



AAOS/ORS Tackling Joint Disease by Understanding Crosstalk between Cartilage and Bone Research Symposium

April 28-30, 2016 / The Hyatt Regency / Rosemont, Illinois

Symposium Co-Chairs: Tamara Alliston, PhD and Thomas Vail, MD

Planning Committee: Aaron Fields, PhD and David Findlay, PhD

SYMPOSIUM AGENDA

Thursday, April 28, 2016		
5:00 – 7:00 PM	Symposium Check In	United Foyer
7:00 – 9:00 PM	Opening Dinner Reception among the Posters	United AB

Friday, April 29, 2016		
7:00 – 8:00 AM	Roundtable Breakfast with Young Investigators	United AB
8:05 – 8:15 AM	Program Welcome and Overview of Symposium Goals Tamara Alliston, PhD <i>University of California, San Francisco</i>	
Session I: Cartilage-Derived Signals and Their Effects on Bone Moderator: Linda Sandell, PhD		
8:15 – 8:20 AM	Session Introductions Linda Sandell, PhD <i>Washington University</i>	Rosemont AB
8:20 – 8:40 AM	1) Pain and the Nervous Joint Jason McDougall, PhD <i>Dalhousie University</i>	
8:40 – 9:00 AM	2) β -Catenin is a Key Mediator in the Development of Spondyloarthritis Di Chen, PhD <i>Rush University</i>	
9:00 – 9:20 AM	3) Key Signals and Transcriptional Regulators of Cartilage Remodeling Mary Goldring, PhD <i>Hospital for Special Surgery</i>	
9:20 – 9:40 AM	4) Developmental Biology of Cartilage TBD	
9:40 – 10:00 AM	Questions and Answers <i>Panel</i>	
10:00 – 10:15 AM	BREAK	-

Session II: Bone-Derived Signals and Their Effects on Cartilage Moderator: David Findlay, PhD		
10:15 – 10:20 AM	Session Introductions David Findlay, PhD <i>University of Adelaide</i>	Rosemont AB
10:20 – 10:40 AM	5) Osteoarthritis David Felson, MD, MPH <i>Boston University</i>	
10:40 – 11:00 AM	6) Bone-Cartilage Crosstalk David Findlay, PhD <i>University of Adelaide</i>	
11:00– 11:20 AM	7) TGFβ Signaling in Bone and Cartilage Xu Cao, PhD <i>Johns Hopkins University</i>	
11:20 – 11:40 AM	8) Subchondral Bone Permeability Liyun Wang, PhD <i>University of Delaware</i>	
11:40 AM – 12:00 PM	Discussions, Questions, and Answers <i>Panel</i>	
12:00 – 1:30 PM	Meet the Mentor Lunch	United AB
Session III: New Views of OA Moderator: Aaron Fields, PhD		
1:30 – 1:35 PM	Session Introductions Aaron Fields, PhD <i>University of California, San Francisco</i>	Rosemont AB
1:35 – 1:45 PM	9) New Investigator Presentation: Knee Osteoarthritis: Bone Marrow Lesions Detected By Specific MRI Sequences Associate With Severity Of Osteochondral Degeneration Dzenita Muratovic, BMedS (Hons) <i>The University of Adelaide</i>	
1:45 – 1:55 PM	10) New Investigator Presentation: Decrease of Subchondral Trabecular Rods Dictates Progression of Early Osteoarthritis Yizhong Jenny Hu, MS (PhD Cand.) <i>Columbia University</i>	
1:55 – 2:05 PM	11) A Prospective Study of Clinical, MicroCT and Histopathological Subchondral Bone Changes in the Osteoarthritic Knee Peter Sharkey, MD <i>The Rothman Institute</i>	
2:05 – 2:15 PM	Discussions, Questions, and Answers <i>Panel</i>	
2:15 – 2:25 PM	BREAK	

Session IV: Joint Crosstalk: Beyond Bone and Cartilage Moderator: Steve Goldring, MD		
2:25 – 2:30 PM	Session Introductions Steve Goldring, MD <i>Hospital for Special Surgery</i>	Rosemont AB
2:30 – 2:50 PM	12) Innate Immune Responses and Osteoarthritis M.B. Humphrey, MD, PhD <i>University of Oklahoma</i>	
2:50 – 3:10 PM	13) Impact of Inflammation on Bone in Rheumatic Disease Ellen Gravallese, MD <i>University of Massachusetts</i>	
3:10 – 3:30 PM	14) The Attachment of Tendon to Bone Stavros Thomopoulos, PhD <i>Washington University</i>	
3:30 – 3:50 PM	15) Muscle/Bone Crosstalk Lynda Bonewald, PhD <i>University of Missouri, KC</i>	
3:50 – 4:10 PM	Discussions, Questions, and Answers <i>Panel</i>	
4:10 – 6:30 PM	Poster Session / Reception	United AB
6:30 – 7:30 PM	Dinner	

