiently establish a cell, tissue or organ that can be a donor for treating a disease without causing immune rejection response, without newly obtaining and establishing a stem cell such as ES cell from the individual, and without using an ovum as a material. It was achieved by a gene cassette in which not two recombinase recognition sites in a cis orientation are inserted, but one recombinase recognition site or two recombinase recognition sites in an opposite orientation is/are inserted and a marker gene is connected, and by application of the gene cassette to a cell fusion technique.

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PN - US2009263835 A1 20091022
PD - 2009-10-22
PA - GERON CORP
IN - STANTON LAWRENCE W [SG]; BRANDENBERGER RALPH [US]; GOLD JOSEPH D [US]; IRVING JOHN M [US]; MANDALAM RAMKUMAR [US]; MOK MICHAEL [US]; SHELTON DAWNE [US]
TI - Genes that are Up- or Down-Regulated During Differentiation of Human Embryonic Stem Cells
AB - Genes that are up- or down-regulated during differentiation provide important leverage by which to characterize and manipulate early-stage pluripotent stem cells. Over 35,000 unique transcripts have been amplified and sequenced from undifferentiated human embryonic stem cells, and three types of differentiated progeny. Statistical analysis of the assembled transcripts identified genes that alter expression levels as differentiation proceeds. The expression profile provides a marker system that has been used to identify particular culture components for maintaining the undifferentiated phenotype. The gene products can also be used to promote differentiation; to assess other relatively undifferentiated cells (such as cancer cells); to control gene expression; or to separate cells having desirable characteristics. Manipulation of particular genes can be used to forestall or focus the differentiation process, en route to producing a specialized homogenous cell population suitable for human therapy.

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PN - US2009263361 A1 20091022
PD - 2009-10-22
IN - LEE JAU-NAN [TW]; LEE TONY TUNG-YING [TW]; LEE YUTA [TW]
TI - HUMAN TROPHOBLAST STEM CELLS AND USE THEREOF
AB - Existence of human trophoblast stem (hTS) cells has been suspected but unproved. The isolation of hTS cells is reported in the early stage of chorionic villi by expressions of FGF4, FGFR-2, Oct4, Thy-1, and stage-specific embryonic antigens distributed in different compartments of the cell. hTS cells are able to derive into specific cell phenotypes of the three primitive embryonic layers, produce chimeric reactions in mice, and retain a normal karyotype and telomere length. In hTS

cells, Oct4 and fgfr-2 expressions can be knockdown by bFGF. These facts suggest that differentiation of the hTS cells play an important role in implantation and placentation. hTS cells could be apply to human cell differentiation and for gene and cell-based therapies.

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PN - US2009263360 A1 20091022
PD - 2009-10-22
PA - UNIV GEORGIA RES FOUNDATION [US]
IN - STICE STEVE [US]; SHIN SOOJUNG [US]; DHARA SUJOY [US]
TI - Neuronal progenitors from feeder-free human embryonic stem cell culture
AB - The present invention relates to methods for producing feeder cell-free neuroprogenitor cells (preferably adherent) from embryonic stems cells, preferably human embryonic stem cells, the feeder cell-free neuroprogenitor cells, preferably human cells themselves, as well as methods for producing feeder cell-free samples of neuronal cells, preferably adherent human neuronal cells and the feeder cell-free neuronal cells themselves. Pharmaceutical compositions and methods of treating neurodegenerative diseases as well as the use of the described cells in assay systems is also described.

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PN - US2009263878 A1 20091022
PD - 2009-10-22
IN - TOTEY SATISH MAHADEORAO [IN]; KASHYAP SUBHADRA DEVI [IN]; ALAM KHAN FIRDOS [IN]; RAJARSHI PAI [IN]; APARNA KHANNA [IN]; SHABRI TIPNIS [IN]; RAVINDRAN GEETA [IN]
TI - Pluripotent embryonic-like stem cells derived from corneal limbus, methods of isolation and uses thereof
AB - The present disclosure describes mammalian pluripotent embryonic-like stem cells (ELSCs) isolated from corneal limbal tissue, a non-embryonic tissue. The ELSCs of the present disclosure are capable of proliferating in an in vitro culture, maintain the potential to differentiate into cells of endoderm, mesoderm, and ectoderm lineage in culture, and are capable of forming embryoid-like bodies when placed in suspension culture. Thus, these cells possess multi-lineage differentiation potential and self-renewing capability. ELSCs may be a promising therapeutic tool, and may provide new therapeutic alternatives for various diseases, conditions, and injuries.

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PN - US2009263896 A1 20091022
PD - 2009-10-22
IN - KELLY OLIVIA [US]; BANG ANNE [US]
TI - METHODS FOR PURIFYING ENDODERM AND PANCREATIC ENDODERM CELLS DERIVED FROM HUMAN EMBRYONIC STEM CELLS
AB - The present disclosure relates to compositions and methods comprising cell surface markers for hES-derived cells, in particular, endoderm lineage cells including pancreatic endoderm-type cells, derived from hES cells.

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PN - US2009258421 A1 20091015
PD - 2009-10-15
PA - ES CELL INTERNAT PTY LTD [SG]
IN - REUBINOFF BENJAMIN EITHAN [IL]; PERA MARTIN FREDERICK [AU]; BEN-HUR TAMIR [IL]
TI - EMBRYONIC STEM CELLS AND NEURAL PROGENITOR CELLS DERIVED THEREFROM
AB - The present invention provides undifferentiated human embryonic stem cells, methods of cultivation and propagation and production of differentiated cells. In particular it relates to the production of human ES cells capable of yielding somatic differentiated cells in vitro, and

committed progenitor cells such as neural progenitor cells capable of giving rise to mature somatic cells including neural cells and/or glial cells and uses thereof. The invention also provides methods that generate in vitro and in vivo models of controlled differentiation of ES cells towards the neural lineage. The model, and the cells that are generated along the pathway of neural differentiation may be used for the study of the cellular and molecular biology of human neural development, for the discovery of genes, growth factors, and differentiation factors that play a role in neural differentiation and regeneration, for drug discovery and for the development of screening assays for teratogenic, toxic and neuroprotective effects.

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PN - WO2009123349 A1 20091008
PD - 2009-10-08
PA - ORIENTAL YEAST CO LTD [JP]; UNIV KYOTO [JP]; YASUDA HISATAKA [JP]; YAMADA MUNEHIRO [JP]; MIYAZAKI KAORU [JP]; TAKAHASHI KAZUTOSHI [JP]
IN - YASUDA HISATAKA [JP]; YAMADA MUNEHIRO [JP]; MIYAZAKI KAORU [JP]; TAKAHASHI KAZUTOSHI [JP]
TI - METHOD FOR PROLIFERATION OF PLURIPOTENT STEM CELL
AB - The object aims to proliferate a pluripotent stem cell efficiently in a system which does not use any animal-derived material such as a feeder cell or a serum. Thus, disclosed is a method for proliferating a pluripotent stem cell, which comprises culturing the pluripotent stem cell in a culture medium containing no feeder cell or serum in a system containing laminin-5.

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PN - WO2009121999 A1 20091008
PD - 2009-10-08
PA - CONSEJO SUPERIOR INVESTIGACION [ES]; FUNDACION PROGRESO Y SALUD [ES]; BARROSO DEL JESUS ALICIA [ES]; MENENDEZ BUJAN PABLO [ES]; LUCENA AGUILAR GEMA [ES]; BERZAL HERRANZ ALFREDO [ES]; ROMERO LOPEZ CRISTINA [ES]
IN - BARROSO DEL JESUS ALICIA [ES]; MENENDEZ BUJAN PABLO [ES]; LUCENA AGUILAR GEMA [ES]; BERZAL HERRANZ ALFREDO [ES]; ROMERO LOPEZ CRISTINA [ES]
TI - SPECIFIC PROMOTER OF STEM CELLS
AB - The authors of the invention have identified the start of transcription of the human gene coding for the cluster miR302-367 and the proximal promoter thereof, demonstrating that the functional activity of said promoter depends on the state of ontogeny and the cellular hierarchy such that it is active during the embryonic development but silent during subsequent states of development. A novel promoter of miRNAs has therefore been identified and characterised, said promoter being the first human promoter of miRNAs, functionally characterised and validated in human stem cells.

