



University  
of Glasgow



# TCES// JOINT CDT CONFERENCE

Hosted by University of Glasgow

19-21 JUNE 2024  
PROGRAMME

**\*\* PRESENTATIONS AND TALKS \*\***

RM 438, JAMES MCCUNE SMITH LEARNING HUB

**\*\* REGISTRATION, POSTERS, SPONSORS,  
COFFEE/TEA BREAKS AND LUNCH \*\***

WOLFSON MEDICAL SCHOOL BUILDING

# DAY 1 - CDT SESSION

Wednesday 19th June 2024

09:00 **Arrival and Admittance to Conference** - *Wolfson Medical School Building*

09:15 **Welcome: Prof Matt Dalby**, University of Glasgow - *James McCune Smith Learning Hub, Rm 438*

**Chairs: Jiaqian Fan, Justine Clarke and Conor Robinson**

09:25 **Keynote Speaker: Dr Catherine Berry**, University of Glasgow, *Mesenchymal stem cell-derived extracellular vesicles in cancer dormancy*

## CDT Session Oral Presentations

10:05 **Aleksander Atanasov**, University of Birmingham  
*Mechanical properties design of pectin-collagen I bioscaffolds for the recapitulation of native skin phenotype traits in vitro*

10:20 **Elaine Duncan**, University of Glasgow  
*Developing a 3D in vitro adipocyte model to investigate metabolite-sensing GPCR function*

10:35 **Louis Johnson**, University of Sheffield  
*Emulsion templated composites: Porous nerve guidance conduits for peripheral nerve regeneration*

10:50 **Coffee Break** - *Wolfson Medical School Building*

11:15 **Emma Kelly**, University of Glasgow  
*Magnetic hydrogels for bone tissue engineering*

11:30 **Jessica Roberts**, University of Glasgow  
*Modelling human immune responses to functionalised biomaterials*

11:45 **Jennifer Willis**, Aston University  
*Optimising the use of degradable microcarriers in stirred tank bioreactors for the production of immunomodulatory human mesenchymal stromal cells*

## CDT Session Poster Flashes

12:00 **Rachel Furnidge**, University of Sheffield  
*Porous poly(glycerol sebacate)-methacrylate scaffolds for vascularised adipose tissue engineering*

12:05 **James Kennedy**, University of Birmingham  
*Exploring the role of TSPAN6 macrophage function and recruitment within the ductular reaction during chronic liver injury*

12:10 **Gregor Mack**, University of Manchester  
*Towards the development of a novel tear collection device for point-of-care ocular and systemic disease diagnosis*

12:15 **Xally Montserrat Valencia Guerrero**, University of Glasgow  
*Designing animal-free organoids based on engineered vegetables [VegFold]*

# DAY 1 - TCES SESSION

## Bioengineered Models

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- 12:35 **Lunch Break and Poster Viewing** - *Wolfson Medical School Building*
- 13:50 **Welcome: Prof Sarah Cartmell**, University of Manchester (TCES)/**Prof Matt Dalby**, University of Glasgow - *James McCune Smith Learning Hub, Rm 438*
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- Chairs: Peter Childs, Rebecca Downs-Ford and Elaine Duncan**
- 14:00 **Keynote Speaker: Prof Julien Gautrot**, Queen Mary University of London  
*Soft but tough! Engineering adipose tissue biomimetic microenvironments for stem cell technologies*
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- Bioengineered Models Oral Presentations**
- 14:40 **Marta Clerici**, University of Keele  
*Promotion of extracellular vesicle production from human tendon stem/progenitor cells via dynamic cell culture*
- 14:55 **Ana Valeria Gonzalez Abrego**, University of Nottingham  
*Incorporating complex anatomical features to hepatic tissue models through P $\mu$ SLA*
- 15:10 **Priyanka Gupta**, University College London  
*Chemotherapeutic assessment on a dynamic, multicellular and spatially segregated model of pancreatic cancer*
- 15:25 **Tea Break** - *Wolfson Medical School Building*
- 15:55 **Lauren Hope**, Paul O’Gorman Leukaemia Research Centre, University of Glasgow  
*Engineering a bone marrow endosteal niche model for drug screening in acute myeloid leukaemia*
- 16:10 **Moira Lorenzo Lopez**, University of Liverpool  
*Label free nanoparticle tracking for eye in vitro models*
- 16:25 **Dr Caroline Sarah Taylor**, University of Sheffield  
*Bioengineering peripheral nerve tissues: from scaffolds to models*  
**\*Robert Brown Early Stage Investigator applicant\***
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- Bioengineered Models Flash Talks**
- 16:40 **Xenia Bubnova**, Paul O’Gorman Leukaemia Research Centre Glasgow, University of Glasgow  
*Constructing a 3D in vitro central nervous system leukaemia model*
- 16:45 **Vera Citro**, University of Keele  
*Growth factor-loaded mesoporous silica particles, electrospun in PCL Fibres provide topographical and chemical cues for MSCs tenogenic differentiation*
- 16:50 **Grzegorz Koc**, University of Oxford  
*Prototype of a novel bioreactor for finger flexor tendon tissue engineering*
- 16:55 **Fatma Ozdemir**, University of Newcastle  
*Influence of cell density in an improved 3D bioprinted ACI/MACI model*
- 17:00 **Abril Lorena Torres Bautista**, The Griffin Institute and Tecnológico de Monterrey  
*3D in vitro model of human burn wound*
- Sponsor Talks**
- 17:05 **Dr Dammy Olayanju**, Qkine
- 17:10 **Robyn Parish**, Life Technologies/Thermofisher
- 17:15 **Sunaina Sapru**, Cell Guidance Systems
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- 17:20 **Drinks Reception** (sponsored by Henry Royce Institute) and **Poster Session** - *Wolfson Medical School Building*
- 18:15 **Evening Buffet**

