

REFERENCES

A

- **Abraham EJ, Leech CA, Lin JC, Zulewski H, Habener JF.** Insulinotropic hormone glucagon-like peptide-1 differentiation of human pancreatic islet-derived progenitor cells into insulin-producing cells. *Endocrinology*. 2002; 143(8): 3152-3161.
- **Adewumi O, Aflatoonian B, Ahrlund-Richter L, Amit M, Andrews PW, Beighton G, et al.** Characterization of human embryonic stem cell lines by the International Stem Cell Initiative. *Nat Biotechnol*. 2007; 25(7): 803- 816.
- **Aggarwal S, Pittenger MF.** Human mesenchymal stem cells modulate allo-geneic immune cell responses. *Blood*. 2005; 105(4): 1815-1818.
- **Aiello LM.** Perspectives on diabetic retinopathy. *Am J Ophthalmol*. 2003; 136(1): 122- 135.
- **Aiuti A, Cattaneo F, Galimberti S, Benninghoff U, Cassani B, Callegaro L,et al.** Gene therapy for immunodeficiency due to adenosine deaminase deficiency. *N Engl J Med*. 2009; 360(5): 447-458.
- **Al-Aqeel AL** Human cloning, stem cell research. An Islamic perspective. *Saudi Med J*. 2009; 30(12): 1507- 1514.
- **Alberti KG, Zimmet P, Shaw J.** The metabolic syndrome—a new worldwide definition. *Lancet*. 2005; 366(9491): 1059- 1062.
- **Alsahli M, Gerich JE.** Abnormalities of Insulin Secretion and B-Cell Defects in Type 2 Diabetes. In: Holt RIG, Cockram CS, Flyvbjerg A, Goldstein BJ(eds.). *Textbook of Diabetes*. 4th edition. Singapore: Wiley-Blackwell; 2010.P160- 173.
- **American Diabetes Association.** Diagnosis and classification of

- diabetes mellitus. *Diabetes Care*. 2011; 34 Suppl 1: S62- 69.
- **American Diabetes Association.** Insulin administration. *Diabetes Care*. 2004;27 Suppl 1: SI06-107.
 - **American Diabetes Association.** Standards of Medical Care in Diabetes. *Diabetes Care*. 2010; 33 Suppl 1: SI 1-61.
 - **Amit M, Margulets V, Segev H, Shariki K, Laevsky I, Coleman R,et al** Human feeder layers for human embryonic stem cells. *Biol Reprod*. 2003-68(6): 2150-2156. .
 - **Andrali SS, Sampley ML, Vanderford NL, Ozcan S.** Glucose regulation of insulin gene expression in pancreatic beta-cells. *Biochem J*. 2008; 415(1)- {-10.
 - **Argoff CE, Backonja MM, Belgrade MJ, Bennett GJ, Clark MR, Cole BE,et al.** Consensus guidelines: treatment planning and options. Diabetic peripheral neuropathic pain. *Mayo Clin Proc*. 2006; 81(4 suppl): SI2- 25.
 - **Aronoff S, Rosenblatt S, Braithwaite S, Egan J, Mathisen AL, SchneiderRL.** Pioglitazone hydrochloride monotherapy improves glycemic control in the treatment of patients with type 2 diabetes: a 6-month randomized placebo-controlled dose-response study. The Pioglitazone 001 Study Group. *Diabetes Care*. 2000; 23(11): 1605- 1611.
 - **Assady S, Maor G, Amit M, Itskovitz-Eldor J, Skorecki KL, TzukermanM.** Insulin production by human embryonic stem cells. *Diabetes*. 2001; 50: 1691-1697.
 - **Atala A, Bauer SB, Soker S, Yoo JJ, Retik AB.** Tissue-engineered autologous bladders for patients needing cystoplasty. *Lancet*. 2006; 367 (9518): 1241- 1246.
 - **Atala A-** Amniotic fluid-derived pluripotential cells. In: Lanza R

(ed.). Essential of stem cell biology. 2nd edition. Canada: Academic Press; 2009. P145- 150.

B

- **Bae SH.** Clinical application of stem cells in liver diseases (abstract). Korean J Hepatol 2008; 14(3): 309-317.
- **Baertschiger RM, Bosco D, Morel P, Serre-Beinier V, Berney T, BuhlerLH, et al.** Mesenchymal stem cells derived from human exocrine pancreas express transcription factors implicated in beta cell development. Pancreas. 2008; 37(1): 75-84.
- **Baeyens L, Rooman I, Bouwens L.** Generation of beta cells from acinar cells.In: Efrat S (ed.). Stem cell therapy for diabetes. New York: Humana Press;2010. P153- 166.
- **Baiguera S, Jungebluth P, Burns A, Mavilia C, Haag J, De Coppi P, et al.**Tissue engineered human tracheas for in vivo implantation. Biomaterials. 2010; 31(34): 8931- 8938.
- **Bailey CJ, Turner RC.** Metformin. N Engl J Med. 1996; 334(9): 574- 579.
- **Bailey CJ, Wilcock C, Scarpello JH.** Metformin and intestine. Diabetologia.2008; 51(8):1552- 1553.
- **Bajada S, Mazakova I, Richardson JB, Ashammakhi N.** Updates on stem cells and their applications in regenerative medicine. J Tissue Eng Regen Med.2008; 2(4): 169- 183.
- **Baker DE, Harrison NJ, Maltby E, Smith K, Moore HD, Shaw PJ, et al,** Adaptation to culture of human embryonic stem cells and oncogenesis in vivo. Nat Biotechnol. 2007; 25(2): 207-21 5.
- **Barker JM, Barriga KJ, Yu L, Miao D, Erlich HA, Norris JM, et al.**Prediction of autoantibody positivity and progression to type 1 diabetes: diabetes autoimmunity study in the young (DAISY).

- J Clin Endocrinol Metab. 2004; 89(8): 3896-3902.
- **Barrilleaux B, Phinney DG, Prockop DJ, O'Connor KC.** Review: ex vivo engineering of living tissues with adult stem cells. *Tissue Eng.* 2006; 12 (11):3007-3019.
 - **Beattie GM, Montgomery AM, Lopez AD, Hao E, Perez B, Just ML, et al.** A novel approach to increase human islet cell mass while preserving beta-cell function. *Diabetes.* 2002; 51(12): 3435- 3439.
 - **Ber I, Shternhall K, Perl S, Ohanuna Z, Goldberg I, Barshack I, et al.** Functional, persistent, and extended liver to pancreas transdifferentiation. *J Biol Chem.* 2003; 278(34): 31950- 31957.
 - **Bergman AJ, Cote J, Yi B, Marbury T, Swan SK, Smith W, et al.** Effect of renal insufficiency on the pharmacokinetics of sitagliptin, a dipeptidyl peptidase-4 inhibitor. *Diabetes Care.* 2007; 30(7): 1862-1864.
 - **Berna G, Leon-Quinto T, Ensenat-Waser R, Montanya E, Martin F, Soria B.** Stem cells and diabetes. *Biomed Pharmacother.* 2001; 55(4); 296-212,
 - **Bhavsar AR.** Diabetic retinopathy: the latest in current management. 2006; 26(6): S71-79.
 - **Blind E, Dunder K, de Graeff PA, Abadie E.** Rosiglitazone: a European regulatory perspective. *Diabetologia.* 2011; 54(2): 213-218.
 - **Blyszczuk P, Czyz J, Kania G, Wagner M, Roll U, St-Onge L, et al.** Expression of Pax4 in embryonic stem cells promotes differentiation of nestin positive progenitor and insulin-producing cells. *Proc Natl Acad Sci U A.* 2003; 100(3): 998- 1003.
 - **Bongso A, Fong CY, Gauthaman K.** Taking stem cells to the clinic: Major challenges. *J Cell Biochem.* 2008; 105(6): 1352- 1360.

- **Bonifacio E, Mayr A, Knopff A, Ziegler AG.** Endocrine autoimmunity in families with type 1 diabetes: frequent appearance of thyroid autoimmunity during late childhood and adolescence. *Diabetologia*. 2009; 52(2): 185- 192.
- **Bonner-Weir S, Baxter LA, Schupp GT, Smith FE.** A second pathway for regeneration of the adult exocrine and endocrine pancreas: a possible (recapitulation of embryonic development. *Diabetes*. 1993; 42(12): 1715- 1720
- **Bonner-Weir S, Toschi E, Inada A, Reitz P, Fonseca SY, Aye T, et al.** The pancreatic ductal epithelium serves as a potential pool of progenitor cells, *Pediatric Diabetes*. 2004; 5 suppl 2: 15- 22.
- **Bonner-Weir S, Taneja M, Weir GC, Tatarkiewicz K, Song KH, Sharma A, et al.** In vitro cultivation of human islets from expanded ductal tissue. *Proc Natl Acad Sci USA*. 2000; 97(14): 7999- 8004.
- **Bonner-Weir S.** Perspective: postnatal pancreatic beta cell growth. *Endocrinology*. 2000; 141(6): 1926- 1929.
- **Bonnet D.** Haematopoietic stem cells. *J Pathol*. 2002; 197: 430- 440.
- **Bossolasco P, Montemurro T, Cova L, Zangrossi S, Calzarossa C, Buiatoti S, et al.** Molecular and phenotypic characterization of human amniotic fluid cells and their differentiation potential. *Cell Res*. 2006; 16(4): 329-336.
- **Boulton AJ.** Foot Problems in Patients With Diabetes. In: Holt RIG, Cockram CS, Flyvbjerg A, Goldstein BJ (eds.). *Textbook of Diabetes*. 4th edition. Singapore: Wiley-Blackwell; 2010. P727- 742.
- **Breitbach M, Bostani T, Roell W, Xia Y, Dewald O, Nygremi JM, et al.** Potential risks of bone marrow cell transplantation into infarcted hearts. *Blood*. 2007; 110(4): 1362- 1369.

- **Brignier AC, Gewirtz AM.** Embryonic and adult stem cell therapy. *J Allergy Clin Immunol*. 2010; 125(Suppl 2): S336- 344
- **Broxmeyer HE.** Cord blood Hematopoietic Stem and Progenitor Cells. In: Lanza R (ed.). *Essential of stem cell biology*. 2nd edition. Canada: Academic Press; 2009. P151- 156.
- **Brubaker PL, Drucker DJ.** Minireview: Glucagon-like peptides regulate cell proliferation and apoptosis in the pancreas, gut, and central nervous system. *Endocrinology*. 2004; 145(6): 2653-2659.
- **Brunton, S, Carmichael, B, Funnel, M, Lorber D, Rakel R, Rubin R.** Type 2 diabetes: the role of insulin. *J Fam Pract*. 2005; 54(5): 445- 452.
- **Buehr M, Nichols J, Stenhouse F, Moontford P, Greenhalgh CJ, Kantachuvesiri S, et al** Rapid loss of oct-4 and pluripotency in cultured rodent blastocysts and derivative cell lines. *Biol Reprod*. 2003; 68(1): 222-229.
- **Bukys MA, Jensen J.** Embryonic Stem Cells as a Potential Cure for Diabetes. In: Efrat S (ed.). *Stem cell therapy for diabetes*. New York: Humana Press; 2010. P203-217.
- **Bulotta A, Hui H, Anastasi E, Bertolotto C, Boros LG, Di Mario U, et al** Cultured pancreatic ductal cells undergo cell cycle re-distribution and beta cell-like differentiation in response to glucagon-like peptide-1. *J Mol Endocrinol*. 2002; 29(3): 347- 360.
- **Buse JB, Polonsky KS, Burant CF.** Type 2 Diabetes Mellitus. In: Kronenberg HM, Melmed S, Polonsky KS, Larsen PR (eds.). *Williams Textbook Of Endocrinology*. 11th edition. Philadelphia: Saunders Elsevier; 2008. P1329-1358.
- **Buse JB, Ginsberg HN, Bakris GL, Clark NG, Costa F, Eckel R, et al** Primary prevention of cardiovascular diseases in people with diabetes mellitus: a scientific statement from the American

Heart Association and the American Diabetes Association.
Circulation. 2007; 115(1): 114- 126.

