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### **2020**

#### **Preclinical evidence for an effective therapeutic activity of FL118, a novel survivin inhibitor, in patients with relapsed/refractory multiple myeloma.**

Holthof LC, Van Der Horst HJ, Van Hal-Van Veen SE, Ruiter RWJ, Li F, Buijze M, Andersen MN, Yuan H, De Bruijn J, Van De Donk NWCJ, Lokhorst HM, Zweegman S, Groen RWJ and Mutis T. *Haematologica* vol. 105, (2) E80-E83. *Ferrata Storti Foundation*.

#### **Macrophage polarization plays roles in bone formation instructed by calcium phosphate ceramics.**

Li M, Guo X, Qi W, Wu Z, de Bruijn JD, Xiao Y, Bao C and Yuan H. *Journal of Materials Chemistry B. Royal Society of Chemistry*.

#### **MagnetOs, Vitoss, and Novabone in a Multi-endpoint Study of Posterolateral Fusion: A True Fusion or Not?.**

van Dijk LA, Barrère-de Groot F, Rosenberg AJWP, Pelletier M, Christou C, de Bruijn JD and Walsh WR. *Clinical Spine Surgery. Lippincott, Williams & Wilkins*.

### **2019**

#### **Bone Morphogenetic Protein 4 Gene Therapy in Mice Inhibits Myeloma Tumor Growth, But Has a Negative Impact on Bone.**

Westhrin M, Holien T, Zahoor M, Moen SH, Buene G, Størdal B, Hella H, Yuan H, de Bruijn JD, Martens A, Groen RW, Bosch F, Smith U, Sponaas A-M, Sundan A and Standal T. *Jbm Plus* vol. 4, (1) e10247-e10247. Wiley.

#### **Preparing for cell culture scale-out: establishing parity of bioreactor- and flask-expanded mesenchymal stromal cell cultures.**

Das R, Roosloot R, van Pel M, Schepers K, Driessen M, Fibbe WE, de Bruijn JD and Roelofs H. *J Transl Med* vol. 17, (1) 241-241.

#### **Combined CD28 and 4-1BB Costimulation Potentiates Affinity-tuned Chimeric Antigen Receptor-engineered T Cells.**

Drent E, Poels R, Ruiter R, van de Donk NWCJ, Zweegman S, Yuan H, de Bruijn J, Sadelain M, Lokhorst HM, Groen RWJ, Mutis T and Themeli M. *Clin Cancer Res* vol. 25, (13) 4014-4025.

#### **CD38 as a therapeutic target for adult acute myeloid leukemia and T-cell acute lymphoblastic leukemia.**

Naik J, Themeli M, de Jong-Korlaar R, Ruiter RWJ, Poddighe PJ, Yuan H, de Bruijn JD, Ossenkoppele GJ, Zweegman S, Smit L, Mutis T, Martens ACM, van de Donk NWCJ and Groen RWJ. *Haematologica* vol. 104, (3) e100-e103.

#### **Accelerated bone formation by biphasic calcium phosphate with a novel sub-micron surface topography.**

Duan R, van Dijk LA, Barbieri D, de Groot F, Yuan H and de Bruijn JD. *Eur Cell Mater* vol. 37, 60-73.

#### **Efficacy of a synthetic calcium phosphate with submicron surface topography as autograft extender in lapine posterolateral spinal fusion.**

van Dijk LA, Barbieri D, Barrère-de Groot F, Yuan H, Oliver R, Christou C, Walsh WR and de Bruijn JD. *J Biomed Mater Res B Appl Biomater*.

## 2018

### Biphasic calcium phosphate with submicron surface topography in an Ovine model of instrumented posterolateral spinal fusion.

van Dijk LA, Duan R, Luo X, Barbieri D, Pelletier M, Christou C, Rosenberg AJWP, Yuan H, Barrère-de Groot F, Walsh WR and de Bruijn JD. *Jor Spine* vol. 1, (4) e1039-e1039.

### Modulating Bone Regeneration in Rabbit Condyle Defects with Three Surface-Structured Tricalcium Phosphate Ceramics.

Duan R, Barbieri D, De Groot F, De Bruijn JD and Yuan H. *Acs Biomaterials Science and Engineering* vol. 4, (9) 3347-3355.

## 2017

### Topography of calcium phosphate ceramics regulates primary cilia length and TGF receptor recruitment associated with osteogenesis.

