

## References

- 1- Gargett CE, Nguyen HP, Ye L. Endometrial regeneration and endometrial stem/progenitor cells. *Rev Endocr Metab Disord* 2012; 13:235–251.
- 2- Lash GE, Innes BA, Drury JA, Robson SC, Quenby S, Bulmer JN. Localization of angiogenic growth factors and their receptors in the human endometrium throughout the menstrual cycle and in recurrent miscarriage. *Hum Reprod* 2012; 27:183–195.
- 3- Jones, M.C., Fusi, L., Higham, J.H., Abdel-Hafiz, H., Horwitz, K.B., Lam, E.W., Brosens, J.J., 2006. Regulation of the SUMO pathway sensitizes differentiating human endometrial stromal cells to progesterone. *Proc. Natl. Acad. Sci. U. S. A.* 103, 16272–16277.
- 4- Mansouri-Attia, N., Sandra, O., Aubert, J., Degrelle, S., Everts, R.E., Giraud-Delville, C., Heyman, Y., Galio, L., Hue, I., Yang, X., Tian, X.C., Lewin, H.A., Renard, J.P., 2009. Endometrium as an early sensor of in vitro embryo manipulation technologies. *Proc. Natl. Acad. Sci. U. S. A.* 106, 5687–5692.
- 5- Teklenburg, G., Salker, M., Molokhia, M., Lavery, S., Trew, G., Aojanepong, T., Mardon, H.J., Lokugamage, A.U., Rai, R., Landles, C., Roelen, B.A., Quenby, S., Kuijk, E.W., Kavelaars, A., Heijnen, C.J., Regan, L., Brosens, J.J., Macklon, N.S., 2010b. Natural selection of human embryos: decidualizing endometrial stromal cells serve as sensors of embryo quality upon implantation. *PLoS One* 5, e10258.
- 6- Salker M, Teklenburg G, Molokhia M, Lavery S, Trew G, Aojanepong T, Mardon HJ, Lokugamage AU, Rai R, Landles C, Roelen BA, Quenby S, Kuijk EW, Kavelaars A, Heijnen CJ, Regan L, Macklon NS, Brosens JJ. Natural selection of human embryos: impaired decidualization of endometrium disables embryo-maternal interactions and causes recurrent pregnancy loss. *PLoS One* 2010; 5: e10287.
- 7- Krampera M. Mesenchymal stromal cell ‘licensing’: a multistep process. *Leukemia* 2011; 25:1408–1414.
- 8- Bianco P, Cao X, Frenette PS, Mao JJ, Robey PG, Simmons PJ, Wang CY. The meaning, the sense and the significance: translating the science of mesenchymal stem cells into medicine. *Nat Med* 2013; 19:35–42.
- 9- Le Blanc K, Mougiakakos D. Multipotent mesenchymal stromal cells and the innate immune system. *Nat Rev Immunol* 2012; 12:383–396.
- 10- Murakami K, Lee YH, Lucas ES, Chan YW, Durairaj RP, Takeda S, Moore JD, Tan BK, Quenby S, Chan JK et al. Decidualization induces a secretome switch in perivascular niche cells of the human endometrium. *Endocrinology* 2014;155: 4542–4553.
- 11- Melief SM, Schrama E, Brugman MH, et al. Multipotent stromal cells induce human regulatory T cells through a novel pathway involving skewing of monocytes toward anti-inflammatory macrophages. *Stem Cells* 2013;31(9):1980–1991.
- 12- Spaggiari GM, Capobianco A, Abdelrazik H, Becchetti F, Mingari MC, Moretta L. Mesenchymal stem cells inhibit natural killer-cell proliferation, cytotoxicity, and cytokine production: role of indoleamine 2,3-dioxygenase and prostaglandin E2. *Blood* 2008; 111(3):1327–1333.
- 13- Murakami K, Lee YH, Lucas ES, et al. Decidualization induces a secretome switch in perivascular niche cells of the human endometrium. *Endocrinology* 2014;155(11):4542–4553.

