

## **Publications**

### **2022**

1- Saghari Fard MR, Krueger JP, Stich S, Berger P, Kühl AA, Sittinger M, Hartwig T, Endres M. (2022). A Biodegradable Polymeric Matrix for the Repair of Annulus Fibrosus Defects in Intervertebral Discs. *Tissue Eng Regen Med*. Online ahead of print. doi:10.1007/s13770-022-00466-0. PMID: 35816226

### **2020**

2- Stich S, Jagielski M, Fleischmann A, Meier C, Busmann P, Kohl B, Schmidt J, Krüger JP, Endres M, Cabraja M, Reimann K, Laue D, Ertel W, Sittinger M. (2020). Degeneration of Lumbar Intervertebral Discs: Characterization of Anulus Fibrosus Tissue and Cells of Different Degeneration Grades. *Int J Mol Sci*. 21(6):2165. doi:10.3390/ijms21062165. PMID: 32245213 Free PMC article.

3- Hondke S, Cabraja M, Krüger JP, Stich S, Hartwig T, Sittinger M, Endres M. (2020). Proliferation, Migration, and ECM Formation Potential of Human Annulus Fibrosus Cells Is Independent of Degeneration Status. *Cartilage*. 11(2):192-202. doi:10.1177/1947603518764265. PMID: 29577749 Free PMC article.

4- Cojocaru DG, Hondke S, Krüger JP, Bosch C, Croicu C, Florescu S, Lazarescu A, Patrascu JM Jr, Patrascu JM, Dauner M, Gresser GT, Endres M. (2020). Meniscus-shaped cell-free polyglycolic acid scaffold for meniscal repair in a sheep model. *J Biomed Mater Res B Appl Biomater*. 108(3):809-818. doi:10.1002/jbm.b.34435. PMID: 31225700 Free PMC article.

### **2019**

5- Lam T, Dehne T, Krüger JP, Hondke S, Endres M, Thomas A, Lauster R, Sittinger M, Kloke L. (2019). Photopolymerizable gelatin and hyaluronic acid for stereolithographic 3D bioprinting of tissue-engineered cartilage. *J Biomed Mater Res B Appl Biomater*. 107(8):2649-2657. doi:10.1002/jbm.b.34354. PMID: 30860678 Free PMC article.

6- Krüger JP, Hondke S, Lau S, Endres M. (2019). Characterization of plasma fibronectin for migration, proliferation, and differentiation on human articular chondrocytes. *J Tissue Eng Regen Med*. 13(4):537-545. doi:10.1002/term.2787. PMID: 30552734

### **2018**

7- Stich S, Möller A, Cabraja M, Krüger JP, Hondke S, Endres M, Ringe J, Sittinger M. (2018). Chemokine CCL25 induces migration and extracellular matrix production of anulus fibrosus-derived cells. *Int J Mol Sci*. 19(8):2207. doi:10.3390/ijms19082207. PMID: 30060561 Free PMC article.

8- Krüger JP, Enz A, Hondke S, Wichelhaus A, Endres M, Mittlmeier T. (2018). Proliferation, migration and differentiation potential of human mesenchymal progenitor cells derived from osteoarthritic subchondral cancellous bone. *J Stem Cells Regen Med*. 14(1):45-52. doi:10.46582/jsrm.1401006. PMID: 30018472 Free PMC article.

### **2016**

9- Freymann U, Metzloff S, Krüger JP, Hirsh G, Endres M, Petersen W, Kaps C. (2016). Effect of human serum and 2 different types of platelet concentrates on human meniscus cell migration, proliferation, and matrix formation. *Arthroscopy*. 32(6):1106-1116. doi:10.1016/j.arthro.2015.11.033. PMID: 26874799.

## **2015**

10- Kreuz PC, Krüger JP, Metzloff S, Freymann U, Endres M, Pruss A, Petersen W, Kaps C. (2015). Platelet-rich plasma preparation types show impact on chondrogenic differentiation, migration, and proliferation of human subchondral mesenchymal progenitor cells. *Arthrosc - J Arthrosc Relat Surg*. 31(10): 1951-1961. doi:10.1016/j.arthro.2015.03.033. PMID: 25980401.

11- Krüger M, Krüger JP, Kinne RW, Kaps C, Endres M. (2015). Are surface antigens suited to verify the redifferentiation potential and culture purity of human chondrocytes in cell-based implants. *Tissue Cell*. 47(5):489-497. doi:10.1016/j.tice.2015.07.004. PMID: 26254705.