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PN - US2009253201 A1 20091008
PD - 2009-10-08
PA - DIACRIN INC [US]
IN - DINSMORE JONATHAN H [US]; RATLIFF JUDSON [US]
TI - Embryonic stem cells capable of differentiating into desired cell lines
AB - An embryonic stem cell which may be induced to differentiate homogeneously into a desired primary cell line. The embryonic stem cell may be engineered with DNA, which encodes a protein or polypeptide which promotes differentiation of the stem cell into a specific cell line, such as, for example, a neuronal cell line, a muscle cell line, or a hematopoietic cell line. The DNA may encode a transcription factor found in the particular cell line. In another alternative, a desired cell line is produced from embryonic stem cells by culturing embryonic stem cells under conditions which provide for a three-dimensional network of embryonic stem cells, and then stimulating embryonic stem cells with an agent, such as retinoic acid, or dimethylsulfoxide, which promotes differentiation of the embryonic stem cells into the desired cell line, such as, for example, a neuronal cell line, or a muscle cell line.

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PN - US2009253157 A1 20091008
PD - 2009-10-08
PA - LIVESTOCK RES INST COUNCIL OF [TW]
IN - YANG JENN-RONG [TW]; CHEN LIH-REN [TW]; SHIUE YOW-LING [TW]; LIAO CHIA-HSIN [TW]
TI - METHOD OF DIRECTED DIFFERENTIATION OF PORCINE EMBRYONIC STEM CELLS AND USING THE SAID CELLS IN DRUG SCREENING
AB - The present invention relates to a method of directed differentiation of porcine embryonic stem cells into specific neural lineages. The present invention also relates to a method for identifying neurogenic stimulator using the said porcine embryonic stem cells.

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PN - GB2458863 A 20091007
PD - 2009-10-07
PA - WISCONSIN ALUMNI RES FOUND [US]
IN - BERGENDAHL VELT [US]; THOMSON JAMES A [US]
TI - Improved culture of stem cells
AB - While culture medium and systems have been described that permit the culture and proliferation of human embryonic stem cells in feeder free and animal product free conditions, these conditions will not readily support cloning of an embryonic stem cell culture meaning, at least here, the initiation of a sub-culture using one or a very few originating cells. It has been found here that a class of small molecules that are inhibitors of kinase enzymes will increase the efficiency of cloning of stem cell cultures sufficiently to make such cloning practical in the defined medium and in other media as well.

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PN - WO2009119105 A1 20091001
PD - 2009-10-01
PA - UNIV TOKYO [JP]; NAKAUCHI HIROMITSU [JP]; ETO KOJI [JP]; NISHIKI-I HIDEKAZU [JP]; TAKAYAMA NAOYA [JP]
IN - NAKAUCHI HIROMITSU [JP]; ETO KOJI [JP]; NISHIKI-I HIDEKAZU [JP]; TAKAYAMA NAOYA [JP]
TI - METHOD FOR IN VITRO PREPARATION OF GPI^ba+GPV+GPVI+PLATELET
AB - Disclosed is a method for maintaining the function of a platelet induced from an ES cell or an iPS cell stably. Specifically disclosed is a method for preparing a platelet, which comprises the following steps (a) to (c): (a) culturing a megakaryocyte progenitor cell on a feeder cell under conditions suitable for the induction of the differentiation of the progenitor cell into a megakaryocyte, wherein the megakaryocyte progenitor cell is a human-derived c-Kit-negative/CD34-positive/integrin α IIb (CD41)-positive/GPIa-negative cell or a human-derived c-Kit-negative/CD34-positive/integrin α IIb (CD41)-positive/GPIa-weakly-positive cell; (b) inducing the reduction or loss of the function of ADAM10 protein and/or ADAM17 protein in the megakaryocyte progenitor cell after the culture in step (a); and (c) further culturing the megakaryocyte progenitor cell obtained after the induction of the reduction or loss of the function of ADAM10 protein and/or ADAM17 protein in step (b) to cause the release of a platelet from the cell.

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PN - WO2009118928 A1 20091001
PD - 2009-10-01
PA - UNIV KYOTO [JP]; YAMASHITA JUN [JP]; YAN PEISHI [JP]
IN - YAMASHITA JUN [JP]; YAN PEISHI [JP]
TI - EFFICIENT PRODUCTION AND USE OF HIGHLY CARIOGENIC PROGENITORS AND CARDIOMYOCYTES FROM EMBRYONIC AND INDUCED PLURIPOTENT STEM CELLS

AB - This invention relates to a method for producing cardiomyocytes and/or cardiac progenitor cells, comprising culturing an induced pluripotent stem (iPS) cell or embryonic stem (ES) cell, which has been differentiated into a mesoderm cell, in the presence of cyclosporin-A.

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PN - WO2009118524 A2 20091001
PD - 2009-10-01
PA - ITI SCOTLAND LTD [GB]; SEIBLER JOST [DE]; SCHEER NICO [DE]
IN - SEIBLER JOST [DE]; SCHEER NICO [DE]
TI - EFFICIENT INSERTION OF DNA INTO EMBRYONIC STEM CELLS
AB - The present invention relates, in general, to a method for introducing a heterologous replacement gene sequence into a host embryonic stem cell to replace an endogenous host gene target sequence. In particular, the invention relates to a method for inserting large pieces of DNA into embryonic stem cells with improved efficiency, by first deleting the endogenous host gene target sequence, and subsequently utilising two proximally positioned site-specific recombinase target (RT) sites to insert a heterologous replacement gene sequence into the host chromosome.

EPODOC / EPO

PN - US2009246871 A1 20091001
PD - 2009-10-01
PA - NOF CORP [JP]
IN - KUROSAWA HIROSHI [JP]; SAKAKI SHUJIRO [JP]
TI - CONTAINER FOR GERM LAYER FORMATION AND METHOD OF FORMING GERM LAYER
AB - The invention relates to a vessel for embryoid formation used for forming embryoid bodies from ES cells easily without complicated technique, and to a method for forming embryoid bodies easily and efficiently using the vessel. The method includes the steps of (A) providing a vessel for embryoid formation having a coating layer formed from a compound having a particular PC-like group on a vessel surface defining a region for floating culture of ES cells, and (B) floating culturing ES cells in the vessel to form embryoid bodies.

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PN - GB2458429 A 20090923
PD - 2009-09-23
PA - CELLARTIS AB [SE]
IN - STREHL RAIMUND [SE]; UDDENBERG KATARINA [SE]; WESSBERG FREDRIK [SE]; HYLLNER SVEN JOHAN [SE]
TI - Novel mesenchymal progenitor cells derived from human blastocyst-derived stem cells
AB - The present invention relates to a novel mesenchymal human progenitor (hBS- MP) cell population derived from human blastocyst-derived stem (hBS) cells and the method to obtain the progenitor cell population in which is eliminated the need of co-culture steps, cell sorting, manual selection, and transfections. Furthermore, the present invention relates to the use of the hBS-MP cells in drug discovery and specifically for toxicity testings as well as for therapeutic use.

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PN - US2009239298 A1 20090924
PD - 2009-09-24
PA - TECHNION RES & DEV FOUNDATION [IL]; UNIV BEN GURION [IL]
IN - GERECHT SHARON [US]; COHEN SMADAR [IL]; ITSKOVITZ-ELDOR JOSEPH [IL]
TI - Methods of generating embryoid bodies using three dimensional scaffolds
AB - A method of generating embryoid bodies is provided. The method comprising culturing undifferentiated embryonic stem cells on a three dimensional scaffold under conditions suitable for formation of embryoid bodies, thereby generating the embryoid bodies.

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PN - US2009239305 A1 20090924
PD - 2009-09-24
IN - ZHANG SU-CHUN [US]; DU ZHONG-WEI [US]
TI - Gene recombination exchange system for stable gene modification in human ES cells
AB - A method of creating a human pluripotent transgenic stem cell, wherein heterologous DNA is inserted into specific "hot-spots" in the genome where stable and high gene expression may occur, is disclosed. In one embodiment, the method comprises the steps of: (a) selecting a pluripotent stem cell line, and (b) inserting heterologous DNA at an insertion site selected from the group consisting of insertion site one and insertion site two to form a transgenic cell line. In another embodiment, the heterologous DNA is an exchange cassette and the transgenic cell line formed is a master cell line.

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PN - WO2009116893 A1 20090924
PD - 2009-09-24
PA - OBSHHESTVO S OGRANICHENNOJJ OT [RU]; KISELJOV SERGEJJ L VOVICH [RU]; LAGAR KOVA MARIJA ANDREEVNA [RU]
IN - KISELJOV SERGEJJ L VOVICH [RU]; LAGAR KOVA MARIJA ANDREEVNA [RU]
TI - METHOD FOR PRODUCING ENDOTHELIAL CELLS (VARIANTS)
AB - The invention relates to bioengineering, in particular to producing endothelial cells from human embryonal stem cells and to the use thereof. The inventive method for producing endothelial cells from human embryonal stem cells involves differentiating human embryonal stem cells on a substrate and in a synthetic medium which provide the oriented direct differentiation of human embryonal stem cells into endothelial cells based on the mixture of DMEM/F12 and a KO serum substitute having VEGF, SCF, BMP4, bFGF and TGFbeta growth factors and taken in effective quantities, wherein TGFbeta is added on 3rd-6th day of differentiation. A differentiation medium based on the mixture of DMEM/F12 with fetal bovine serum having VEGF, SCF and bFGF growth factors can be also used. The separation is carried out on 3rd-9th day according to an immunological selection method using markers specific for endothelial cells and, afterwards, the thus produced endothelial cells are cultivated in the above-mentioned medium with an inoculum density which is equal to or greater than 50 000 cells per 1cm².