# DAY 1 - POSTER SESSION

## CDT Session Poster Presentations

1. **Amaziah Alipio**, University of Birmingham  
*Augmented cell adhesion of regenerative hepatic progenitors via click-mediated surface recruitment of macromolecular biopolymers*
2. **Megan Bannister**, University of Birmingham  
*Recapitulating the liver tumour endothelium in vitro: a key tool for novel drug delivery studies*
3. **Clara Cosa-Garcia**, University of Glasgow  
*Wearable sensors for medical diagnostics and monitoring health and wellbeing*
4. **W. Sebastian Doherty-Boyd**, University of Glasgow  
*A synthetic bone marrow niche model for testing a novel leukaemia treatment*
5. **Rebecca Downs-Ford**, University of Manchester  
*Polysaccharide-based hydrogels as 3D systems for modelling of chronic wounds*
6. **Konstantina Evdokimou**, University of Glasgow  
*Engineering viscoelastic hydrogels for mimicking the tumour microenvironment and investigating breast cancer cell mechanosensing*
7. **Martha Gallagher**, Aston University  
*Developing printable hyaluronic acid-heparin gels for sustained support of neural cultures*
9. **Rosanna Mae Hood**, University of Sheffield  
*Growing biohybrid scaffolds in the lab: Controlling the culture environment to create biohybrid scaffolds with pre-determined compositions and functionalities*
8. **Louis Hutchings**, Aston University  
*Edible blends of natural materials for biofabrication of animal tissue*
10. **Julia Isakova**, University of Glasgow  
*Linking cell glycome changes to rheumatoid arthritis phenotypes via Raman spectroscopy*
11. **Paris Alexandros Kalli**, University of Glasgow  
*Enhanced MSC growth using polymers that organise growth factors*
12. **Rebekah Kay**, University of Manchester  
*Modelling mechanical properties of hydrogels for precision in-vitro scaffold development*
13. **Oscar Lavery**, University of Glasgow  
*Organ-on-chip: Animal-free methods for drug safety*
14. **Athena Mattheou**, University of Glasgow  
*From the bee's knees to biotechnology: Resilin-based hydrogels for cell culture and bioprinting*
15. **Emily Maxwell**, University of Glasgow  
*Advanced viscoelastic 3D bioprinted alginate/DNA scaffolds for stem cell engineering*
16. **Samruddhi Mujumdar and Syed Mohammad Daniel Syed Mohamad**, University of Sheffield  
*A polyhydroxyalkanoate (PHA) based 3D in vitro lung model*
17. **Euan Purdie**, University of Glasgow  
*Exploiting metabolite GPCR mechanotransduction to find new treatments for metabolic disorders*
18. **Erin Reardon**, University of Limerick  
*Investigating the role of the brain-meninges interface in traumatic brain injury*
19. **Shaima Maliha Riha**, University of Glasgow  
*The role of matrix stiffness in protein folding machineries*
20. **Fraser Shields**, University of Manchester  
*Precision biofabrication for menical tissue engineering: Leveraging MEW and microvalve bioprinting to enable tuneable mechanical and cellular gradients*
21. **Nevena Slavova**, University of Sheffield  
*Tissue engineered blood vessels*
22. **Lineta Stonkute**, University of Glasgow  
*Multicomponent supramolecular hydrogels for nerve repair*