Zhang J, Dalbay MT, Luo X, Vrij E, Barbieri D, Moroni L, de Bruijn JD, van Blitterswijk CA, Chapple JP, Knight MM and Yuan H. *Acta Biomater* vol. 57, 487-497.

### Genetically engineered mesenchymal stromal cells produce IL-3 and TPO to further improve human scaffold-based xenograft models.

Carretta M, de Boer B, Jaques J, Antonelli A, Horton SJ, Yuan H, de Bruijn JD, Groen RWJ, Vellenga E and Schuringa JJ. *Experimental Hematology* vol. 51, 36-46.

### A Rational Strategy for Reducing On-Target Off-Tumor Effects of CD38-Chimeric Antigen Receptors by Affinity Optimization.

Drent E, Themeli M, Poels R, de Jong-Korlaar R, Yuan H, de Bruijn J, Martens ACM, Zweegman S, van de Donk NWCJ, Groen RWJ, Lokhorst HM and Mutis T. *Molecular Therapy* vol. 25, (8) 1946-1958.

### \* Comparison of Two Moldable Calcium Phosphate-Based Bone Graft Materials in a Noninstrumented Canine Interspinous Implantation Model.

Barbieri D, Yuan H, Ismailo lu AS and de Bruijn JD. *Tissue Eng Part A* vol. 23, (23-24) 1310-1320.

### Cells responding to surface structure of calcium phosphate ceramics for bone regeneration.

Zhang J, Sun L, Luo X, Barbieri D, de Bruijn JD, van Blitterswijk CA, Moroni L and Yuan H. *J Tissue Eng Regen Med.*

## 2016

### Establishing human leukemia xenograft mouse models by implanting human bone marrow-2 like scaffold-based niches.

DE BRUIJN JD. *Blood.American Society of Hematology*.

### Sepantronium bromide (YM155) improves daratumumab-mediated cellular lysis of multiple myeloma cells by abrogation of bone marrow stromal cell-induced resistance.

de Haart SJ, Holthof L, Noort WA, Minnema MC, Emmelot ME, Aarts-Riemens T, Doshi P, Sasser K, Yuan H, de Bruijn J, Martens AC, van de Donk NW, Lokhorst HM, Groen RW and Mutis T. *Haematologica* vol. 101, (8) e339-e342.

### Modeling BCR-ABL and MLL-AF9 leukemia in a human bone marrow-like scaffold-based xenograft model.

Sontakke P, Carretta M, Jaques J, Brouwers-Vos AZ, Lubbers-Aalders L, Yuan H, de Bruijn JD, Martens ACM, Vellenga E, Groen RWJ and Schuringa JJ. *Leukemia*.

### Pre-clinical evaluation of CD38 chimeric antigen receptor engineered T cells for the treatment of multiple myeloma.

Drent E, Groen RWJ, Noort WA, Themeli M, van Bueren JJL, Parren PW, Kuball J, Sebestyen Z, Yuan H, de Bruijn J, van de Donk NWCJ, Martens ACM, Lokhorst HM and Mutis T. *Haematologica* vol. 101, (5) 616-625.

## 2015

### International Society for Cellular Therapy perspective on immune functional assays for mesenchymal stromal cells as potency release criterion for advanced phase clinical trials.

Galipeau J, Krampera M, Barrett J, Dazzi F, Deans RJ, DeBruijn J, Dominici M, Fibbe WE, Gee AP, Gimble JM, Hematti P, Koh MBC, LeBlanc K, Martin I, McNiece IK, Mendicino M, Oh S, Ortiz L, Phinney DG, Planat V, Shi Y, Stroncek DF, Viswanathan S, Weiss DJ and Sensebe L. *Cytotherapy* vol. 18, (2) 151-159.

**Effect of particle size on osteoinductive potential of microstructured biphasic calcium phosphate ceramic.**  
Wang L, Barbieri D, Zhou H, De Bruijn JD, Bao C and Yuan H. *Journal of Biomedical Materials Research - Part A* vol. 103, (6) 1919-1929.

#### **CULTURE OF ADIPOSE-DERIVED STEM CELLS IN A CLOSED BIOREACTOR SYSTEM FOR CELL THERAPY.**

Tra W, Das R, Driessen M, van Santen P and de Bruijn J. *Cytotherapy* vol. 17, (6) S44-S44.