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PN - US2009232779 A1 20090917
PD - 2009-09-17
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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PN - EP2100954 A1 20090916
PD - 2009-09-16
PA - ASSIST PUBL HOPITAUX DE PARIS [FR]
IN - MENASCHE PHILIPPE [FR]; PUCEAT MICHEL [FR]; LARGHERO JEROME [FR]

TI - Method for generating primate cardiac progenitor cells for clinical use from primate embryonic stem cells, and their applications
AB - The present invention is directed to a method for the in vitro preparation of cardiac progenitors cells from primate embryonic stem cells (ES cells) wherein said method comprises the use of the CD15 (SSEA1) marker as a positive cardiac progenitors differentiation marker. The present invention also claimed the use of a receptor tyrosine kinase inhibitor, particularly the SU5402 or SU11248 in association with the BMP2 for improving the efficiency of the desired differentiation. The present invention is also directed to the use of platelet lysate as foetal animal serum substitute in a culture medium intended to the proliferation or propagation of primate ES cells maintaining their pluripotency feature. Derived compositions or kits in relation with the claimed methods or product obtainable by the claimed methods form also part of the present invention.

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PN - US2009226508 A1 20090910
PD - 2009-09-10
IN - EATON JOHN W [US]; MITCHELI ROBERT A [US]
TI - Methods And Materials For Immunization Against Cancer
AB - Disclosed are compositions comprising embryonic stem cells. In some embodiments, the compositions include a plurality of pluripotent cells and one or more pharmaceutically acceptable carriers or excipients. Also disclosed are methods for pro-phylaxis and/or treatment of subjects using the disclosed compositions, and methods for identifying an antigen shared by a pluripotent cell and a neoplastic or pre-neoplastic cell.

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PN - WO2009105882 A1 20090903
PD - 2009-09-03
PA - HOSPITAL FOR SICK CHILDREN [CA]; ELLIS JAMES [CA]; HOTTA AKITSU [CA]
IN - ELLIS JAMES [CA]; HOTTA AKITSU [CA]
TI - STEM CELL EXPRESSION CASSETTES
AB - A stem cell expression cassette, comprising a nucleic acid comprising a pluripotent stem cell specific promoter, and a tag sequence, wherein the pluripotent stem cell specific promoter and tag sequences are operatively linked, is provided. Also provided are methods of identifying and methods of selecting a pluripotent cell, using the stem cell expression cassette.

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PN - GB2457832 A 20090902
PD - 2009-09-02
PA - CELLARTIS AB [SE]
IN - ALDER SARAH [SE]; 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 - EP2094835 A1 20090902
PD - 2009-09-02
PA - STEM CELL SCIENCES UK LTD [GB]
IN - MEE PATRICK JOSEPH [GB]; BRADBURN HELEN MARY [GB]
TI - PLURIPOTENT CELL GROWTH MEDIA

AB - Self renewal of pluripotent cells in culture is promoted using a serum-free medium which, inter alia, comprises insulin and progesterone and has an osmolarity of 260 - 270 Osm/kg.

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PN - EP2094834 A2 20090902
PD - 2009-09-02
PA - CAMBRIDGE ENTPR LTD [GB]
IN - PEDERSEN ROGER [GB]; VALLIER LUDOVIC [GB]; BRONE GABRIELLE [GB]
TI - PLURIPOTENT CELLS FROM THE MAMMALIAN LATE EPIBLAST LAYER
AB - This invention relates to the isolation and propagation of pluripotent cells isolated from the mammalian late epiblast layer, termed Epiblast Stem Cells' (EpiSCs). These cells are useful in a range of applications, including the generation of transgenic animal species.

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PN - EP2094833 A2 20090902
PD - 2009-09-02
PA - CAMBRIDGE ENTPR LTD [GB]
IN - PEDERSEN ROGER [GB]; VALLIER LUDOVIC [GB]
TI - DIFFERENTIATION OF PLURIPOTENT CELLS INTO PRIMARY GERM LAYER
PROGENITORS
AB - This invention relates to the culture of pluripotent cells in a fully humanised chemically defined medium. Cells may be cultured over a prolonged period of time without losing their pluripotent status or may be controllably induced to differentiate into progenitor cells of the three primary germ layers by the addition of differentiation factors, for example differentiation factors which modulate one or more of the Activin/Nodal, FGF, Wnt or BMP signalling pathways.

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PN - WO2009114400 A1 20090917
PD - 2009-09-17
PA - REGENERON PHARMA [US]; POUEYMIROU WILLIAM [US]; DECHIARA THOMAS M [US]; AUERBACH WOJTEK [US]; ECONOMIDES ARIS N [US]; GALE NICHOLAS W [US]; FRENDEWEY DAVID [US]; VALENZUELA DAVID M [US]
IN - POUEYMIROU WILLIAM [US]; DECHIARA THOMAS M [US]; AUERBACH WOJTEK [US]; ECONOMIDES ARIS N [US]; GALE NICHOLAS W [US]; FRENDEWEY DAVID [US]; VALENZUELA DAVID M [US]
TI - ES CELL-DERIVED MICE FROM DIPLOID HOST EMBRYO INJECTION
AB - Genetically modified mice and nucleic acid constructs for making the genetically modified mice are described. A first mouse having a gene encoding an activator (such as a Cre recombinase) operably linked to a developmentally-regulated promoter (such as a Nanog promoter) is provided. A second mouse having a toxic responder gene (such as a gene encoding diphtheria toxin A) is provided, where the toxic gene is expressed only in the presence of an activator. Embryos from a mating of the first and the second mouse are provided as host embryos suitable for generating mice from donor cells introduced into the host embryos. Ablating the ICM of a mouse embryo physically, chemically, or genetically is described, as well as making FO generation mice that are substantially or in full derived from donor cells, employing a host mouse embryo with an ablated or nonproliferating ICM.

INDUCED EMBRYONIC STEM CELLS/ DEDIFFERENTIATION OF CELLS- 20 Documents

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PN - US2009269763 A1 20091029
PD - 2009-10-29
PA - NUPOTENTIAL INC [US]
IN - EILERTSEN KENNETH J [US]; POWER RACHEL A [US]; RIM JONG S [US]

TI - Reprogramming a cell by inducing a pluripotent gene through RNA interference
AB - The invention relate to methods, compositions, and kits for reprogramming a cell. In one embodiment, the invention relates to a method for inducing the expression of at least one gene that contributes to a cell being pluripotent or multipotent. In yet another embodiment, the method comprises inhibiting the expression of a gene that codes for a protein involved in transcriptional repression. In yet another embodiment, the invention relates to a reprogrammed cell or an enriched population of reprogrammed cells that can have characteristics of an ES-like cell, which can be re- or trans-differentiated into a differentiated cell type.

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PN - WO2009131262 A1 20091029
PD - 2009-10-29
PA - MIRAE BIOTECH CO LTD [KR]; PARK SE PILL [KR]; KIM EUN YOUNG [KR]; JEON KILSOO [KR]
IN - PARK SE PILL [KR]; KIM EUN YOUNG [KR]; JEON KILSOO [KR]
TI - METHOD OF MANUFACTURING INDUCED PLURIPOTENT STEM CELL ORIGINATED FROM HUMAN SOMATIC CELL
AB - Disclosed is a method for manufacturing stem cells including preparing Oct-4 gene, Sox2 gene, Nanog gene, and fourth gene from human 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 human 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 - US2009263357 A1 20091022
PD - 2009-10-22
PA - PRIMEGEN BIOTECH LLC [US]
IN - SAYRE CHAUNCEY B [US]; SILVA FRANCISCO J [US]
TI - Therapeutic Reprogramming, Hybrid Stem Cells and Maturation
AB - Therapeutically programmed cells and methods for making such cells are provided. Therapeutically programmed cells are stem cells which have been matured such that they represent either a more differentiated state or a less differentiated state after contact with stimulatory factors. The therapeutically reprogrammed cells are suitable for cellular regenerative therapy and have the potential to differentiate into more committed cell lineages. Additionally, hybrid stem cells suitable for therapeutic reprogramming and cellular regenerative therapy are provided.