- **Buse JB, Henry RR, Han J, Kim DD, Fineman MS, Baron AD** .Effects of exenatide (exendin-4) on glycemic control over 30 weeks in sulfonylurea treated patients with type 2 diabetes. Diabetes Care. 2004; 27(11): 2628- 2635
- **Butler AE, Janson J, Bonner-Weir S, Ritzel R, Rizza RA, Butler PC.**Beta-cell deficit and increased beta-cell apoptosis in humans with type 2 Diabetes. 2003; 52(1): 102-110.

C

- **Calafiore R, Basta G, Luca G, Lemmi A, Racanicchi L, Maecuso F, et al.** Standard technical procedures for microencapsulation of human islets for graft into non immunosuppressed patients with type 1 diabetes mellitus. Transplant Proc. 2006; 38(4): 1156- 1157.
- **Campbell PM, Senior PA, Salam A, Labranche K, Bigam DL, Kneteman NM, et al.** High risk of sensitization after failed islet transplantation. Am J Transplant. 2007; 7(10): 2311- 2317.
- **Caplan AI.** Mesenchymal stem cells. In: Lanza R (ed.). *Essential of stem cellbiology*. 2nd edition. Canada: Academic Press; 2009. P243- 248.
- **Carpenter MK, Rosier ES, Fisk GJ, Brandenberger R, Ares X, Miura T, et al.** Properties of four human embryonic stem cell lines maintained in a feeder-free culture system. Dev Dyn.2004; 229(2): 243- 258.
- **Carraro G, Perin L, Sedrakyan S, Giuliani S, Tiozzo C, Lee J, et al.** Human amniotic fluid stem cells can integrate and

- differentiate into epithelial lung lineages. *Stem Cells*. 2008; 26(11): 2902- 2911.
- **Cayley WE Jr.** Does metformin increase the risk of fatal or nonfatal lacticacidosis?. *Am Fam Physician*. 2010; 82(9): 1068-1070.
 - **Chang CM, Kao CL, Chang YL, Yang MJ, Chen YC, Sung BL, et al.** Placenta-derived multipotent stem cells induced to differentiate into insulin positive cells. *Biochem Biophys Res Commun*. 2007; 357(2): 414-420.
 - **Chao CK, Chao FK, Fu YS, Liu SH.** Islet-like clusters derived from mesenchymal stem cells in Wharton's jelly of the human umbilical cord for transplantation to control type 1 diabetes. *PLoS ONE*. 2008; 3(1): e1451
 - **Cheng L, Hammond H, Ye Z, Zhara X, Dravid G.** Human adult marrow cells support prolonged expansion of human embryonic stem cells in culture. *Stem Cells*. 2003; 21(2): 131-142.
 - **Cheung AT, Dayanandan B, Lewis JT, Korbitt GS, Rajotte RV, Bryer-Ash M, et al.** Glucose-dependent insulin release from genetically engineered K cells. *Science*. 2000; 290 (5498): 1959-1962.
 - **Chintawar S, Hourez R, Ravella A, Gall D, Orduz D, Rai M, et al.** Grafting neural precursor cells promotes functional recovery in an SCA1 mouse model. *J Neurosci*. 2009. 29(42); 13126-13135.
 - **Chiquette E, Ramirez G, DeFronzo R.** A meta-analysis comparing the effect of thiazolidinediones on cardiovascular risk factors. *Arch Intern Med*. 2004;164(19): 2097-2104.

- **Clark GO, Yochem RL, Axelman J, Sheets TP, Kaczorowski DJ, Shamblott MJ.** Glucose responsive insulin production from human embryonic germ (EG) cell derivatives. *Biochem Biophys Res Commun.* 2007; 356(3): 587-593.
- **Clarke DL.** Generalized Potential of Adult Neural Stem Cells. *Science.* 2000; 288(5471): 1660- 1663.
- **Clift RA, Thomas ED.** Follow-up 26 years after treatment for acute myelogenous leukemia. *N Engl J Med.* 2004; 351(23): 2456- 2457.
- **Cohen Y, Nagler A.** Umbilical cord blood transplantation how, when and for whom?. *Blood Rev.* 2004; 18: 167e79.
- **Corcione A, Benvenuto F, Ferretti E, Giunti D, Cappiello V, Cazzanti F, et al.** Human mesenchymal stem cells modulate B-cell functions. *Blood.* 2006; 107(10): 367-372.
- **Cowan CA, Klimanskaya I, McMahon J, Atienza J, Witmyer J, Zucker JP, et al.** Derivation of embryonic stem-cell lines from human blastocysts. *N Engl J Med.* 2004; 350(13): 1353- 1356.
- **Craig JIO, McClelland DBL, Watson HG.** Blood disease. In: Colledge NR, Walker BR, Ralston SH (eds.). *Davidson's principles & practice of medicine.* 21st edition. China: Churchill Livingstone Elsevier; 2010. P988- 989.
- **Crone J, Rami B, Huber WD, Granditsch G, Schober E.** Prevalence of celiac disease and follow-up of EMA in children And adolescents with type 1 diabetes mellitus. *J pediatr, Gastroenterol Nutr.* 2003;37(1):67-71.

D

- **D'Amour KA, Agulnick AD, Eliazar S, Kelly OG, Kroon E, Baetge EE.** Efficient differentiation of human embryonic stem,

- cells to definitive endoderm. *Atte Biotechnol.* 2005; 23(1 2): 1 534-154 1)
- **D'Amour KA, Bang AG, Eliazer S, Kelly OG Agulnick AD ,Smart N G , et al .**Production of pancreatic hormone-expressing endocrine cells from human .embryonic stem cells. *Nat Biotechnol.* 2006; 24(M): 1392-1401
 - **Dabelea D.** The predisposition to obesity and diabetes in off spring of diabetic mothers. *Diabetes Care.* 2007; 30 Suppl 2 :S169-174
 - **Davies MJ, Kela R, Khunti K.** Liraglutide - overview of the preclinical And clinical data and its role in the treatment of type 2 diabetes . *Diabetes obes Metab.* 20 1 1 ; 1 3(3): 207- 220.
 - **Davila JC, Cezar GG, Thiede M, Strom S, Miki T, Trosko J** Use and Application of stem cells in toxicology. *Taxied Set.* 2004; 79(2): 214-273
 - **Dayan C** Endocrinonlogy .In: Kalra PA (ed).Assential Revision Notes for MRCP.3 rd edition .Knutsford: Pastest : 2009.P93-124
 - **De Block CE, De Leeuw IH, Van Gaal L.** high prevalence of manifestation of gastric autoimmunity in parietal cell antibody – positive type 1(insulin-dependent) diabetic patients .the Belgian registry .*J Clin Endocrinol METAB .*1999; 84(11):4062-4067
 - **De Coppi P, Bartsch G Jr, Siddiqui MM Xn T Santos CC,Perin L, et al .** Isolation of amniotic stem cell lines with potential for therapy .*Nat Piotechnol.*2007: 25(1):100-106
 - **DeFronzo RA, Ratner RE, Han J, Kim DD, Fineman MS, Baron A.** Effects Of exenatide (exendin-4) on glycemic control and weight over 30 weeks in Metformin treated patients with type 2 diabetes. *Diabetes Care.* 2005;28(5):1092-1100
 - **Demuth HU, McIntosh CH, Pederson RA.**Type 2 diabetes –

therapy with dipeptidyl peptidase IV inhibitors .*Biochim Biophys Acta*.2005;1751.(1):33-44

- **Deutsch G, Jung J, Zheng M Lora J, Zaret KS.** Abipotent precursor population for pancreas and liver within the embryonic endoderm *Development*. 2001; 128(60): 871-881.
- **Devendra D, Liu E, Eisenbarth GS.** Type 1 diabetes: recent developments. *BMJ*. 2004; 328(7442): 750- 754.
- **Di Nicola M, Carlo-Stella C, Magni M, Milanesi M, Longoni PD, Matteucci P, et al.** Human bone marrow stromal cells suppress T lymphocyte proliferation induced by cellular or non-specific mitogenic stimuli. *Blood*. 2002; 99(10): 3838-3843.
- **Djouad F, Plence P, Bony C, Tropel P, Apparailly F, Sany J, et al.** Immunosuppressive effect of mesenchymal stem cells favors tumour growth in allogeneic animals. *Blood*. 2003; 102(10): 3837-3844.
- **Docherty K, Bernardo AS, Vallier L.** Embryonic stem cell therapy for diabetes mellitus. *Semin Cell Dev Biol*. 2007; 18(6): 827- 838.
- **Dong PD, Munson CA, Norton W, Crosnier C, Pan X, Gong Z, et al.** Fgf10 regulates hepatopancreatic ductal system patterning and differentiation. *Nat Genet*. 2007; 39(3): 397- 402.
- **Dor Y, Brown J, Martinez OI, Melton DA.** Adult pancreatic beta-cells are formed by self-duplication rather than stem-cell differentiation. *Nature*. 2004; 429(6987):41-46.
- **Doucet C, Ernou I, Zhang Y, Llense JR, Begot L, Holy X, et al.** Platelet lysates promote mesenchymal stem cell expansion: a safety substitute for animal serum in cell-based therapy applications. *J Cell Physiol*. 2005; 205(2): 228- 236.

- **Doyle MJ, Sussel L.** Nkx2.2 regulates beta-cell function in the mature islet. *Diabetes*. 2007; 56(8): 1999- 2007.
- **Drukker M, Benvenisty N.** The immunogenicity of human embryonic stem-derived cells. *Trends Biotechnol*. 2004; 22(3): 136- 141.
- **Drukker M.** Immunogenicity of human embryonic stem cells: can we achieve tolerance?. *Springer Semin Immunopathol*. 2004; 26(1-2): 201-213.
- **Du A, Hunter CS, Murray J, Noble D, Cai CL, Evans SM, et al.** Islet-1 is required for the maturation, proliferation, and survival of the endocrine pancreas. *Diabetes*. 2009; 58(9): 2059-2069.

E

- **Eberhard D, Tosh D .**Transdifferentiation and metaplasia as a paradigm understanding development and disease. *Cell Mo I Life Sci*. 2008; 65(1): 33-«
- **Eberhardt M, Salmon P, von Mach MA, Hengstler JG, Brulport M, Linscheid P, et al.** Multipotential nestin and Isl-1 positive mesenchymal ste cells isolated from human pancreatic islets. *Biochem Biophys ResCommun*. 2006; 345(3): 1167-1176.
- **Eckel RH, Grundy SM, Zimniet PZ.** The metabolic syndrome. *Lancet*.20(365(9468): 1415- 1428.
- **Egan JM, Clocquet AR, Elahi D.** The insulinotropic effect of acute exendin -4administered to humans: comparison of nondiabetic state to type2diabetes.*ClinEndocrinolMetab*. 2002; 87(3): 1282- 1290.
- **Elliott JI, Dewchand H, Altmann DM.** Streptozotocin-induced

diabetes j mice lacking ap T cells. Clin Exp Immunol 1997; 109(1): 116- 120.

