

GENE2SKIN RETREAT TOOK PLACE IN DOURO, PORTUGAL

GENE2SKIN retreat took place in Douro in Portugal between the 2nd-3rd of October 2017. This event aimed at creating an informal atmosphere that potentiated the networking among the participants, from PhD students to staff, of all the consortium institutions. The main activities included the pitch of Out-of-the-box ideas by different teams, a debate on “Scaffold-based versus Scaffold-free approaches” with the presence of a special external prestigious guest: Professor Masayuki Yamato from Japan and counted also with Scientific Presentation Sessions from GENE2SKIN consortium members. It was an ideal setting to boost GENE2SKIN group creativity and think outside the box, providing a close change of ideas and to establish bonds among the members of GENE2SKIN consortium.



GENE2SKIN WINTER SCHOOL 2017 HELD IN PORTO THIS MONTH

The Gene2Skin Winter School 2017 entitled “Skin Tissue disorders and advanced TE/genetic-based treatment strategies” took place in Porto between the 13th and 15th of November. The attending students had the chance to hear different perspectives on current problems and novel therapies for skin conditions. This school counted with from **Academia** such as **Fernando Larcher – University Carlos III, Spain**, **Teresa Orodio - IDI-IRCCS, Italy**, **Rebecca Lee – University of Manchester, UK**; with **clinicians** such as **Alberto Piaggese – University of Pisa, Italy**, **Alberto Mota – University of Porto, Portugal**, **Michael Kasperkiewicz University of Lubeck, Germany**; and representatives from **patients associations** such as **Carla Couto – President of DEBRA PT, Portugal**, **Miguel Oliveira – Portuguese Society of Podiatry, Portugal** and from the **industry** with **Pascal Descargues – GenoSkin, France**, **Dirk Weber – Aurealis Pharma, Switzerland/Finland** and **Stefan Kaelin, Organogenesis Inc, USA**.

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 clinicians, academic or scientific leaders, participation in a scientific quiz, engagement in a discussion panel foccusing in different stages of career developmeny and proposal and competition for the best Tissue Engineering and Regenerative Medicine idea.

The winning student team with the best score from the quiz and pitch challenge was the “Scar” team.



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

RECENT AWARDS BY THE CONSORTIUM

3B's Project TEAMING The Discoveries Centre, coordinated by 3B's-UMinho, approved by the European Commission

The Discoveries Centre to be created during the proposed project will perform world-leading research, by anchoring research activities of the best research groups in Portugal, promoting excellence, advanced training, translational research outputs and commercialisation strategies. In the long-run, these are

expected to generate an important economic impact, as well as a positive social effect by contributing to the increase of the quality of life of an ageing European population affected by neurodegenerative, cardiovascular and musculoskeletal diseases.



RCSI

TERG post-doc wins Best Oral Presentation at TERMIS

TERG's Dr Irene Mencía Castaño who was awarded the top prize in this year's SYIS Oral Presentation Competition at the 2017 Tissue Engineering and Regenerative Medicine International Society European Chapter (TERMIS-EU) Annual Meeting held in Davos, Switzerland. Irene's talk was entitled 'MicroRNA therapeutics for improved bone repair: Effective collagen-nanohydroxyapatite scaffold mediated delivery to mesenchymal stem cells and rat calvarial defects'.



RCSI

Professor Fergal O'Brien invited to speak at the 2017 KTI Summit

Head of TERG, Prof. Fergal O'Brien took part in a discussion panel focused on the creation of successful spin-out companies, at the Knowledge Transfer Ireland 2017 'Accelerating Ideas' Summit. The session was entitled 'Building companies for future success' where a number of investors and entrepreneurs discussed their experience in creating, financing and growing spin-out companies. The conference took place in the Mansion House Dublin on September 14th.



Knowledge Transfer Summit 2017

ACCELERATING IDEAS



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RCSI

DERG post-doc wins prestigious NIRA award at ORS

TERG post-doc Dr. Rosanne Raftery won the very prestigious Orthopaedic Research Society New Investigator Recognition Award (NIRA) at the 2017 ORS Annual Meeting. The conference was held in San Diego, California, March 19 - 22. Dr. Raftery took home the NIRA for her work on *"Translating the Fundamental Role of Osteogenic-Angiogenic Coupling in Bone Formation: Highly Efficient Combinatorial Gene-Activated Scaffolds Accelerate Bone Regeneration in Critical-sized Defects"*.



RCSI

TERG win Research Lab of the Year

The Tissue Engineering Research Group (TERG) won 'Research Laboratory of the Year', at the 2017 Lab Awards on May 25th.

The Irish Laboratory Awards are the benchmark for those demonstrating excellence, best practice and innovation within Ireland's lab industry. The awards recognise the successes and achievements of Ireland's internationally renowned scientists in areas including innovation, leadership and collaboration and focus on the ongoing work of Irish scientists to grow and develop a sustainable, globally competitive science research.



SELECTED PUBLICATIONS BY THE CONSORTIUM



Santos T. C., Reis R. L., and Marques A. P., "Can host reaction animal models be used to predict and modulate skin regeneration?", *Journal of Tissue Engineering and Regenerative Medicine*, vol. 11, issue 8, pp. 2295-2303, doi:10.1002/term.2128, 2017.

Alves A. L., Marques A. L., Martins E., Silva T. H., and Reis R. L., "Cosmetic Potential of Marine Fish Skin Collagen", *Cosmetics*, 39, vol. 4, issue 4, doi:10.3390/cosmetics4040039, 2017.



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Telerman SB, Rognoni E, Sequeira I, Pisco AO, Lichtenberger BM, Culley OJ, Viswanathan P, Driskell RR, Watt FM. 'Dermal Blimp1 Acts Downstream of Epidermal TGF β and Wnt/ β -Catenin to Regulate Hair Follicle Formation and Growth.' *J Invest Dermatol*. 2017 Nov;137(11):2270-2281. doi: 10.1016/j.jid.2017.06.015. PMID: 28668474 [PubMed]

Lynch MD, Lynch CNS, Craythorne E, Liakath-Ali K, Mallipeddi R, Barker JN, Watt FM. 'Spatial constraints govern competition of mutant clones in human epidermis.' *Nat Commun*. 2017 Oct 24;8(1):1119. doi: 10.1038/s41467-017-00993-8. PMID: 29066762 [PubMed]

Mishra A, Oulès B, Pisco AO, Ly T, Liakath-Ali K, Walko G, Viswanathan P, Tihy M, Nijjer J, Dunn SJ, Lamond AI, Watt FM. 'A protein phosphatase network controls the temporal and spatial dynamics of differentiation commitment in human epidermis.' *Elife*. 2017 Oct 18;6. pii: e27356. doi: 10.7554/eLife.27356. PMID: 29043977 [PubMed]



Curtin, C.M.;, Mencía Castano, I.M.; and O'Brien, F.J. "Scaffold-based microRNA therapies in regenerative medicine and cancer." *Advanced Healthcare Materials*. Oct 2017 [Accepted Manuscript] doi:10.1002/adhm.201700695

do Amaral, R.J.F.C.; Almeida, H.V.; Kelly, D.J.; O'Brien, F.J. and Kearney, C.J. "Infrapatellar Fat Pad Stem Cells: From Developmental Biology to Cell Therapy" *Stem Cells International*. Doi: 10.1155/2017/6843727

Walsh, D.P.; Heise, A.; O'Brien, F.J. and Cryan, S.A "An efficient, non-viral dendritic vector for gene delivery in tissue engineering". *Gene Therapy*. doi: 10.1038/gt.2017.58