# DAY 1 - POSTER SESSION

## Bioengineered Models Poster Presentations

23. **Nagavaishnavi V Bhaskara**, Royal Cornwall Hospitals NHS Trust  
*Engineering a novel bone-tendon junction scaffold for transplantation*

24. **Ece Melis Er**, University College London  
*A novel method of quantification and visualisation of angiogenesis of a 3D porous scaffolds on ex ovo cam models*

25. **Beatriz Gil Garrido**, The Griffin Institute  
*Decellularisation-by-perfusion: A novel approach to engineer >50cm off the shelf small intestine graft for treatment of intestinal failure*

26. **Amelia Heslington**, Newcastle University  
*Development of a 3D in vitro synovium model to study immune response in inflammatory bowel disease*

27. **Kavin Hettiarachchilage**, Newcastle University  
*Engineering viscoelastic hydrogels for mimicking the tumour microenvironment and investigating breast cancer cell mechanosensing*

28. **Dariusz Konrad Kosk**, University of Southampton  
*Perfusion chamber for the investigation of microbubble oscillation in bone fractures*

29. **Dr Sukanya Kyopun**, University College London  
*Novel composites for combined dental pulp capping and tooth restoration*

30. **Hannah Lamont**, University of Birmingham  
*Automated biofabrication of biomimetic glaucoma in vitro models*

31. **Rui Ling Lee**, University of Glasgow  
*Investigating the immunomodulatory and anti-cancer effects of acemannan in acute myeloid leukaemia*

32. **Dr Stephen Richardson (representing Grace McDermot)**, University of Manchester  
*3D bioprinting tissue engineered meniscal constructs*

33. **Mahmood Metwally**, University of York  
*Development of an experimentally tractable in vitro human model of osteogenesis*

34. **Anabela Moreira**, University of Minho  
*Mimicking dopaminergic neurodegeneration in a human 3D in vitro model of Parkinson's disease*

35. **Dr Dammy Olayanju**, QKINE  
*Optimised animal-free growth factors for reproducible stem cell and organoid cultures*

36. **Piaopiao Pan**, University of Glasgow  
*Developing in vitro 3D systems to study gut function and immunity*

37. **Sneha Ravi**, University of Edinburgh  
*Novel method to create tubular protein-based hydrogels for tissue engineering*

38. **Diego Reyes**, University of Westminster  
*N-linked glycosylation in triple-negative breast cancer and Chromosomal instability studies in 2D and 3D models.*

39. **Ioanna Rigou**, University of Glasgow  
*Nanovibrational control of chondrogenic differentiation*

40. **Marie E. Sandison**, University of Strathclyde  
*Hormone-responsive, patient-derived models of the uterine wall in a microfluidic array*

41. **Kamalnath Kumar**, University of Limerick  
*Representative preclinical models of the human testis*

42. **Kasia Stefaniak**, University of Edinburgh  
*Chemically crosslinked protein hydrogels with genetically encoded bioactive domains as customised matrices for 3D cell culture*

43. **Salma T. Rafik**, University College London  
*Engineering a biomimetic 3D breast tumour model for therapeutic screening*

44. **Ioannis Angelos Tsigkos**, University of Glasgow  
*Mimicking the leukemic microenvironment via using soft polyethylglycol gels*

45. **Natalie Wildman**, University of Sheffield  
*Uncovering the secreted secrets of adipose tissues to engineer novel cell-free therapies for scar tissue regeneration.*

## DAY 2 - AM SESSION

Thursday 20th June 2024

### Biomaterials

09:00 **Arrival and Admittance to Conference** - *Wolfson Medical School Building*

09:15 **Welcome: Prof Manuel Salmeron-Sanchez**, University of Glasgow - *James McCune Smith Learning Hub, Rm 438*

**Chairs: Linh Nguyen, Samantha Heslop, Julia Isakova, and Euan Purdie**

09:25 **Keynote Speaker: Dr Amaia Cipitria**, Biogipuzkoa Health Research Institute  
*Biomaterials in cancer dormancy and early bone metastasis*

#### Biomaterials Oral Presentations

10:05 **Arjan Atwal**, University of Keele  
*A photocrosslinkable injectable hydrogel system to facilitate the repair of cartilage lesions*

