

References

- ***Alison M.R., Poulsom R., Forbes S., et al.(2003).***
An introduction to stem cells.
J. Pathol. 197: 419–423.
- ***Aoi T., Yae K., Nakagawa M., et al.(2008).***
"Generation of pluripotent stem cells from adult mouse liver and stomach cells".
Science 321 : 699–702.
- ***Apostolova I., Irintchev A. and Schachner M.(2006).***
Tenascin- R restricts Posttraumatic remodeling of motor neuron innervation and functional recovery after spinal cord injury in adult mice.
Journal of Neuroscience 26 : 7849-59.
- ***Baker M.(2008).***
"Embryonic-like stem cells from a single human hair".
Nature Reports Stem Cells. 10: 1038-142.
- ***Bakshi Ajay , Hunter Corey, Swanger Sharon B.S., et al.(2004).***
Minimally invasive delivery of stem cells for spinal cord injury, advantages of the lumbar puncture technique.
J. Neurosurg. (Spine 1) 3:330–337.
- ***Banfi A., Muraglia A., Dozin B., et al.(2000).***
Proliferation kinetics and differentiation potential of ex vivo expanded human bone marrow stromal cells: Implications for their use in cell therapy.

Exp. Hematol. 28:707-15.

- **Basso D.M., Beattie M.S. and Bresnahan J.C.(1995).**

A sensitive and reliable locomotor rating scale for open field testing in rats.

J. Neurotrauma. 12: 1- 21.

- **Beattie G.M., Otonkoski T., Lopez A.D.& Hayek A.(1997).**

Functional beta-cell mass after transplantation of human fetal pancreatic cells: differentiation or proliferation?

Diabetes . 46: 244-248

- **Bensaid W., Triffitt J.T., Blanchat C., et al.(2005).**

A biodegradable fibrin scaffold for mesenchymal stem cell transplantation.

Biomaterials. 24:2497-502 Craniofac. Surg. 16:213-24.

- **Blight A.R. and DeCrescito V.(1986).**

Morphometric analysis of experimental spinal cord injury in the cat: the relation of injury intensity to survival of myelinated axons.

Neuroscience. 19: 321–41.

- **Bongso A. and Richards M.(2004).**

History and perspective of stem cell research. Best Practice & Research Clinical Obstetrics and Gynaecology

VOL 18 No. 6: 827–842.

- **Bouhy D., Malgrange B., Multon S., et al.(2006).**

Delayed GM-CSF treatment stimulates axonal regeneration and functional recovery in paraplegic rats via an increased BDNF expression by endogenous macrophages.

FASEB J. 20:1239–1241.

- ***Bucholz R.W, Heckman J.X., Court-Brown C., et al (2006)***

Rockwood and Green's fracture in adults.

6th edition Philadelphia: lippincott Williams & wilkins.

- ***Brinchman J.E.(2008)***

Journal of the Neurosurgical sciences 265:127-130

- ***Braccini A., Wendt D., Jaquier C., et al.(2005).***

Three dimensional perfusion culture of human bone marrow cells and generation of osteoinductive grafts.

Stem Cells. 23:1066-72.

- ***Brian K., Wolfram T. , Jonathan N., Grauer, et al.(2004).***

Pathophysiology and pharmacologic treatment of acute spinal cord injury.

The Spine Journal 4: 451–464.

- ***Brockes J.P.(1997).***

Amphibian limb regeneration: rebuilding a complex structure.

Science. 276: 81–87.

- ***Brodhun M., Bauer R. and Patt S.(2004).***

Potential stem cell therapy and application in neurotrauma.

Experimental toxicologic pathology 56: 103-12.

- ***Brustle O., Choudary K., Karram K. et al.(1998).***

Chimeric brains generated by intraventricular transplantation of human brain cells into embryonic rats.

Nat. Biotechnol . 16: 1040–1044.

- ***Centeno C.J., Busse D., Kisiday J., et al(2008).***

"Increased knee cartilage volume in degenerative joint disease using percutaneously implanted, autologous mesenchymal stem cells".

Pain Physician 11: 343-353.

- ***Chen S.L., Fang W.W., Ye F., et al.(2004).***

Effect on left ventricular function of intracoronary transplantation of autologous bone marrow mesenchymal stem cell in patients with acute myocardial infarction.

Am. J. Cardiol. 94:92–95.

- ***Chen Q., (2000).***

Chinese med. J. 113:737-742.

- ***Chen D.F., Zeng H.P., Du S.H., et al (2007).***

Extracts from *plastrum testudinis* promote proliferation of rat bone marrow derived mesenchymal stems cell prolif. 40: 196-212.