## **2014**

12- Kalkreuth RH, Krüger JP, Lau S, Niemeyer P, Endres M, Kreuz PC, Kaps C. (2014). Fibronectin stimulates migration and proliferation, but not chondrogenic differentiation of human subchondral progenitor cells. *Regen Med*. 9(6):759-773. doi:10.2217/rme.14.40. PMID: 25431912

13- Schlichting N, Dehne T, Mans K, Endres M, Stuhlmüller B, Sittinger M, Kaps C, Ringe J. (2014). Suitability of porcine chondrocyte micromass culture to model osteoarthritis in vitro. *Mol Pharm*. 11(7):2092-2105. doi:10.1021/mp5000554. PMID: 24635637.

14- Krüger JP, Machens I, Lahner M, Endres M, Kaps C. (2014). Initial boost release of transforming growth factor- $\beta$ 3 and chondrogenesis by freeze-dried bioactive polymer scaffolds. *Ann Biomed Eng*. 42(12):2562-2576. doi:10.1007/s10439-014-1099-0. PMID: 25169425.

15- Endres M, Zenclussen ML, Casalis PA, Freymann U, Gil Garcia S, Krueger JP, Thomale UW, Woiciechowsky C, Kaps C. (2014). Augmentation and repair tissue formation of the nucleus pulposus after partial nucleotomy in a rabbit model. *Tissue Cell*. 46(6):505-513. doi:10.1016/j.tice.2014.09.003. PMID: 25287887.

16- Ahrem H, Pretzel D, Endres M, Conrad D, Courseau J, Müller H, Jaeger R, Kaps C, Klemm DO, Kinne RW. (2014). Laser-structured bacterial nanocellulose hydrogels support ingrowth and differentiation of chondrocytes and show potential as cartilage implants. *Acta Biomater*. 10(3):1341-1353. doi:10.1016/j.actbio.2013.12.004. PMID: 24334147

17- Woiciechowsky C, Abbushi A, Zenclussen ML, Casalis P, Krüger JP, Freymann U, Endres M, Kaps C. (2014). Regeneration of nucleus pulposus tissue in an ovine intervertebral disc degeneration model by cell-free resorbable polymer scaffolds. *J Tissue Eng Regen Med*. 8(10):811-820. doi:10.1002/term.1582. PMID: 22865642

18- Hegewald AA, Cluzel J, Krüger JP, Endres M, Kaps C, Thomé C. (2014). Effects of initial boost with TGF-beta 1 and grade of intervertebral disc degeneration on 3D culture of human annulus fibrosus cells. *J Orthop Surg Res*. 9 (1):1-8. doi:10.1186/s13018-014-0073-8. PMID: 25116605 Free PMC article.

19- Krüger JP, Ketzmar AK, Endres M, Pruss A, Siclari A, Kaps C. (2014). Human platelet-rich plasma induces chondrogenic differentiation of subchondral progenitor cells in polyglycolic acid-hyaluronan scaffolds. *J Biomed Mater Res B Appl Biomater.* 102(4):681-692. doi:10.1002/jbm.b.33047. PMID: 24510445.

### **2013**

20- Patrascu JM, Krüger JP, Böss HG, Ketzmar AK, Freymann U, Sittlinger M, Notter M, Endres M, Kaps C. (2013). Polyglycolic acid-hyaluronan scaffolds loaded with bone marrow-derived mesenchymal stem cells show chondrogenic differentiation in vitro and cartilage repair in the rabbit model. *J Biomed Mater Res B Appl Biomater.* 101(7):1310-1320. doi:10.1002/jbm.b.32944. PMID: 23661546.

21- Krüger JP, Freymann U, Vetterlein S, Neumann K, Endres M, Kaps C. (2013). Bioactive factors in platelet-rich plasma obtained by apheresis. *Transfus Med Hemother.* 40(6):432-440. doi:10.1159/000356329. PMID: 24474894 Free PMC article.

22- Kreuz PC, Gentili C, Samans B, Martinelli D, Krüger JP, Mittelmeier W, Endres M, Cancedda R, Kaps C. (2013). Scaffold-assisted cartilage tissue engineering using infant chondrocytes from human hip cartilage. *Osteoarthr Cartil.* 21(12):1997-2005. doi:10.1016/j.joca.2013.09.007. PMID: 24096178 Free article.

