

## Preclinical testing and simulation in shoulder replacements

16<sup>th</sup> December 2022

On-line: Zoom

The presentations will be recorded for future training purposes and as part of the BioTrib public engagement programme.

Title	Speaker and Affiliation	Time (UK time)
Welcome and Introduction	Prof Richard Hall, University of Leeds, UK	9.45
Session 1	Chair: Prof Richard M Hall, University of Leeds, UK	
Clinical Challenges, Wear and Failure in Shoulder Arthroplasty	Mr David Limb, Elbow and Shoulder Surgeon, Leeds Teaching Hospitals, UK. EFORT First Vice President, UK	10:00
Standards in the pre-clinical assessment of Shoulder Replacements.	Mr Nick Eldred, Director, Simulation Solutions Ltd, UK	10:30
Panel Q and A		10:50
Break		11:05
Session 2	Chair: Dr Kathleen Denis	
Investigation of initial stability in stemless shoulder arthroplasty	Dr Kyle Snethen, Zimmer Biomet, USA	11:20
In silico clinical trials - augmenting clinical data with computer simulation	Dr Philippe Favre, Zimmer Biomet, Switzerland	11:40
Panel Q and A		12:00
Break - Lunch		12:15
Session 3	Chair: Mike Bryant	
Challenges within in silico clinical trials	Prof Alex Frangi, University of Leeds, UK	12:50
Premarket Considerations and Challenges in Shoulder Arthroplasty	Stephanie Smith, Ph.D. Biomedical Engineer, Division of spinal devices (6B): Office of Health technology (OHT) 6: Office of Orthopedic devices, USA	13:10
Shoulder simulation for testing advanced shoulder concepts	Dr Kathleen Denis, Associate Professor, Department of Mechanical Engineering, KU Leuven, BE	13:30
Development of a shoulder simulator	Prof Tom Joyce, Newcastle University, UK	13.50
Design and performance of the Imperial Shoulder Simulator	Dr Dong Wang, Exeter University, UK	14:10
Observations on retrieved shoulder implants	Dr Robin Pourzal, Director of Implant Materials Analysis. Associate Professor, Dept Orthopedic Surgery, Rush Medical College, USA	14:30
Panel Q and A		14:50
Break		15:10
Final Panel Discussion – Requirements for future preclinical assessments in shoulder replacements	Chair: Dr Mike Bryant	15:20
Closing Remarks	Dr Mike Bryant	16:20
Close		16:30