#### **Influence of fluoride in poly(d,L-lactide)/apatite composites on bone formation.**

Luo X, Barbieri D, Passanisi G, Yuan H and De Bruijn JD. *Journal of Biomedical Materials Research - Part B Applied Biomaterials* vol. 103, (4) 841-852.

#### **The RAPIDOS project-European and Chinese collaborative research on biomaterials.**

Eglin D, Alini M, de Bruijn J, Gautrot J, Grijpma DW, Kamer L, Lai Y, Lu S, Peijs T, Peng J, Tang TT, Wang X, Wang X, Richards RG and Qin L. *J Orthop Translat* vol. 3, (2) 78-84.

#### **Microporous calcium phosphate ceramics driving osteogenesis through surface architecture.**

Zhang J, Barbieri D, Ten Hoopen H, De Bruijn JD, Van Blitterswijk CA and Yuan H. *Journal of Biomedical Materials Research - Part A* vol. 103, (3) 1188-1199.

#### **Influence of surface microstructure and chemistry on osteoinduction and osteoclastogenesis by biphasic calcium phosphate discs.**

Davison NL, Su J, Yuan H, van den Beucken JJJP, de Bruijn JD and de Groot FB. *European Cells and Materials* vol. 29, 314-329.

### **2014**

#### **The size of surface microstructures as an osteogenic factor in calcium phosphate ceramics.**

Zhang J, Luo X, Barbieri D, Barradas AMC, de Bruijn JD, van Blitterswijk CA and Yuan H. *Acta Biomater* vol. 10, (7) 3254-3263.

#### **Submicron-scale surface architecture of tricalcium phosphate directs osteogenesis in vitro and in vivo.**

Davison NL, Luo X, Schoenmaker T, Everts V, Yuan H, Barrère-de Groot F and de Bruijn JD. *European Cells and Materials* vol. 27, 281-297.

#### **CONTROLLED CULTURE OF ADHERENT CELLS IN A NOVEL, CLOSED BIOREACTOR SYSTEM FOR CELL THERAPY PRODUCTION.**

Das R, Roosloot R, Tra W, Roelofs H, van Santen P and de Bruijn J. *Cytotherapy* vol. 16, (4) S102-S103.

#### **Poly(trimethylene carbonate) and biphasic calcium phosphate composites for orbital floor reconstruction: A feasibility study in sheep.**

van Leeuwen AC, Yuan H, Passanisi G, van der Meer JW, de Bruijn JD, van Kooten TG, Grijpma DW and Bos RRM. *European Cells and Materials* vol. 27, 81-97.

#### **Zinc in calcium phosphate mediates bone induction: In vitro and in vivo model.**

Luo X, Barbieri D, Davison N, Yan Y, De Bruijn JD and Yuan H. *Acta Biomaterialia* vol. 10, (1) 477-485.

#### **Poly(trimethylene carbonate) and biphasic calcium phosphate composites for orbital floor reconstruction: A feasibility study in sheep.**

van Leeuwen AC, Yuan H, Passanisi G, van der Meer JW, de Bruijn JD, van Kooten TG, Grijpma DW and Bos RRM. *European Cells and Materials* vol. 27, 81-97.

#### **Liposomal clodronate inhibition of osteoclastogenesis and osteoinduction by submicrostructured beta-tricalcium phosphate.**

Davison NL, Gamblin AL, Layrolle P, Yuan H, de Bruijn JD and Barrère-de Groot F. *Biomaterials* vol. 35, (19) 5088-5097.

#### **Microporous calcium phosphate ceramics driving osteogenesis through surface architecture.**

Zhang J, Barbieri D, ten Hoopen H, de Bruijn JD, van Blitterswijk CA and Yuan H. *Journal of Biomedical Materials Research - Part A*.

**Effect of particle size on osteoinductive potential of microstructured biphasic calcium phosphate ceramic.**  
Wang L, Barbieri D, Zhou H, de Bruijn JD, Bao C and Yuan H. *Journal of Biomedical Materials Research - Part A*. John Wiley and Sons Inc.

**The morphology and functions of articular chondrocytes on a honeycomb-patterned surface.**  
Eniwumide JO, Tanaka M, Nagai N, Morita Y, de Bruijn J, Yamamoto S, Onodera S, Kondo E, Yasuda K and Shimomura M. *Biomed Res Int* vol. 2014,.

