CONTACT INFORMATION

Name Matilde Bongio
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PERSONAL INFORMATION

Date of Birth 5 June 1983
Citizenship Italian

EMPLOYMENT HISTORY

Postdoctorate 2013 - Present
Galeazzi Orthopaedic Institute IRCCS, Milan, Italy
Cell and Tissue Engineering Laboratory
Advisor: Dr Matteo Moretti

PhD 2009 – 2013
Radboud University Nijmegen Medical Center, the Netherlands
Department of Biomaterials
Advisor: Dr Prof Jansen JA
Doctoral thesis: "In vitro and in vivo evaluation of injectable hydrogel-based bone substitute materials"

Visiting scholarship 2010
Rice University, Houston, Texas
Department of Bioengineering
Advisor: Dr Prof Mikos AG

Fellowship 2008
European Social Fund (ESF) and Lombardy Region
University of Pavia, Italy
Department of Human Anatomy
Advisor: Dr Prof Sampaolesi M

EDUCATION

Master 2005 - 2007
University of Pavia, Italy
Faculty of Medicine and Surgery
Master degree in Medical and Pharmaceutical Biotechnology
Internship at the Department of Experimental Medicine, Human Anatomy Unit
Dr Sampaolesi M research group
Graduation thesis title: "Expression and localization of the recombinant human protein Magic F-1 in mouse embryogenesis and reproductive apparatus"; grading: 110/110 magna cum laude

Bachelor 2002 – 2005
University of Pavia, Italy
Faculty of Mathematics, Physics & Natural Sciences
Bachelor degree in Biotechnology
Internship at the Department of Experimental Medicine, Human Anatomy Unit
Advisor: Dr Prof Cusella C
Graduation thesis title: "O_2O_3 therapy in a mouse animal model of neurodegeneration: effects on the bloob brain barrier"; grading: 109/110

PROFESSIONAL QUALIFICATIONS

Certifications and Accreditations

- **Certificate Course on Laboratory Animal Science** - March 2009
  The course on laboratory animal science meets the requirements cited in article 9 of the Wet op de dierproeven (Experiments on Animals Act) and the (European) FELASA category C demands. The certificate leads to a legal recognition to design animal experiments in the Netherland

- Certificate Advances in Tissues Engineering 2009, 17th annual short course.
  School of continuing studies - Rice University, Houston, Texas

Computer Skills

- Main Windows software knowledge (Word, Powerpoint, Excel)
- Graphic softwares (Xara, ImajeJ, PhotoShop, Illustrator)
- 3D design and animation (Cinema 4D, AfterEffects)

CONFERENCES

Bone-tec 2010 International Bone-Tissue-Engineering Congress, 7-10 October, Hannover (Germany)
Oral presentation: Injectable hydrogels for bone regeneration

20th Annual Meeting-Netherlands Society of Biomaterials and Tissue Engineering (NBTE) 1-2 December 2011, Lunteren, the Netherlands
Oral presentation: Biomimetic evaluation of synthetic hydrogels: in vitro evaluation of cell behavior

9th World Biomaterials Congress, 1-5 June 2012 Chengdu, China
Oral presentation: In vitro and in vivo evaluation of biomimetic synthetic hydrogels for potential application as injectable bone substitute materials

21st Annual Meeting-Netherlands Society of Biomaterials and Tissue Engineering (NBTE) 6-7 December 2012, Lunteren, the Netherlands
Oral presentation: In vivo evaluation of injectable hydrogels for bone regeneration

AWARDS

Certificate of recognition for outstanding oral presentation in Bone-tec 2010 International Bone-Tissue-Engineering Congress, Hannover (Germany). Title: Injectable hydrogels for bone regeneration.

College of Dental Sciences 2011, Research Report Radboud University Nijmegen Medical Center. Highlight on results of imagination: Line 2 – Wound Healing around the implant. "Biomimetic modification of synthetic hydrogels: *in vitro* evaluation of cell behavior".

ACADEMIC ACTIVITIES

Supervision of several Bachelor and Master students (Biomedical Sciences, Medical Biology, Dentistry) during their research projects.

Lecturing Bachelor students of Biology (Radboud University, Nijmegen) on the topic of "Hydrogels for bone regeneration".

Professional service: acting as a reviewer for Tissue Engineering.

PROFESSIONAL MEMBERSHIPS

Netherlands Society for Biomaterials and Tissue Engineering (NBTE) 2009 - 2013
http://www.nbte.nl/

LIST OF PUBLICATIONS

Lovati A, Pozzi A*, **Bongio M***, Recordati C, Berzero G, Moretti M (2014) A comparative study of diagnostic and imaging techniques for the osteoarthritis of the trapezium. Accepted in Rheumatology. (* these authors contributed equally to this work).