10:20 **Dr Rosalia Cuahtecontzi Delint**, University of Glasgow  
*Nanotopography influences host-pathogen quorum sensing and selection of antimicrobial metabolites in mesenchymal stromal cells and Pseudomonas aeruginosa co-cultures* **\*Robert Brown Early Stage Investigator applicant\***

10:35 **Dr Joshua Jones**, University of Nottingham  
*Use of naturally derived chemical crosslinkers to enhance mechanics of Bone-ECM hydrogels*

10:50 **Coffee Break** - *Wolfson Medical School Building*

#### Biomaterials Flash Talks - *James McCune Smith Learning Hub, Rm438*

11:15 **Elliot Amadi**, University of Sheffield  
*3D printed bacterial cellulose based hydrogel patches for wound healing*

11:20 **Justine Clarke**, University of Glasgow  
*Mesenchymal stromal cell derived extracellular vesicle immobilisation onto vascular grafts*

11:25 **Ella-Louise Handley**, University of Edinburgh  
*Delivery of ascorbic acid from electrically conductive electrospun fibres for cardiac tissue engineering*

11:30 **Maria Heim**, University of Edinburgh  
*Towards effective RIHT therapies: Identifying proteins for in vitro thyroid scaffold evaluation*

11:35 **Andrew Johnston**, University of Edinburgh  
*Examining vascular cell behaviour on dimpled electrospun fibre topography within a 3D printed millifluidic bioreactor*

#### Sponsor Talks

11:40 **Isabella Bondesson**, CELLINK

11:45 **Lisa Hearty**, Henry Royce Institute

11:50 **Luke McMullan**, Reprocell Europe Ltd

12:00 **TCES AGM - for all TCES members**

## DAY 2 - PM SESSION

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- 12:35 **Lunch Break and Poster Viewing** - Wolfson Medical School Building  
*(return to James McCune Smith Learning Hub, Rm 438 for 13:45)*
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- Chairs: Nick Evans, Omar Haroun, James Kennedy and Shaima Riha**
- 13:50 **Keynote Speaker: Dr Michele Zagnoni**, University of Strathclyde  
*Engineering complex in vitro models of disease with microfluidics*
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- Biomaterials Oral Presentations**
- 14:30 **I-Ning Lee**, University of Nottingham  
*Immunomodulatory liver-targeting microparticles impact THP-1 differentiated macrophage phenotype*
- 14:45 **Sanjana Mukundan**, University of York  
*Unlocking the potential of thermally responsive nanoparticles in precision drug delivery to enhance bone regeneration*
- 15:00 **Dr Neville Murphy**, University of Galway  
*Development of in vitro triple negative breast cancer model for TME characterisation*
- 15:15 **Tea Break** - Wolfson Medical School Building
- 15:40 **Kirsten O'Brien**, University of Southampton  
*Perfluoropentane nanodroplets for oxygen delivery to osteoclasts and osteoblasts for bone repair*
- 15:55 **Thanh Nhi Tra**, University of New South Wales  
*A conductive hydrogel with self-healing properties*
- 16:10 **Lorna Westwood**, University of Edinburgh  
*The influence of irradiation on the growth and survival of HSG cells on antioxidant scaffolds*
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- Biomaterials Flash Talks**
- 16:25 **Amy Morgan**, University of Sheffield  
*Manufacture of pseudo-rete ridges in a bilayer for skin regeneration*
- 16:30 **Kerime Ebrar Okur**, University of Birmingham  
*Decellularized human liver and skin tissues: Profiling with ambient vibrations optical coherence elastography and insights into decellularization and 3D hydrogel fabrication*
- 16:35 **Chithrambary Reghukumar**, University of Manchester  
*Role of exogenous electrical stimulation on in vitro cell function in human mesenchymal stem cells*
- 16:40 **Dr Jordan Roe**, University of Leeds  
*Developing an innovative bioprosthetic heart valve utilising decellularised pericardium*
- 16:45 **Genevieve Schleyer**, University of Liverpool  
*Label-free tracking to quantify nanoparticle diffusion above cell monolayer*
- 16:50 **Cagla Erdas**, Newcastle University  
*Enhancing stem cell viability in corneal tissue engineering through hybrid peptide amphiphile formulations*
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- 19:00 **Drinks Reception**, Glasgow Grosvenor Hotel
- 19:30 **Dinner and Ceilidh**