23- Kulawig R, Krüger JP, Klein O, Konthur Z, Schütte H, Klose J, Kaps C, Endres M. (2013). Identification of fibronectin as a major factor in human serum to recruit subchondral mesenchymal progenitor cells. *Int J Biochem Cell Biol.* 45(7):1410-1418. doi:10.1016/j.biocel.2013.04.016. PMID: 23612019.

24- Hegewald AA, Zouhair S, Endres M, Cabraja M, Woiciechowsky C, Thomé C, Kaps C. (2013). Towards biological anulus repair: TGF- $\beta$ 3, FGF-2 and human serum support matrix formation by human anulus fibrosus cells. *Tissue Cell.* 45(1):68-76. doi:10.1016/j.tice.2012.09.011. PMID: 23122986.

25- Freymann U, Endres M, Goldmann U, Sittlinger M, Kaps C. (2013). Toward scaffold-based meniscus repair: effect of human serum, hyaluronic acid and TGF- $\beta$ 3 on cell recruitment and re-differentiation. *Osteoarthr Cartil.* 21(5):773-781. doi:10.1016/j.joca.2013.02.655. PMID: 23473977 Free PMC article.

26- Cabraja M, Endres M, Abbushi A, Zenclussen M, Blechschmidt C, Lemke AJ, Kroppenstedt S, Kaps C, Woiciechowsky C. (2013). Effect of degeneration on gene expression of chondrogenic and inflammatory marker genes of intervertebral disc cells: a preliminary study. *J Neurosurg Sci.* 57(4):307-316. PMID: 24091434.

27- Pretzel D, Linss S, Ahrem H, Endres M, Kaps C, Klemm D, Kinne RW. (2013). A novel in vitro bovine cartilage punch model for assessing the regeneration of focal cartilage defects with biocompatible bacterial nanocellulose. *Arthritis Res Ther.* 15(3):R59. doi:10.1186/ar4231. PMID: 23673274 Free PMC article.

28- Dunzel A, Rüdiger T, Pretzel D, Kopsch V, Endres M, Kaps C, Föhr P, Burgkart RH, Linß S, Kinne RW. (2013). The bovine cartilage punch model: a tool for the in vitro analysis of biomaterials and cartilage regeneration. *Orthopade.* 42(4):254-261. doi:10.1007/s00132-012-1954-3. PMID: 23508463 German.

## **2012**

- 29- Cabraja M, Endres M, Hegewald AA, Vetterlein S, Thomé C, Woiciechowsky C, Kaps C. (2012). A 3D environment for anulus fibrosus regeneration. *J Neurosurg Spine*. 17(2):177-183. doi:10.3171/2012.4.SPINE111095. PMID: 22632174.
- 30- Endres M, Neumann K, Zhou B, Freymann U, Pretzel D, Stoffel M, Kinne RW, Kaps C. (2012). An ovine in vitro model for chondrocyte-based scaffold-assisted cartilage grafts. *J Orthop Surg Res*. 7:37. doi:10.1186/1749-799X-7-37. PMID: 23137017 Free PMC article.
- 31- Hegewald AA, Neumann K, Kalwitz G, Freymann U, Endres M, Schmieder K, Kaps C, Thomé C. (2012). The chemokines CXCL10 and XCL1 recruit human annulus fibrosus cells. *Spine (Phila Pa 1976)*. 37(2):101-107. doi:10.1097/BRS.0b013e318210ed55. PMID: 21270681.
- 32- Krüger JP, Endres M, Neumann K, Stuhlmüller B, Morawietz L, Häupl T, Kaps C. (2012). Chondrogenic differentiation of human subchondral progenitor cells is affected by synovial fluid from donors with osteoarthritis or rheumatoid arthritis. *J Orthop Surg Res*. 7:10. doi:10.1186/1749-799X-7-10. PMID: 22414301 Free PMC article.
- 33- Krüger JP, Hondke S, Endres M, Pruss A, Siclari A, Kaps C. (2012). Human platelet-rich plasma stimulates migration and chondrogenic differentiation of human subchondral progenitor cells. *J Orthop Res*. 30(6):845-852. doi:10.1002/jor.22005. PMID: 22058056 Free article.
- 34- Freymann U, Endres M, Neumann K, Scholman HJ, Morawietz L, Kaps C. (2012). Expanded human meniscus-derived cells in 3-D polymer-hyaluronan scaffolds for meniscus repair. *Acta Biomater*. 8(2):677-685. doi:10.1016/j.actbio.2011.10.007. PMID: 22023746.

