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Graduated in Metallurgical Engineering, at the University of Porto (1993), followed by PhD studies at the Universities of Porto and Bordeaux, in France (2001). Researcher at INEB - Instituto de Engenharia Biomédica since 1994. At present, Principal Investigator at the NEWTherapies Group of INEB; Elected member of the Council of the European Society for Biomaterials (ESB) and Treasurer; Auxiliary Invited Professor at Faculty of Engineering (FEUP); Founder and Editor-in-Chief of the Biomaterials Network (Biomat.net), since 1998; Founder and Editor-in-Chief of the journal Biomatter, launched in 2010.

Ongoing research work is primarily focused on developing immobilization strategies for bone and other cells influencing their differentiation. Studies are also being conducted on the modulation of the activity and phenotypic expression of stem cells into bone and other cell types, namely cells capable of promoting angiogenesis. An additional focus relies on the development of functionalized nanoparticles for gene delivery and cancer diagnosis and treatment. Essential keywords characterizing ongoing research work are: Regenerative Medicine, Tissue Engineering, Biomaterials, Bone regeneration, Injectable materials, Cell immobilization/encapsulation, Angiogenesis/vascularization, Cocultures, intercellular crosstalking, and NanoMedicine.

Selected recent publications:

- Cunha CB, Oliveira C, Wen X, Gomes B, Sousa S, Suriano G, Grellier M, Huntsman D, Carneiro F, Granja PL, Seruca R. *De novo* expression of CD44 variants in sporadic and hereditary gastric cancer. *Lab Invest* 2010 (In Press).
- Bidarra SJ, Barrias CC, Barbosa MA, Soares R, Granja PL. Immobilization of human mesenchymal stem cells within RGD-grafted alginate microspheres and assessment of their angiogenic potential. *Biomacromolecules* 2010 (In Press).
- Santos JL, Pandita D, Rodrigues J, Pêgo AP, Granja PL, Balian G, Tomás H. Receptor-Mediated Gene Delivery using PAMAM Dendrimers Conjugated with Peptides Recognized by Mesenchymal Stem Cells. *Mol Pharm* 2010;7:763-74.
- Santos JL, Pandita D, Rodrigues J, Pêgo AP, Granja PL, Tomás H. Functionalization of poly(amidoamine) dendrimers with hydrophobic chains for improved gene delivery in mesenchymal stem cells. *J Control Rel* 2010;144:55-64.
- Extremina CI, Freitas da Fonseca A, Granja PL, Fonseca AP. Anti-adhesion and anti-proliferative cellulose triacetate membrane for prevention of biomaterial centered infections associated to *Staphylococcus epidermidis*. *Int J Antimicrob Agents* 2010;35:164-8.
- Grellier M, Granja PL, Fricain J-C, Bidarra SJ, Renard M, Bareille R, Bourget C, Amédée J, Barbosa MA. The Effect of the Co-Immobilization of Human Osteoprogenitors and Endothelial Cells within Alginate Microspheres on Mineralization in a Bone Defect. *Biomaterials* 2009;30:3271-327.
- Santos JL, Oramas E, Pêgo AP, Granja PL, Tomás H. Osteogenic differentiation of mesenchymal stem cells using PAMAM dendrimers as gene delivery vectors. *J Control Rel* 2009;134:141-148.
- Barrias CC, Martins MCL, Almeida-Porada G, Barbosa MA, Granja PL. The correlation between the adsorption of adhesive proteins and cell behaviour on hydroxyl-methyl mixed self-assembled monolayers. *Biomaterials* 2009;30:307-316.
- Evangelista MB, Hsiong S, Fernandes R, Sampaio P, Kong HJ, Barrias CC, Salema R, Barbosa MA, Mooney DJ, Granja PL. Upregulation of bone cell differentiation through immobilization within a synthetic extracellular matrix. *Biomaterials* 2007;28:3644-55.

Further details available at: <http://www.pedrogranja.net>

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