

Scientific Programme

Wednesday, 2nd July 2014

Time	Event	Venue
10:00-17:30	Registration & posters setup	T12/T13
12:30-13:30	Lunch	T12/T13
13:30-14:00	Welcome and opening remarks	F16
14:00-15:45	Session 1: Clinical translations Chair: Prof Andrew McCaskie & Dr Frances Henson	F16
14:00-14:30	Keynote: Prof Majlinda Lako (Seeing through stem cells)	F16
14:30	The use of large animal models in the pipeline from bench to clinic (Frances Henson)	F16
14:45	Engineering of a Functional Tendon Using Load bearing suture technique and Tissue Engineered Collagen Graft: An in vivo Study (Prasad Sawadkar)	F16
15:00	Development of an Acellular Xenogeneic Nerve Graft (Leyla Zilic)	F16
15:15	Living biointerfaces to direct cell function (Manuel Salmeron-Sanchez)	F16
15:30	The Effect of Long-term 3D Culture on Cell Morphology and Behaviour (Alisha Chhatwal)	F16
15:45-16:15	Coffee break and posters	T12/T13
16:15-18:00	Session 2: Stem cells Chair: Prof Cosimo De Bari & Amanda Barnes	F16
16:15-16:45	Keynote: Prof Cosimo De Bari (Mesenchymal stem cell niches in joint health and disease)	F16
16:45	Dynamic Surfaces for Modulating Stem Cell Fate (Laura E. McNamara)	F16
17:00	Characterisation of distinct regional and immuno-selected cell populations derived from human foetal femurs and their capacity for bone defect repair and regeneration (David Gothard)	F16
17:15	Mesenchymal Stromal Cells Organise Endothelial Networks through PDGF, ILK and FGF Signalling (Julia Marshall)	F16
17:30	Modulation of Human Skeletal Stem Cell Fate and Function as a Consequence of Nanotopography and Hypoxia (Emma S McMorro)	F16
17:45	The “Cryptic” Extracellular Matrix and Its Impact on Stem Cell Differentiation (Christine-Maria Horejs)	F16
19:00	Reception and Ceilidh dance (with surprise)	Civic centre

18:30-20:30
TCES
committee meeting
room F1

Thursday, 3rd July 2014

Time	Event	Venue
8:30-10:30	Registration & posters setup	T12/T13
9:00-10:45	Session 3: Cell biology Chair: Prof Vivek Mudera & Josephine Wong	F16
9:00-9:30	Keynote: Dr James Phillips (Nerve Tissue Engineering)	F16
09:30	Engineering the corneal stroma: The effect of a three-dimensional environment and growth factor supplementation (Laura Sidney)	F16
09:45	Hypermethylation in OA - Transactivation of the COL9A1 proximal promoter region by SOX9 in chondrocytes is regulated by DNA methylation (Maria C de Andres)	F16
10:00	Photochemical Functionalisation and Direct-Write Patterning of Diamond-Like-Carbon for Neural Interfaces (James Dugan)	F16
10:15	Influencing the Skeletal Stem Cell Niche by Targeted Liposomal Wnt Delivery (Agnieszka A Janeczek)	F16
10:30	Clay gels localise and enhance BMP2 induction of osteogenesis (Jon Dawson)	F16
10:45-11:15	Coffee break and posters	T12/T13
11:15-12:30	Session 4: Bioreactors Chair: Prof Zhanfeng Cui & Richard Balint	F16
11:15-11:45	Keynote: Prof Zhanfeng Cui (Engineering Human: 3D Neural Network - An Interdisciplinary Approach)	F16
11:45	Nano-Kicking stem cells into making Bone (Gabriel D. Pemberton)	F16
12:00	Adapting aligned, stabilised 3D tissues for large-scale neurobiological research (Caitriona O'Rourke)	F16
12:15	Real time spatial monitoring system for 3D culture models (Dominique Thomas)	F16
12:30	Development of a novel biorheometer for in vitro real time monitoring of matrix remodelling (Adam Glen)	F16
12:30-14:00	Lunch and posters	T12/T13
13:00-14:00	TCES AGM	F16
14:00-15:45	Session 5: Musculoskeletal tissue engineering (session organised by Prof Kenny Dalgarno) Chair: Prof Kenny Dalgarno & Dr. Paul Genever	F16
14:00-14:30	Keynote: Prof Kenny Dalgarno (Novel materials and biofabrication strategies for musculoskeletal tissue engineering)	F16
14:30	Identification of distinct niches of functional mesenchymal stem cells in bone marrow and synovial tissues in a mouse model of joint surface injury (Angela R. Armiento)	F16
14:45	EGF and PDGF elicit Wnt-independent β -catenin signalling in mesenchymal stromal cells via integrin-linked kinase (Charlotte Knight)	F16
15:00	Synthesis and In Vitro Biocompatibility of Multi-substituted Hydroxyapatite for Bone Tissue Engineering Applications (Yanny M. Baba Ismail)	F16
15:15	Enhanced Osteogenesis of hMSC in Hydroxyapatite/Fibrin Gels (Simon Partridge)	F16
15:30	Electrostatic Stabilisation of Bio-Ink through the Cationic Encapsulation of Cells for Piezo Drop on Demand Inkjet Printing (Matthew Benning)	F16
15:45-16:15	Coffee break and posters	T12/T13
16:15-17:45	Session 6: Tissue engineering scaffolds Chair: Prof Fergal O'Brien & Fabio D'Agostino	F16
16:15-16:45	Keynote: Prof Fergal J. O'Brien (Collagen-based scaffolds for controlled delivery of genes & growth factor in tissue engineering)	F16
16:45	Control of Collagen Hydrogel Compression for Cell Rescue (Josephine Wong)	F16
17:00	Cell and Bone Donor age Influence the Osteogenic Activity of MSCs Cultured on an Osteoinductive Washed Human Bone Scaffold (Christopher A Smith)	F16
17:15	Hydrogels from demineralized and decellularized bone extracellular matrix for bone regeneration (Lisa J White)	F16
17:30	Investigation of potential osteogenesis influence of carbon based nanomaterials (Hatice Kose)	F16
19:00	Dinner (with surprise)	Thistle Hotel