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PN - US2009253203 A1 20091008
PD - 2009-10-08
PA - NUPOTENTIAL INC [US]
IN - EILERTSEN KENNETH J [US]; POWER RACHEL A [US]
TI - Reprogramming a Cell by Inducing a Pluripotent Gene Through Use of a Small Molecule Modulator
AB - The invention relate to methods, compositions, and kits for reprogramming a cell. In one embodiment, the invention relates to a method comprising inducing the expression of at least one gene that contributes to a cell being pluripotent or multipotent. In yet another embodiment, the method comprises exposing a cell to a small molecule modulator that induces the expression of at least one gene that contributes to a cell being pluripotent or multipotent. In yet another embodiment, the invention relates to a reprogrammed cell and an enriched population of reprogrammed cells that can have characteristics of an ES-like cell can be re- or trans-differentiated into various differentiated cell types.

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PN - WO2009122747 A1 20091008
PD - 2009-10-08
PA - UNIV TOKYO [JP]; UNIV KYOTO [JP]; NAKAUCHI HIROMITSU [JP]; ETO KOJI [JP]; NISHIKI-I HIDEKAZU [JP]; TAKAYAMA NAOYA [JP]; YAMANAKA SHINYA [JP]; TAKAHASHI KAZUTOSHI [JP]
IN - NAKAUCHI HIROMITSU [JP]; ETO KOJI [JP]; NISHIKI-I HIDEKAZU [JP]; TAKAYAMA NAOYA [JP]; YAMANAKA SHINYA [JP]; TAKAHASHI KAZUTOSHI [JP]
TI - METHOD FOR PREPARATION OF PLATELET FROM IPS CELL
AB - Disclosed is a method for preparing a blood cell such as a mature megakaryocyte and a platelet from an iPS cell efficiently by using an in vitro culture system. Specifically disclosed is a net-like structure having a hematopoietic progenitor cell enclosed therein, which is produced by seeding an iPS cell on a feeder cell and culturing the iPS cell under the conditions suitable for the induction of the differentiation of the iPS cell into the hematopoietic progenitor cell. Also specifically disclosed is a method for producing a blood cell by culturing the hematopoietic progenitor cell enclosed in the net-like structure under the conditions suitable for the induction of the differentiation of the hematopoietic progenitor cell into the blood cell. Further specifically disclosed is a method for producing a blood cell, particularly a megakaryocyte or a platelet, without using the net-like structure.

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PN - US2009252711 A1 20091008
PD - 2009-10-08
IN - BOQUEST ANDREW CRAIG [AU]; COLLAS PHILLIPE [NO]
TI - Stem Cells And Methods Of Making And Using Stem Cells
AB - The invention provides a method of making a pluripotent stem cell from a cell that is not pluripotent, such as from a differentiated stem cell or a lineage-restricted stem cell. The methods comprise culturing the starting cell in the presence of one or more epigenetic altering agents, such as a histone deacetylase inhibitor and/or a DNA methyltransferase inhibitor. Pluripotent stem cells are also provided, as are methods of treating or preventing a disease, disorder, or condition in a mammal using the cells.

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PN - US2009246875 A1 20091001
PD - 2009-10-01
PA - UNIV KYOTO [JP]
IN - YAMANAKA SHINYA [JP]; KOYANAGI MICHIO [JP]
TI - Efficient method for nuclear reprogramming
AB - This relates to a method of preparing induced pluripotent stem cells, comprising a nuclear reprogramming step with a nuclear reprogramming factor in the presence of miRNA, wherein said miRNA has a property of providing a higher nuclear reprogramming efficiency in the presence of said miRNA than in the absence thereof.

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PN - US2009246870 A1 20091001
PD - 2009-10-01
IN - YOU SEUNGKWON [KR]; MOON JAI HEE [KR]; YOON BYUNG SUN [KR]; KIM KI DONG [KR]; PARK GYUMAN [KR]; YOO SEUNG JUN [KR]; JUN EUN KYUNG [KR]; KIM BONA [KR]; KWAK SUNG SIK [KR]; MAENG ISAAC [KR]
TI - DE-DIFFERENTIATION OF ASTROCYTES INTO NEURAL STEM CELL USING NANOG
AB - Disclosed are a composition and a method for inducing the de-differentiation of astrocytes into neural stem cells using Nanog. The de-differentiated neural stem cells have the ability to differentiate into astrocytes, neurons, or oligodendrocytes.

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PN - WO2009117439 A2 20090924
PD - 2009-09-24
PA - SCRIPPS RESEARCH INST [US]; SHI YAN [US]; DESPONTS CAROLINE [US];
DING SHENG [US]
IN - SHI YAN [US]; DESPONTS CAROLINE [US]; DING SHENG [US]
TI - COMBINED CHEMICAL AND GENETIC APPROACHES FOR GENERATION OF
INDUCED PLURIPOTENT STEM CELLS
AB - The present invention provides for identification and use of small molecules to induce pluripotency in mammalian cells as well as other methods of inducing pluripotency.

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PN - US2009239295 A1 20090924
PD - 2009-09-24
IN - KREMER BERND KARL FRIEDRICH [DE]; FANDRICH FRED [DE]; RUHNKE
MAREN NEE SCHULZE [DE]
TI - Dedifferentiated, Programmable Stem Cells of Monocytic Origin, and Their
Production and Use
AB - The invention relates to the production of adult dedifferentiated, programmable stem cells from human monocytes by cultivation of monocytes in a culture medium which contains M-CSF and IL-3. The invention further relates to pharmaceutical preparations, which contain the dedifferentiated, programmable stem cells and the use of these stem cells for the production of target cells and target tissue.

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PN - WO2009115295 A1 20090924
PD - 2009-09-24
PA - HELMHOLTZ ZENTRUM MUENCHEN DEU [DE]; KUEHN RALF [DE]; WURST
WOLFGANG [DE]
IN - KUEHN RALF [DE]; WURST WOLFGANG [DE]
TI - VECTORS AND METHODS FOR GENERATING VECTOR-FREE INDUCED
PLURIPOTENT STEM (IPS) CELLS USING SITE-SPECIFIC RECOMBINATION
AB - The present invention relates to a DNA molecule comprising: (a) a first DNA sequence comprising: (aa) a coding sequence giving rise upon transcription to a factor that contributes to the reprogramming of a somatic cell into an induced pluripotent stem (iPS) cell; (ab) a promoter mediating the transcription of said coding sequence; and (ac) two sequence motifs that mediate excision of (aa) and/or (ab) from the DNA molecule, wherein one sequence motif is positioned 5' and the other sequence motif is positioned 3' of the sequence to be excised; (b) a second DNA sequence comprising a sequence motif that mediates site-specific integration of (a) into another DNA molecule. Further, the invention relates to DNA molecule comprising: (a) a first DNA sequence comprising: (aa) a coding sequence giving rise upon transcription to a factor that contributes to the reprogramming of a somatic cell into an induced pluripotent stem cell; and (ab) a promoter mediating the transcription of said coding sequence; (b) a second DNA sequence comprising: (ba) a sequence motif that mediates extrachromosomal self-replication of the DNA-molecule; and (bb) two sequence motifs that mediate excision of at least said sequence motif of (ba) from the second DNA sequence (b), wherein one sequence motif is located 5' of (ba) and the other sequence motif 3' of (ba). Also, the invention relates to a vector comprising the DNA molecule of the invention, a method for assembly of said vector and a somatic cell comprising said DNA molecule or said vector of the invention. Furthermore, the invention relates to methods to generate an induced pluripotent stem (iPS) cell, an induced pluripotent stem cell obtainable by said methods, to a kit comprising the DNA molecule of the invention, to a cell line or cell culture collection comprising the induced pluripotent stem cell of the invention, to the use of said cell or cell line as a research tool, to a method to generate a transgenic non-human animal and to a non-human animal generated by said method. Finally, the invention relates to a composition for gene therapy, regenerative medicine, cell therapy or drug screening.