## **2011**

- 35- Trimborn M, Endres M, Bommer C, Janke U, Krüger JP, Morawietz L, Kreuz PC, Kaps C. (2011). Karyotyping of human chondrocytes in scaffold-assisted cartilage tissue engineering. *Acta Biomater*. 8(4):1519-1529. doi:10.1016/j.actbio.2011.12.024. PMID: 22214539.
- 36- Stoll C, John T, Conrad C, Lohan A, Hondke S, Ertel W, Kaps C, Endres M, Sittinger M, Ringe J, Schulze-Tanzil G. (2011). Healing parameters in a rabbit partial tendon defect following tenocyte/biomaterial implantation. *Biomaterials*. 32(21):4806-4815. doi:10.1016/j.biomaterials.2011.03.026. PMID: 21474176.
- 37- Hegewald AA, Endres M, Abbushi A, Cabraja M, Woiciechowsky C, Schmieder K, Kaps C, Thomé C. (2011). Adequacy of herniated disc tissue as a cell source for nucleus pulposus regeneration. *J Neurosurg Spine*. 14(2):273-280. doi:10.3171/2010.10.SPINE10223. PMID: 21214312.
- 38- Hegewald AA, Enz A, Endres M, Sittinger M, Woiciechowsky C, Thomé C, Kaps C. (2011). Engineering of polymer-based grafts with cells derived from human nucleus pulposus tissue of the lumbar spine. *J Tissue Eng Regen Med*. 5(4):275-282. doi:10.1002/term.312. PMID: 20661901.
- 39- Pretzel D, Linss S, Rochler S, Endres M, Kaps C, Alsalameh S, Kinne RW. (2011). Relative percentage and zonal distribution of mesenchymal progenitor cells in human osteoarthritic and normal cartilage. *Arthritis Res Ther*. 13(2):R64. doi:10.1186/ar3320. PMID: 21496249 Free PMC article.

40- Kalwitz G, Neumann K, Ringe J, Sezer O, Sittinger M, Endres M, Kaps C. (2011). Chondrogenic differentiation of human mesenchymal stem cells in micro-masses is impaired by high doses of the chemokine CXCL7. *J Tissue Eng Regen Med.* 5(1):50-59. doi:10.1002/term.288. PMID: 20652876.

41- Herbort M, Zelle S, Rosenbaum D, Osada N, Raschke M, Petersen W, Zantop T. (2011). Arthroscopic fixation of matrix-associated autologous chondrocyte implantation: importance of fixation pin angle on joint compression forces. *Arthrosc - J Arthrosc Relat Surg.* 27(6):809-816. doi:10.1016/j.arthro.2011.01.017. PMID: 21624675.

## **2010**

42- Endres M, Andreas K, Kalwitz G, Freymann U, Neumann K, Ringe J, Sittinger M, Häupl T, Kaps C. (2010). Chemokine profile of synovial fluid from normal, osteoarthritis and rheumatoid arthritis patients: CCL25, CXCL10 and XCL1 recruit human subchondral mesenchymal progenitor cells. *Osteoarthr Cartil.* 18(11): 1458-1466. doi:10.1016/j.joca.2010.08.003. PMID: 20709179.

43- Kalwitz G, Andreas K, Endres M, Neumann K, Notter M, Ringe J, Sittinger M, Kaps, C. (2010). Chemokine profile of human serum from whole blood: migratory effects of CXCL-10 and CXCL-11 on human mesenchymal stem cells. *Connect Tissue Res.* 51(2):113-122. doi:10.3109/03008200903111906. PMID: 20001843.

44- Krüger JP, Endres M, Neumann K, Häupl T, Erggelet C, Kaps C. (2010). Chondrogenic differentiation of human subchondral progenitor cells is impaired by rheumatoid arthritis synovial fluid. *J Orthop Res.* 28(6):819-827. doi:10.1002/jor.21058. PMID: 20041492 Free article.