- **Encinas JM, Vaahtokari A, Enikolopov G.** Fluoxetine targets early progenitor cells in the adult brain. Proc Natl Acad Sci USA. 2006; 103(21): 8233- 8238.
- **Ende N, Chen R, Reddi AS.** Effect of human umbilical cord blood cells glycemia and insulinitis in type 1 diabetic mice. Biochem Biophys Res Commun. 2004; 325(3): 665- 669.
- **Ende N, Chen R, Reddi AS.** Transplantation of human umbilical cord blood cells improves glycemia and glomerular hypertrophy in type 2 diabetic mice. Biochem Biophys Res Commun. 2004; 321 (1): 168- 1 71.
- **Evans M, Kaufman M.** Establishment in culture of pluripotent cells from mouse embryos. Nature. 1981; 292 (5819): 154-156.

F

- **Fajans SS, Bell GI, Polonsky KS.** Molecular mechanisms and clinical patho-physiology of maturity-onset diabetes of the young. N Engl J Med. 2001; 345(13): 971-980.
- **Fantus IG.** Metformin's contraindications: needed for now. CMAJ. 2005; 173(5): 505-507.
- **Fausto N, Campbell JS .**The role of hepatocytes and oval cells in liver regeneration and repopulation. Mech Dev. 2003; 120(1): I 17- 130.
- **Ferber S, Halkin A, Cohen H, Ber I, Einav Y, Goldberg I, et al.** Pancreatic and duodenal homeobox gene 1 induces expression of insulin genes in liver and ameliorates streptozotocin-induced hyperglycemia. Nat Med. 2000; 6(5): 568- 572.

- **Filipsson K, Kvist-Reimer M, Ahren B.** The neuropeptide pituitary adenylatecyclase-activating polypeptide and islet function. *Diabetes*. 2001; 50(9): 1959-1969.
- **Fineman MS, Koda JE, Shen LZ, Strobel SA, Maggs DG, Weyer C, et al.** The human amylin analog, pramlintide, corrects postprandial hyperglucagon-emia in patients with type 1 diabetes. *Metabolism*. 2002; 51(5): 636- 641.
- **Fioretto P, Steffes MW, Sutherland DE, Goetz FC, Mauer M.** Reversal of lesions of diabetic nephropathy after pancreas transplantation. *N Engl J Med.* 1998; 339(2): 69- 75.
- **Fiorina P, La Rocca E, Venturini M, Minicucci F, Fermo I, Paroni R, et al.** Effects of kidney-pancreas transplantation on atherosclerotic risk factors and endothelial function in patients with uremia and type 1 diabetes. *Diabetes*. 2001; 50(3): 496-501.
- **Fiorina P, Shapiro AM, Ricordi C, Secchi A.** The clinical impact of islet transplantation. *Am J Transplant*. 2008; 8(10): 1990- 1997.
- **Fischer UM, Harting MT, Jimenez F, Monzon-Posadas WO, Xue H, Savitz SI, et al.** Pulmonary passage is a major obstacle for intravenous stem cell delivery: the pulmonary first-pass effect. *Stem Cells and Development*. 2009; 18 (5): 683-692.
- **Fodor A, Harel C, Fodor L, Armoni M, Salmon P, Trono D, et al.** Adult rat liver cells transdifferentiated with lentiviral IPF1 vectors reverse diabetes in mice: an ex vivo gene therapy approach. *Diabetologia*. 2007; 50(1): 121- 130.
- **Franco OH, Steyerberg EW, Hu FB, Mackenbach J, Nusselder W.** Associations of diabetes mellitus with total life expectancy

and life expectancy with and without cardiovascular disease. Arch Intern Med. 2007; 167(11): 1145-1151.

- **Frier BM, Fisher M.** Diabetes Mellitus. In: Colledge NR, Walker BR, Rai SH (eds.). Davidson's principles & practice of medicine. 21st edition CI Churchill Livingstone Elsevier; 2010. p795- 834.
- **Fujikawa T, Oh SH, Pi L, Hatch H, Shupe T, Petersen BE.** Teratoma formation leads to failure of treatment for type 1 diabetes using embryonic stem cell-derived insulin-producing cells. Am J Pthoi 2005; 166(6): 1781-1791.

G

- **Gale EAM, Anderson JV.** Diabetes mellitus and other disorders of metabolism. In; Kumar P, Clark M (eds.). Kumar & Clark Clinical Medicine. ' edition. Spain: Saunders Elsevier; 2009. PI029- 1073.
- **Gangji AS, Cukierman T, Gerstein HC, Goldsmith CH, Clase CM.** A systematic review and meta-analysis of hypoglycemia and cardiovascular events: a comparison of glyburide with other secretagogues and with insulin. Diabetes Care. 2007; 30(2): 389-394.
- **Gao R, Ustinov J, Korsgren O, Otonkoski T.** In vitro neogenesis of human islets reflects the plasticity of differentiated human pancreatic cells. Diabetologia. 2005; 48(11): 2296- 2304.
- **Geijsen N, Horoschak M, Kim K, Gribnau J, Eggan K, DaleyGQ.** Derivation of embryonic germ cells and male gametes from embryonic stem cells .- Nature. 2004; 427(6790): 148-154.

- **George T, Huang J.** Induced Pluripotent Stem Cells, A New Foundation in Medicine. *J Exp Clin Med.* 2010; 2(5):202-217.
- **Georgia S, Bhushan A.** Beta cell replication is the primary mechanism for maintaining postnatal beta cell mass. *J Clin Invest.* 2004; 114(7): 963-968.
- **Gervois P, Fruchart JC, Staels B.** Drug Insight: mechanisms of action and therapeutic applications for agonists of peroxisome proliferator-activated receptors. *Nat Clin Pract Endocrinol Metab.* 2007; 3(2): 145-156.
- **Gittes GK, Prasad K, Tulachan S.** Pancreas and Islet Development. In Efrat S (ed.). *Stem cell therapy for diabetes.* New York: Humana Press; 2010. P3- 40. Gittes GK. Developmental biology of the pancreas: a comprehensive review. *Dev Biol.* 2009; 326(1): 4-35.
- **Gluckman E, Broxmeyer HA, Auerbach AD, Friedman HS, Douglas GW, Devergie A, et al.** Hematopoietic reconstitution in a patient with Fanconi's anemia by means of umbilical-cord blood from an HLA-identical sibling. *N Engl J Med.* 1989; 321(17): 1174-1178.
- **Gonez LJ, Knight KR.** cell therapy for diabetes: stem cells, progenitors or beta-cell replication?. *Mol Cell Endocrinol.* 2010; 323(1): 55- 61.
- **Gonzalez R, Lee JP, Snyder EY.** Neural Stem cells for Central nervous system repair. In: Lanza R (ed.). *Essential of stem cell biology.* 2nd edition. Canada: Academic Press; 2009. P485- 496.
- **Gould E.** How widespread is adult neurogenesis in mammals?. *Nat Rev Neurosci.* 2007; 8(6): 481-488.

- **Grapin-Botton A, Constam D.** Evolution of the mechanisms and molecular control of endoderm formation. *Mech Dev.* 2007; 124(4): 253- 278.
- **Gratwohl A.** Overview of transplant activity in Europe. *Hematol J.* 2004; 5 suppl 3:S29-33.
- **Green K, Brand MD, Murphy MP.** Prevention of mitochondrial oxidative damage as a therapeutic strategy in diabetes. *Diabetes.* 2004; 53(Suppl 1): S110-118.
- **Grivennikov IA.** Embryonic stem cells and the problem of directed differentiation. *Biochemistry (Mosc).* 2008; 73(13): 1438- 1452.
- **Grotzke M, Jones RE.** Acute and chronic complications of diabetes. In: McDermott MT(ed.). *Endocrine secrets.* 5th edition. Philadelphia: Mosby Elsevier; 2009. P17-30.
- **Grotzke M, Jones RE.** Diabetes Mellitus. In: McDermott MT(ed.). *Endocrine secrets.* 5th edition. Philadelphia: Mosby Elsevier; 2009. P9- 10.
- **Gunaseeli I, Doss MX, Antzelevitch C, Hescheler J, Sachinidis A.** Induced pluripotent stem cells as a model for accelerated patient- and disease-specific drug discovery. *Curr Med Chem.* 2010; 17(8): 759- 766.
- **Guo SW, Tuomilehto J.** Preferential transmission of type 1 diabetes from parents to offspring: fact or artifact?. *Genet Epidemiol.* 2002; 23(4): 323- 334.

H

- **Hacein-Bey-Abina S, Garrigue A, Wang GP, Soulier J, Lim A Moriillon, et al.** Insertional oncogenesis in 4 patients after retrovirus-mediated therapy of SCID-X1. *J Clin Invest.* 2008; 1

18(9): 3132-3142.

- **Hafiz MM, Faradji RN, Froud T, Pileggi A, Baidal DA, Cure P, et al.** Immune-suppression and procedure-related complications in 26 patients u type 1 diabetes mellitus receiving allogeneic islet cell transplanted Transplantation. 2005; 80(12): 1718- 1728.
- **Hall PA, Lemoine NR.** Rapid acinar to ductal transdifferentiation in culture human exocrine pancreas. J Pathol. 1992; 166(2): 97-103.
- **Han G, Li Y, Wang J, Wang R, Chen G, Song L, et al.** Active tolerance induction and prevention of autoimmune diabetes by immunogene therapy using recombinant adenoassociated virus expressing glutamic acid decarboxylase 65 peptide GAD(500-585). J Immunol 2005; 174(8): 45164524.
- **Han Z, Vandevoort CA, Latham KE.** Therapeutic cloning: status and prospects. Curr Opin Mo I Ther. 2007; 9(4): 392- 397.
- **Hanna J, Wernig M, Markoulaki S, Sun CW, Meissner A, Cassady JP, et al.** Treatment of sickle cell anemia mouse model with iPS cells generated from autologous skin. Science. 2007; 318(5858): 1920- 1923.
- **Hansson M, Tonning A, Frandsen U, Petri A, Rajagopal J, Englund MC, et al.** Artifactual insulin release from differentiated embryonic stem cells. Diabetes. 2004; 53(10): 2603- 2609.
- **Hardikar AA, Marcus-Samuels B, Geras-Raaka E, Raaka BM, Gershengorn MC.** Human pancreatic precursor cells secrete FGF2 to stimulate clustering into hormone-expressing islet-like cell aggregates. Proc Natl Acad Sci USA. 2003; 100(12): 7117-7122.

- **Hawley RG.** Progress toward vector design for hematopoietic stem cell gene therapy. *Curr Gene Ther.* 2001; 1(1): 1- 17.
- **Heins N, Englund MC, Sjoblom C, Dahl U, Tønning A, Bergh C, et al.** Derivation, characterization, and differentiation of human embryonic stem cells. *Stem Cells.* 2004; 22(3): 367- 376.
- **Hernigou P, Poignard A, Manicom O.** The use of percutaneous autologous bone marrow transplantation in non-union and concentration of progenitor cells. *J Bone Joint Surg Br.* 2005; 87(7): 896- 902.
- **Hockemeyer D, Soldner F and Jaenisch R** Direct reprogramming of somatic cells to a pluripotent state. In: Lanza R (ed.). *Essential of stem cell biology*. 2nd edition. Canada: Academic Press; 2009. P29- 31.
- **Horb ME, Shen CN, Tosh D, Slack JM.** Experimental conversion of liver to pancreas. *Curr Biol.* 2003; 13(2): 105- 115.
- **Horwitz EM, Le Blanc K, Dominici M, Mueller I, Slaper-Cortenbach I, Marini FC, et al.** Clarification of the nomenclature for MSC: The International Society for Cellular Therapy position statement. *Cytotherapy.* 2005; 7(5): 393- 395.
- **Horwitz EM, Prockop DJ, Gordon PL, Koo WW, Fitzpatrick LA, Neel MD, et al.** Clinical responses to bone marrow transplantation in children with severe osteogenesis imperfecta. *Blood.* 2001; 97(5): 1227-1231.
- **Howe SJ, Mansour MR, Schwarzwaelder K, Bartholomae C, Hubank M, Kempinski H, et al.** Insertional mutagenesis combined with acquired somatic mutations causes leukemogenesis following gene therapy of SCID-X1 patients. *J Clin Invest.* 2008; 118(9): 3143- 3150.