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PN - WO2009114949 A1 20090924
PD - 2009-09-24
PA - UNIV LAVAL [CA]; SIRARD MARC-ANDRE [CA]; PENNETIER SOPHIE [FR]; SYLVESTRE EVE-LYNE [CA]; VALLEE MAUD [CA]
IN - SIRARD MARC-ANDRE [CA]; PENNETIER SOPHIE [FR]; SYLVESTRE EVE-LYNE [CA]; VALLEE MAUD [CA]
TI - METHODS FOR DEPROGRAMMING SOMATIC CELLS AND USES THEREOF
AB - The invention is concerned with methods for remodeling cell chromatin and with methods of obtaining pluripotent, multipotent and/or unipotent cells. The methods comprise contacting somatic cells with at least one polynucleotide encoding an oocyte-deprogramming polypeptide. Expression of an oocyte-deprogramming polypeptide in the somatic cell modifies the DNA of the somatic cell, modifies the chromatin of the somatic cell and/or remodels its chromatin. Also described are methods for deprogramming a somatic cell, and methods for conditioning somatic cells to differentiation into a pluripotent, multipotent or unipotent cell. In addition, the invention encompasses cells and cell lines obtained according to these different methods.

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PN - EP2103685 A1 20090923
PD - 2009-09-23
PA - HELMHOLTZ ZENTRUM MUENCHEN DEU [DE]
TI - Vectors and methods for generating vector-free induced pluripotent stem (iPS) cells using site-specific recombination
AB - The present invention relates to a DNA molecule comprising: (a) a first DNA sequence comprising: (aa) a coding sequence giving rise upon transcription to a factor that contributes to the reprogramming of a somatic cell into an induced pluripotent stem (iPS) cell; (ab) a promoter mediating the transcription of said coding sequence; and (ac) two sequence motifs that mediate excision of (aa) and/or (ab) from the DNA molecule, wherein one sequence motif is positioned 5' and the other sequence motif is positioned 3' of the sequence to be excised; (b) a second DNA sequence comprising a sequence motif that mediates site-specific integration of (a) into another DNA molecule. Further, the invention relates to DNA molecule comprising: (a) a first DNA sequence comprising: (aa) a coding sequence giving rise upon transcription to a factor that contributes to the reprogramming of a somatic cell into an induced pluripotent stem cell; and (ab) a promoter mediating the transcription of said coding sequence; (b) a second DNA sequence comprising: (ba) a sequence motif that mediates extrachromosomal self-replication of the DNA-molecule; and (bb) two sequence motifs that mediate excision of at least said sequence motif of (ba) from the second DNA sequence (b), wherein one sequence motif is located 5' of (ba) and the other sequence motif 3' of (ba). Also, the invention relates to a vector comprising the DNA molecule of the invention, a method for assembly of said vector and a somatic cell comprising said DNA molecule or said vector of the invention. Furthermore, the invention relates to methods to generate an induced pluripotent stem (iPS) cell, an induced pluripotent stem cell obtainable by said methods, to a kit comprising the DNA molecule of the invention, to a cell line or cell culture collection comprising the induced pluripotent stem cell of the invention, to the use of said cell or cell line as a research tool, to a method to generate a transgenic non-human animal and to a non-human animal generated by said method. Finally, the invention relates to a composition for gene therapy, regenerative medicine, cell therapy or drug screening.

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PN - US2009227469 A1 20090910
PD - 2009-09-10
IN - CONKLIN BRUCE R [US]; AALTO-SETALA KATRIINA [FI]
TI - CELLS AND ASSAYS FOR USE IN DETECTING LONG QT SYNDROME
AB - The present disclosure provides induced pluripotent stem (iPS) cells, and induced multipotent stem (iMS) cells, and progeny thereof, which cells include a gene encoding a polypeptide that regulates the QT interval. The present disclosure further provides panels of cardiomyocytes suitable for use in screening compounds for an effect on the QT interval. The cells and panels of cells can be used in a variety of applications, which are also provided.

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PN - WO2009111087 A1 20090911
PD - 2009-09-11
PA - WORCESTER POLYTECH INST [US]; PAGE RAYMOND L [US]; DOMINKO TANJA [US]
IN - PAGE RAYMOND L [US]; DOMINKO TANJA [US]
TI - NOVEL USE OF BASIC FIBROBLAST GROWTH FACTOR IN THE DE-DIFFERENTIATION OF ANIMAL CONNECTIVE TISSUE CELLS
AB - De-differentiation protocols are described herein for generating progenitor cells from adult connective tissue, in particular adult human fibroblasts. The de-differentiation protocols described herein comprise culturing the differentiated cells with an amount of FGF2 to de-differentiate the cells. These de-differentiated cells may then be cultured and used for experimentation, amplification and clinical applications. The clinical applications include the use of the cells for tissue and cell based

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PN - WO2009110113 A1 20090911
PD - 2009-09-11
PA - UNIV KEIO [JP]; UNIV KYOTO [JP]; OKANO HIDEYUKI [JP]; NAKAMURA MASAYA [JP]; TSUJI OSAHIKO [JP]; YAMANAKA SHINYA [JP]; MIURA KYOKO [JP]
IN - OKANO HIDEYUKI [JP]; NAKAMURA MASAYA [JP]; TSUJI OSAHIKO [JP]; YAMANAKA SHINYA [JP]; MIURA KYOKO [JP]
TI - THERAPEUTIC AGENT FOR NERVE INJURY AND METHOD FOR TREATING NERVE INJURY
AB - It is intended to provide a therapeutic agent for nerve injury and a method for treating nerve injury. One embodiment is a method for treating nerve injury comprising administering a therapeutic agent for nerve injury containing differentiated cell-derived pluripotent stem cells obtained by forcibly expressing initialized genes such as a combination of Oct3/4 gene, Sox2 gene, Klf4 gene, and c-myc gene in differentiated cells or cells obtained by inducing differentiation of the differentiated cell-derived pluripotent stem cells into embryoid bodies or neurospheres to a patient with nerve injury.

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PN - US2009227032 A1 20090910
PD - 2009-09-10
PA - UNIV KYOTO [JP]
IN - YAMANAKA SHINYA [JP]; TAKAHASHI KAZUTOSHI [JP]; NAKAGAWA MASATO [JP]
TI - Nuclear reprogramming factor and induced pluripotent stem cells
AB - The present invention relates to a nuclear reprogramming factor having an action of reprogramming a differentiated somatic cell to derive an induced pluripotent stem (iPS) cell. The present invention also relates to the aforementioned iPS cells, methods of generating and maintaining iPS cells, and methods of using iPS cells, including screening and testing methods as well as methods of stem cell therapy. The present invention also relates to somatic cells derived by inducing differentiation of the aforementioned iPS cells.

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PN - US2009227023 A1 20090910
PD - 2009-09-10
IN - YOU SEUNGKWON [KR]; MOON JAI HEE [KR]; YOON BYUNG SUN [KR]; KIM KI DONG [KR]; PARK GYUMAN [KR]; YOO SEUNG JUN [KR]; JUN EUN KYUNG [KR]; KIM BONA [KR]; KWAK SUNG SIK [KR]; MAENG ISAAC [KR]
TI - DE-DIFFERENTIATION OF ASTROCYTES INTO NEURAL STEM CELL USING Shh

AB - Disclosed are a composition and a method for inducing the de-differentiation of astrocytes into neural stem cells using Shh. The de-differentiated neural stem cells have the ability to differentiate into astrocytes, neurons, and oligodendrocytes.

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PN - US2009228105 A1 20090910
PD - 2009-09-10
IN - SON YOUNG SOOK [KR]; LEE JUNG SUN [KR]; LEE EUN KYUNG [KR]; LEE JIN YEON [KR]
TI - ARTIFICIAL CARTILAGE CONTAINING CHONDROCYTES OBTAINED FROM COSTAL CARTILAGE AND PREPARATION PROCESS THEREOF
AB - The present invention relates to an artificial cartilage containing mesenchymal stem cell (MSC)-like dedifferentiated cells obtained by passage culturing costal chondrocytes, and a preparation process thereof.

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PN - EP2096169 A1 20090902
PD - 2009-09-02
PA - UNIV KYOTO [JP]
IN - YAMANAKA SHINYA [JP]; TAKAHASHI KAZUTOSHI [JP]; NAKAGAWA MASATO [JP]
TI - NUCLEAR REPROGRAMMING METHOD
AB - A process for effectively generating safe induced pluripotent stem cells from somatic cells, comprising the step of introducing the following three genes: Oct family gene, Klf family gene, and Sox family gene into somatic cells, or the step of introducing a combination of the following two genes: Oct family gene and Sox family gene or a combination of the following two genes: Oct family gene and Klf family gene, and at least one kind of genes selected from the following three genes: L-Myc, Sall1, and Sall4 into somatic cells.

GRANTED PATENTS- PUBLISHED "B" SPECS

ADULT STEM CELLS- 19 Documents

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PN - US7601534 B1
GRANTED- 2009-10-13
PA - CENTRE NAT RECH SCIENT [FR]
IN - HATZFELD JACQUES ALEXANDRE [FR]; HATZFELD ANTOINETTE [FR]
TI - Method for multiplying stem cells
AB - The use of a cellular development inhibitor in a controlled manner in order to maintain an undifferentiated stem cell state, especially one of human stem cells, whereby cell division is permitted.