- 14- Murakami K, Bhandari H, Lucas ES, Takeda S, Gargett CE, Quenby S, Brosens JJ, Tan BK. Deficiency in clonogenic endometrial mesenchymal stem cells in obese women with reproductive failure--a pilot study. *PLoS One*. 2013 Dec 10;8(12): e82582.
- 15- Nagori CB, Panchal SY, Patel H. Endometrial regeneration using autologous adult stem cells followed by conception by in vitro fertilization in a patient of severe Asherman's syndrome. *J Hum Reprod Sci* 2011;4(1):43–48.
- 16- Hayashi T, Kitaya K, Tada Y, Taguchi S, Funabiki M, Nakamura Y. Single curettage endometrial biopsy injury in the proliferative phase improves reproductive outcome of subsequent in vitro fertilization-embryo transfer cycle in infertile patients with repeated embryo implantation failure. *Clin Exp Obstet Gynecol* 2013;40(3):323–326.
- 17- Potdar N, Gelbaya T, Nardo LG. Endometrial injury to overcome recurrent embryo implantation failure: a systematic review and meta-analysis. *Reprod Biomed Online* 2012;25(6): 561–571.
- 18- Patel AN, Park E, Kuzman M, Benetti F, Silva FJ, Allickson JG. Multipotent menstrual blood stromal stem cells: isolation, characterization, and differentiation. *Cell Transplant* 2008;17(3): 303–311.
- 19- Rossignoli F, Caselli A, Grisendi G, Piccinno S, Burns JS, Murgia A, Veronesi E, Loschi P, Masini C, Conte P, Paolucci P, Horwiz EM, Dominici M. Isolation, characterization, and transduction of endometrial decidual tissue multipotent mesenchymal stromal/stem cells from menstrual blood. *Biomed Res Int*. 2013; 2013:901821.
- 20- Ulrich D, Muralitharan R, Gargett CE. Toward the use of endometrial and menstrual blood mesenchymal stem cells for cell-based therapies. *Expert Opin Biol Ther*. 2013 Oct;13(10):1387-400.
- 21- Zhong Z, Patel AN, Ichim TE, et al. Feasibility investigation of allogeneic endometrial regenerative cells. *J Transl Med* 2009; 7:15.
- 22- Ichim TE, Alexandrescu DT, Solano F, et al. Mesenchymal stem cells as antiinflammatories: implications for treatment of Duchenne muscular dystrophy. *Cell Immunol* 2010;260(2):75-82.
- 23- Ichim TE, Solano F, Lara F, et al. Combination stem cell therapy for heart failure. *Int Arch Med* 2010;3(1):5-5.
- 24- Role of stem cells in improving implantation rates in ICSI Patients. 2013. Available from: <http://clinicaltrials.gov/ct2/show/NCT01649752?term=endometrial+regenerative+cells&rank=2>.
- 25- Kroger N, Renges H, Sonnenberg S, et al. Stem cell mobilisation with 16  $\mu$ /kg vs 10  $\mu$ /kg of G-CSF for allogeneic transplantation in healthy donors. *Bone Marrow Transplant*. 2002; 29:727–730.
- 26- Elfenbein GJ, Sackstein R. Primed marrow for autologous and allogeneic transplantation: a review comparing primed marrow to mobilized blood and steady-state marrow. *Exp Hematol*. 2004 Apr;32(4):327-39. Review. Erratum in: *Exp Hematol*. 2004 Jul; 32(7):683.
- 27- Krause DS, Theise ND, Collector MI, Henegariu O, Hwang S, Gardner R, Neutzel S, Sharkis SJ. Multi-organ, multi-lineage engraftment by a single bone marrow derived stem cell. *Cell* 2001;105: 369–377.
- 28- Taylor HS. Endometrial cells derived from donor stem cells in bone marrow transplant recipients. *JAMA* 2004; 292:81–85.

- 29- Cervello I, Gil-Sanchis C, Mas A, Faus A, Sanz J, Moscardo F, Higuera G, Sanz MA, Pellicer A, Simón C. Bone marrow-derived cells from male donors do not contribute to the endometrial side population of the recipient. *PLoS ONE* 2012; 7: e30260.
- 30- Cipriani P, Guiducci S, Miniati I, Cinelli M, Urbani S, Marrelli A, et al. Impairment of endothelial cell differentiation from bone marrow-derived mesenchymal stem cells: new insight into the pathogenesis of systemic sclerosis. *Arthritis Rheum* 2007;56: 1994–2004.
- 31- Nie Y, Lau CS, Lie AKW, Chan GCF, Mok MY. Defective phenotype of mesenchymal stem cells in patients with systemic lupus erythematosus. *Lupus* 2010; 19: 850–9.
- 32- Kastrinaki MC, Sidiropoulos P, Roche S, Ringe J, Lehmann S, Kritikos H, et al. Functional, molecular and proteomic characterization of bone marrow mesenchymal stem cells in rheumatoid arthritis. *Ann Rheum Dis* 2008; 67: 741–9.