

GENE2SKIN SUMMER SCHOOL 2018 HELD IN PORTO

The Gene2Skin Summer School 2018 entitled “Biomaterials and molecular mechanisms in the context of Skin Regeneration” took place in Porto between the 6th and 8th of June. A panel composed of lecturers hailing from Biomaterials and Skin Molecular Mechanisms will provide a strong scientific program and a unique opportunity of direct interaction with students. This school counted with from **Academia** such as **John Connelly – Queen Mary University London, UK**, **Christophe Marquette – Université Lyon, France**, **Desmond J. Tobin – Center for Skin Sciences, University of Bradford, UK**; and representatives from **Publishers** such as **Leah Webster – Wiley** and **Marina Soares e Silva – Elsevier**.

Additionally, there different activities were carried out focusing on the development of certain skills important for students such as “Meet the mentor” – meeting in person with the invited speakers, competition for the best poster, participation in a debate about scientific publishing, competition for the best “PhD in a picture” photo and participation in the discussion about different PhD experiences.



WORKSHOP: “MECHANOBIOLOGY AND TISSUE ENGINEERING OF SKIN” HELD AT WORLD CONGRESS IN BIOMECHANICS

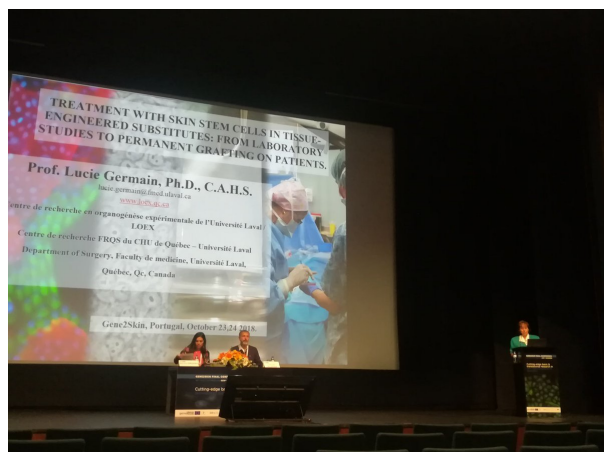
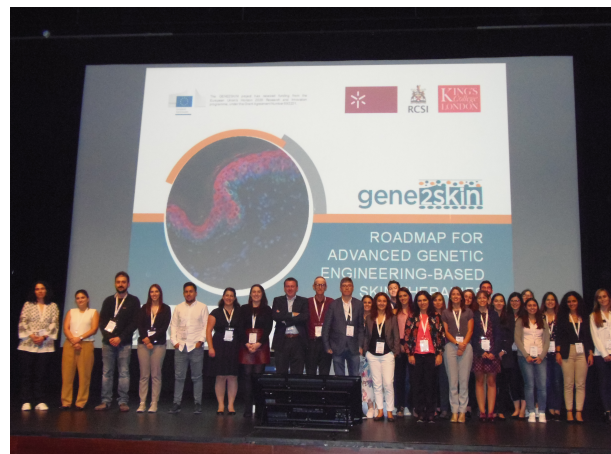
The workshop was held at **World Congress of Biomechanics, Dublin, Ireland on the 8th-12th July 2018** (month 32) and counted with two keynote presentations from the invited speakers **Dennis Orgill – Harvard Medical School, USA** – who gave a lecture on “Template for Skin Regeneration” and **Geoffrey Gurtner – Stanford, USA** – that presented “Skin Mechanotransduction in Overhealing and Underhealing Wounds”. Shorter presentations were also delivered by representatives of the 3 Gene2Skin partners that showed



not only the works that was carried out in each one of the institutions but also that resulted from the collaborations established under the scope of the project. As this workshop was open to all the attendants of the conference it also allowed to reach a scientific community complementary to the skin tissue engineering/regeneration one, critical to extend the interests and divulge the project and the consortium.