- ***Cho B.C., Kim T.G., Yang J.D., et al.(2005).***

Effect of calcium sulfate-chitosan composite: pellet on bone formation in bone defect.

J. Craniofac. Surg. 16:213-24.

- ***Chopp M., and Li Y.(2002).***

Treatment of neural injury with marrow stromal cells.

Lancet Neurol. 1:92–100.

- ***Cibelli J.B, Ianza R.P, West M.D and Ezzell.(2001).***

The first human cloned embryo

Scientific American. Nov.2001.

- ***Claire M., Rice and Neil J.(2008).***

Scoring Autologous bone marrow stem cells — properties and advantages.

Journal of the Neurological Sciences 265: 59–62.

- ***Conrad S., Renninger M., Hennenlotter J., et al.(2008).***

"Generation of pluripotent stem cells from adult human testis".

Nature. 456 : 344–9.

- ***Corcione A., Benvenuto F., Ferretti E., Giunti D., Cappiello V., Cazzanti F., et al.(2006).***

Human mesenchymal stem cells modulate B-cell functions.

Blood .107:367–72.

- ***Cristino S., Grassi F., Toneguzzi S., et al.(2005).***

Analysis of mesenchymal stem cells grown on a three-dimensional HYAFF 11-based prototype ligament scaffold.

J. Biomed. Mater. Res A.73:275-83 .

- ***Crowe, Nicholas c., Butler J., Eric L.M. et al (1997).***

Stem cell biology and its therapeutic applications in the setting of spinal cord injury

Neuro. Surg. focus 24 (3&4): e 19.

- ***Cyranoski D.(2007).***

"Simple switch turns cells embryonic".

Nature 447 : 618-9.

- ***Devine S.M., Cobbs C., Jennings M., Bartholomew A. and Hoffman R.(2003).***

Mesenchymal stem cells distribute to a wide range of tissues following systemic infusion into nonhuman primates.

Blood . 101: 2999–3001.

- ***Dennis & soltan (2006).***

Stimulatory effects of basic fibroblasts

Genetically engineered bone marrow stromal cells and collagen mimetic scaffold modification for healing critically sized bone defects.8: 219-31.

- ***Doerr H.W., Cinatl J., Sturmer M., et al.(2003).***

Prions and orthopedic surgery.

Infection . 31:163–71.

- ***Dominici M., Le B.K., Mueller I., et al.(2006).***

Minimal criteria for defining multipotent mesenchymal stromal cells.The International Society for Cellular Therapy position statement.

Cytotherapy 8:315–7.

- ***Evans M.J. and Kaufman M.H.(1981).***

Establishment in culture of pluripotential cells from mouse embryos.

Nature 292: 154-56.

- ***Fawcett J.W. and Asher R.A.(1999).***

The glial scar and central nervous system repair.

Brain Research Bulletin 49: 377–391.

- ***Friedenstein, Gorskaja J.F., Kulagina N.N.,et al.(1976) .***

Fibroblast precursors in normal and irradiated mouse haematopoietic organs.

Exp Hematol. 4: 267-74.

- ***Garbossa D., Fontanella M., Fronda C., Benevello C., Muraco G., Ducatia ,et al. (2006).***

New strategies for repairing the injured spinal cord: the role of stem cells.

Neurosurgical research 28: 500 - 04.

- ***Gardner R.L..(2002).***

Stem cells: potency, plasticity and public perception.

J. Anat. 200: 277–282.

- ***Garth and Roederer(2000).***

Marrow stromal cells from guiding strands in the injured spinal cord and promote recovery.

Proceedings of the national Academy of sciences of the USA 99: 2199-2204.

▪ ***Gerald, Dunnet S.B & Bjorklund A.2004***

Basic transplantation methods in rodent brain: Neurol. transplantation methods.

Human press 133-142.

• ***Green R.M.(2002).***

Benefiting from “evil”: an incipient moral problem in human stem cell research.

Bioethics . 16: 544–556.

• ***Greitz D.(2006).***

Unraveling the riddle of syringomyelia.

Neurosurgical Review 29: 251–263.

• ***Hasegawa S., Neo M., Tamura J., et al.(2007).***

In vivo evaluation of a porous hydroxyapatite/poly-DL-lactide composite for bone tissue engineering.

Biomed. Mater. Res. 81:930-938.

• ***Horner P. J., Power A. E., Kempermann G., Kuhn H. G., Palmer T. D., Winkler J., Thal L. J. and Gage F. H.(2000).***

Proliferation and differentiation of progenitor cells throughout the intact

adult rat spinal cord.