- **Hugle T, van Laar JM.** Stem cell transplantation for rheumatic autoimmune diseases. *Arthritis Res Ther.* 2008; 10(5): 217.
- **Hull RL, Westermarck GT, Westermarck P, Kahn SE.** Islet amyloid: a critical entity in the pathogenesis of type 2 diabetes. *J Clin Endocrinol Metab.* 2004; 89(8):-3629- 3643.
- **Hummel M, Fuchtenbusch M, Schenker M, Ziegler AG.** No major association of breast-feeding, vaccinations, and childhood viral diseases with early islet autoimmunity in the German BABYDIAB Study. *Diabetes Care.* 2000;23(7): 969-974.
- **Hviid A, Stellfeld M, Wohlfahrt J, Melbye M.** Childhood vaccination and type 1 diabetes. *N Engl J Med.* 2004; 350(14): 1398- 1404.

I

- **Iles RK.** Molecular cell biology and genetic disorders. In: Kumar P and Clark, M (eds.). *Kumar & Clark Clinical Medicine.* 7th edition. Spain: Suunders Elsevier; 2009. P29.
- **Imai J, Katagiri H, Yamada T, Ishigaki Y, Ogihara T, Uno K, et al.** Constitutively active PDX1 induced efficient insulin production in adult murine liver. *Biochem Biophys Res Commun.* 2005; 326(2): 402- 409.
- **Innes JA** (ed.). *Davidson's Essential of medicine.* China: Churchill livingston Elsevier; 2009.
- **Inoue K, Matsuinoto M, Akimoto K.** Fasting plasma glucose and HbA1c risk factors for Type 2 diabetes. *Diabet Med.* 2008; 25(10): 1157- 1163.
- **International Diabetes Federation.** *IDF Diabetes Atlas.* 4th edition. Brussels:Belgium: International Diabetes Federation;

2009.

- **Inzucchi SE, Sherwin RS.** Type I Diabetes Mellitus. In: Goldman L, Ausiello D (eds.)- Cecil Medicine. 23rd edition. Philadelphia: Saunders Elsevier; 2008PI 727- 1747.
- **Inzucchi SE, Sherwin RS.** Type 2 Diabetes Mellitus. In: Goldman L, Ausiello D (eds.). Cecil Medicine. 23rd edition. Philadelphia: Saunders Elsevier; 2008. PI 748- 1760.

J

- **Jacquemin P, Yoshitomi H, Kashima Y, Rousseau GG, Lemaigre FP, Zaret KS.** An endothelial-mesenchyma! relay pathway regulates early phases of pancreas development. Dev Biol.2006; 290(1): 189- 199.
- **Jeitler K, Horvath K, Berghold A, Gratzer TW, Neeser K, Pieber TR, et al.** Continuous subcutaneous insulin infusion versus multiple daily insulin injections in patients with diabetes mellitus: systematic review and meta-analysis. Diabetologia. 2008; 51(6): 941-951.
- **Jiang J, Au M, Lu K, Eshpeter A, Korbitt G, Fisk G, et al.** Generation of insulin-producing islet-like clusters from human embryonic stem cells. Stem Cells.2007; 25(8): 1940- 1953.
- **Jiang Y, Jahagirdar BN, Reinhardt RL, Schwartz RE, Keene CD, Ortiz-Gonzalez XR, et al.** Pluripotency of mesenchymal stem cells derived from adult marrow. Nature. 2002; 418(6893): 41-49.
- **JiangW, Shi Y, Zhao D, Chen S, Yong J, Zhang J, et al.** In vitro derivation of functional insulin-producing cells from human embryonic stem cells. Cell Res. 2007; 17(4): 333- 344.

- **Jin CX, Li WL, Xu F, Geng ZH, He ZY, Su J, et al.** Conversion of immortal liver progenitor cells into pancreatic endocrine progenitor cells by persistent expression of PDX1. *J Cell Biochem.* 2007; 104(1): 224-236.
- **Joggerst SJ, Hatzopoulos AK.** Stem cell therapy for cardiac repair: benefits and barriers. *Expert Rev Mol Med.* 2009; 11: e20.
- **Jones DL, Fuller MT.** Stem cell Niches. In: Lanza R (ed.). *Essential of stem cell biology*. 2nd edition. Canada: Academic Press; 2009. P66- 67.
- **Jovanovic L, Dailey G, Huang WC, Strange P, Goldstein BJ.** Repaglinide in type 2 diabetes: a 24-week, fixed-dose efficacy and safety study. *J Clin Pharmacol.* 2000; 40(1): 49- 57.
- **Juhl K, Bonner-Weir S, Sharma A.** Regenerating pancreatic beta-cells: plasticity of adult pancreatic cells and the feasibility of in-vivo neogenesis. *Curr Opin Organ Transplant.* 2010; 15(1): 79- 85.
- **Jun HS.** Cell replacement and regeneration therapy for diabetes. *Korean Diabetes J.* 2010; 34(2): 77- 83.

K

- **Kahn SE, Haffner SM, Heise MA, Herman WH, Holman RR, Jones NP, et al.** Glycemic durability of rosiglitazone, metformin, or glyburide monotherapy. *N Engl J Med.* 2006; 355(23): 2427- 2443.
- **Kalra PA.** Nephrology. In: Kalra PA(ed.). *Essential Revision Notes for MRCP*. 3rd edition. Knutsford: Pastest; 2009. P391-446.
- **Kaneto H, Matsuoka TA, Miyatsuka T, Kawamori D, Katakami N, Yamasaki Y, et al.** PDX1 functions as a master factor in the pancreas. *Front Biosci.* 2008; 13: 6406- 6420.

- **Kang L, Wang J, Zhang Y, Kou Z, Gao S.** iPS cells can support full-ten development of tetraploid blastocyst-complemented embryos. *Cell Stem Cell*. 2009; 5(2): 135- 138.
- **Kapustin J.** Latent Autoimmune Diabetes in Adults. *J Nurse Pract*. 2008 4(9): 681-687.
- **Karnieli O, Izhar-Prato Y, Bulvik S, Efrat S.** Generation of insulin producing cells from human bone marrow mesenchymal stem cells by genetic manipulation. *Stem Cells*. 2007; 25(11): 2837- 2844.
- **Kashi SH.** Organ Transplantation. In: Henry MM & Thompson JN (eds.). *Clinical Surgery*. 2nd edition. China: Elsevier Saunders; 2005. p201- 213.
- **Kataoka K, Han SI, Shioda S, Hirai M, Nishizawa M, Handa H.** MafA is a glucose-regulated and pancreatic beta-cell-specific transcriptional activator for the insulin gene. *JBiol Chem*. 2002; 277(51): 49903-49910.
- **Kaufman DS, Hanson ET, Lewis RL, Auerbach R, Thomson JA.** Haematopoietic colony-forming cells derived from human embryonic stem cells. *Proc Natl Acad Sci USA*. 2001; 98(19): 10716- 10721.
- **Kawasaki H, Mizuguchi T, Kikkawa Y, Oshima H, Sasaki Y, Tokino T, et al.** In vitro transformation of adult rat hepatic progenitor cells into pancreatic endocrine hormone-producing cells. *J Hepatobiliary Pancreat Surg*. 2008;15(3): 310-317.
- **Kehat I, Kenyagin-Karsenti D, Snir M, Segev H, Amit M, Gepstein A, et al.** Human embryonic stem cells can differentiate into myocytes with structural and functional properties of cardiomyocytes. *J Clin Invest*. 2001; 108(3): 407-414.

- **Kelly WD, Lillehei RC, Merkel FK, Idezuki Y, Goetz FC.** Allotransplantation of the pancreas and duodenum along with the kidney in diabetic nephropathy. *Surgery*. 1967; 61(6): 827-837.
- **Khurdayan VK.** Stem cells: therapeutic present and future. *Timely Top Med Cardiovascular Dis*. 2007 10; 11: E14.
- **Kim A, Miller K, Jo J, Kilimnik G, Wojcik P, Hara M.** Islet architecture: A comparative study. *Islets*. 2009; 1(2): 129- 136.
- **Kim SM, Lini JY, Park SI, Jeong CH, Oil JH, Jeong M, et al.** Gene therapy using TRAIL-secreting human umbilical cord blood-derived mesenchymal stem cells against intracranial glioma. *Cancer Res*, 2008; 68(23): 9614- 9623.
- **Kitabchi AE, Umpierrez GE, Murphy MB, Kreisberg RA.** Hyperglycemic crises in adult patients with diabetes. *Diabetes Care*. 2006; 29(12): 2739-2748.
- **Kitabchi AE, Umpierrez GE, Miles JM, Fisher JN.** Hyperglycemic crises in adult patients with diabetes. *Diabetes Care*. 2009; 32(7): 1335-1343.
- **Klein T, Heremans Y, Heimberg H, Pipeleers D, Madsen OD, Serup P, et al.** Investigation and characterization of the duct cell-enriching process during serum-free suspension and monolayer culture using the human exocrine pancreas fraction. *Pancreas*. 2009; 38(1): 36-48.
- **Klein T, Ling Z, Heimberg H, Madsen OD, Heller RS, Serup P.** Nestin is expressed in vascular endothelial cells in the adult human pancreas. *J Histochem Cytochem*. 2003; 51(6): 697- 706.
- **Klonoff DC, Buse JB, Nielsen LL, Guan X, Bowlus CL,**

- Holcombe JH, et al.** Exenatide effects on .diabetes, obesity, cardiovascular risk factors and hepatic biomarkers in patients with type 2 diabetes treated for at least 3 years. *Curr Med Res Opin.* 2008; 24(1): 275- 286.
- **Knight RJ, Kerman RH, Zela S, Podbielski J, Podder H, Van Buren CT, el al.** Pancreas transplantation utilizing thymoglobulin, sirolimus, and cyclosporine. *Transplantation.* 2006; 81(8): 1101- 1105.
 - **Knoepfler PS.** Deconstructing stem cell tumorigenicity: a roadmap to safe regenerative medicine. *Stem Cells.* 2009; 27(5): 1050- 1056.
 - **Koizumi M, Doi R, Toyoda E, Tulachan S, Kami K, Mori T, et al.** Hepatic regeneration and enforced PDX1 expression accelerate transdifferentiation in liver. *Surgery.* 2004; 136(2): 449-457.
 - **Korbutt GS, Mallett AG, Ao Z, Flashner M, Rajotte RV.** Improved survival of microencapsulated islets during in vitro culture and enhanced metabolic function following transplantation. *Diabetologia.* 2004; 47(10): 1810- 1818.
 - **Kordonouri O, Hartmann R, Deiss D, Wilms M, Grieters-Kieslich A.** Natural course of autoimmune thyroiditis in type 1 diabetes: association with gender, age, diabetes duration, and puberty. *Arch Dis Child.* 2005; 90(4): 411-414.
 - **Koznarova R, Sauclek F, Sosna T, Adarnec M, Jeclinakova T, Boucek P et al.** Beneficial effect of pancreas and kidney transplantation on advanced diabetic retinopathy. *Cell Transplant.* 2000; 9(6): 903- 905.
 - **Krause DS, Theise ND, Collector MI, Henegariu O, Hwang S, Gardner et al.** Multi-Organ, Multi-Lineage Engraftment by a