10:00-17:30

Closed special sessions

See programme below

10:00-17:30

Closed special sessions

See programme below

10:00-17:30

Closed special sessions

See programme below

10:00-17:30

Closed special sessions

See programme below

Thursday 3rd July 2014

Special sessions (closed sessions)

Time	Event	Venue
10:00-12:30	<p>Internal Hub Review (parallel sessions; each Hub will meet independently to review progress)</p> <p>Acellular Technologies Hub</p> <p>Safety and Imaging Hub</p> <p>Stem Cell Niche Hub</p> <p>Cell Behaviour, Differentiation and Manufacturing Hub</p>	<p>T1</p> <p>T10</p> <p>F1</p> <p>M9</p>
12:30-13:30	<p>Lunch</p>	<p>T12/T13</p>
13:30-15:30	<p>Hub to Hub Interactions (parallel sessions open to Hub members, industrial members and invited academics)</p> <p>Session 1: Extracellular Matrix Lead: Cay Kielty</p> <p>Session 2: Liver and Kidney Lead: Stuart Forbes and Adrian Woolf</p> <p>Session 3: Quality, Manufacturing and Regulatory Issues Lead: Peter Andrews/David Williams</p>	<p>T1</p> <p>T10</p> <p>F1</p>
15:30-17:30	<p>Potential New Collaborators (projects presentations from groups outside the Hubs)</p> <p>Session 1: Acellular Technologies Focus</p> <p>Session 2: Stem Cell Niche Focus</p>	<p>T1</p> <p>T10</p>

Friday, 4th July 2014

Time	Event	Venue
8:30-10:30	Registration & posters setup	T12/T13
9:00-10:45	Session 7: Cellular Therapies (session organised by Prof Anne Dickinson) Chair: Prof Anne Dickinson & Prof Francisco Figueiredo	F16
9:00	Introduction to Cellular Therapies in Newcastle (Anne Dickinson)	F16
9:10	Limbal Stem Cell Deficiency – Bridging the Gap for Sight (Francisco Figueiredo)	F16
9:30	ASCOT - The trials and tribulations of setting up a clinical trial (Sally Roberts)	F16
9:50	Athersys Inc - Commercialization Challenges in Cell Therapy for Acute Ischemic Stroke (Robert Deans)	F16
10:10	Autologous Tolerogenic Dendritic Cells in Rheumatoid and Inflammatory Arthritis (Gillian Bell)	F16
10:30	Development of a Manufacturing Strategy for ReNeuron's CTX Cellular Therapy Program (Gary Brooke)	F16
10:45-11:15	Coffee break and posters	T12/T13
11:15-13:00	Session 8: UKRMP and other National Initiatives (session organised by Prof Kevin Shakesheff) Chair: Prof Kevin Shakesheff	F16
11:15	Safety and Imaging Hub (Trish Murray)	F16
11:30	Acellular Hub (Kevin Shakesheff)	F16
11:45	Cell Behaviour, Differentiation and Manufacturing Hub (Peter Andrews)	F16
12:00	Stem Cell Niche Hub (Stuart Forbes)	F16
12:15	Update from the Technology Strategy Board (Mike Sullivan)	F16
12:30	EPSRC Centre for Innovative Manufacturing in Regenerative Medicine (David Williams)	F16
12:45	Standardisation in Regenerative Medicine (Glyn Stacey)	F16
13:00-13:30	Closing remarks and awards	F16
13:30-14:30	Lunch	T12/T13