J. Neurosci. 20: 2218–2228.

• ***Horwitz E.M., Gordon P.L., Koo W.K., et al.(2002).***

Isolated allogeneic bone marrow-derived mesenchymal cells engraft and stimulate growth in children with osteogenesis imperfecta: Implications for cell therapy of bone.

Proc. Nat. Acad. Sci. USA. 99:8932–9007.

- ***Humpherys D., Eggan K. and Akutsu H. (2001).***

Epigenetic instability in ES cells and cloned mice.

Science 293: 95- 07.

- ***Inokuchi N., sattler R., xiong z., et al, (2000).***

Perfusion bioreactor system for human mesenchymal skin cell tissue engineering: dynamic cell seeding and construct development Biotechnol. Bioeng.91: 482-93.

- ***Jansen J., Hanks S., Thompson J.M. Dugan M.J. and Akard L.P.(2005).***

Transplantation of hematopoietic stem cells from the peripheral blood.

J. Cell. Mol. Med. 9: 37–50.

- ***Jendelov´ A. P., Herynek V., De Croos J., Glogarov´ A. K.,et al.(2003).***

Imaging the fate of implanted bone marrow stromal cells labeled with superparamagnetic nanoparticles.

Magn. Reson. Med. 50:767–776.

- ***Khalatbary A.R. and Tiraihi T.(2007).***

Localization of bone marrow stromal cells in injured spinal cord treated by intravenous route depends on the hemorrhagic lesions in traumatized spinal tissues.

Neurological Research. 29: 21–26.

- **Kiessling M. and Anderson L.(2003).**

New Neurons in old brains

An. Med. 37, 480-486.

- **Kinnaird T., Stabile E., Burnett M.S., Lee C.W., Barr S., Fuchs S.,et al.(2004).**

Marrow-derived stromal cells express genes encoding a broad spectrum of arteriogenic cytokines and promote in vitro and in vivo arteriogenesis through paracrine mechanisms.

Circ. Res. 94: 678–85.

- **Kolata G.(2001).**

Researchers say embryos in labs are not available.

N.Y. Times , Aug. 26 (late edition—final).

- **Kooy V. D. and Weiss S. (2000).**

Why stem cells?

Science 287: 1439- 41.

- **Krause D.S., Theise N.D., Collector M.I. et al.(2001).**

Multi-organ, multi-lineage engraftment by a single bone marrow derived stem cell.

Cell . 105: 369–377.

- **Kulbatski I., Mothe A.J., Nomura H., et al.(2005).**

Endogenous and exogenous CNS derived stem/ progenitor cell approaches for neurotrauma.

Curr. Drug Targets. 6:111-126.

- ***Lanza R.P., Caplan A.L., Silver L.M., Cibelli J.B., West M.D., and Green R.M(2000).***

The ethical validity of using nuclear transfer in human transplantation.

JAMA , 284: 3175–3179.

- ***Lennon D.P. and Caplan A.I.(2006) .***

Isolation of human marrow derived mesenchymal stem cell.

Exp. Hematol. 34:160-178 .

- ***Li Y., Chen J., Chen X.G., Wang L., Gautam S.C., Xu Y.X., et al.(2002).***

Human marrow stromal cell therapy for stroke in rat: neurotrophins and functional recovery.

Neurology . 59:514–23.

- ***Lie D., song H., colamarino S.A, Ming G.L. & Gage F.H. (2004).***

Ann. Review pharmacol. Toxicol. 44:399-421.

- ***Lua P., Jonesa L.L and Tuszynskia. M.H.(2005).***

BDNF-expressing marrow stromal cells support extensive axonal growth at sites of spinal cord injury .

Experimental Neurology. 191: 344– 360.

- ***Markusen J.F., Mason C., Hull D.A., et al.(2006).***

Behavior of adult human mesenchymal stem cells entrapped in alginate- GRGDY beads.

Tissue Eng. 12:821-30.

- ***McMahon and McDermott (2001).***

J.Neurocytol.30:821-828.

- **McDonald J.W and Baker D. (2007).**

Principles of tissue engineering.

3rd edition ed. By Ianza, Langer and Vacanti copyright 2007.

- **Mehta T., Feroz A., Thakkar U. et al.(2008).**

Subarachnoid Placement of Stem Cells in Neurological Disorders.

Transplantation Proceedings. 40: 1145–1147.

- **Mitalipov S.M., Zhou Q., Byrne J.A., et al.(2007).**

"Reprogramming following somatic cell nuclear transfer in primates is dependent upon nuclear remodeling".

Hum. Reprod. 22 : 2232–42.

- **Morgenstern D. A., Asher R. A. and Fawcett J. W. (2002).**

Chondroitin sulphate proteoglycans in the CNS injury response.