## DAY 2 - POSTER SESSION

### Biomaterials Poster Presentations

- 1. Sadaf Akbari**, Kingston University  
*The effects of pore size and geometry on the performance of bone tissue scaffolds*
- 2. Kubra Nur Albayrak**, University of Manchester  
*Adipose derived decellularized extracellular matrix for soft tissue applications*
- 3. Renad N. AlQurashi**, University of Jeddah  
*Performance assessment of 3D printed PLA scaffolds for wound healing and antibacterial activity*
- 4. Arjan Atwal**, Keele University  
*Platelet lysate-loaded alginate microparticle hydrogel for cartilage lesion repair*
- 5. Yusuf Ayten**, University of Glasgow  
*Bioengineering surfaces to preserve mesenchymal stromal cell growth in vitro*
- 6. Clara Barbut**, The University of Manchester  
*Development of dermal matrix with revascularization properties to advance the integration of skin substitutes*
- 7. Evangelia Bocthi**, University of Glasgow  
*Hydrogel encapsulated bone marrow stem cell derived extracellular vesicles for bone regeneration*
- 8. Merve Demir**, University of Nottingham  
*The re-creation of the intestinal epithelium using induced pluripotent stem cell derived progenitors and 3D bioprinting for regenerative medicine applications*
- 9. Mingzu Du**, University of Leeds  
*Mussel-inspired chitosan/hyaluronic acid interpenetrating hydrogel as cartilage mimic scaffold*
- 10. Zarina Issabekova**, University of Glasgow  
*Tuneable microgels for guiding cellular response in tissue repair*
- 11. Nuno Honrado**, University College London  
*Bilayer scaffold combining electrospun PCL and a porous gel layer for enhanced guided bone regeneration*
- 12. Dewi Fox Jones**, University of Edinburgh  
*Manufacturing electrospun polycaprolactone fibre scaffolds for liver tissue engineering*
- 13. Xinyu Li**, University of Glasgow  
*Development of a novel plant-derived polysaccharide-based hydrogel for bone tissue engineering*
- 14. Ying Betty Li**, Carleton University  
*3D bioprinted vascular network with alginate-collagen based bioink to monitor angiogenesis mediated extracellular remodelling*
- 15. Maria Martingo**, Catholic University of Portugal  
*From nature to treatment: A bio-hybrid haemodialysis membrane*
- 16. Kozim Midkhatov**, University of Manchester  
*Optimising extracellular matrix analogues for 3D modelling of osteosarcoma*
- 17. Katanchalee Nampuksa**, University of Sheffield  
*Preparation and characterisation of synthetic hydroxyapatite using a microwave-assisted method for biomedical application*
- 18. Laura Sabio**, University of Glasgow  
*Light-responsive engineered living material for lycopene synthesis*
- 19. Tasneem KamalEldin Osman Salih**  
University of Bristol  
*Development of decellularized extracellular matrix scaffolds for their potential use as valve leaflets for the treatment of congenital heart disease*
- 20. Sunaina Sapru**, Cell Guidance Systems  
*Microspheres with PODS® enabling sustained supply of biofunctional protein*
- 21. Alice Upton**, Canterbury Christ Church University  
*Utilising the 'Design of Experiment' statistical tool for bioink composition for soft tissue engineering*
- 22. Lukas Weber**, University of Manchester  
*Regeneration of the rotator cuff enthesis through biofabrication*
- 23. Lorna Westwood**, University of Edinburgh  
*Comparison of primary submandibular gland epithelial cells and HSG cell line compatibility with antioxidant scaffolds*
- 24. Kubra Yigit**, University of Edinburgh  
*Influence of N-acetylcysteine-loaded PCL fibres on oxidative stress for cartilage tissue engineering*
- 25. Stamatia Zafeiri**, University College London,  
*Novel biomimetic cell-aided scaffold for skin tissue engineering*
- 26. Kritika**, University of Birmingham  
*Iron oxide nanoparticles for bimodal hyperthermia coupled with biophysical and in silico evaluation with human haemoglobin*