- Single Bone Marrow Derived Stem Cell. *Cell*. 2001. 105(3): 369-377.
- **Kritzik MR, Krah T, Good A, Krakowski M, St-Onge L, Gruss P, et al.** Transcription factor expression during pancreatic islet regeneration. *Mol Cell Endocrinol*. 2000; 164(1-2):99- 107.
 - **Kroon E, Martinson LA, Kadoya K, Bang AG, Kelly OG, Eliazar S, et al.** Pancreatic endoderm derived from human embryonic stem cells generate glucose-responsive insulin-secreting cells in vivo. *Nat Biotechnol*. 2008 26(4): 443- 452.
 - **Kubo A, Shinozaki K, Shannon JM, Kouskoff V, Kennedy M, Woo S, et al.** Development of definitive endoderm from embryonic stem cells in culture. *Development*. 2004; 131(7): 1651- 1662.
 - **Kucia M, Reza R, Campbell FR, Zuba-Surma E, Majka M, Ratajczak J, et al.** A population of very small embryonic-like (VSEL) CXCR4(+)SSEA-1(+)Oct-4+ stem cells identified in adult bone marrow. *Leukemia*. 2006; 20(5): 857- 569.
 - **Kurukulasuriya LR, Sowers JR.** Therapies for type 2 diabetes: lowering HbA1c and associated cardiovascular risk factors. *Cardiovasc Diabetol*. 2010;9:45.
 - **Kusaka I, Nagasaka S, Horie H, Ishibashi S.** Metformin, but not pioglitazone, decreases post challenge plasma ghrelin levels in type 2 diabetic patients a possible role in weight stability?. *Diabetes Obes Metab*. 2008; 10(11): 1039-1046.
 - **Kushner JA, Ciemerych MA, Sicinska E, Wartschow LM, Teta M, Long SY, et al.** Cyclins D2 and D1 are essential for postnatal pancreatic beta-cell growth. *Mol Cell Biol*. 2005; 25(9): 3752- 3762.

- **Kyba M, Perlingeiro RC, Daley GQ.** HoxB4 confers definitive lymphoidmyeloid engraftment potential on embryonic stem cell and yolk sac hematopoietic progenitors. *Cell*. 2002; 109(1): 29- 37.

L

- **Lavoit MC, Weier J, Conaghan J, Pedersen RA.** Poor development of human nuclear transfer embryos using failed fertilized oocytes. *Reprod Biomed Online*. 2005; 11(6): 740- 744.
- **Lebovitz HE, Kreider M, Freed MI.** Evaluation of Liver Function in Type 2 Diabetic Patients during Clinical Trials: Evidence that rosiglitazone does not cause hepatic dysfunction. *Diabetes Care*. 2002; 25(5): 815- 821.
- **Lee RH, Seo MJ, Reger RL, Specs JL, Pulin AA, Olson SD, et al.** Multipotent stromal cells from human marrow home to and promote repair of pancreatic islets and renal glomeruli in diabetic NOD/SCID mice. *Proc Natl Acad Sci USA*. 2006; 103(46): 17438- 17443.
- **Leist M, Bremer S, Brundin P, Hescheler J, Kirkeby A, Krause KH, et al.** The biological and ethical basis of the use of human embryonic stem cells for in vitro test systems or cell therapy. *ALTEX*. 2008; 25(3): 163- 190.
- **Leiter EH, Prochazka M, Coleman DL.** The non-obese diabetic (NOD)mouse. *Am J Pathol* 1987; 128(2): 380-383.
- **Leo'n-Quinto T, Jones J, Skoudy A, Burcin M, Soria B.** In vitro directed differentiation of mouse embryonic stem cells into insulin-producing cells. *Diabetologia*. 2004; 47(8): 1442- 1451.
- **Li L, Seno M, Yamada H, Kojima I.** Betacellulin improves glucose metabolism by promoting conversion of intra

- islet precursor cells to beta-cells in streptozotocin-treated mice. *Am J Physiol Endocrinol Metab.* 2003; 285(3):E577- 583._
- **Li Y, Hansotia T, Yusta B, Ris F, Halban PA, Drucker DJ.** Glucagon-like peptide-1 receptor signaling modulates beta cell apoptosis. *J Biol Chem.* 2003; 278(1): 471-478.
 - **Limbert C, Path G, Jakob F, Seufert J.** Beta-cell replacement and regeneration: Strategies of cell-based therapy for type 1 diabetes mellitus. *Diabetes Res Clin Pract.* 2008; 79(3): 389- 399.
 - **Linnebjerg H, Kothare PA, Skrivaneck Z, de la Peiia A, Atkins M, Ernest CS, et al,** Exenatide: effect of injection time on postprandial glucose in patients with Type 2 diabetes. *Diabet Med.* 2006; 23(3): 240-245.
 - **Lo B, Parham L.** Ethical issues in stem cell research. *Endocr Rev.* 200 30(3): 204-213.
 - **Longmore M, Wilkinson IB, Davdison EH, Fo'ulkes A, Mafi AR** (eds.). *Oxford Handbook of clinical medicine.* 8th edition, Oxford: Oxford University Press; 2010.
 - **Lu J, Hou R, Booth CJ, Yang SH, Snyder M.** Defined culture conditions c human embryonic stem cells. *Proc Natl Acad Sci USA.* 2006; 103(15): 5688 5693.
 - **Lu LL, Liu YJ, Yang SG, Zhao QJ, Wang X, Gong W, et al.** Isolation and characterization of human umbilical cord mesenchymal stem cells with hematopoiesis-supportive function and other potentials. *Haematologica.* 2006; 91(8): 1017- 1026.
 - **Lu S, Wang WP, Wang XF, Zheng ZM, Chen P, Ma KT, et al.** Heterogeneity in predisposition of hepatic cells to be induced into pancreaticendocrine cells by PDX1. *World J Gastroenterol* 2005; 11(15): 2277-2282.

- **Lu P, Liu F, Yan L, Peng T, Liu T, Yao Z, et al.** Stem cells therapy for type1 diabetes. *Diabetes Res Clin Pract.* 2007; 78(1): 1- 7.
- **Lumelsky N, Blondel O, Laeng P, Velasco I, Ravin R, McKay R.** Differentiation of embryonic stem cells to insulin-secreting structures similar to pancreatic islets. *Science.* 2001; 292(5520): 1389- 1394.

M

- **Ma RCW, Tong PCY.** Epidemiology of Type 2 Diabetes. In: Holt RIG, Cockram CS, Flyvbjerg A, Goldstein BJ (eds.). *Textbook of Diabetes.* 4th edition. Singapore: Wiley-Blackwell; 2010. P45-68
- **Magavi SS, Leavitt BR, Macklis JD.** Induction of neurogenesis in the neocortex of adult mice. *Nature.* 2000; 405(6789): 951-955.
- **Makarev E, CallMK, GroggMW, Atkinson DL, Milash B, Odelberg SJ, et a I.** Gene expression signatures in the newt irises during lens regeneration. *FEES Lett.* 2007; 581 (9): 1865-1870.
- **Markert CD, Atala A, Cann JK, Christ G, Furth M, Ambrosio F, et al.** Mesenchymal stem cells: emerging therapy for Duchenne muscular dystrophy. *PMR.* 2009; 1(6): 547-559.
- **Martin M, Gallego-Llamas J, Ribes V, Keding M, Niederreither K, Chambon P, et al.** Dorsal pancreas agenesis in retinoic acid-deficient Raldh2 mutant mice. *Dev Biol.* 2005; 284(2): 399-411.
- **Mashima H, Shibata H, Mine T, Kojima I.** Formation of

insulin-producing cells from pancreatic acinar AR42J cells by hepatocyte growth factor .*Endocrinology*. 1996; 137(9): 3969-3976.

- **Matsuoka TA, Zhao L, Artner I, Jarrett HW, Friedman DA, Means A, et al.** Members of the large Maf transcription family regulate insulin gene transcription in islet beta cells. *Mol Cell Biol*.2003; 23(17): 6049- 6062.
- **Mavilio F, Pellegrini G, Ferrari S, Di Nunzio F, Di Iorio E, Recchia A, et al.** Correction of junctional epidermolysis bullosa by transplantation of genetically modified epidermal stem cells. *Nat Med*. 2006; 12(2): 1397- 1402.
- **Mayhew CN, Wells JM.** Converting human pluripotent stem cells into beta-cells: recent advances and future challenges. *Curr Opin Organ Transplant*. 2010; 15(1): 54-60.
- **McCall AL, Saunders JT.** Diabetes Mellitus in Adults. In: Rakel RE &Bope ET (eds). *Conn's Current Therapy*. 60th edition. Philadelphia: Saunders Elsevier; 2008. P701-708.
- **McGill JB. Diabetes Mellitus. In: Foster C, Mistry NF, Peddi PF, Sharma S (eds.).** The Washington Manual of Medical Therapeutics. 33rd edition. USA: Lippincott Williams & Wilkins; 2010. P793- 826.
- **Meier J, Butler AE, Saisho Y, Monchamp T, Galasso R, Bhushan A, et al.**Beta-cell replication is the primary mechanism subserving the postnatal expansion of beta-cell mass in humans. *Diabetes*. 2008; 57(6): 1584- 1594.
- **Meivar-Levy I, Aviv V, Ferber S.** Adult Cell Reprogramming: Using Nonpancreatic Cell Sources to Generate Surrogate Beta Cells for Treatment of Diabetes, In: Efrat S (ed.). *Stem cell*

- therapy for diabetes .New York: Humana Press; 2010. PI 83-202.
- **Meloche RM.** Transplantation for the treatment of type 1 diabetes. *World J Gastroenterol.* 2007; 13(47): 6347- 6355.
 - **Merani S, Toso C, Emamaullee J, Shapiro AM ,.** Optimal implantation site for pancreatic islet transplantation. *The British journal of surgery.* 2008- 95(12): 1449- 1461
 - **Metzger BE, Gabbe SG, Persson B, Buchanan TA, Catalano PA, Damm P, et al.** International Association of Diabetes and Pregnancy Study Group recommendations on the diagnosis and classification of hyperglycemia i pregnancy. *Diabetes Care.* 2010; 33(3): 676- 682.
 - **Metzger BE, Lowe LP, Dyer AR, Trimble ER, Chaovarindr U, Cousta DR, et al.** Hyperglycemia and adverse pregnancy outcomes. *N Engl J Med* 2008; 358(19): 1991-2002.
 - **Mitalipov S, Wolf D.** Totipotency, pluripotency and nuclear reprogramming *Adv Biochem Eng Biotechnol.* 2009. 1 14: 185-99.
 - **Miyamoto K, Hayashi K, Suzuki T, Ichihara S, Yamada T, Kano Y, et al.** Human placenta feeder layers support undifferentiated growth of primate embryonic stem cells. *Stem Cells.*2004; 22(4): 433- 440.
 - **Moayeri M, Hawley TS, Hawley RG.** Correction of murine hemophilia A by hematopoietic stem cell gene therapy. *Mol Ther.* 2005; 12(6): 1034-1042.
 - **Mohamed Q, Gillies MC, Wong TY.** Management of diabetic retinopathy: asystematic review. *JAMA.* 2007; 298(8):902-916.
 - **Montini E, Cesana D, Schmidt M, Sanvito F, Ponzoni M, Bartholomae C,et al.** Hematopoietic stem cell gene transfer in a

tumor-prone mouse model uncovers low genotoxicity of lentiviral vector integration. *Nat Biotechnol.* 2006; 24(6): 687- 696.