Prog. Brain Res. 137: 313–332.

- **Muller L., Bush T.G., Puvanachandra N. Horner C.H. et al.,(2006).**

The role of extracellular matrix in C.N.S regeneration current opinion in Neurobiology 17:120-127

- **Muraglia A., Cancedda R. and Quarto R.(2000).**

Clonal mesenchymal progenitors from human bone marrow differentiate in vitro according to a hierarchical model.

J. Cell Sci. 113:161-6.

- **Nomura H., Tator C.H. and Shoich,et al.(2006).**

Bioengineered strategies for spinal cord repair.

J. Neurotrauma.23: 496–507.

- ***Oest M.E., Dupont K.M., Kong H.J., et al.(2007).***

Quantitative assessment of scaffold and growth factor-mediated repair of critically sized bone defects.

J. Orthop Res.23:176-189.

- ***Ohta M., Suzuki Y., Noda T., et al.(2004).***

Bone marrow stromal cells infused into the cerebrospinal fluid promote functional recovery of the injured rat spinal cord with reduced cavity formation.

Experimental Neurology. 187: 266–278.

- ***Okano H., Kaneko S., Okada S., Iwanami A., Nakarmura M. and Toyama Y.(2007)***

Regeneration –based therapies for spinal cord injuries.

Neurochemistry Ineternational 51: 68 -73.

- ***Parens E.(2001).***

On the ethics and politics of embryonic stem cell research.

In “The Human Embryonic Stem Cell Debate” (S.Holland et al., eds.), pp. 37–50.

- ***Peng L., Li H., Gu L., et al.(2007).***

Comparison of biological characteristics of marrow mesenchymal stem cells in hepatitis B patients and normal adults.

World J. Gastroenterol. 13:1743-6.

- ***Phillips M. I. and Tang Y.L. (2007)***
Genetic modification of stem cells for transplantation.
Advanced Drug Delivery Reviews 60 : 160-72.
- ***Pope J. P. II.(2003).***
Address of John Paul II to the Members of the Pontifical Academy of Sciences.
Monday, 10 November 2003.
- ***Popovich P.G. and Jones T.B.(2003).***
Manipulating neuroinflammatory reactions in the injured spinal cord: back to basics.
Trends Pharmacol. Sci. 24:13–17.
- ***Pountos Ippokratis, Corscadden Diane and Emery Peter(2007).***
Mesenchymal stem cell tissue engineering.
Techniques of isolation, expansion and application.
Int. J. Care Injured . 38: 23-33.
- ***Preston S. L., Alison S. J., Forbes N. C., Direkze,et al.(2003).***
The new stem cell biology: something for everyone.
J. Clin. Pathol: Mol. Pathol. 56:86–96.
- ***Raff M.(2003).***
Adult stem cell plasticity: fact or artifact?
Annu. Rev. Cell Dev. Biol. 19:1–22.
- ***Richards M., Fong C.Y., Chan W.K.,et al.(2002).***

Human feeders support prolonged undifferentiated growth of human inner cell masses and embryonic stem cells.

Nat. Biotechnol . 20: 933–936.

- ***Ringden O., Uzunel M., Rasmusson I., Remberger M., Sundberg B., Lonnies H., et al.(2006).***

Mesenchymal stem cells for treatment of therapy resistant graft-versus-host disease.

Transplantation . 81:1390–7.

- ***Roberts A.W.(2005).***

G-CSF: a key regulator of neutrophil production, but that's no all!

Growth Factors. 23: 33–41.

- ***Schultz S. S.(2005).***

Adult Stem Cell Application in Spinal Cord Injury.

Current Drug Targets. 6: 63-73.

- ***Saini L., Bjorklund a. and Lindvall (2003).***

Cell replacement therapies for central nervous disorders.

Nat. Neusoscince 3:537-544.

- ***Seebach C., Henrich D., Tewksbury R., et al.(2007).***

Number and proliferative capacity of human mesenchymal stem cells are modulated positively in multiple trauma patients and negatively in atrophic nonunions.

Calcif. Tissue Int. 80:294-300.

- ***Shamboltt, Maitra A. Arking D.E, et al. (1998)***

Genomic alterations in cultured human embryonic stem cells.

Nat. Genet. 37: 1099-1103.