Saturday, April 30, 2016		
7:15 – 8:00 AM	Roundtable Breakfast with Young Investigators	United AB
8:00 – 8:05 AM	Morning Welcome / Overview Tamara Alliston, PhD, <i>University of California, San Francisco</i>	Rosemont AB
Session V: Using Big Data to Understand Joint Crosstalk Moderator: Nancy Lane, MD		
8:05 – 8:10 AM	Session Introductions Nancy Lane, MD <i>University of California, Davis</i>	Rosemont AB
8:10 – 8:30 AM	16) Epidemiology of Low Back Pain Jaro Karppinen, MD, PhD <i>University of Oulu</i>	
8:30 – 8:50 AM	17) Genetic Mouse Screens for Regenerative Factors Linda Sandell, PhD <i>Washington University</i>	
8:50 – 9:10 AM	18) Mining the Genomic Landscape of Mice with Varying Susceptibility to Trauma-Induced Osteoarthritis Gaby Loots, PhD <i>Lawrence Livermore National Lab</i>	
9:10 – 9:30 AM	19) The Microbiome and Bone and Joint Disease Chris Hernandez, PhD <i>Cornell University</i>	
9:30 – 9:50 AM	Questions and Answers <i>Panel</i>	

9:50 – 10:05 AM	BREAK	-
Session VI: Mechanobiology in Joint Crosstalk Moderator: Farshid Guilak, PhD		
10:05 – 10:10 AM	Session Introductions Farshid Guilak, PhD <i>Washington University, St. Louis</i>	Rosemont AB
10:10 – 10:30 AM	20) Post-Traumatic Osteoarthritis and Cartilage Injury Darryl D’Lima, MD, PhD <i>Scripps Clinic</i>	
10:30 – 10:50 AM	21) The Role of Transport and Activation of TGF-β in Cartilage Friction & Wear Gerard Ateshian, PhD <i>Columbia University</i>	
10:50 – 11:10 AM	22) Skeletal Mechanobiology Tamara Alliston, PhD <i>University of California, San Francisco</i>	
11:10 – 11:30 AM	23) Physical Cues in Joint Degeneration and Repair Farshid Guilak, PhD <i>Washington University, St. Louis</i>	
11:30 – 11:40 AM	24) New Investigator Presentation: Alpha v Integrins Mediate Abnormal Mechanical Induced Excessive TGFβ Activation and Cartilage Degeneration in Osteoarthritis Gehua Zhen, MD <i>Johns Hopkins University</i>	
11:40 AM – 12:00 PM	Discussions, Questions, and Answers <i>Panel</i>	
12:00 – 1:15 PM	Panel of Research Leaders: Career Development Perspectives <i>Working Luncheon</i>	United AB
Session VII: Vascularization of the Joint Moderator: Thomas Vail, MD		
1:15 – 1:20 PM	Session Introductions Thomas Vail, MD <i>University of California, San Francisco</i>	Rosemont AB
1:20 – 1:40 PM	25) Osteonecrosis Thomas Vail, MD <i>University of California, San Francisco</i>	
1:40 – 2:00 PM	26) Hypoxia in Joint Health and Disease Ernestina Schipani, PhD <i>University of Michigan</i>	
2:00 – 2:20 PM	27) Skeletal and Vascular Tissue Engineering Warren Grayson, PhD <i>Johns Hopkins University</i>	
2:20 – 2:40 PM	28) Innervation in Disc Degeneration and Pain Jeffrey Lotz, PhD <i>University of California, San Francisco</i>	
2:40 – 3:00 PM	Discussions, Questions, and Answers <i>Panel</i>	
3:00 – 3:10 PM	BREAK	-

Session VIII: Joint Crosstalk-Inspired Diagnostic and Treatment Strategies

Moderator: David Burr, PhD

3:10 – 3:15 PM	Session Introductions David Burr, PhD <i>Indiana University</i>	Rosemont AB
3:15 – 3:35 PM	29) BMP2 - GDF5 Crosstalk and Knee Osteoarthritis Vicki Rosen, PhD <i>Harvard University</i>	
3:35 – 3:55 PM	30) Imaging Subchondral Bone in Joint Disease Nancy Lane, MD <i>University of California, Davis</i>	
3:55 – 4:15 PM	31) Anti-Resorptive Agents in Joint Disease David Burr, PhD <i>Indiana University</i>	
4:15 – 4:35 PM	32) New Investigator Presentation: Role of Subchondral Bone Properties and Remodeling on Load-Induced Osteoarthritis in Mice Olufunmilayo Adebayo, MS <i>Cornell University</i>	
4:35 – 4:45 PM	Discussions, Questions, and Answers <i>Panel</i>	
4:45 – 5:00 PM	Concluding Comments, Next Steps	
5:00 PM	ADJOURN	-