- **Montori VM.** Should patients with type 2 diabetes focus on glycemic control to reduce their cardiovascular risk?. *Pol Arch Med Wewn.* 2008; 118(9): 502-507.
- **Morelli AE, Thomson AW.** Tolerogenic dendritic cells and the quest for transplant tolerance. *Nat Rev Immunol.* 2007; 7(8): 610-621.
- **Morita S, Hara A, Kojima I, Horii T, Kimura M, Kitamura T, et al.** Dicer is required for maintaining adult pancreas. *PLoS One.* 2009; 4(1): e4212.

N

- **Nakajima-Nagata N, Sakurai T, Mitaka T, Katakai T, Yamato E, Miyazaki J, et al.** In vitro induction of adult hepatic progenitor cells into insulin-producing cells. *Biochem Biophys Res Commun.* 2004; 318(3): 625-630.
- **Nathan DM, Buse JB, Davidson MB, Ferrannini E, Holman RR, Sherwin R, et al.** Medical management of hyperglycemia in type 2 diabetes: a consensus algorithm for the initiation and adjustment of therapy: a consensus statement of the American Diabetes Association and the European Association for the Study of Diabetes. *Diabetes Care.* 2009; 32(1): 193- 203.
- **Navarro X, Kennedy WR, Sutherland DE.** Autonomic neuropathy and survival in diabetes mellitus: effects of pancreas transplantation. *Diabetologia.* 1991;34(Suppl 1):SI08- 112.
- **Navarro X, Sutherland DER, Kennedy WR.** Long-term effects of pancreatic transplantation on diabetic neuropathy. *Ann Neurol.* 1997; 42(5): 727- 736.

- **Nesto RW, Bell D, Bonow RO, Fonseca V, Grundy SM, Horton ES, et al.** Thiazolidinedione use, fluid retention, and congestive heart failure: a consensus statement from the American Heart Association and American Diabetes Association. *Circulation*. 2003; 108(23): 2941- 2948.
- **Nikolova G, Jabs N, Konstantinova I, Domogatskaya A, Tryggvason K, Sorokin L, et al.** The vascular basement membrane: a niche for insulin gene expression and Beta cell proliferation. *Dev Cell*. 2006; 10(3): 397- 405.
- **Nishimura W, Kondo T, Salameh T, El Khattabi I, Dodge R, Bonner-Weir S, et al.** A switch from MafB to MafA expression accompanies differentiation to pancreatic beta-cells. *Dev Biol*. 2006; 293(2): 526- 539.
- **Noda M, Seike N, Kadowaki T.** Alcohol consumption and risk of type 2 diabetes mellitus in Japanese: a systematic review. *Asia Pac J Clin Nutr*. 2008; 17(4): 545-551.
- **Noguchi H, Kaneto H, Weir GC, Bonner-Weir S.** PDX1 protein containing its own antenapedia like protein transduction domain can transduce pancreatic duct and islet cells. *Diabetes*. 2003, 52(7): 1732- 1737.
- **Nuininga JE, van Moerkerk H, Hanssen Wakka j, Oosterwijk E, et al.** Arabbit model to tissue engineer the bladder *Biomaterials*. 2004; 25(9): 1 657- 1 66 1

O

- **Oh SH, Muzzonigro TM, Bae SH, LaPJante JM, Hatch HM, Petersen BE.** Adult bone marrow-derived cells trans-differentiating into insulin producing. cells for treatment of type I diabetes. *Lab Invest*. 2004; 84(5): 607- 617.

- **Oliver-Krasinski JM, Stoffers DA.** On the origin of the beta cell. *Gem Dev.* 2008; 22(15): 1998-2021.
- **Ornoy A.** Growth and neurodevelopmental outcome of children born to mothers with pregestational and gestational diabetes. *Pediatr Endocrinol Rev* 2005; 3(2): 104- 113.
- **Otsuka M, Hoshida Y, Kato N, Moriyama M, Taniguchi H, Ami M et al.** Liver chip and gene shaving. *J Gastroenterol* 2003; 38 Suppl 15: 89-92.

P

- **Paik SG, Fleischer N, Shin SI.** Insulin dependent diabetes mellitus induced by sub diabetogenic doses of streptozotocin: obligatory role of cell mediated immune processes. *Proc Natl Acad Sci USA.* 1980; 77(10): 6129-6133.
- **Parkes DG, Pittner R, Jodka C, Smith P, Young A.** insulintropic actions of exendin-4 and glucagon-like peptide-1 in vivo and in vitro. *Metabolism.* 2001;50(5): 583- 589.
- **Path G, Opel A, GehJen M, Rothhammer V, Niu X, Limbert C, et al.** Glucose-dependent expansion of pancreatic beta-cells by the protein p8 in vitro and in vivo. *Am J Physiol Endocrinol Metab.* 2006; 291(6): E11 68-1176.
- **Path G, Opel A, Knoll A, Seufert J.** Nuclear protein p8 is associated with glucose-induced pancreatic beta-cell growth. *Diabetes.* 2004; 53 Suppl 1:S82-85.
- **Pessina A, Eletti B, Croera C, Savalli N, Diodovich C, Gribaldo L.** Pancreas developing markers expressed on human mononucleated umbilical cord blood cells. *Biochem Biophys Res Commun.* 2004; 323(1): 3 15-322.
- **Peters K, Panienka R, Li J, Kloppel G, Wang R.** Expression

of stem cell markers and transcription factors during the remodeling of the rat pancreas after duct ligation. *Virchows Arch.* 2005; 446(1): 56- 63.

- **Pignone M, Alberts MJ, ColweU JA, Cushman M, Inzucchi SE, Mukherjee D, et al.** Aspirin for primary prevention of cardiovascular events in people with diabetes: a position statement of the American Diabetes Association, a scientific statement of the American Heart Association, and an expert consensus document of the American College of Cardiology Foundation .*Diabetes Care.* 2010; 33(6): 1395- 1402.
- **Pinhas-Hamiel O, Zeitler P.** Acute and chronic complications of type 2 diabetes mellitus in children and adolescents. *Lancet.* 2007; 369(9575): 1823-1831.
- **Potten CS, Wilson JW.** The Development of Epithelial Stem cell Concepts. In: Lanza R (ed.). *Essential of stem cell biology.* 2nd edition. Canada: Academic Press; 2009. P17- 27.
- **Pree I, Pilat N, Wekerle T.** Recent progress in tolerance induction through mixed chimerism. *int Arch Allergy Immunol* 2007; 144(3): 254-266.
- **Price FD, Kuroda K, Rudnicki MA.** Stem cell based therapies to treat muscular dystrophy *Biochim Biophys Acta.* 2007; 1772(2): 272- 283.
- **Proceedings of the 4th Internationalorkshop-Conference on Gestational Diabetes Mellitus. Chicago, Illinois, USA. 14-16 March 1997.** *Diabetes Care;* 1998; 21 Suppl 2: B1- 167.
- **Przyborski SA.** Isolation of human embryonal carcinoma stem cells by immunomagnetic sorting. *Stem Cells.* 2001; 19(6): 500- 504.

Q

- **Quesenberry PJ.** hematopoiesis and hematopoietic growth factors. In: Goldman L & Ausiello D (eds). Cecil Medicine. 23rd edition. Philadelphia: Saunders Elsevier; 2008. PI 165-1172.

R

- **Raff M.** Adult stem cell plasticity: Fact or Artifact?. Annu Rev Cell Dev 2003; 19: 1-22.
- **Raikwar SP, Zavazava N.** Insulin producing cells derived from embryonic stem cells: are we there yet?. J Cell Physiol. 2009; 218 (2): 256-263.
- **Ramiya VK, Maraist M, Arfors KE, Schatz DA, Peck AB, Cornelius JG.** Reversal of insulin dependent diabetes using islets generated in vitro from pancreatic stem cells. Nat Med. 2000; 6(3): 278- 282.
- **Raz I, Avron A, Tamir M, Metzger M, Symer L, Eldor R, et al.** Treatment of new-onset type1 diabetes with peptide DiaPep277 is safe and associate with preserved beta-cell function: extension of a randomized, double-blind' phase II trial. Diabetes Metab Res Rev. 2007; 23(4): 292-298.
- **Reubinoff BE, Pera MF, Fong CY, Trounson A, Bongso A.** Embry stem cell lines from human blastocysts: somatic differentiation in vitro. Biotechnol. 2000; 18(4): 399-404.
- **Richards D, Aronson J (eds.).** Oxford handbook of practical drug therapy 2nd edition. Oxford: Oxford University Press; 2005.
- **Riddle M, Frias J, Zhang B, Maier H, Brown C, Lutz K, et al.** Pramlintide improved glycemic control and reduced weight in

patients with type 2 diabetes using basal insulin. *Diabetes Care*. 2007; 30(11): 2794-2799.

- **Robertson RP, Davis C, Larsen J, Stratta R, Sutherland DE.** Pancreas and islet transplantation in type 1 diabetes. *Diabetes Care*. 2006; 29(4): 935.
- **Robles DT, Eisenbarth GS.** Type 1A diabetes induced by infection and immunization. *J Autoimmun*. 2001; 16(3): 355-362.
- **Roche E, Reig JA, Campos A, Paredes B, Isaac JR, Lim S, et al.** Insulin-secreting cells derived from stem cells: clinical perspectives, hopes and hopes. *Transpl Immunol*. 2005; 15(2): 113- 129.
- **Rosenberg L, Lipsett M, Yoon JW, Prentki M, Wang R, Jun HS, et al.** Apentadecapeptide fragment of islet neogenesis-associated protein increases beta-cell mass and reverses diabetes in C57BL/6J mice *Ann Surg*. 2004;240(5): 875- 884.
- **Rosenstock J, Aguilar-Salinas C, Klein E, Nepal S, List J, Chen R.** Effect of saxagliptin monotherapy in treatment-naive patients with type 2 diabetes. *Curr Med Res Op'm*. 2009; 25(10): 2401 - 2411.
- **Ruhnke M, Ungefroren H, Nussler A, Martin F, Brulport M, Schormann W, et al.** Differentiation of in vitro-modified human peripheral blood monocytes into hepatocyte-like and pancreatic islet-like cells. *Gastroenterology*. 2005; 128(7): 1774- 1786.
- **Russell RCG.** The Pancreas. In: Russell RCG, Williams NS & Bulstrode CJK (eds.). *Bailey & Love 's short practice of surgery*. 24th edition. London: Arnold; 2004. PI 114-1132.