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PNFP - GB2441268 B 20091021
GRANTED- 2009-10-21
PA - PURDUE RESEARCH FOUNDATION [US]
IN - VOYTIK-HARBIN SHERRY L [US]; WAISNER BEVERLY Z [US]
TI - Engineered extracellular matrices control stem cell behavior
AB - A composition for culturing stem cells is provided. The composition comprises an engineered purified collagen based matrix that has been formed under controlled conditions to have the desired microstructure and mechanical properties. The engineered purified collagen based matrix

compositions of the present invention can be used alone or in combination with cells as a tissue graft construct to enhance the repair of damaged or diseased tissues.

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PNFP - US7592174 B2 20090922
GRANTED- 2009-09-22
PA - UNIV LELAND STANFORD JUNIOR [US]
IN - SYLVESTER KARL G [US]; TATARIA MONIKA [US]; AILLES LAURIE [US];
WEISSMAN IRVING L [US]
TI - Isolation of mesenchymal stem cells
AB - Methods and compositions are provided for the identification and isolation of mammalian mesenchymal stem cells. The methods of the invention provide a means to obtain substantially homogeneous MSC populations. In some embodiments, the homogeneous MSC composition is stable in non-differentiating culture conditions, where the proportion of cells in the composition that have an MSC phenotype are maintained over multiple passages.

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PNFP - US7585892 B2 20090908
GRANTED- 2009-09-08
PA - NATUREWISE BIOTECH & MEDICALS [TW]
IN - HUANG CHUNG-YANG [TW]; CHEN CHIA-NAN [TW]; HO WAN-ZO [TW]
TI - Compound for promoting the growth of neural cells
AB - Disclosed is a compound capable of promoting the growth and development of neurons, the proliferation of neural stem cells and inducing the neural stem cells to differentiate into neurons, which is represented by a general formula as (I). The compound of the present invention can increase the survival rate of neural cells even at a low cellular density in a culture medium. The compound of the present invention can also promote the growth of neurons, which is revealed by the increase in the thickness, length and number of branches in the neurites (neural fibers). In addition, the compound of the present invention can be used to promote the development of neural stem cells and induce them to differentiate into neurons.

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PNFP - US7582477 B2 20090901
GRANTED- 2009-09-01
IN - HAN HOON [KR]; KIM SUNG-WHAN [KR]
TI - Method of isolating and culturing mesenchymal stem cell derived from cryopreserved umbilical cord blood
AB - The present invention relates to a method of isolating and culturing mesenchymal stem cells using cryopreserved umbilical cord blood that is most ideal for cell therapy. The method comprises thawing cryopreserved umbilical cord blood and adding alphaMEM (alpha-minimum essential medium) thereto, followed by centrifugation to harvest monocytes; isolating CD133 positive cells from the obtained monocytes; and subjecting the isolated cells into suspension culture in the alphaMEM containing Stem Cell Factor, GM-CSF (granulocyte-macrophage colony-stimulating factor), G-CSF (granulocyte colony-stimulating factor), IL-3 (interleukin-3) and IL-6 (interleukin-6).

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PNFP - US7592003 B2 20090922
GRANTED- 2009-09-22
PA - OKLAHOMA MED RES FOUND [US]
IN - NAGAI YOSHINORI [JP]; KINCADE PAUL W [US]
TI - Regulation of Toll-Like Receptors on Stem Cells
AB - The discovery of Toll-like receptors (TLRs) on the surface of hematopoietic cells provides new methods for the stimulation and differentiation of various classes of progenitor cells. TLR2 and TLR4 agonists (natural ligands, mimetics, antibodies) are particularly useful in these methods. The cells can be isolated and used for various purpose including tissue regeneration and

grafting. In contrast, antagonists of TLRs can be used to protect cells from various insults such as chemo- and radiotherapy, acute and chronic infection, and transplantation by inhibiting activation and differentiation. TLR2, TLR4 and TLR9 pathway antagonists (soluble TLR, mimetics, antibodies) are particularly useful in these methods. Cells can be isolated and used for various purposes including transplantation.

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PNFP - US7597883 B2 20091006
GRANTED- 2009-10-06
PA - ZYMOGENETICS INC [US]
IN - HART CHARLES E [US]; GILBERTSON DEBRA G [US]
TI - METHODS FOR PROMOTING GROWTH OF BONE, LIGAMENT, AND CARTILAGE
AB - Methods for promoting growth of bone, ligament, or cartilage in a mammal are disclosed. The methods comprise administering to said mammal a composition comprising a pharmacologically effective amount of a zveg3 protein in combination with a pharmaceutically acceptable delivery vehicle. Also disclosed are methods for promoting proliferation or differentiation of osteoblasts, osteoclasts, chondrocytes, or bone marrow stem cells comprising culturing the cells in an effective amount of a zveg3 protein.

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PNFP - US7595194 B2 20090929
GRANTED- 2009-09-29
PA - UNIV UTAH RES FOUND [US]
IN - RAO MAHENDRA S [US]; MAYER-PROSCHEL MARGOT [US]
TI - Generation, characterization, and isolation of neuroepithelial stem cells and lineage restricted intermediate precursor
- Isolation of mammalian CNS glial-restricted precursor cells
AB - Multipotent neuroepithelial stem cells and lineage-restricted oligodendrocyte-astrocyte precursor cells are described. The neuroepithelial stem cells are capable of self-renewal and of differentiation into neurons, astrocytes, and oligodendrocytes. The oligodendrocyte-astrocyte precursor cells are derived from neuroepithelial stem cells, are capable of self-renewal, and can differentiate into oligodendrocytes and astrocytes, but not neurons. Methods of generating, isolating, and culturing such neuroepithelial stem cells and oligodendrocyte-astrocyte precursor cells are also disclosed.

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PNFP - EP1677606 B1 20091014
GRANTED- 2009-10-14
PA - ANTICANCER INC [US]
IN - AMO YASUYUKI [US]; LI LINGNA [US]; YANG MENG [US]; JIANG PING [US]
TI - ANGIOGENESIS MODELS USING NESTIN-EXPRESSING STEM CELLS TO IMAGE NASCENT BLOOD VESSELS
AB - The disclosed invention relates to the observation that nestin expression is a marker for endothelial cell proliferation. Nestin expression is particularly useful as a marker for angiogenesis, particularly for tumor-related angiogenesis. Specifically, nestin serves as an excellent endothelium marker for brain tumors such as gliomas, hemangioblastomas, Schwannomas, medulloblastomas, and meningiomas. Accordingly, the disclosed invention relates to the use of this marker as a basis to model angiogenic activity.

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PNFP - US7604993 B2 20091020
GRANTED- 2009-10-20
PA - STEM CELL THERAPEUTICS INC
IN - THOMPSON BRADLEY G [CA]; WEISS SAMUEL [CA]; SHINGO TETSURO [JP]
TI - Combined regulation of neural cell production

AB - This invention relates to a method of selectively producing neural cells, including neurons or glial cells, in vitro or in vivo. Also provided are methods of treating or ameliorating neurodegenerative disease or medical conditions by producing neural cells. Thus, a combination of factors is used to achieve two steps: increasing the number of neural stem cells and instructing the neural stem cells to selectively become neurons or glial cells.

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PNFP - US7588938 B2 20090915
GRANTED- 2009-09-15
PA - US NAVY [US]
IN - MA WU [US]
TI - Neural stem cell-collagen-bioreactor system to construct a functional embryonic brain-like tissue
AB - A method of generating tissue from stem and progenitor cells is disclosed. Primary mammalian stem cells and progenitor cells are placed in an extracellular matrix. The matrix is maintained in a culture medium and a microgravity environment.

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PNFP - EP1621207 B1 20090923
GRANTED- 2009-09-23
PA - GENTIUM S P A [IT]
IN - FERRO LAURA [IT]; PORTA ROBERTO [IT]; IACOBELLI MASSIMO [IT]; GIANNI ALESSANDRO MASSIMO [IT]; STELLA CARMELO CARLO [IT]
TI - Mixture of defibrotide and G-CSF, and its use for activating haematopoietic progenitors
AB - A description is given of a method of increasing the amount of stem cells and progenitor cells in the peripheral blood of a mammal; the method is characterised by the administration of defibrotide in combination or in temporal proximity with at least one haematopoietic factor, (preferably G-CSF) having the capacity to mobilise haematopoietic progenitors.