**Osteoclast resorption of beta-tricalcium phosphate controlled by surface architecture.**  
Davison NL, ten Harkel B, Schoenmaker T, Luo X, Yuan H, Everts V, Barrère-de Groot F and de Bruijn JD. *Biomaterials* vol. 35, (26) 7441-7451.

## 2013

**Influence of polymer molecular weight in osteoinductive composites for bone tissue regeneration.**  
Barbieri D, Yuan H, Luo X, Farè S, Grijpma DW and De Bruijn JD. *Acta Biomaterialia* vol. 9, (12) 9401-9413.

**Comparing autograft, allograft, and tricalcium phosphate ceramic in a goat instrumented posterolateral fusion model.**  
Delawi D, Kruyt MC, Huipin Y, Vincken KL, De Bruijn JD, Oner FC and Dhert WJA. *Tissue Engineering - Part C: Methods* vol. 19, (11) 821-828.

**Controlling dynamic mechanical properties and degradation of composites for bone regeneration by means of filler content.**  
Barbieri D, de Bruijn JD, Luo X, Farè S, Grijpma DW and Yuan H. *Journal of The Mechanical Behavior of Biomedical Materials* vol. 20, 162-172.

**Continuous and Uninterrupted Oxygen Tension Influences the Colony Formation and Oxidative Metabolism of Human Mesenchymal Stem Cells.**  
Pattappa G, Thorpe SD, Jegard NC, Heywood HK, de Bruijn JD and Lee DA. *Tissue Engineering Part C-Methods* vol. 19, (1).

**Influence of polymer molecular weight in osteoinductive composites for bone tissue regeneration.**  
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**Zinc in calcium phosphate mediates bone induction: In vitro and in vivo model.**  
Luo X, Barbieri D, Davison N, Yan Y, de Bruijn JD and Yuan H. *Acta Biomaterialia*.

## 2012

**Reconstructing the human hematopoietic niche in immunodeficient mice: Opportunities for studying primary multiple myeloma.**  
Groen RWJ, Noort WA, Raymakers RA, Prins HJ, Aalders L, Hofhuis FM, Moerer P, Van Velzen JF, Bloem AC, Van Kessel B, Rozemuller H, Van Binsbergen E, Buijs A, Yuan H, De Bruijn JD, De Weers M, Parren PW, Schuringa JJ, Lokhorst HM, Mutis T and Martens ACM. *Blood* vol. 120, (3).

**In vivo performance of microstructured calcium phosphate formulated in novel water-free carriers.**  
Davison N, Yuan H, de Bruijn JD and Barrere-de Groot F. *Acta Biomaterialia* vol. 8, (7) 2759-2769.

**Patterns of Amino Acid Metabolism by Proliferating Human Mesenchymal Stem Cells.**  
Higuera GA, Schop D, Spitters TWGM, van Dijkhuizen-Radersma R, Bracke M, de Bruijn JD, Martens D, Karperien M, van Boxtel A and van Blitterswijk CA. *Tissue Engineering Part A* vol. 18, (5-6) 654-664.

## 2011

**beta-TCP Versus Autologous Bone for Repair of Alveolar Clefts in a Goat Model.**  
de Ruiter A, Meijer G, Dormaar T, Janssen N, van der Bilt A, Slootweg P, de Bruijn J, van Rijn L and Koole R. *Cleft Palate-Craniofacial Journal* vol. 48, (6) 654-662.

**-TCP versus autologous bone for repair of alveolar clefts in a goat model.**  
De Ruiter A, Meijer G, Dormaar T, Janssen N, Van Der Bilt A, Slootweg P, De Bruijn J, Van Rijn L and Koole R. *Cleft Palate-Craniofacial Journal* vol. 48, (6) 654-662.

**The metabolism of human mesenchymal stem cells during proliferation and differentiation.**

Pattappa G, Heywood HK, de Bruijn JD and Lee DA. *J Cell Physiol* vol. 226, (10) 2562-2570.

**Influence of different polymeric gels on the ectopic bone forming ability of an osteoinductive biphasic calcium phosphate ceramic.**

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**'Smart' biomaterials and osteoinductivity.**

Yuan HP, Fernandes H, Habibovic P, de Boer J, Barradas AMC, de Ruiter A, Walsh WR, van Blitterswijk CA and de Bruijn JD. *Nat Rev Rheumatol* vol. 7, (4) 1-1.