45- Endres M, Abbushi A, Thomale UW, Cabraja M, Kroppenstedt SN, Morawietz L, Casalis PA, Zenclussen ML, Lemke AJ, Horn P, Kaps C, Woiciechowsky C. (2010). Intervertebral disc regeneration after implantation of a cell-free bioresorbable implant in a rabbit disc degeneration model. *Biomaterials.* 31(22):5836-5841. doi:10.1016/j.biomaterials.2010.03.078. PMID: 20430435.

46- Endres M, Wenda N, Woehlecke H, Neumann K, Ringe J, Erggelet C, Lerche D, Kaps C. (2010). Microencapsulation and chondrogenic differentiation of human mesenchymal progenitor cells from subchondral bone marrow in Ca-alginate for cell injection. *Acta Biomater.* 6(2):436-444. doi:10.1016/j.actbio.2009.07.022. PMID: 19622399.

47- Kalwitz G, Andreas K, Endres M, Neumann K, Notter M, Ringe J, Sittinger M, Kaps C. (2010). Chemokine profile of human serum from whole blood: migratory effects of CXCL-10 and CXCL-11 on human mesenchymal stem cells. *Connect Tissue Res.* 51(2):113-122. doi:10.3109/03008200903111906. PMID: 20001843.

48- Stoll C, John T, Endres M, Rosen C, Kaps C, Kohl B, Sittinger M, Ertel W, Schulze-Tanzil G. (2010). Extracellular matrix expression of human tenocytes in three-dimensional air-liquid and PLGA cultures compared with tendon tissue: implications for tendon tissue engineering. *J Orthop Res.* 28(9):1170-1177. doi:10.1002/jor.21109. PMID: 20187116 Free article.

## **2009**

49- Hegewald AA, Knecht S, Baumgartner D, Gerber H, Endres M, Kaps C, Stüssi E, Thomé C. (2009). Biomechanical testing of a polymer-based biomaterial for the restoration of spinal stability after

nucleotomy. *J Orthop Surg Res.* 4:25. doi:10.1186/1749-799X-4-25. PMID: 19604373 Free PMC article.

50- Kalwitz G, Endres M, Neumann K, Skrinier K, Ringe J, Sezer O, Sittinger M, Häupl T, Kaps C. (2009). Gene expression profile of adult human bone marrow-derived mesenchymal stem cells stimulated by the chemokine CXCL7. *Int J Biochem Cell Biol.* 41(3):649-658. doi:10.1016/j.biocel.2008.07.011. PMID: 18707017.

51- Erggelet C, Endres M, Neumann K, Morawietz L, Ringe J, Haberstroh K, Sittinger M, Kaps C. (2009). Formation of cartilage repair tissue in articular cartilage defects pretreated with microfracture and covered with cell-free polymer-based implants. *J Orthop Res.* 27(10):1353-1360. doi:10.1002/jor.20879. PMID: 19382184 Free article.

52- Haberstroh K, Enz A, Zenclussen ML, Hegewald AA, Neumann K, Abbushi A, Thomé C, Sittinger M, Endres M, Kaps C. (2009). Human intervertebral disc-derived cells are recruited by human serum and form nucleus pulposus-like tissue upon stimulation with TGF-beta3 or hyaluronan in vitro. *Tissue Cell.* 41(6):414-420. doi:10.1016/j.tice.2009.05.006. PMID: 19631359.

## **2008**

53- Neumann K, Dehne T, Endres M, Erggelet C, Kaps C, Ringe J, Sittinger M. (2008). Chondrogenic differentiation capacity of human mesenchymal progenitor cells derived from subchondral cortico-spongy bone. *J Orthop Res.* 26(11):1449-1456. doi:10.1002/jor.20635. PMID: 18464264 Free article.

54- Abbushi A, Endres M, Cabraja M, Kroppenstedt SN, Thomale UW, Sittinger M, Hegewald AA, Morawietz L, Lemke AJ, Bansemer VG, Kaps C, Woiciechowsky C. (2008). Regeneration of intervertebral disc tissue by resorbable cell-free polyglycolic acid-based implants in a rabbit model of disc degeneration. *Spine (Phila Pa 1976).* 33(14):1527-1532. doi:10.1097/BRS.0b013e3181788760. PMID: 18520635.

## **2007**

55- Knecht S, Erggelet C, Endres M, Sittinger M, Kaps C, Stüssi E. (2007). Mechanical testing of fixation techniques for scaffold-based tissue-engineered grafts. *J Biomed Mater Res B Appl Biomater.* 83(1):50-57. doi:10.1002/jbm.b.30765. PMID: 17318819.

