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This event will be held at [The O₂](#), a large entertainment district on the [Greenwich peninsula](#) in South East London, England.

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Novel Biomaterials and Technology for use in Regenerative Medicine/Tissue Engineering
Wednesday, 04 June 2014 09:30 - 17:00

Cineworld: The O2
Peninsula Square
London
London
SE10 0DX
United Kingdom

 [Map and Directions](#)

This meeting brings together the principles of engineering and life sciences in tissue development and regenerative medicine to discuss scientific research and developments of clinical applications from leading experts in the field. The newest research and developing technology will be discussed in an informal setting with plenty of networking opportunities. This event has [CPD accreditation](#).

This event is part of the [Tissue Engineering Congress 2014](#) - <http://tissueengineeringcongress2014.com/>

To see the full agenda please go to <http://lifescienceevents.com/wp-content/uploads/4thJuneRegen2014.pdf>

Meeting Chair: [Dr Xuebin Yang](#), Head of Tissue Engineering Research, University of Leeds, UK

Who Should Attend

Biotech and Pharma Industry: CEOs, Chief Scientists, Group Heads, Senior and Junior Scientists, Research Managers
Academic and Research Institutes: Group and Lab Heads, Postdoctoral Scientists and Research Student

The deadline for abstract submissions for oral presentation is March 10th 2014. Abstracts for poster presentation only can be submitted up to two weeks before the event. You can download the instructions for authors at www.euroscicon.com/AbstractsForOralAndPosterPresentation.pdf

Talks include

Functional biomaterials for skeletal tissue engineering

[Dr Xuebin Yang](#) , Head of Tissue Engineering Research, University of Leeds, UK

Biomaterial is one of the key elements required for tissue engineering. There has been a push in the field of tissue engineering to develop unique biomaterials, or tissue specific scaffolds. Since tissue engineering is a dynamic process, the ideal scaffold should be biocompatible, biodegradable, bioactive and capable of supporting cell attachment, adhesion, proliferation, as well as controlling differentiation, production of extracellular matrix. This will allow tissue to regenerate, remodel and function in a physiological manner. This talk will demonstrate the use of different 3D scaffolds for skeletal tissue engineering both in vitro and in vivo, and discuss the functional elements for the design and fabrication of novel biomaterial scaffolds.

Optimization of a tissue engineered bilayered skin substitute: striving for a positive clinical impact.

[Dr François A. Auger](#), Director of LOEX, Full university professor, Department of Surgery, Université Laval, Québec, QC, Canada

For the treatment of deep or recurring skin wounds, the availability of a skin substitute that includes both dermal and epidermal layers is clinically desirable. The presence of the dermal layer, in addition to reinforcing the fragile cultured epidermis, adds a number of physiological functions to the skin substitute. Clinical data indicates it helps wound healing and reduces scarring. The bilayered skin substitute made at the LOEX is showing much promise for the treatment of burn patients and lower extremity venous and mixed chronic ulcers. A new accelerated production method for this skin substitute is being developed.

Direct cytotoxicity evaluation of biomaterials by micro/nano calorimetry: a new method for materials biocompatibility evaluation

[Dr Ali Doostmohammadi](#) , Head of Materials Department, Shahrekord University, Iran

The evaluation of biocompatibility is one of the most important assessments to be performed prior to clinical use of biomaterials. There is a need for a convenient method for screening of biocompatibility and cytotoxicity (as a criterion of biocompatibility), a method that can directly evaluate cell growth as well as cell adhesion to biomaterials surfaces. Isothermal micro-nano calorimetry (IMNC) is capable of measuring the heat production or consumption rate in the microW range with a calorimeter operating at nearly a constant temperature. Therefore, this technique allows direct and continuous monitoring of the metabolic activity of living cells.

A Novel Control Release Platform of Porous PLGA/Gelatin Composite for Fast Induction of Mouse Embryonic Stem Cell Differentiation

[Professor Gou-Jen Wang](#) , National Chung-Hsing University, Taiwan

A specifically designed scaffold can enhance the division, proliferation, and differentiation of embryonic stem cell. In this study, various porous PLGA/Gelatin scaffolds coated with mixed solution of gelatin and vascular endothelial cell conditioned medium (ECCM) on the scaffold and pore inner surfaces are proposed. The PLGA/gelatin composited scaffold serves as a control release platform to induce the differentiation of mouse embryonic stem cell into endothelial-like cell. Without any additional growth factor, the starting differentiation time point of mouse embryonic stem cell cultured on the proposed control release scaffolds can be reduced to 1/2 of that of the conventional approaches.

Additional Speakers include

Professor Masaru Tanaka, Department of Biochemical Engineering, Yamagata University, Japan

Dr Steve Bloor, Videregen, UK

Associate Professor Fariba Dehghan, Director of bioengineering and Postgraduate coursework, The University of Sydney, Australia

Speaker to be confirmed, Bose ElectroForce, Germany

Dr Florelle Gindraux, Université de Franche Comté, France

Keywords: stem cell, tissue engineering, periodontal ligament, in situ models, Articular cartilage; osteoarthritis; tissue engineering; regenerative medicine; 3-dimensional culture, Bone graft, biomaterial, surface structure, osteoinduction, lung, epithelia cells, dendritic cells, respiratory diseases, Polymers, Regenerative Medicine, Cell Therapy, Nerve, Bone, Regeneration. Burns. Cadaver Mesenchymal Stem Cells, Corneal regeneration, amniotic membrane, tissue engineering, mesenchymal stem cells, Functional biomaterials, stem cells, tissue engineering, in vivo model, Biomaterials, Biocompatibility, Iso thermal micro/nano calorimetry, Control release scaffold of porous PLGA, Mouse embryonic stem cell, Endothelial cell, Conditioned medium, Control release, Regenerative medicine,

burn, skin substitute

Registration Website: <http://www.regonline.co.uk/TissueEng2014>

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This will be a paperless meeting, please print out the agenda before you come or download the pdf onto your computer or smartphone.

Pdfs of our agendas can be found at www.euroscicon.com/archivehighlights.html



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