



**The Leeds Orthopaedic Biomechanics course
Monday 21 – Tuesday 22 January 2019**

Monday 21 January 2019

Chair: Professor S Williams

Session	Time	Title	Invited speaker
	08.45	Registration and coffee	
	09:15	Welcome	Prof R M Hall and Prof S Williams , Institute of Medical and Biological Engineering, University of Leeds
1	09:30	Orthopaedic perspectives (patient, industry and surgeon)	Patients – Mr T Fellowes Ms S Shepherd Industry – Dr J Anderson Principal Bioengineer – Hips, DePuy Synthes Joint Reconstruction Surgeon – Mr V Borse , Specialist Registrar Trauma & Orthopaedics, Leeds Teaching Hospitals NHS Trust
	10:45	Coffee	
2	11:15	Overview of ankle and total replacement	Dr Claire Brockett , Institute of Medical and Biological Engineering, University of Leeds
3	11:45	Biomechanics of the hip – an engineer’s perspective	Dr T Stewart , Institute of Medical and Biological Engineering, University of Leeds
4	12:15	Polyethylene in hip replacements; engineering and biological considerations	Prof S Williams , Institute of Medical and Biological Engineering, University of Leeds
	13:00	Lunch	
5	13:45	Understanding failure of cemented hip replacements	Mr M Stone , Consultant Orthopaedic Surgeon, Leeds Teaching Hospitals NHS Trust Honorary Clinical Associate Professor, University of Leeds
6	14:30	Philosophy of uncemented stems	Mr Asim Rajpura Consultant Orthopaedic and Trauma Surgeon, Wrightington Hospital
	15:15	Tea	
7	15:45	Ceramic on ceramic interface	Dr T Stewart , Institute of Medical and Biological Engineering, University of Leeds
8	16:15	Failure and corrosion in hip replacements	Dr M Bryant , Institute of Engineering Thermofluids, Surfaces and Interfaces, University of Leeds
	16:45	End of day one	

Tuesday 22 January 2019

Chair: Professor R Hall

Session	Time	Title	Invited speaker
9	08:45	Basic spinal biomechanics	Prof R M Hall , Institute of Medical and Biological Engineering, University of Leeds
10	09:15	Mechanics of spinal trauma / clinical biomechanics of fusion surgery	Prof R M Hall , Institute of Medical and Biological Engineering, University of Leeds
11	09:45	Compression fracture and vertebroplasty	Mr J Timothy , Consultant Neurosurgeon and Spinal Surgeon, Leeds
	10:30	Coffee	
12	11:00	The normal synovial joint and introduction to OA	Prof P Conaghan , Leeds Musculoskeletal Biomedical Research Unit, Leeds Teaching Hospitals NHS Trust and University of Leeds
13	11:45	Knee replacement - a clinical perspective	Mr N London , Consultant Knee Surgeon, Yorkshire Knee Clinic
	12:45	Lunch	
14	13:30	Clinical biomechanics of the knee	Dr J Arnold , Leeds Institute of Rheumatic and Musculoskeletal Medicine , University of Leeds
15	14:00	Design variants of total knee replacement	Dr I Leslie , Team Leader Knee R&D, DePuy Synthes Joint Reconstruction
16	14:30	Fracture mechanics	Mr K Sherman , Orthopaedic surgery consultant, Spire Hull and East Riding Hospital
	15:15	Tea	
17	15:45	Gait analysis	Dr D Lunn , Leeds Musculoskeletal Biomedical Research Unit, Leeds Teaching Hospitals NHS Trust and University of Leeds
18	16:15	Shoulder and elbow biomechanics	Mr D Limb , Consultant in Orthopaedic Trauma, Leeds Teaching Hospitals NHS Trust
	17:15	Closing remarks	
		End of day two and course	