- **Short B., Brouard N., Occhiodoro-Scott T., et al.(2003).**
 Mesenchymal stem cells.
 Arch. Med. Res. 34:565-571.
- **Shostak S. (2006).**
 "(Re)defining stem cells".
 Bioessays 28 : 301–8.
- **Shadhadfar M., Corti S., locatelli F., strazzers. et al (2005).**
 Modulated generation of neuronal cells from bone marrow by
 expansion and mobilization of circulation of circulating stem
 cells with in vivo cytokine treatment.
 EXP. Neurol. 177:443-452.
- **Sikavitsas V.I., Bancroft G.N. and Mikos A.G.(2002).**
 Formation of three-dimensional cell/polymer constructs for bone
 tissue engineering in a spinner flask and a rotating wall vessel
 bioreactor.
 Biomed. Mater. Res. 62:136-48 .
- **Smith A.G..(2001).**
 Embryo-derived stem cells- of mice and men.
 Annu. Rev. Cell Dev. Biol. 17: 435–462.
- **Sofroniew M.V., Uzynski M.H.,Kordower(1999).**
 Neuronal responses to axotomy.
 CNS regeneration J. : 3-25.
- **Sotiropoulou P.A., Perez S.A., Salagianni M., et al.(2006).**

Characterization of the optimal culture conditions for clinical scale production of human mesenchymal stemcells.

Stem Cells. 24:462-71.

- ***Spees J.L., Gregory C.A., Singh H. , et al.(2004).***

Internalized antigens must be removed to prepare hypoimmunogenic mesenchymal stem cells for cell and gene therapy.

Mol. Ther. 9:747–56.

- ***Spradling A., Drummond-Barbosa D. & Kai T.(2001).***

Stem cells find their niche.

Nature . 414: 98–104.

- ***Stenderup K., Justesen J., Clausen C., et al.(2003).***

Aging is associated with decreased maximal life span and accelerated senescence of bone marrow stromal cells.

Bone. 33:919-26 .

- ***Sykova Eva Mazanec, Radim and Hynek Lachmann(2006).***

Autologous Bone Marrow Transplantation in Patients With Subacute and Chronic Spinal Cord Injury.

Cell Transplantation. 15: 1–100.

- ***Takahashi: and Yamanaka,(2006).***

Induction of pluripotent stem cells from mouse embryonic and adult fibroblast cultures by defined factors.

The Journal cell 12,555-64.

- ***Tsutsumi S., Shimazu A., Miyazaki K., et al.(2001)***

Retention of multilineage differentiation potential of mesenchymal cells during proliferation in response to FGF.

Biochem. Biophys. Res. Commun. 288:413-9.

▪ ***Tung (2004).***

Induced pluripotent stem cells.

cell 126 (4): 663-76.

• ***Tuszynski M. H., Grill R., Jones L. L., and Blesch.(2002).***

Spontaneous and augmented growth of axons in the primate spinal cord: effects of local injury and nerve growth factor-secreting cell grafts.

J. Comp. Neurol. 449: 88–101.

• ***Urdžíková Lucia, Jendelová Pavla and Katerina Glogarova(2006).***

Transplantation of Bone Marrow Stem Cells as well as Mobilization by Granulocyte-Colony Stimulating Factor Promotes Recovery after Spinal Cord Injury in Rats .

J. of Neurotrauma. 23 :1379–1391.

• ***Vanicky´, Urdžíková L.,Saganová K., et al.(2001).***

A simple and reproducible model of spinal cord injury induced by epidural balloon inflation in the rat.

J. Neurotrauma 18: 1399–1407.

• ***Villa A., Snyder E.Y., Vescovi A. & Martinez-Serrano A.(2000).***

Establishment and properties of a growth factor dependent perpetual neural stem cell line from the human CNS.

Exp. Neurol. 161: 67–84.

- ***Wagers, A.J., and Weissman, I.L.(2004).***
Plasticity of adult stem cells.
Cell. 116:639–648.
- ***Wan C., He Q., McCaigue M, et al.(2006).***
Non adherent cell population of human marrow culture is
acomplementary source of mesenchymal stem cells (MSCs).
Orthop. Res. 24:21-8.
- ***Willerth S.M. ad Sakiyama S.M.(2008).***
Cell therapy for spinal cord regeneration.
Advanced Drug delivery Reviews 60 : 263 -76.
- ***Wolpert L., Hicklin J. & Hornbruch A.(1997).***
Positional information and pattern regulation in regeneration of
hydra.
Exp. Biol. 25: 391–415.
- ***Yang X.B., Bhatnagar R.S., Li S. and Oreffo R.O.(2004).***
Biomimetic collagen scaffolds for human bone cell growth and
differentiation.
Tissue Eng. 10:1148-59.
- ***Yoon Ha, L Seung Hwan Yoon, Park, So Ra, et al .(2004).***
Treatment of Complete Spinal Cord Injury Patients Receiving
Autologous Bone Marrow Cell Transplantation and Bone