



Orthopaedic Implants Research Section Scientific Meeting

Do We Need New Materials for Orthopaedic Implants?

Time	Topic <i>Presenter</i>	Action/Topic Focus
1:45 – 1:50 PM	Cheryl Liu	Opening Remark
1:50 – 2:20 PM	David Schroeder & Gavin Braithwaite	Biomaterials & Tech in Orthopedics: Past Successes, Present Challenges, and Future Directions
2:20 – 3:00 PM	Moderated by Michael Hast & Aarti Shenoy	Pitches for New Implant Materials
	Rahul Nisal	Versatile Polypeptide-anchored Antifouling Dip-coatings For Common Medical Implant Materials
	Amit Mohite	Multimodal Evidence of Hyaluronic Acid-mediated Peripheral Nerve Repair: Histologic Landscape and Proteomic Profiling
	Jonathan Dillon	Novel Fabrication of Peek Using Fused Strand Deposition Reduces Inflammatory Cytokines and Enhances MSC Differentiation In Vitro, Promoting Bone Growth and Implant Osseointegration Clinically
	Maryam Tilton	Voxel-programmed Micromechanical Heterogeneity Directs Durotaxis and Early Osteogenic Priming In μ Match Hydrogels
	Colin Jones	3D-Printed Titanium Versus Ti-peek Cages in Degenerative Lumbar Tlif: Meta-analysis Of Clinical Outcomes
	Hasan Rafsan Jani	A Next-generation, Suture-free Cartilage Repair Strategy Using a Col II Patch Graft and HPDA Fueled Biogluue
3:00 – 3:40 PM	Moderated by Josh Roth	Blitz Talks from Selected Poster Presenters
	Joshua Taylor	Outcomes Following Minimal Humeral Preparation Using a Self-broaching, Stemless Anatomic Total Shoulder Arthroplasty (PS1 - 586)
	David Safranski	Fracture-plane Position and Device Type Govern Interfragmentary Compression: A Bench-top Comparison of Sustained Dynamic Compression, Cannulated Lag, And Variable-pitch Fully-threaded Compression Screws (PS2 - 1594)



	Robin Pourzal	Categorization Of Wear Patterns in Total Hip Arthroplasty HXLPE Bearings Using Machine Learning (PS2 - 2000)
	Reza Pourmodheji	Relative Impact of Patellar Under-resection Versus Weight Loss on Quadriceps Force Required for Vertical Thrust During Stair-ascent After Posterior Stabilized Total Knee Arthroplasty (PS2 - 1233)
	Rahul Nisal	Versatile Polypeptide-anchored Antifouling Dip-coatings For Common Medical Implant Materials (PS1 - 832)
	Kenichi Kono	Functional Alignment in Total Knee Arthroplasty Restores In Vivo Cruciate Ligament Forces and Knee Kinematics More Effectively Than Mechanical Alignment (PS1 - 1153)
	Josie Elwell	Impact Of Intra-operative Joint Loads on Range of Motion and Patient-reported Outcome Measures After Reverse Total Shoulder Arthroplasty (PS2 - 1440)
	Kevin Abbruzzese	The Impact of Tibial Insert Constraint on Knee Stiffness in an Advanced Knee Simulator Model (PS2 - 2005)
3:40 – 3:45 PM	Cheryl Liu & Michael Hast	Closing Remark
3:45 – 4:30 PM		Section Social with Coffee and Refreshments
4:30 – 5:30 PM		Section Officers Meeting