S

- **Salem HK, Thiernemann C.** Mesenchymal Stromal Cells: Current Understanding and Clinical Status. *Stem Cells* 2010; 28(3): 585- 596.
- **Sansone RA, Sansone LA.** Sertraline-induced hyperglycemia: case report. *Int J Psychiatry Med.* 2003; 33(1): 103- 105.
- **Sapir T, Shternhall K, Meivar-Levy I, Blumenfeld T, Cohen H, SkutelskyE, et al.** Cell-replacement therapy for diabetes: Generating functional insulin-producing tissue from adult human liver cells. *Proc Natl Acad Sci USA.* 2005; 102(22): 7964-7969.
- **Sarvetnick NE, Gu D.** Regeneration of pancreatic endocrine cells in interferon-gamma transgenic mice. *Adv Exp Med Biol.* 1992; 32: 85- 89.
- **Scharfmann R, Duvillie B, Stetsyuk V, Attali M, Filhoulaud G, GuillemainG.** Beta-cell development: the role of intercellular signals. *Diabetes Obes Metab.* 2008; 10 suppl 4: 195- 200.
- **Schmitt TM, de Footer RF, Gronski MA, Cho SK, Ohashi PS, Zuniga-P flicker JC.** Induction of T cell development and establishment of T cell competence from embryonic stem cells differentiated in vitro. *Nat Immunol* 2004; 5(4): 410-417.
- **Schmitz O, Brock B, Rungby J.** Amylin agonists: a novel approach in the treatment of diabetes. *Diabetes.* 2004; 53 Suppl 3: S233- 238.
- **Scholer HR.** The Potential of Stem Cells:An Inventory In: Knoepffler N Schipanski D, and Sorgner SL (eds.). *Human biotechnology as Social Challenge.* Hampshire: Ashgate Publishing Ltd.; 2007. P28.
- **Schuldiner M, Yanuka O, Itskovitz-Eldor J, MeSton DA,**

- Benvenisty N.** Effects of eight growth factors on the differentiation of cells derived from human embryonic stem cells. *Proc Natl Acad Sci USA*. 2000; 97(21): 11307-
- **Scott HR, Blyth KG, Jones JB (eds).** Davidson's foundation of clinical practice. China: Churchill Livingstone Elsevier; 2009.
 - **Seaberg RM, Smukler SR, Kieffer TJ, Enikolopov G, Asghar Z, Wheeler MB, et al.** Clonal identification of multipotent precursors from adult mouse pancreas that generate neural and pancreatic lineages. *Nat Biotechnol* 2004; 22(9): 1115-1124.
 - **Seeberger KL, Dufour JM, Shapiro AM, Lakey JR, Rajotte RV, Korbitt GS.** Expansion of mesenchymal stem cells from human pancreatic ductal epithelium. *Lab Invest*. 2006; 86(2): 141-153
 - **Shapiro AM, Lakey JR, Ryan EA, Korbitt GS, Toth E, Warnock GL, et al.** Islet transplantation in seven patients with type I diabetes mellitus using a glucocorticoid free immunosuppressive regime. *N Engl J Med*. 2000; 343(4): 230-
 - **Sharma A, Zangen DH, Reitz P, Taneja M, Lissauer ME, Miller CP, et al.** The homeodomain protein IDX-1 increases after an early burst of proliferation during pancreatic regeneration. *Diabetes*. 1999; 48(3): 507-513
 - **Shaw JE, Sicree RA, Zimmet PZ.** Global estimates of the prevalence of diabetes for 2010 and 2030. *Diabetes Res Clin Pract*. 2010; 87(1): 4-14.
 - **Shen CN, Slack JM, Tosh D.** Molecular basis of transdifferentiation of pancreas to liver. *Nat Cell Biol*. 2000; 2(12): 879-888.

- **Shen CN, Marguerie A, Chien CY, Dickson C, Slack JM, Tosh D.** All-trans retinoic acid suppresses exocrine differentiation and branching morphogenesis in the embryonic pancreas. *Differentiation*. 2007; 75(1): 62- 74.
- **Sherr CJ, DePinho RA.** Cellular senescence: mitotic clock or culture shock?. *Cell*. 2000; 102(4): 407-410.
- **Shizuru JA, Negrin RS, Weissman IL.** Hematopoietic stem and progenitor cells: clinical and preclinical regeneration of the hematolymphoid system. *Annu Rev Med* 2005; 56: 509- 538.
- **Shternhall-Ron K, Quintana FJ, Perl S, Meivar-Levy I, Barshack I, Cohen IR, et al.** Ectopic PDX1 expression in liver ameliorates type 1 diabetes. *J Autoimmun*. 2007; 28(2-3): 134-142.
- **Siegel N, Rosner M, Hanneder M, Valji A, Hengstschlager M.** Stem cells in amniotic fluid as new tools to study human genetic diseases. *Stem Cell Rev*. 2007; 3(4):256- 264.
- **Silink M.** Childhood diabetes: a global perspective. *Horm Res*. 2002; 57 SuppJ1: 1-5.
- **Sindelka G, Heinemann L, Berger M, Frenck W, Chantelau E.** Effect of insulin concentration, subcutaneous fat thickness and skin temperature on subcutaneous insulin absorption in healthy subjects. *Diabetologia*. 1994; 37(4):377-380.
- **Sipione S, Eshpeter A, Lyon JG, Korbitt GS, Bleackley RC.** Insulin expressing cells from differentiated embryonic stem cells are not beta cells. *Diabetologia*. 2004; 47(3): 499- 508.
- **Soggia A, Hoarau E, Bechetot C, Simon MT, Heinis M, Duviols B.** Cell-based therapy of diabetes: What are the new sources of beta cells?. *Diabetes Metab*. 2011. [In press]

- **Song SY, Gannon M, Washington MK, Scoggins CR, Meszoely IM, Golgenring JR, et al.** Expansion of PDXI-expressing pancreatic epithelium and islet neogenesis in transgenic mice over expressing transforming growth factor α . *Gastroenterology*. 1999; 117(6): 1416- 1426.
- **Soria B, Roche E, Berna' G, Leo'n-Quinto T, Reig JA, Marti'n F.** Insulin secreting cells derived from embryonic stem cells normalize glycemia in streptozotocin-induced diabetic mice. *Diabetes*. 2000; 49(2): 157-162.
- **Soria B, Skoudy A, Martn F.** From stem cells to beta cells- new strategies in cell, therapy of diabetes mellitus. *Diabelologia*. 2001: 44(4):407-415
- **Specs JL, Gregory CA, Singh H, Tucker HA, Peister A, Lynch PJ et al** Internalized antigens must be removed to prepare hypoinmunogenic mesenchymal stem cells for cell and gene therapy .*Mol Ther* 2004;9(5):747-756 .
- **Spence JR, Wells JM.** Translational embryology: using embryonic principles to generate pancreatic endocrine cells from embryonic stem cells. *Dev Dyn*. 2007; 236(12): 3218- 3227.
- **Stadtfield M , Hochedlinger K.** Induced pluripotency: history, mechanisms, and applications. *Genes Dev*. 2010; 24(20): 2239-2263,
- **Strom S, Inzunza J, Grinnemo KH, Holmberg K, MatiSainen E, Stromberg AM, et al.** Mechanical isolation of the inner cell mass is effective in derivation of new human embiyonic stem cell lines. *Hum Reprod*. 2007; 22(12): 3051-3058.
- **Suarez-Pinzon WL, Yan Y, Power R, Brand SJ, Rabinovitch A,** Combination therapy with epidermal growth factor and gastrin

increases beta cell mass and reverses hyperglycemia in diabetic NOD mice. *Diabetes*. 2005; 54(9): 2596-2601.

- **Sullivan PW, Morrato EH, Ghushchyan V, Wyatt HR, Hill JO.** Obesity, inactivity, and the prevalence of diabetes and diabetes-related cardiovascular comorbidities in the U.S., 2000-2002. *Diabetes Care*. 2005; 28(7): 1599- 1603.
- **Sun Y, Chen L, Hou XG, Hou WK, Dong JJ, Sun L, et al.** Differentiation of bone marrow-derived mesenchymal stem cells from diabetic patients into insulin-producing cells in vitro. *Chin Med J (Engl)*. 2007; 120(9): 771- 776.
- **Suzuki A, Nakauchi H, Taniguchi H.** Prospective isolation of multipotent pancreatic progenitors using flow cytometric cell sorting. *Diabetes*. 2004; 53(8): 2143-2152.

T

- **Tajra LC, Martin X, Benchaid M, Dawhara M, Lefrançois N, Dubernard JM.** Long-term metabolic control in pancreas transplant patients according to three techniques. *Transplant Proc*, 1998, 30(2): 268- 269.
- **Takahashi I, Noguchi N, Nata K, Yamada S, Kaneiwa T, Mizumoto S, et al.** Important role of heparan sulfate in postnatal islet growth and insulin secretion. *Biochem Biophys Res Commun*. 2009; 383(1): 113-118.
- **Takahashi K, Tanabe K, Ohnuki M, Narita M, Ichisaka T, Tomoda K, et al.** Induction of pluripotent stem cells from adult human fibroblasts by defined factors. *Cell*. 2007; 131(5): 861-872.
- **Takahashi K, Yamanaka S.** Induction of pluripotent stem cells from mouse embryonic and adult fibroblast cultures by defined

factors. *Cell*. 2006. 126(4): 663- 676.

- **Tang DQ, Cao LZ, Burkhardt BR, Xia CQ, Litherland SA, Atkinson MA, et al.** In vivo and in vitro characterization of insulin-producing cells obtained from murine bone marrow. *Diabetes*. 2004; 53(7): 1721- 1732.
- **Tani J, Umbas R.** Recent progressions in stem cell research: breakthroughs achieved and challenges faced. *Acta MedIndones*. 2009; 41(1): 30- 35.
- **Tapp RJ, Shaw JE, Zimmet PZ, Balkau B, Chadban SJ, Tonkin AM, et al.** Albuminuria is evident in the early stages of diabetes onset: results from the Australian Diabetes, Obesity, and Lifestyle Study (AusDiab). *Am J Kidney Dis*. 2004; 44(5): 792- 798.
- **Taylor CJ, Bolton EM, Pocock S, Sharples LD, Pedersen RA, Bradley JA.** Banking on human embryonic stem cells: estimating the number of donor cell lines needed for HLA matching. *Lancet*. 2005; 366(9502): 2019- 2025.
- **Tesfaye S, Boulton AJ, Dyck PJ, Freeman R, Horowitz M, Kempler P, et al.** Diabetic neuropathies: update on definitions, diagnostic criteria, estimation of severity, and treatments. *Diabetes Care*. 2010; 33(10): 2285- 2293.
- **Thomson JA, Itskovitz-Eldor J, Shapiro SS, Waknitz MA, Swiergiel JJ, Marshall VS, et al.** Embryonic stem cell lines derived from human blastocysts. *Science*. 1998; 282(5391): 1145- 1147.
- **Thompson JN.** The Pancreas. In: Henry MM & Thompson JN (eds.). *Clinical Surgery*. 2nd edition. China: Elsevier Saunders; 2005. P349-363. proliferation of embryonic pancreatic epithelial

cell, 48(2): 277-281. *Diabetologia*. 2005.

- **Timper K, Seboek D, Eberhardf M, Linscheid P, Christ-Cm in M, Keller U, et al.** Human adipose tissue-derived mesenchymal stem cells differentiate into insulin, somatostatin, and glucagons-expressing cells. *Biochem Biophys Res Commun*. 2006; 341(4): 1135- 1140.
- **Ting RZ, Szeto CC, Chan MH, Ma KK, Chow KM.** Risk factors of vitamin B(12) deficiency in patients receiving metformin. *Arch Intern Med*. 2006; 166(18): 1975- 1979.
- **Tolar J, Nauta AJ, Osborn MJ, Panoskaltsis Mortari A, McElmurry RT, Bell S, et al.** Sarcoma derived from cultured mesenchymal stem cells. *Stem Cells*. 2007; 25(2): 371-379.
- **Triches C, Schaan BD, Gross JL, Azevedo MJ.** Macrovascular diabetic complications: clinical characteristics, diagnosis and management (abstract). *Arq Bras Endocrinol Metabol*. 2009; 53(6): 698-708.
- **Tsapogas P.** Ischemic and Neuro- Ischemic Ulcers and Gangrene. In: Katsilambros N, Dounis E, Makrilakis K, Tentolouris N, Tsapogas P (eds.). *Atlas of the diabetic foot*. 2nd edition. Singapore: Wiley-Blackwell; 2010. P106-136.
- **Tsonis PA.** Regeneration via transdifferentiation: the lens and hair cells. *Hear Res*. 2007; 227(1-2): 28-31.
- **Turetsky T, Aizenman E, Gil Y, Weinberg N, Shufaro Y, Revel A, et al.** Laser-assisted derivation of human embryonic stem cell lines from IVF embryos after preimplantation genetic diagnosis. *Hum Reprod*. 2008; 23(1): 46- 53.
- **Turner HE, Wass JAH (eds.).** *Oxford Handbook of Endocrinology & Diabetes*. 2nd edition. Oxford: Press; 2009.

