Summary

The 13th annual conference BioMedEng21 took place on 6-7th September 2021 at the Diamond Building, University of Sheffield. The conference was hosted by the University of Sheffield’s Department of Materials Science and Engineering, and the Insigneo Institute for *in silico* Medicine on behalf of the BioMedEng Association.

BioMedEng is the UK’s largest gathering of Biomedical Engineers, Medical Engineers and Bioengineers. The conference included an exciting programme of 4 plenary sessions, 1 after dinner speaker, 17 keynote speakers, 63 oral presentations, 57 power pitches, 65 poster presentations and 3 workshops. The conference also hosted the BioMedEng Association AGM and the General Assembly of the VPHi-UK Chapter.

The conference was kindly supported by 2 Gold Sponsors - Materialise and Simulia, 2 Silver sponsors - Optics1 1 Life and Synopsis and 3 Bronze sponsors - Applied Sciences, Comsol and Nikon. In partnership with Applied Sciences a special edition journal will also be published following the conference.

BioMedEng21 welcomed 310 attendees (175 in person and 135 online) from 43 Universities including 6 international universities and 7 industrial and clinical organisations.
### Attendees

The conference was attended by representatives of 43 Universities including 6 international universities:

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<td>CRNS, University of Paris</td>
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<td>Heriot-Watt University</td>
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<td>Imperial College London</td>
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<td>Institute Of Hepatology London</td>
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<td>Swansea University</td>
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<td>The Institute of Hepatology</td>
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Along with the following business/industry attendees as well as our sponsors:

- Jellagen
- INSERM
- Nine Health Global Ltd
- Smiths Medical International Ltd
- Syntellix AG
- Vascutek (Terumo Aortic)
- Torbay Hospital
Sponsors and Partners

The conference was kindly supported by the sponsors and partners below.

Gold sponsorship

Silver Sponsorship

Bronze sponsorship

Partners

Programme

The programme was based around four key themes - Imaging and Signal processing, Diagnostics, Devices and sensors, In silico modelling and Biomaterials and Tissue Engineering with four cross-cutting themes - Cardiovascular and Respiratory; Musculoskeletal; Neurological; Endocrine, Immune and other soft tissue systems. The aim was to provide a broad programme with opportunities for attendees to choose a particular body system or area of interest.

Workshops & Meetings

BioMedEng hosted the following workshops and meetings:

- BioMedEng Association Meeting
- EPSRC Grants & Fellowships for Early Career Researchers
- Insigneo AI Workshop
- General Assembly of the VPHi-UK chapter
- Academic Career Workshop
Plenary Speakers

- Professor Nancy L. Allbritton
- Professor Andrew Taylor
- Mr Thierry Marchal
- Professor Philip Conaghan

Keynote Speakers

- Steven Niederer
- Judith Meakin
- Katerina Spranger
- Ruth Wilcox
- Kia Nazarpour
- Vanessa Diaz
- Richie Gill
- Emmanuel Vanoli
- Igor Chernyavsky
- Jolanda Wentzel
- Julie Gough
- Christine Le Maitre
- Amir Ghaemmaghami
- Susheel Varma
- Andy Swift
- Jan Wolber
- Robert Ssekitoleko

For more details on our programme please see this document

For more details on our plenary and keynote speakers please see this document

Social Events

BioMedEng welcomed attendees to the following social events:

- 6.30pm, Sunday, 5th September - Informal social event at The Furnace
- 5pm, Monday 6th September - Online Poster Quiz
- 5pm, Monday 6th September - Drinks & Networking at the Diamond
- 5pm, Drinks at Diamond - Informal Social at University Arms

BioMedEng Gala Dinner

BioMedEng hosted the gala dinner at Cutlers Hall, on the evening of 6th September 2021. Cutler’s Hall is grade 2 listed and linked with Sheffield’s steel industrial heritage. It is one of the finest livery halls in England. We were pleased to welcome Carolyn Griffiths FREng, CEng, FI MechE, as the pre-after dinner speaker who attended remotely. Guests enjoyed a delicious three-course meal with a selection of wine, soft drinks, and tea and coffee.

Scientific Committee
Programme Committee

- Pablo Lamata
- Paul Evans
- Torsten Schenkel
- Phil Riches
- Himanshu Kaul
- Tom Shearer
- Craig Murdoch
- Enrico Dall’Ara
- Vanessa Hearnden
- Neil Stewart
- David Gurevich

Local Organising Committee

- Andrew Narracott
- Richard Clayton
- Jim Wild
- Claudia Mazza
- Damien Lacroix
- Paul Watton
- Gwendolen Reilly
- Helen Colley
- Jonathan Taylor
For more details on our committees please see this document

Volunteers

The conference was made possible by the support of our volunteer team including:

- Alice Hann
- Boyang Liu
- Caitlin Barker
- Caitlin Jackson
- Jeerawan Thanarak
- Jen Rodgers
- Jose Rui Oliveira Rodrigues
- Kirsty Scott
- Sarah Hollely
- Linda van Gelder
- María Fernanda Velázquez de la Paz
- Mina Aleemardaniimage
- Misha Vaja
- NamThanarak
- Norman Powell
- Theresa Hall
- Vee San Cheong