



## Schedule-At-A-Glance

(All sessions unless otherwise noted will be held in the Primrose Room)

### Saturday, July 23, 2022

3:00 PM – 5:30 PM	Registration Open	Primrose Lobby
7:00 PM – 10:00 PM	Networking Reception	Magpie Terrace

### Sunday, July 24, 2022

Primrose

7:00 AM – 8:00 AM	Breakfast (Provided)
8:00 AM – 8:10 AM	Welcome from the Workshop Co-Directors Teresita Bellido ( <i>University of Arkansas for Medical Sciences</i> ) & Alex Robling ( <i>Indiana University</i> )
8:10 AM – 9:10 AM	Welcome & Plenary Session: (RIB) Award and Presentation: The Power of 1G: Disuse Bone and Muscle Loss Rib Awardee: Susan Bloomfield ( <i>Texas A&amp;M</i> )
9:15 AM – 10:00 AM	Blue Ribbon Posters Chair: Teresita Bellido
10:00 AM – 10:15 AM	Stretch Break
10:15 am – 12:00 PM	Session: Osteocytes: from Biology to Pathophysiology Chair: Natalie Sims ( <i>St. Vincent's Institute Medical Research</i> ) Joel Boerckel ( <i>University of Pennsylvania</i> ); Hezekiah's Tunnels: Development and Remodeling of the Canalicular System Liyun Wang ( <i>University of Delaware</i> ); Osteocytic Pericellular Tethers in Mechanosensing Natalie Sims; Osteocytic Control of Bone Mineralisation
10:00 AM – 12:00 PM	Lunch On Your Own
2:00 PM – 4:00 PM	Recreation Time <i>Be sure to check the registration for some Team Lead Hikes or Group Activities if interested.</i>
4:00 PM – 7:00 PM	Dinner On Your Own
7:00 PM – 10:00 PM	Poster Session and Reception (Appetizers & Cocktails Provided)

### Monday, July 25, 2022

Primrose

7:00 AM	Registration Open	Primrose Lobby
7:00 AM – 8:00 AM	Breakfast (Provided) Aris Economides ( <i>Regeneron</i> ); Targeted-ERT for Lysosomal Disorders of the Musculoskeletal System	
8:00 AM – 9:00 AM	ASBMR/Harold M. Frost Young Investigator Award Presentations Chair: Teresita Bellido	
9:00 AM – 9:15 AM	Stretch Break	
9:15 AM – 12:00 PM	Session: Autologous-Autogenous Treatments for Musculoskeletal Disease Chair: Steven Charlebois ( <i>MED Institute</i> ) Neven Steinmetz ( <i>Regenexx</i> ); Using Orthobiologic Tools to Treat Diseases and Injuries of the Knee Chelsea Bahney ( <i>Steadman-Philippon Institute</i> ); Towards Personalized Orthobiologics: What's New and What's Still Unknown? Lara Silverman ( <i>LIS BioConsulting, LLC</i> ); Development and Approval of Autologous Cell-Based Therapies	



	Alice L. Jee Award Winners
10:00 AM – 12:00 PM	Lunch On Your Own
1:00 PM – 2:30 PM	Career Development Workshop: The Pandemic: Impacts, Silver Linings, and Recovery Chairs: Marjolein van der Meulen ( <i>Cornell University</i> ) and Sherry Liu ( <i>University of Pennsylvania</i> )
2:30 PM – 4:00 PM	Recreation Time <i>Be sure to check the registration for some Team Lead Hikes or Group Activities if interested.</i>
7:00 PM – 10:00 PM	Dinner On Your Own
7:30 PM – 9:00 PM	Session: Advances in Optical Imaging of Musculoskeletal Tissues Chair: Sarah Calve ( <i>University of Colorado</i> ) Masaru Ishii ( <i>Osaka University</i> ) Intravital Imaging of Live Bone Cells In Vivo Warren Grayson ( <i>Johns Hopkins University</i> ) Neurovascular Imaging in the Murine Calvarium Sarah Calve Visualization of the Extracellular Matrix at Developing Tissue Interfaces

Tuesday, July 26, 2022 Primrose

7:00 AM	Registration Open	Primrose Lobby
7:00 AM – 8:00 AM	Breakfast (Provided)	
8:00 AM – 9:00 AM	ASBMR/Harold M. Frost Young Investigator Award Presentations Chair: Alex Robling	
9:00 AM – 9:15 AM	Stretch Break	
9:15 AM – 12:00 PM	Session: Novel Pathways in Immune Regulation of Bone Remodeling Chair: Iannis Adamopoulos ( <i>Beth Israel Medical Deaconess Center, Harvard Medical School</i> ) Ellen Gravallesse ( <i>Brigham and Women's, Harvard University</i> ) Role of the STING Pathway in Bone Homeostasis Joseph Lorenzo ( <i>UConn Health</i> ) Studies of Osteoclast Precursors in Health and Disease Matthew Greenblatt ( <i>Cornell Weill</i> ) Identification of a Vertebral Stem Cell Iannis Adamopoulos The IL-23/IL-17 Axis in Bone Remodeling	
12:00 PM – 1:00 PM	Lunch on Your Own	
1:00 PM – 2:30 PM	Career Development Workshop by and to Early-career Investigators Chairs: Annemarie Lange ( <i>University of Pennsylvania</i> ) Neha Dole ( <i>University of Arkansas for Medical Sciences</i> ) First job after training: how to get the job, what works and what does not?	
2:30 PM – 4:00 PM	Recreation Time <i>Be sure to check the registration for some Team Lead Hikes or Group Activities if interested.</i>	
6:00 PM – 10:00 PM	Awards and Dinner Banquet (Provided) at Aerie Restaurant	

Wednesday, July 27, 2022 Primrose

7:00 AM	Registration Open	Primrose Lobby
7:00 AM – 8:00 AM	Breakfast (Provided)	



8:00 AM – 9:00 AM	ASBMR/Harold M. Frost Young Investigator Award Presentations Chair: Teresita Bellido
9:00 AM – 9:15 AM	Stretch Break
9:15 AM – 12:00 PM	Session: Skeletal Aging and the Development of Senolytic Therapies Chair: Richard F. Loeser, Jr ( <i>University of North Carolina, Chapel Hill</i> ) Jin Han ( <i>John Hopkins</i> ); Joint Tissue Senescence in Osteoarthritis Sundeep Khosla ( <i>Mayo Clinic</i> ) Targeting Cellular Senescence to Treat Age-Related Bone Loss and Frailty Maria Schuller Almeida ( <i>University of Arkansas for Medical Sciences</i> ) NAD+ Metabolism in Bone: Crosstalk with the Wnt Pathway and Senescence
12:00 PM – 1:00 PM	Lunch on Your Own
1:00 PM – 5:00 PM	Recreation Time <i>Be sure to check the registration for some Team Lead Hikes or Group Activities if interested.</i>  Dinner On Your Own
7:30 PM – 9:30 PM	Session: Mechanobiology of Musculoskeletal Tissues Chair: Alice Huang ( <i>Columbia University</i> ) Alice Huang Mechanobiology of Tendon Differentiation Tamara Alliston ( <i>University of California, San Francisco</i> ) Multiscale Mechanobiology of TGF-beta Signaling in the Skeleton Christopher Hernandez ( <i>Cornell University</i> ) Mechanobiology in the Microbiome and Infection