# DAY 3- AM SESSION

Friday 21st June 2024

## Enabling Technologies|Mechanobiology

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- 09:00 **Arrival and Admittance to Conference** - *Wolfson Medical School Building*
- 09:15 **Welcome: Prof Nick Evans**, University of Southampton/**Dr Lisa White**, University of Nottingham - *James McCune Smith Learning Hub, Rm 438*
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- 09:25 **Chairs: Lisa White, Emma Kelly, and Lukas Weber**
- Keynote Speaker: Dr James Armstrong**, University of Bristol  
*Controlling the assembly of biomaterials and engineered tissues*
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- Enabling Technologies Oral Presentations**
- 10:05 **Dr Hoda Eltaher**, University of Nottingham  
*Pressure-mediated topical non-viral gene therapy up to milli/centimetre-scales*
- 10:20 **Dr Akhil Jain**, University of Manchester  
*Quantum bioelectronics for the treatment of hard-to-treat cancers*
- 10:35 **Poppy O. Smith**, University College London  
*HiPSC-derived endothelial cell nerve repair constructs*
- 10:50 **Coffee Break** - *Wolfson Medical School Building*
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- Mechanobiology Oral Presentations** - *James McCune Smith Learning Hub*
- 11:15 **Finlay Cunniffe**, University of Glasgow  
*Viscoelasticity in the integrin-growth factor crosstalk*
- 11:30 **Fatmah Ghuloum**, University of Manchester  
*Designing topographically-textured microparticles as cell-instructive bone matrix mimetics via modulation of hedgehog signalling*
- 11:45 **Rui Pedro Pereira Sousa**, University of Strathclyde  
*High throughput mechanical phenotyping of nano-vibrated mesenchymal stem cells using real-time deformability cytometry*
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- Enabling Technology Flash Talks**
- 12:00 **James Hague**, The Open University  
*Computational intelligence for cultured tissue vascular design*
- 12:05 **Dr Savvas Ioannou**, University of York  
*Extracellular vesicle bioactivity and potential for clinical utility is determined by mesenchymal stromal cell clonal subtype*
- 12:10 **Isobel Jobson**, University of Nottingham  
*Combining cell-induced polymerisation and electric field stimulation for cancer treatment*
- Mechanobiology Flash Talks**
- 12:15 **Akash Garhwal**, University of Galway  
*Towards the generation of a gliosis in vitro model*
- 12:20 **Dr Juan Gonzalez-Valdivieso**, University of Glasgow  
*The boron transporter NaBC1 mediates mechanotransduction via fibronectinbinding integrins*
- 12:25 **Olivia Johnson-Love**, University of Strathclyde  
*MSC donors show varied response to nanovibrational stimulation*
- 12:30 **Theodora Rogkoti, University of Glasgow**  
*The role of viscoelasticity in soft 3D matrices*

12:35 **Lunch Break and Poster Viewing - Wolfson Medical School Building**

13:35 **Prizes: Prof Sarah Cartmell and Prof Nick Evans, TCES**

14:00 **Close: Prof Manuel Salmeron-Sanchez, University of Glasgow**

## Poster Session

### Enabling Technology Poster Presentations

1. **Jaspreet Kaur Bansal**, Aston University  
*Does GDF11 affect the immunomodulatory properties of older and younger donor human bone marrow mesenchymal stromal cells?*

2. **Dr Hoda Eltaher**, University of Nottingham  
*Mucus penetrating non-viral gene therapy for cystic fibrosis via pulmonary administration*

3. **James Hague**, The Open University  
*Computational design of cultured tissue structures with biophysics and machine intelligence*

4. **Joshua Weygant**, University of Cambridge  
*Cryoprinting enables 3D printing of low viscous materials towards hydrogel-based electronic devices*

### Mechanobiology Poster Presentations

5. **Omolola Ajayi**, University of Glasgow  
*Collagen microarchitecture drives breast cancer cell fate independently of matrix stiffness*

6. **Udipt Ranjan Das**, University of Glasgow  
*Nanovibrational stimulation of mesenchymal stromal cell osteogenesis - investigating the relationship between osteogenesis, senescence and inflammation*

7. **Graham Day**, University of Glasgow  
*Altering cross-linking density of PEG hydrogels to tune their viscoelastic properties for 3D chondrogenic culture of MSCs*

8. **Hussain Jaffery**, University of Glasgow  
*An axis of Wnt and proinflammatory signals underlies mechanically driven osteogenesis*

9. **Dr Hadi Hajiali**, University of Birmingham  
*Remote activation of mechanotransduction via integrin alpha-5 aptamer conjugated magnetic nanoparticles promotes osteogenesis*

10. **Anna Maria Kapetanaki**, University of Glasgow  
*Towards high throughput cell mechanosensitivity assays*

11. **Ziyuan Luo**, University of Glasgow  
*PEG-based viscoelastic hydrogels to investigate stem cell mechanotransduction*

12. **Vasco Miguel Medeiros**, University College London  
*The inhibition of herpes simplex virus via cathelicidin LL-37 peptide: Potential eye dropper delivery mechanism*

A big thank you to our sponsors...

