BioMedEng21 conference has closed, thank you to all that attended! The UK's largest gathering of Biomedical Engineers, Medical Engineers and Bioengineers was held at the University of Sheffield on the 6th – 7th September 2021. The conference included an exciting programme of plenary sessions, keynote talks, oral presentations, power pitches, poster presentations and workshops.

The conference programme is centred around four key tracks, Image and Signal Processing; Diagnostics, Devices and Sensors; in silico Modelling; and Biomaterials and Tissue Engineering.
Within the main tracks we aim to cover all human body systems which we will broadly divide as follows: a) Cardiovascular and Respiratory; b) Musculoskeletal; c) Neurological; d) Endocrine, Immune and other soft tissue systems. This programme should give each delegate the opportunity to broaden their knowledge across the different tracks and interests.

Due to the uncertainties around the COVID-19 situation we have not issued a call for conference workshops, however if you have an idea for a workshop or special session that you would like to be associated with BioMedEng21 please contact us with your suggestion.
Welcome Message

from Professor Gwen Reilly, Chair of the Local Organising Committee

I am delighted to invite you to be part of BioMedEng21 in Sheffield.

Following the decision to cancel the 2020 BioMedEng conference due to the coronavirus pandemic, I am pleased to confirm that the BioMedEng21 conference will take place at the University of Sheffield from 6 – 7 September 2021.

We appreciate that there is continuing uncertainty in regards to events and travel planning. At the current time we are aiming for a hybrid event. We hope to host as many of you in Sheffield as possible, but there will also be an online option for all delegates to view the speaker sessions and to present your accepted abstract remotely, if necessary. All accepted abstracts will be made available online.

I hope you can join us in 2021 to present your research and participate in what is sure to be another stimulating and enjoyable meeting.

We will have a large number of BioMedEng science and technology themes at the conference and this is reflective of the breadth and depth of our discipline and of the scope of attendees that we can expect. This will be the thirteenth meeting in the series and follows on from the successful 2019 conference at Imperial College at which had 430 delegates from 36 UK universities, 22 international institutions and research centres, and 26 other organisations including the NHS, charities, research councils and MedTech companies.

This congress truly has become the annual event for all Bioengineers, Biomedical Engineers and Medical Engineers in the United Kingdom. I will be very pleased to welcome you to our city, known as a hub for engineering expertise and I am looking forward to showcasing all the great work we have to offer.

I look forward to welcoming you to Sheffield in September 2021. Please keep up to date with further announcements by checking the conference website and following us on social media.

Professor Gwen Reilly
Chair of the Local Organising Committee.
Dinner at Cutler's Hall, one of the finest livery halls in England

Conference venue: The Diamond

- Home to over 5,000 students from seven engineering departments.
- Boasts specialist teaching facilities including a range of lecture theatres, seminar rooms, open-plan learning spaces, library and IT services.
- Won the Design through Innovation award in the 2016 Yorkshire and Humber Region RICS awards.
Gala dinner: Cutler’s Hall

- One of the finest livery halls in England
- Grade II listed and linked with Sheffield’s steel heritage
- Award-winning in-house caterers

The BioMedEng21 Conference dinner will take place on the evening of 6th September 2021 in the Cutler’s Hall and will be provided by the venue’s award-winning in-house caterers. 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.

As well as a delicious three-course meal with a selection of wine, soft drinks, and tea and coffee, there will be an after-dinner speech.

Read more about Cutler’s Hall >>
Programme Overview

The conference will run from approximately 9:00 on Monday 6 September to 17:00 on Tuesday 7 September 2021 including dinner with a plenary speaker on Monday 6 September. Details may be subject to minor changes in case of necessary COVID-19 adjustments.

Detailed conference programme

You can now view the live detailed conference programme here:

Detailed programme (live)

Overview conference programme
Day 2
TUESDAY, 27TH SEPTEMBER 2021
08:30 - 10:00
Workshop: Data Sharing and Ethics in Early Career Researchers
Lecture Theatre 3
10:00 - 10:30
Plenary Session 3 (Chairing)
Theresa Marshall, Secretary-General of the Academy of Health & Medical Sciences, Director of Healthcare Solutions at Arup
Lecture Theatre 1
10:30 - 11:00
Coffee Break, Posters, Networking (Dineen, Workshops 1 & 2)

11:00 - 11:30
Lecture Theatre 7
Imaging At Session

Lecture Theatre 4
Medical and Devise for Biomechanical Assessment
Chairs: Claire Azadi & Dario

Lecture Theatre 1
Biomechanics and Tissue Engineering: Basics and Clincal
Chairs: Vincenzo Ramazzotti & Ali Alipour

Lecture Theatre 2
In vitro Modeling: Free-Standing Models & Clincal
Chairs: Fiona Smith & Anh Tran

11:30 - 12:00
Keynote Speakers
Dr. Sibylle Voss, Director of Academic Engineering, ICOR, University of Bremen, UK; Healthc.
Dr. Andy Smith, University of Sheffield

12:00 - 13:00
Lunch, Posters, Networking (Dineen, Workshops 1 & 2)

13:00 - 14:00
General Assembly of the EPF-UK Chapter

14:00 - 14:30
Lecture 2
Academic Career Workshop
Chair: Dermot Langan

Lecture Theatre 6
Devices and Biomechata
Chairs: Yves Calamusso & Dana

Lecture Theatre 3
In vitro Modeling: Physiological Flaws
Chair: Angela King

Lecture Theatre 1
Biomechanics and Tissue Engineering: Musculoskeletal
Chairs: Tony May & Michael Foster

14:30 - 15:00
Keynote Speakers
Dr. Steven Aldred, Maker University, Oregon

15:00 - 15:30
Coffee Break, Posters, Networking (Dineen, Workshops 1 & 2)

15:00 - 15:30
Panel Session C (Chairing)
Professor Philip CGoughan, Professor of Musculoskeletal Medicine, University of Leeds

15:30 - 16:00
Lecture Theatre 7

16:00 - 16:30
Networking Event at The University Arms Pub

16:30 - 17:00
Thanks and Close
There will be four tracks to the talks this year:
- Image and Signal Processing
- Diagnostics, Devices and Sensors
- *in silico* Modelling
- Biomaterials and Tissue Engineering

### Plenary Speakers

**Professor Nancy L. Allbritton**
Frank & Julie Jenkins Dean of Engineering and Professor of Bioengineering, University of Washington

**Professor Andrew Taylor**
Clinical Director of Operations at Great Ormond Street Hospital

**Therry Marchal**
Secretary General, AWIENNA Alliance

**Professor Philip Conaghan**
Director of the Leeds Institute of Rheumatic and Musculoskeletal Medicine, University of Leeds
Programme Committee

DR FREDDIE CLUET-WENZ

PROFESSOR RUDI JAMAL

DR THOMAS SCHINDLER

PROFESSOR PAUL JONES

DR TIM SHERARD