U

- **UK Prospective Diabetes Study (UKPDS) Group.** Intensive blood-glucose control with sulphonylureas or insulin compared with conventional treatment and risk of complications in patients with type 2 diabetes (UKPDS 33). *Lancet*. 1998; 352(9131): 837-753.
- **Ulloa-Montoya F, Verfaillie CM, Hu WS.** Culture systems for pluripotent stem cells. *J Biosci Bioeng*. 2005; 100(1): 12-27.
- **Umar S.** Intestinal stem cells. *Curr Gasstroenterol Rep*. 2010; 12(5): 340-348.

V

- **Vacanti CA, Bonassir LJ, Vacanti MP, Shufflebarger J.** Replacement of an avulsed phalanx with tissue-engineered bone. *N Engl J Med*. 2001; 344(20):1511-1514.
- **van de Laar FA, Lucassen PL, Akkermans RP, van de Lisdonk EH, Rutten GE, van Weel C.** Alpha-glucosidase inhibitors for patients with type 2 diabetes: results from a Cochrane systematic review and meta-analysis. *Diabetes Care*. 2005; 28(1): 154- 163.
- **van der Windt DJ, Echeverri GJ, Ijzermans JN, Cooper DK.** The choice of anatomical site for islet transplantation. *Cell Transplant* 2008; 17(9): 1005-1014.
- **Verfaillie CM, Crabbe A.** Multipotent adult progenitor cells. In: Lanza R (ed.). *Essential of stem cell biology*. 2nd edition. Canada: Academic Press- 2009 P233-239.
- **Vija L, Farge D, Gautier JF, Vexiau P, Dumitrache C, Bourgarit A, et al.** Mesenchymal stem cells: Stem cell therapy perspectives for type 1 diabetes." *Diabetes*. 2009; 35(2): 85- 93.

- **Virtanen SM, Saukkonen T, Savilahti E, Ylonen K, Rasanen L, Aro A, et al.** Diet, cow's milk protein antibodies and the risk of IDDM in Finnish children. *Diabetologia*. 1994; 37(4): 381-387.
- **Viswanathan S, Benatar T, Mileikovsky M, Lauffenburger DA, Nagy A, Zandstra PW.** Supplementation-dependent differences in the rates of embryonic stem cell self-renewal, differentiation, and apoptosis. *Biotechnol Bioeng*. 2003; 84(5): 505-517.
- **Voltarelli JC, Couri CE, Stracieri AB, Oliveira MC, Moraes DA, Pieroni F, et al.** Autologous nonmyeloablative hematopoietic stem cell transplantation in newly diagnosed type 1 diabetes mellitus. *JAMA*. 2007; 297(14): 1568-1576.

W

- **Wagner RT, Lewis J, Cooey A, Cham L.** Stem cell approaches for the treatment of type 1 diabetes mellitus. *Transl Res*. 2010; 156(3): 169-179.
- **Wakitani S, Imoto K, Yamamoto T, Saito M, Murata N, Yoneda M.** Human autologous culture expanded bone marrow mesenchymal cell transplantation for repair of cartilage defects in osteoarthritic knees. *Osteoarthr Cartilage*. 2002; 10(3): 199-206.
- **Wakitani S, Nawata M, Tensho K, Okabe T, Machida H, Ohgushi H** Repair of articular cartilage defects in the patello-femoral joint with autologous bone marrow mesenchymal cell transplantation: three case reports involving nine defects in five knees. *J Tissue Eng Regen Med*. 2007; 1(1): 74- 79.

- **Wang AY, Ehrhardt A, Xu H, Kay MA.** Adenovirus transduction is required for the correction of diabetes using PDX1 or neurogenin-3 in the liver. *Mol Ther.* 2007; 15(2): 255-263.
- **Wang TC, Bonner-Weir S, Gates PS, Chulak M, Simon B, Merlino GT, et al.** Pancreatic gastrin stimulates islet differentiation of transforming growth factor alpha-induced ductular precursor cells. *J Clin Invest.* 1993; 92(3): 1349- 1356.
- **Watkins PB, Whitcomb RW.** Hepatic dysfunction associated with troglitazone. *N Engl J Med.* 1998; 338(13): 916- 917.
- **Watt SM, Contreras M.** Stem cell medicine: umbilical cord blood and its stem cell potential. *Semin Fetal Neonatal Med.* 2005; 10(3): 209-220.
- **Weise WJ, Sivanandy MS, Block CA, Comi RJ.** Exenatide-associated ischemic renal failure. *Diabetes Care* 2009; 32(2): e22-23.
- **Weissman IL, Anderson DJ, Gage F.** Stem and progenitor cells: origins, phenotypes, lineage commitments, and transdifferentiations. *Annu Rev Cell Dev Biol.* 2001; 17:387-403.
- **Wells JM, Mellon DA.** Vertebrate endoderm development. *Annu Rev Cell Dev Biol* 1999; 15:393-410.
- **Wilmot I, Schnieke AE, McWhir J, Kind AJ, Campbell KH.** Viable offspring derived from fetal and adult mammalian cells. *Nature.* 1997; 385(6619): 810-813.
- **Wu LC, Sun CW, Ryan TM, Pawlik KM, Ren J, Townes TM.** correction of sickle cell, disease by homologous recombination in embryonic stem cell blood 2006; 108(4): 1183- 1188.

- **Wu XH, Liu CP, Xu KF, Mao XD, Zhu J, Jiang JJ, ET AL** .reversal of hyperglycaemia in diabetic rats by portal vein transplantation of islet like cells generated from bone marrow mesenchymal stem cells World J Gastroenterol .2007;13(24):3342-3349.

X

- **X Xu G, Staffers DA, Habener JF, Bonner-Weir S** .exendin -4stimulated B-cell replication and neogenesis, resulting in improved glucose tolerance in diabetic rats. Diabetes. 1999.;48(12);2270-2276.
- **Xu X D'Hoker J, Stange G, Bonne S, De Leu N, Xiao X et al** beta cells can be generated from endogenous progenitors in injured adult mouse pancreas. Cell. 2008; 132(2)- 197-207.

Y

- **Yamanouchi T, Sakai T, Igarashi K, Ichiyanagi K, Watanabe H, Kawasaki, T.** Comparison of metabolic effects of pioglitazone, metformin and glimepiride over 1 year in Japanese patients with newly diagnosed type 2 diabetes. Diabet Med. 2005; 22(8): 980- 985.
- **Yang L, Li S, Hatch H, Ahrens K, Cornelius JG, Petersen BF, et al.** in vitro trans-differentiation of adult hepatic stem cells into pancreatic endocrine hormone-producing cells. Proc Natl Acad Sci USA. 2002;99(12):8078-8083
- **Yasunaga M, Tada S, Torikai-Nishikawa S, Akano Y, Okada M, JAKT, LM, et al.** Induction and monitoring of definitive and visceral endoderm differentiation of mouse ES cells. Nat Biotechnol 2005; 23(12):1542-1550

- **Ye F, Duvillie B, Scharfmann R.** Fibroblast growth 'factors 7 and 10 are expressed in the human embryonic pancreatic mesenchyme and promote the proliferation of embryonic pancreatic epithelial cells. *Diabetologia*. 2005; 48(2): 277-281.
- **Yilmaz H, Gursoy A, Sahin M, Guvener DN.** Comparison of insulin monotherapy and combination therapy with insulin and metformin or insulin and rosiglitazone or insulin and acarbose in type 2 diabetes. *Acta Diabetol*. 2007; 44(4): 187- 192.
- **Yki-Jarvinen H.** Thiazolidinediones. *N Engl J Med*. 2004; 351(11): 1106-1118.
- **Yu J, Vodyanik MA, Smuga-Otto K, Antosiewicz-Bourget J, Frane JL, Tian S, et al.** Induced pluripotent stem cell lines derived from human somatic cells. *Science*. 2007; 318(5858), 1917- 1920.
- **Yu L, Brewer KW, Gates S, Wu A, Wang T, Babu SR, et al.** DRB1 *04 and DQ alleles: expression of 21 -hydroxylase autoantibodies and risk of progression to Addison's disease. *J Clin Endocrinol Metab*. 1999; 84(1): 328-

Z

- **Zalzman M, Anker-Kitai L, Efrat S.** Differentiation of human liver-derived, insulin producing cells toward the beta-cell phenotype. *Diabetes*. 2005; 54(9): 2568- 2575.
- **Zalzman M, Gupta S, Giri RK, Berkovich I, Sappal BS, Karnieli O, et al.** Reversal of hyperglycemia in mice by using human expandable insulin producing cells differentiated from fetal liver progenitor cells. *Proc Natl Acad Sci USA*. 2003; 100(12): 7253- 7258.

- **Zhang C, Solomon CG, Manson JE, Hu FB.** A prospective study of pregravid physical activity and sedentary behaviors in relation to the risk for gestational diabetes mellitus. *Arch Intern Med.* 2006; 166(5): 543-548.
- **Zhang SC, Wernig M, Duncan ID, Briistle O, Thomson JA.** In vitro differentiation of transplantable neural precursors from human embryonic stem cells. *Nature Biotechnol* 2001; 19(12): 1129- 1133
- **Zhao C, Deng W, Gage FH.** Mechanisms and functional implications of adult neurogenesis. *Cell.* 2008; 132(4): 645-660.
- **Zhou J, Pineyro MA, Wang X, Doyle ME, Egan JM.** Exendin-4 differentiation of a human pancreatic duct cell line into endocrine cells: involvement of PDX1 and HNF3ba transcription factors. *J Cell Physiol.* 2002; 192(3): 304-314.
- **Zhou Q, Brown J, Kanarek A, Rajagopal J, Melton DA.** In vivo reprogramming of adult pancreatic exocrine cells to beta-cells. *Nature.* 2008; 455(7213):627- 632.
- **Zimmerman RS, Reddy SK.** Diabetes Mellitus: Control and Complications. In: StoIIer JK, Michota FA, Mandell BF (eds.). 77?* *Cleveland Clinic IntensiveReview of Internal Medicine.* 5th edition. Philadelphia: Lippincott Williams &Wilkins; 2009. P500-516.
- **Zuba-Surma EK, Kucia M, Wu W, Klich I, Lillard JW, Ratajczak J, Ratajczak MZ.** Very small embryonic-like stem cells are present in adult murine organs: ImageStream-based morphological analysis and distribution studies. *CytometryA.* 2008; 73A(12): 1116- 1127.
- **Zuk PA, Zhu M, Ashjian P, De Ugarte DA, Huang JI,**

- Mizuno H, et al.** Human adipose tissue is a source of multipotent stem cells. *Mol Biol Cell*. 2002; 13(12): 4279-4295.
- **Zulewski H, Abraham EJ, Gerlach MJ, Daniel PB, Moritz W, MulJer B, et al.** Multipotential nestin-positive stem cells isolated from adult pancreatic islets differentiate ex vivo into pancreatic endocrine, exocrine, and hepatic phenotypes. *Diabetes*. 2001 .