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**Scaffolds with a standardized macro-architecture fabricated from several calcium phosphate ceramics using an indirect rapid prototyping technique.**

Wilson CE, van Blitterswijk CA, Verbout AJ, Dhert WJA and de Bruijn JD. *J Mater Sci-Mater M* vol. 22, (1) 97-105.

## 2010

**The metabolism of human mesenchymal stem cells during proliferation and differentiation.**

Pattappa G, Heywood HK, de Bruijn JD and Lee DA. *J Cell Physiol*.

**Osteoinductive ceramics as a synthetic alternative to autologous bone grafting.**

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**Dexamethasone treatment during the expansion phase maintains stemness of bone marrow mesenchymal stem cells.**

Xiao Y, Peperzak V, van Rijn L, Borst J and de Bruijn JD. *J Tissue Eng Regen Med* vol. 4, (5) 374-386.

**Chitosan-based hydrogels do not induce angiogenesis.**

Ahmadi R, Burns AJ and de Bruijn JD. *J Tissue Eng Regen Med* vol. 4, (4) 309-315.

**Use of Fluorochrome Labels in In Vivo Bone Tissue Engineering Research.**

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**Expansion of human mesenchymal stromal cells on microcarriers: growth and metabolism.**

Schop D, van Dijkhuizen-Radersma R, Borgart E, Janssen FW, Rozemuller H, Prins HJ and de Bruijn JD. *J Tissue Eng Regen M* vol. 4, (2) 131-140.

**Goat Bone Tissue Engineering: Comparing an Intramuscular with a Posterolateral Lumbar Spine Location.**

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**Relating cell proliferation to in vivo bone formation in porous Ca/P scaffolds.**

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**Human tissue-engineered bone produced in clinically relevant amounts using a semi-automated perfusion bioreactor system: a preliminary study.**

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## 2009

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## **2008**

### **Comparing autograft, allograft, and tricalcium phosphate in instrumented posterolateral fusions.**

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Ahmadi R and de Bruijn JD. *J Biomed Mater Res A* vol. 86, (3) 824-832.

### **Dexamethasone treatment during the expansion phase sustains stemness of mesenchymal stem cells from human bone marrow.**

Xiao YL, Peperzak V, van Rijn L, Borst J and de Bruijn J. *Cell Res* vol. 18.,

### **Cell based bone tissue engineering in jaw defects.**

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### **Analysis of the dynamics of bone formation, effect of cell seeding density, and potential of allogeneic cells in cell-based bone tissue engineering in goats.**

Kruyt M, De Bruijn J, Rouwkema J, Van Blitterswijk C, Oner C, Verbout A and Dhert W. *Tissue Eng Pt A* vol. 14, (6) 1081-1088.

### **Expansion of mesenchymal stem cells using a microcarrier-based cultivation system: growth and metabolism.**

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### **Osteoinduction and its evaluation.**

De Bruijn JD, Shankar K, Yuan H and Habibovic P.

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### **Ectopic bone formation in cell-seeded poly(ethylene oxide)/poly(butylene terephthalate) copolymer scaffolds of varying porosity.**

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### **Analysis of ectopic and orthotopic bone formation in cell-based tissue-engineered constructs in goats.**

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### **Cell-based bone tissue engineering.**

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### **A rapid and efficient method for expansion of human mesenchymal stem cells.**

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## **2006**

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Kruyt MC, Wilson CE, de Bruijn JD, van Blitterswijk CA, Oner CF, Verbout AJ and Dhert WJA. *Biomaterials* vol. 27, (29) 5099-5106.

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Kruyt MC, Persson C, Johansson G, Dhert WJA and de Bruijn JD. *Tissue Eng* vol. 12, (2) 309-317.

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## 2005

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**Genetic marking with the DeltaLNGFR-gene for tracing goat cells in bone tissue engineering.**

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**Optimization of bone-tissue engineering in goats.**

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**Bone tissue engineering and spinal fusion: the potential of hybrid constructs by combining osteoprogenitor cells and scaffolds.**

Kruyt MC, van Gaalen SM, Oner FC, Verbout AJ, de Bruijn JD and Dhert WJA. *Biomaterials* vol. 25, (9) 1463-1473.

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