

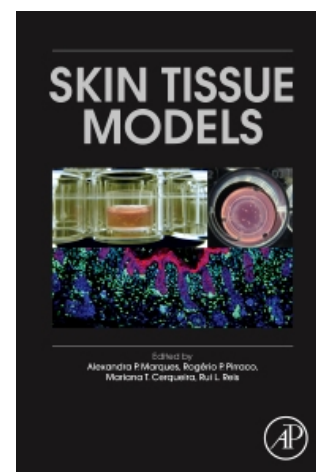
WORKSHOP: “NEW TOOLS FOR CUTANEOUS WOUND HEALING AND CLINICAL PROGRESS IN DISEASED SKIN” HELD AT KCL

The workshop was held at **KCL, London, UK** on the 23rd-25th of April 2018 (month 29) and counted with two keynote presentations from the invited speakers **Veronica Kinsler** – UCL, UK – who gave a lecture on “Cutaneous mosaicism – between Mendelian and cancer genetics” and **John McGrath** – KCL, UK – that presented “Cell therapy for epidermolysis bullosa: making clinical progress”. Moreover this workshop counted with presentations from different representatives from all **3 partner organisations** which fostered the discussion on the work that was carried out with the invited speakers that provided a critical analysis.



New Book on “Skin Tissue Models” just came out

Skin Tissue Models provides a translational link for biomedical researchers on the interdisciplinary approaches to skin regeneration. As the skin is the largest organ in the body, engineered substitutes have critical medical application to patients with disease and injury – from burn wounds and surgical scars, to vitiligo, psoriasis and even plastic surgery. This volume offers readers preliminary description of the normal structure and function of mammalian skin, exposure to clinical problems and disease, coverage of potential therapeutic molecules and testing, skin substitutes, models as study platforms of skin biology and emerging technologies.



RECENT AWARDS BY THE CONSORTIUM

Professor Rui L. Reis wins £350,000 IET Harvey Engineering Research Prize to predict efficacy of cancer drugs

A world expert in Tissue Engineering and Regenerative Medicine (TERM) has been awarded a prestigious international prize from the Institution of Engineering and Technology (IET). The prize fund will be used to create reliable breakthrough 3D engineered functional cancer disease models that can help predict the efficacy of cancer drugs, avoiding unnecessary animal testing and some clinical trials.



Prof. Rui Reis, Director of 3B's Research Group, received this 30th of March the UNESCO-Equatorial Guinea International Prize for Research in the Life Sciences

Prof. Rui Reis received the UNESCO-Equatorial Guinea International Prize for Research in the Life Sciences for his outstanding innovative contributions to the development and engineering of natural-based biomaterials and their biomedical applications including tissue engineering, regenerative medicine, stem cells and drug delivery, which have a significant potential to improve human health.



United Nations
Educational, Scientific and
Cultural Organization



Professor Watt announced as government's preferred candidate for Executive Chair of the Medical Research Council (MRC)

Professor Watt has been selected as the government's preferred candidate to be the Executive Chair of the Medical Research Council (MRC) when it becomes a constituent part of UK Research and Innovation (UKRI) in April 2018. She takes on the role from Sir John Savill who steps down from his post as MRC's CEO at the end of March. Professor Watt's selection for this prestigious role is testament to her outstanding work in the field of stem cells over many years.



The GENE2SKIN project has received funding from the European Union's Horizon 2020 Research and Innovation programme, under the Grant Agreement Number 692221



Prof O'Brien to receive prestigious Royal Academy of Medicine in Ireland Silver Medal

Prof. Fergal O'Brien who has been awarded the Royal Academy of Medicine in Ireland (RAMI) Silver Medal which is presented each year 'to a distinguished clinician or engineer who has made a significant contribution to the field of bioengineering through academic endeavour and research'.



TERG PI named in Top 100 Healthcare Professionals

Dr. Cathal Kearney, lecturer in the Anatomy Department and PI in the Tissue Engineering Research Group RCSI, was recently featured in the Irish Pharmacy News 'Professional 100' 2017 issue which highlights the most influential professionals in healthcare/pharmacy roles, 'who act as ambassadors and role models for their peers, colleagues and the rising stars of tomorrow'. Dr. Kearney was included in recognition of his research into novel treatments for Diabetic Foot Ulcers having recently received €1.375 million in funding from the European Research Council.



Prof O'Brien awarded with an ERC grant to revolutionize joint repair

Prof O'Brien has been awarded €2,999,410 in funding from the ERC for the project 'ReCaP: Regeneration of Articular Cartilage using Advanced Biomaterials and Printing Technology' which aims to revolutionise the treatment of damaged articular joints by combining cutting edge advances in the area of 3D printing & advanced manufacturing with new insights into stem cell/gene therapy to develop a collagen-based scaffold platform that can repair both cartilage and the underlying bone. A novel surgical procedure will then be applied to allow this scaffold to be anchored to the joint surface while encouraging the body's own cells to infiltrate the material and repair the surrounding damaged tissue. Using this new approach, the treatment will promote the restoration of even large regions of damaged tissue.



SELECTED PUBLICATIONS BY THE CONSORTIUM



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Lago M. E. L., Cerqueira M. T., Pirraco R. P., Reis R. L., and Marques A. P., "Skin in vitro models to study dermal white adipose tissue role in skin healing", *Skin Tissue Models*, Eds. Marques A. P., Pirraco R. P., Cerqueira M. T., and Reis R. L., Academic Press, pp. 327-352



Philippeos C, Telerman SB, Oulès B, Pisco AO, Shaw TJ, Elgueta R, Lombardi G, Driskell RR, Soldin M, Lynch MD, Watt FM. 'Spatial and Single-Cell Transcriptional Profiling Identifies Functionally Distinct Human Dermal Fibroblast Subpopulations.' *J Invest Dermatol*. 2018 Apr;13 8(4):811-825. doi: 10.1016/j.jid.2018.01.016. Epub 2018 Jan 31. PMID: 29391249

Liakath-Ali K, Mills EW, Sequeira I, Lichtenberger BM, Pisco AO, Sipilä KH, Mishra A, Yoshikawa H, Wu CC, Ly T, Lamond AI, Adham IM, Green R, Watt FM. 'An evolutionarily conserved ribosome-rescue pathway maintains epidermal homeostasis.' *Nature*. 2018 Apr 11. doi: 10.1038/s41586-018-0032-3. [Epub ahead of print] PMID:29643507

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Walsh, D.P.; Murphy, R.D.; Panarella, A.; Raftery, R.M.; Cavanagh, B.; Simpson, J.C.; O'Brien, F.J.; Heise, A.; Cryan, S.A. "Bioinspired Star-shaped Poly(L-Lysine) Polypeptides; Efficient Polymeric Nanocarriers for the Delivery of DNA to Mesenchymal Stem Cells." *Molecular Pharmaceutics*. 15(5):1878-1891. doi: 10.1021/acs.molpharmaceut.8b00044.

Laiva, A.L.; Raftery, R.M.; Keogh, M.B.; O'Brien, F.J. "Pro-angiogenic impact of SDF-1 gene-activated collagen-based in stem cell driven angiogenesis" *International Journal of Pharmaceutics*. [In Press] doi: 10.1016/j.ijpharm.2018.03.032

. Murphy, R.; Walsh, D.P.; Hamilton, C.A.; Cryan, S.A. in het Panhuis, M.; Heise, A. "Degradable 3D-Printed Hydrogels Based on Star-Shaped Copolypeptides" *Biomacromolecules* [In Press] doi: 10.1021/acs.biomac.8b00299.