56- Erggelet C, Neumann K, Endres M, Haberstroh K, Sittinger M, Kaps C. (2007). Regeneration of ovine articular cartilage defects by cell-free polymer-based implants. *Biomaterials.* 28(36):5570-5580. doi:10.1016/j.biomaterials.2007.09.005. PMID: 17897710.

57- Endres M, Neumann K, Schröder SE, Vetterlein S, Morawietz L, Ringe J, Sittinger M, Kaps C. (2007). Human polymer-based cartilage grafts for the regeneration of articular cartilage defects. *Tissue Cell.* 39(5):293-301. doi:10.1016/j.tice.2007.05.002. PMID: 17688898.

58- Endres M, Neumann K, Häupl T, Erggelet C, Ringe J, Sittinger M, Kaps C. (2007). Synovial fluid recruits human mesenchymal progenitors from subchondral spongy bone marrow. *J Orthop Res.* 25(10):1299-1307. doi:10.1002/jor.20394. PMID: 17549723 Free article.

59- Neumann K, Endres M, Ringe J, Flath B, Manz R, Häupl T, Sittinger M, Kaps C. (2007). BMP7 promotes adipogenic but not osteo-/chondrogenic differentiation of adult human bone marrow-derived stem cells in high-density micro-mass culture. *J Cell Biochem.* 102(3):626-637. doi:10.1002/jcb.21319. PMID: 17497692.

60- Ringe J, Strassburg S, Neumann K, Endres M, Notter M, Burmester GR, Kaps C, Sittinger M. (2007). Towards in situ tissue repair: human mesenchymal stem cells express chemokine receptors CXCR1, CXCR2 and CCR2, and migrate upon stimulation with CXCL8 but not CCL2. *J Cell Biochem.* 101(1):135-146. doi:10.1002/jcb.21172. PMID: 17295203.

## **2006**

61- Kaps C, Frauenschuh S, Endres M, Ringe J, Haisch A, Lauber J, Buer J, Krenn V, Häupl T, Burmester GR, Sittinger M. (2006). Gene expression profiling of human articular cartilage grafts generated by tissue engineering. *Biomaterials.* 27(19):3617-3630. doi:10.1016/j.biomaterials.2006.02.017. PMID: 16545449.

62- Barnewitz D, Endres M, Krüger I, Becker A, Zimmermann J, Wilke I, Ringe J, Sittinger M, Kaps C. (2006). Treatment of articular cartilage defects in horses with polymer-based cartilage tissue engineering grafts. *Biomaterials.* 27(14):2882-2889. doi:10.1016/j.biomaterials.2006.01.008. PMID: 16442157.

## **2004**

63- Endres M, Leinhase I, Kaps C, Wentges M, Unger M, Olze H, Ringe J, Sittinger M, Rotter N. (2004). Changes in the gene expression pattern of cytokeratins in human respiratory epithelial cells during culture. *Eur Arch Otorhinolaryngol.* 262(5):390-396. doi:10.1007/s00405-004-0842-9. PMID: 15549340.

64- Kaps C, Fuchs S, Endres M, Vetterlein S, Krenn V, Perka C, Sittinger M. (2004). Molecular characterization of tissue-engineered articular chondrocyte transplants based on resorbable polymer fleece. *Orthopade.* 33(1):76-85. doi:10.1007/s00132-003-0505-3. PMID: 14747914 German.

65- Hegewald AA, Ringe J, Bartel J, Krüger I, Notter M, Barnewitz D, Kaps C, Sittinger M. (2004). Hyaluronic acid and autologous synovial fluid induce chondrogenic differentiation of equine mesenchymal stem cells: a preliminary study. *Tissue and Cell.* 36(6):431-438. doi:10.1016/j.tice.2004.07.003. PMID: 15533458

## **2003**

66- Endres M, Hutmacher DW, Salgado AJ, Kaps C, Ringe J, Reis RL, Sittinger M, Brandwood A, Schantz JT. (2003). Osteogenic induction of human bone marrow-derived mesenchymal progenitor cells in novel synthetic polymer-hydrogel matrices. *Tissue Eng.* 9(4):689-702. doi:10.1089/107632703768247386. PMID: 13678447.