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PNFP - US7604947 B2 20091020
GRANTED- 2009-10-20
PA - CORNELL RES FOUNDATION INC [US]
IN - GUDAS LORRAINE J [US]
TI - Detection and modulation of cancer stem cells
AB - The invention relates to method for detecting and modulating the expression and activity of REX-1. As described herein, REX-1 is expressed in certain cancer cells, including cancer stem cells. The invention also provides methods for detecting and/or treating cancer.

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PNFP - US7585670 B2 20090908
GRANTED- 2009-09-08
PA - CYTORI THERAPEUTICS INC [US]
IN - HEDRICK MARC H [US]; FRASER JOHN K [US]; SCHULZKI MICHAEL J [US]; BYRNES BOBBY [US]; CARLSON GRACE [US]; SCHREIBER RONDA ELIZABETH [US]; WULUR ISABELLA [US]
TI - Automated methods for isolating and using clinically safe adipose derived regenerative cells
AB - Systems and methods are described that are used to separate cells from a wide variety of tissues. In particular, automated systems and methods are described that separate regenerative cells, e.g., stem and/or progenitor cells, from adipose tissue. The systems and methods described herein provide rapid and reliable methods of separating and concentrating regenerative cells suitable for re-infusion into a subject.

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PNFP - US7595043 B2 20090929
GRANTED- 2009-09-29
PA - CYTORI THERAPEUTICS INC [US]
IN - HEDRICK MARC H [US]; FRASER JOHN K [US]; RILEY SUSAN LYNN [US]; TAI JOSEPH W [US]
TI - Method for processing and using adipose-derived stem cells
AB - The present invention relates to a device comprising a cell carrier portion containing regenerative cells, e.g., stem and progenitor cells, and a cell carrier containment portion. The device is useful for the treatment of bone related disorders, including spinal fusion related disorders and long bone or flat bone related defects. The device may be used in conjunction with disclosed automated systems and methods for separating and concentrating regenerative cells.

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PNFP - EP1423504 B1 20090923
GRANTED- 2009-09-23
PA - LEVESQUE BIOSCIENCES INC [US]
IN - NEUMAN TOOMAS [US]; LEVESQUE MICHEL [US]
TI - COMPOSITIONS AND METHODS FOR ISOLATION, PROPAGATION, AND DIFFERENTIATION OF NON-EMBRYONIC HUMAN STEM CELLS AND USES THEREOF
AB - The invention is directed to the field of human stem cells and includes methods and compositions for isolating, propagating, and differentiating human stem cells. The invention provides therapeutic uses of the methods and compositions, including autologous transplantation of treated cells into humans for treatment of Parkinson's and other neuronal disorders.

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PNFP - EP1290444 B1 20091007
GRANTED- 2009-10-17
PA - VISTAGEN INC [US]
IN - SNODGRASS H RALPH [US]
TI - TOXICITY TYPING USING LIVER STEM CELLS
AB - This invention provides methods and systems for identifying and typing toxicity of chemical compositions, as well as for screening new compositions for toxicity. The invention involves detecting alterations in gene or protein expression and hence establishing molecular profiles in isolated mammalian LSCs contacted with various chemical compositions of known and unknown toxicities, and correlating the molecular profiles with toxicities of the chemical compositions.

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PNFP - EP1286689 B1 20090930
PA - MERCK SERONO SA [CH]
IN - GIANNI ALESSANDRO MASSIMO [IT]
TI - HUMAN GROWTH HORMONE TO STIMULATE MOBILIZATION OF PLURIPOTENT HEMATOPOIETIC STEM CELLS
(No abstract available)

© EPODOC / EPO

PNFP - EP0787181 B1 20091028
GRANTED- 2009-10-28
PA - NOVARTIS AG [CH]; HANSON CT FOR CANCER RES [AU]
IN - HILL BETH L [US]; CHEN BENJAMIN P [US]; SIMMONS PAUL J [AU]
TI - METHODS OF OBTAINING COMPOSITIONS ENRICHED FOR HEMATOPOIETIC STEM CELLS, COMPOSITIONS DERIVED THEREFROM AND METHODS OF USE THEREOF
AB - A method for obtaining human hematopoietic stem cells is provided by enrichment for stem cells using a novel stem cell marker.

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PNFP - US7592177 B2 20090922
GRANTED- 2009-09-22
PA - SCRIPPS RESEARCH INST [US]
IN - CHEN SHUIBING [US]; DING SHENG [US]; SCHULTZ PETER G [US]
TI - Compositions and methods for inducing cell dedifferentiation
AB - The present invention provides compositions and methods for dedifferentiating lineage committed mammalian cells into multipotent cells.

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PNFP - EP1960777 B1 20091021
GRANTED- 2009-10-21
PA - CHOONGWAE PHARMA CORP [KR]
IN - KAHN MICHAEL [US]
TI - SERUM-FREE EXPANSION OF CELLS IN CULTURE
AB - Methods and agents are disclosed for modulating the interaction of ss-catenin or β -catenin with CBP or p300. Agents that increase the binding of CBP to ss-catenin are associated with enhancing the ss-catenin related proliferation of adult stem cells, including hematopoietic stem cells, neural stem cells, skin stem cells, and pancreatic stem cells, as well as embryonic stem cells.

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PNFP - US7592003 B2 20090922
GRANTED- 2009-09-22
PA - OKLAHOMA MED RES FOUND [US]
IN - NAGAI YOSHINORI [JP]; KINCADE PAUL W [US]
TI - Regulation of Toll-Like Receptors on Stem Cells
AB - The discovery of Toll-like receptors (TLRs) on the surface of hematopoietic cells provides new methods for the stimulation and differentiation of various classes of progenitor cells. TLR2 and TLR4 agonists (natural ligands, mimetics, antibodies) are particularly useful in these methods. The cells can be isolated and used for various purpose including tissue regeneration and grafting. In contrast, antagonists of TLRs can be used to protect cells from various insults such as chemo- and radiotherapy, acute and chronic infection, and transplantation by inhibiting activation and differentiation. TLR2, TLR4 and TLR9 pathway antagonists (soluble TLR, mimetics, antibodies) are particularly useful in these methods. Cells can be isolated and used for various purposes including transplantation.

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PNFP - US7608259 B2 20091027
GRANTED- 2009-10-27
IN - BERGSTEIN IVAN [US]
TI - Methods of cancer diagnosis and therapy targeted against a cancer stem line
AB - Improved methods for treatment of cancer which involve the targeting of slow-growing, relatively mutationally-spared cancer stem line are provided. These methods are an improvement over previous cancer therapeutic methods because they provide for very early cancer treatment and reduce the likelihood of clinical relapse after treatment.

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PNFP - EP1286689 B1 20090930
GRANTED- 2009-09-30
PA - MERCK SERONO SA [CH]
IN - GIANNI ALESSANDRO MASSIMO [IT]
TI - HUMAN GROWTH HORMONE TO STIMULATE MOBILIZATION OF PLURIPOTENT HEMATOPOIETIC STEM CELLS

(No Abstract available)

EMBRYONIC STEM CELLS- 13 Documents

© EPODOC / EPO

PNFP - US7595193 B2 20090929
GRANTED- 2009-09-29
PA - UNIV EDINBURGH [GB]
IN - SMITH AUSTIN GERARD [GB]; BURDON THOMAS GRANT [GB]
TI - PROPAGATION AND/OR DERIVATION OF EMBRYONIC STEM CELLS
AB - Embryonic stem (ES) cells are cultured in the presence of a compound which selectively inhibits propagation or survival of cells other than ES cells. The ES cells have not been genetically altered. Instead, the compound inhibits a signalling pathway which is essential for propagation of differentiated cells but is not essential for propagation of ES cells-hence ES cells are selectively maintained in the culture.

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PNFP - GB2441530 B 20090923
GRANTED- 2009-09-23
PA - UNIV NEWCASTLE [GB]
IN - MURDOCH ALISON [GB]; STOJKOVIC MIODRAG [GB]; LAKO MAJLINDA [GB]; STRACHAN THOMAS [GB]
TI - Stems Cells
AB - A novel human embryonic stem cell line (hES-NCL1) is described together with a method for culturing a blastocyst and obtaining an embryonic stem cell line therefrom. Also described is the spontaneous partial differentiation of the embryonic stem cell line so obtained to produce fibroblast-like cells which act as an autogeneic feeder system to the stem cells. A novel fibroblast-like cell line hESC-NCL is described.

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PNFP - GB2437689 B 20091028
GRANTED- 2009-10-28
PA - NOVATHERA LTD [GB]; IMP COLLEGE INNOVATIONS LTD [GB]
IN - MANTALARIS SAKIS [GB]; RANDLE WESLEY [GB]
TI - Methods for embryonic stem cell culture
AB - The invention relates to a method of cell culture comprising providing a pluripotent ES cell encapsulated within a support matrix to form a support matrix structure, maintaining the encapsulated cell in 3-D culture in maintenance medium, and optionally differentiating the encapsulated cell in 3-D culture in differentiation medium. The invention further relates to screening methods incorporating the use of encapsulated cells.