GENE2SKIN FINAL CONFERENCE HELD IN GUIMARÃES LAST OCTOBER

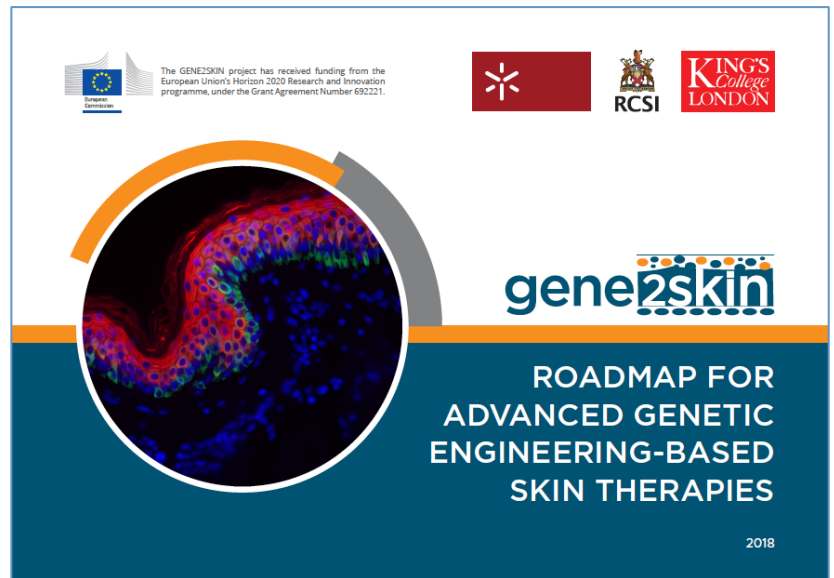
Final GENE2SKIN Conference occurred between the 23rd and the 24th of October, 2018, and was themed “Cutting-edge basic and translational research in skin-related diseases and disorders”. It promoted the interaction of highly skilled experts in this area, counting also with short presentations from young researchers. Key note speakers included the following top-researchers: **Adriana Sanchez-Danes - Université Libre de Bruxelles, Belgium**, **Alexander Nystrom - University of Freiburg, Germany**, **Ardershir Bayat - University of Manchester, UK**, **Christian Pellevoisin – Episkin, France**, **Lucie Germain – L'University Laval, Canada**, **Manuela Martins-Green, University of California, USA** and members of the Gene2Skin Consortium **Fergal O'Brien - RCSI, Ireland**, **Christina Philippeos – KCL, UK**. As the closing event of the project, the conference it encompassed the presentation of the main outcomes of the project by Alexandra P. Marques – the leading scientist of the project at the University of Minho, and the distribution of a booklet that compiled that information.



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

GENE2SKIN BOOKLET

With the end of the project, a booklet that compiled the objectives of the project and showed at which extent the major milestones of Gene2Skin achieved, was prepared. This booklet was carefully designed in order to gather important information to be consulted by all sort of different publics, such as scientists, doctors, regulators and also general public. With this tool it is possible to access important information



that goes from the consortium of the project, main objectives initially proposed, activities that were conducted, speakers that were invited to the organized workshops/conferences, as well as the network of experts created in the end of the project and furthermore the channels of communication that were used. This booklet was already distributed in the Gene2Skin final conference and is being presented by the partners to the most varied communities as an outcome of one of the European projects in which they were involved.

RECENT AWARDS BY THE CONSORTIUM

• • 3B's Rogério Pirraco awarded with an ERC grant

Rogério Pirraco, from the Research Group 3B's of the University of Minho, has just been awarded a 1.5 million euro grant from the European Research Council (ERC). The scientist will develop in the next five years a new way to connect blood vessels of patients and organs and fabrics made in the laboratory for transplantation. ERC scientific scholarships are the most prestigious and competitive in Europe, being awarded for the fifth time to Group 3B's, directed by Professor Rui L. Reis. These are individual projects whose selection is based 50% on the researcher's curriculum (must be at the top of those working in Europe) and 50% on the excellence of the project to be carried out, its degree of risk and the radically innovative approach and on the



frontiers of science. Rogério Pirraco presented the "Engineered Capillary Beds for Successful Prevascularization of Tissue Engineering Constructs" project and obtained a Starting Grant, aimed at those starting an independent career and establishing their own line of research, thus becoming more competitive in terms of and increasing the visibility of European research.

Professor Rui L. Reis awarded with the title of doctor honoris causa by the Universitatea POLITEHNICA din București, Romania.

Rui L. Reis, Director of 3B's Research Group - Institute of Research in Biomaterials, Biomimetics and Biodegradables (I3Bs) of University of Minho, was distinguished on the 15th of November 2018 with the title of doctor honoris causa by the Universitatea POLITEHNICA din București (UPB), Romania. The ceremony took place at the Senate Hall of UPB, with the presence of several relevant invitees, including the Rector of UMinho, Prof. Rui Vieira de Castro.



SELECTED PUBLICATIONS BY THE CONSORTIUM



Lago M. E. L., da Silva L. P., Henriques C., Carvalho A. F., Reis R. L., and Marques A. P., "Generation of Gellan Gum-Based Adipose-Like Microtissues.", *Bioengineering*, vol. 5, issue 3, pp. 52, doi:10.3390/bioengineering5030052, 2018.



Rognoni E, Watt FM, Skin Cell Heterogeneity in Development, Wound Healing, and Cancer, *Trends Cell Biol.* 2018 Sep;28(9):709-722. doi: 10.1016/j.tcb.2018.05.002. Epub 2018 May 25.



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

Wells JM, Watt FM, Diverse mechanisms for endogenous regeneration and repair in mammalian organs, Nature. 2018 May;557(7705):322-328. doi: 10.1038/s41586-018-0073-7. Epub 2018 May 16.



RCSI

Lackington, W.A.; Raftery, R.M.; O'Brien, F.J., In vitro efficacy of a gene-activated nerve guidance conduit incorporating non-viral PEI-pDNA nanoparticles carrying genes encoding for NGF, GDNF and c-Jun. Acta Biomaterialia pii: S1742-7061(18)30357-X. doi: 1016

Haugh, M.G.; Vaughan, T.J.; Madl, C.M.; Raftery, R.M.; McNamara, L.M.; O'Brien, F.J. and Heilshorn, S.C., Investigating the interplay between substrate stiffness and ligand chemistry in directing mesenchymal stem cell differentiation within 3D macro-porous substrates, Biomaterials 171: 23-33. doi: 10.1016/j.biomaterials.2018.04.026