Nejadnik MR, Yang X, **Bongio M,** Alghamdi HS, van den Beucken JJJP, Huysmans MC, Jansen JA, Hilborn J, Ossipov DA, Leeuwenburgh SCG (2014) Self-healing hybrid nanocomposites consisting of bisphosphonated hyaluronan and calcium phosphate nanoparticles. Accepted in Biomaterials.

Bongio M, Nejadnik MR, Kasper FK, Mikos AG, Jansen JA, Leeuwenburgh SCG, van den Beucken JJJP (2013) Development of an in vitro confinement test to predict the clinical handling of injectable bone substitutes. Polymer testing. 32(8):1379-1384. doi: 10.1016/j.polymertesting.2013.08.011

Wang H, **Bongio M**, Farbod K, Nijhuis AWG, van den Beucken JJJP, Boerman OC, van Hest JCM, Li Y, Jansen JA, Leeuwenburgh SCG (2014) Development of organic/inorganic colloidal composite gels made of self-assembling gelatin and calcium phosphate nanoparticles. Acta Biomater. 2014 Jan;10(1):508-19. doi: 10.1016/j.actbio.2013.08.036.

Ma J, Yang F, Both SK, Kersten-Niessen M, **Bongio M**, Pan J, Cui FZ, Kasper FK, Mikos AG, Jansen JA, van den Beucken JJJP (2012) Comparison of cell loading methods in hydrogel systems. J Biomed Mater Res A. 2014 Apr;102(4):935-46. doi: 10.1002/jbm.a.34784.

Bongio M, Nejadnik MR, Birgani ZT, Habibovic P, Kinard LA, Kasper FK, Mikos AG, Jansen JA, Leeuwenburgh SCG, van den Beucken JJJP (2013) In vitro and in vivo enzyme-mediated biomineralization of oligo(poly(ethylene glycol) fumarate hydrogels. Macromol Biosci. doi: 10.1002/mabi.201200474.

Bongio M, van den Beucken JJJP, Nejadnik MR, Leeuwenburgh SCG, Kasper FK, Mikos AG, Jansen JA (2013) Subcutaneous tissue response and osteogenic performance of calcium phosphate nanoparticles-enriched hydrogels in the medullary cavity of guinea pigs. Acta Biomater. 9(3):5464-74.

Bongio M, van den Beucken JJJP, Leeuwenburgh SCG, Jansen JA (2012) Pre-clinical evaluation of injectable bone substitute materials. J Tissue Eng Reg Med. doi: 10.1002/term.1637.

Lopez-Heredia MA, **Bongio M**, V Cuijpers, AJA Winnubst, N van Dijk, , Wolke JG, van den Beucken JJJP, Jansen JA (2012) "Processing and in vivo evaluation of multiphasic calcium phosphate cements with dual tricalcium phosphate phases". Acta Biomater. 8(9):3500-8.

Lopez-Heredia MA, **Bongio M**, Cuijpers VM, van Dijk NW, van den Beucken JJ, Wolke JG, Jansen JA (2012) Bone formation analysis: effect of quantification procedures on the study outcome. Tissue Eng Part C Methods. 18(5):369-73.

Bongio M*, Ronzoni F*, Conte S, Vercesi L, Cassano M, Tribioli C, Galli D, Bellazzi R, Magenes G, Cusella De Angelis MG, Sampaolesi M (2011) Localization of Magic-F1 transgene, involved in muscular hypertrophy, during early myogenesis. J Biomed Biotechnol. 2011:492075. (* these authors contributed equally to this work).

Bongio M, van den Beucken JJJP, Nejadnik MR, Leeuwenburgh SCG, Kinard LA, Kasper FK, Mikos AG, Jansen JA (2011) Biomimetic modification of synthetic hydrogels by incorporation of adhesive peptides and calcium phosphate nanoparticles: in vitro evaluation of cell behavior. Eur Cell Mater. 17;22:359-76.

Galli D, Benedetti L, **Bongio M**, Maliardi V, Silvani G, Ceccarelli G, Ronzoni F, Conte S, Benazzo F, Graziano A, Papaccio G, Sampaolesi M, De Angelis MG (2011) In vitro osteoblastic differentiation of human mesenchymal stem cells and human dental pulp stem cells on poly-L-lysine-treated titanium-6-aluminium-4-vanadium. J Biomed Mater Res A. 97(2):118-26.

Bongio M, van den Beucken JJJP, Leeuwenburgh SCG, Jansen JA (2010) Development of bone substitute materials: from 'biocompatible' to 'instructive' J Mater Chem. 20, 8747-8759.

BOOK CHAPTER

Bongio M, Yang W, Yang F, Both SK, Leeuwenburgh SCG, van den Beucken JJJP, Jansen JA (2013) Combining osteochondral stem cells and biodegradable hydrogels for bone regeneration. Stem cells and Bone disease. CRC Press.

M Sampaolesi, **M Bongio**, M Cassano, G Coppiello, S Crippa (2010) Cellule staminali XXI secolo (Stem cells XXI century). Enciclopedia Treccani.