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PNFP - US7601344 B2 20091013
GRANTED- 2009-10-13
PA - CELL FREE SCIENCES CO LTD [JP]
IN - KANNO HIROSHI [JP]
TI - Host cells obtained by introducing and expressing VHL gene in cancer cells or embryonic stem cells
AB - The present invention relates to host cells that can function as neurons which are obtained by introducing and expressing von Hippel-Lindau gene in cancer cells, such as neuroblastoma cells and anaplastic oncocytes derived from the nerve system, or embryonic stem cells. The obtained hosts that have grown in vitro are grafted to the central nerve system or peripheral nerves to take so as to allow the host cells to function as neurons, thereby treating intractable neuronal diseases associated with neurological functional disorder, such as Parkinson's disease,

amyotrophic lateral sclerosis, Huntington's chorea, Alzheimer's disease, brain infarction, spinal cord injury, brain contusion or malignant tumor.

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PNFP - US7608431 B2 20091027
GRANTED- 2009-10-27
PA - CRUCELL HOLLAND BV [NL]
IN - YALLOP CHRISTOPHER A [NL]
TI - Fed-batch process for production of erythropoietin in human embryonic retina cells that express adenovirus E1A
AB - The invention provides processes for recombinant production of erythropoietin (EPO) in a human embryonic retina cell that expresses at least an adenoviral E1A protein, wherein said EPO is produced at high concentrations and wherein said EPO as produced has a high average sialic acid content per EPO molecule.

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PNFP - US7592175 B2 20090922
GRANTED- 2009-09-22
PA - TECHNION RES & DEV FOUNDATION [IL]
IN - AMIT MICHAL [IL]; ITSKOVITZ-ELDOR JOSEPH [IL]
TI - Methods of preparing feeder cells-free, xeno-free human embryonic stem cells and cell cultures prepared using same
AB - The present invention is of methods of establishing and propagating human embryonic stem cell lines using feeder cells-free, xeno-free culture systems and stem cells which are capable of being maintained in an undifferentiated, pluripotent and proliferative state in culture which is free of xeno contaminants and feeder cells.

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PNFP - US7592176 B2 20090922
GRANTED- 2009-09-22
PA - WISCONSIN ALUMNI RES FOUND [US]
IN - PIKE J W [US]; SHEVDE NIRUPAMA K [US]
TI - Method of forming mesenchymal stem cells from embryonic stem cells
AB - This invention relates to methods of producing a substantially homogenous population of mesenchymal stem cells derived from embryonic stem cells. Also, disclosed is a homogenous population of mesenchymal stem cells capable of further differentiating into a variety of specific cell types, characterized by various morphological factors and cell-specific markers. The compositions and methods described in this disclosure are useful for a variety of commercially important diagnostic, drug screening, and therapeutic applications.

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PNFP - US7585672 B2 20090908
GRANTED- 2009-09-08
PA - WISCONSIN ALUMNI RES FOUND [US]
IN - ODORICO JON [US]; KAHAN BRENDA [US]; TREFF NATHAN [US]
TI - Differentiation of stem cells to endoderm and pancreatic lineage
AB - Methods are described to increase the proportion of endoderm committed cells and pancreatic lineage cells in a culture of human embryonic stem cells which are undergoing differentiation. The method also results in a stem cell derived cell culture which does not have tumorigenic capability

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PNFP - US7604990 B2 20091020
GRANTED- 2009-10-20

PA - ES CELL INT PTE LTD
IN - PEBAY ALICE M [AU]; PERA MARTIN F [AU]
TI - Methods of regulating differentiation in stem cells
AB - The present invention provides methods, media and compositions capable of modulating the differentiation of stem cells. Applicants have discovered that agonists of lysophospholipid receptors and ligands of class III tyrosine kinase receptors are useful in preventing the spontaneous differentiation of stem cells. The ligands and agonists may be used alone, or in combination where they have a synergistic effect. Also provided are cells produced using the methods and media, and methods of treating stem cell related diseases using the compositions described herein. Methods of identifying compounds useful in finding other agents useful in the modulation of stem cell differentiation are also disclosed.

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PNFP - US7604992 B2 20091020
GRANTED- 2009-10-20
PA - ES CELL INT PTE LTD [SG]
IN - REUBINOFF BENJAMIN EITHAN [IL]
TI - Generation of neural stem cells from undifferentiated human embryonic stem cells
AB - The present invention relates to the generation of neural cells from undifferentiated human embryonic stem cells. In particular it relates to directing the differentiation of human ES cells into neural progenitors and neural cells and the production of functioning neural cells and/or neural cells of a specific type. The invention also includes the use of these cells for the treatment of neurological conditions such as Parkinson's disease.

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PNFP - US7582479 B2 20090901
GRANTED- 2009-09-01
PA - WISCONSIN ALUMNI RES FOUND [US]
IN - THOMSON JAMES A [US]
TI - Primate embryonic stem cells
AB - A purified preparation of primate embryonic stem cells is disclosed. This preparation is characterized by the following cell surface markers: SSEA-1 (-); SSEA-4 (+); TRA-1-60 (+); TRA-1-81 (+); and alkaline phosphatase (+). In a particularly advantageous embodiment, the cells of the preparation are human embryonic stem cells, have normal karyotypes, and continue to proliferate in an undifferentiated state after continuous culture for eleven months. The embryonic stem cell lines also retain the ability, throughout the culture, to form trophoblast and to differentiate into all tissues derived from all three embryonic germ layers (endoderm, mesoderm and ectoderm). A method for isolating a primate embryonic stem cell line is also disclosed.

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PNFP - US7588937 B2 20090915
GRANTED- 2009-09-15
PA - WISCONSIN ALUMNI RES FOUND [US]
IN - ZHANG SU-CHUN [US]; THOMSON JAMES A [US]; DUNCAN IAN D [US]; LI XUE-JUN [US]
TI - Method of in vitro differentiation of neural stem cells, motor neurons and dopamine neurons from primate embryonic stem cells
AB - A method of differentiating embryonic stem cells into neural and motor cells is disclosed. In one embodiment, the invention comprises culturing a population of cells comprising a majority of cells that are characterized by an early rosette morphology and are Sox1<->/Pax6<+> in the presence of FGF2, FGF4, FGF8, FGF 9, or RA wherein the cells are characterized by a neural tube-like rosette morphology and are Pax6<+>/Sox1<+>.

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PNFP - US7601699 B2 20091013

GRANTED- 2009-10-13

PA - NUPOTENTIAL INC [US]

IN - EILERTSEN KENNETH J [US]

TI - Production of reprogrammed cells with restored potential

AB - A method for treating cells and/or nuclear transfer units and/or stem cells in culture with such compounds, individually or in combinations, is described. The method results in a globally hypomethylated genome and a restoration of cell differentiation and/or developmental potential, or potentiality. In addition, a method for the in vitro production of reprogrammed cells which have had differentiation potential (totipotent, pluripotent, or multipotent) restored by demethylating the genome is described.

ANNEX A

Search strategy

? ..his

Databases : EPODOC, WPI

SS Results

- 1 8523 /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 8267 *M4/PR/ALL
- 3 7975 *M4/PR/ALL
- 4 4499 *M4/PR/ALL
- 5 0 *M4/PR/ALL
- 6 0 *M4/PR/ALL
- 7 0 *M4/PR/ALL
- 8 2 *M4/PR/ALL
- 9 12649 1: 8
- 10 8169 9 AND (STEM? OR PLURIPOTEN+ OR EMBRYONIC OR PROGENITOR?)
- 11 29833 (STEM? OR PLURIPOTEN+ OR EMBRYONIC OR PROGENITOR?) 3D CELL?
- 12 33155 1 OR 10 OR 11
- 13 33155 ..LIM 12
- 14 538 PD<=2009-10 AND PD>2009-08-31
- 15 538 ..LIM 14
- 16 **457 OR GB/PN, EP/PN, WO/PN, US/PN- Viewed- "A" specs**
..LIM ALL
- 17 33155 ..LIM 12
- 18 4319 /PN OR (EP S B?), (GB S B?), (US S B?)
- 19 4319 ..LIM 18
- 20 **46 200909+/PNFP OR 200910+/PNFP - Viewed - "B" specs**

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]
C12N5/06B3A (136) [N: Artificially induced pluripotent cells, e.g. iPS] [N0905]
- 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]