

INVITED SPEAKERS



Dr. Lynda Bonewald is a biochemist and bone cell biologist with almost 40 years of experience in research and almost 30 years of experience running her own research program, which has been continually funded by NIH. Her research has focused on osteoclast and osteoblast function followed in recent years by osteocyte biology and the role of osteocytes in mechanotransduction and muscle-bone crosstalk. She has served as the President of the American Society for Bone and Mineral Research and received the 2015 William F. Neumann Award for outstanding and major scientific contributions in the area of bone and mineral research. As president of the ASBMR, she was instrumental in bringing muscle biology and its relationship to bone into the society and the journal, JBMR. She is co-founder of the International Federation of Musculoskeletal Societies. She has served on the Board and as Chair of the Board of Scientific Counselors for NIDCR and served on the Council of NIAMS. She directed the University of Missouri Kansas City Mineralized Tissue Research program from 2001-2016, the UMKC Center of Excellence in Dental and Mineralized Tissue from 2009-2016, and founded and directed the Kansas City Consortium on Musculoskeletal Diseases. She has served as the Vice Chancellor for Research for UMKC. As of July 1st, 2016, she became the Founding and Executive Director of the Indiana Center for Musculoskeletal Health, [ICMH](#).



Dr. Karen Lyons is a Professor in the departments of Orthopaedic Surgery and Molecular, Cell & Developmental Biology at UCLA. She received her PhD degree in the laboratory of Nobel laureate Oliver Smithies, and did postdoctoral work in the laboratory of developmental biologist Brigid Hogan, where she cloned several BMP family members. Dr. Lyons has over 25 years of experience with cartilage and bone biology, focusing on genetic mouse models. Her laboratory established the roles of the three type I BMP receptors, and the BMP signal transducers R-Smads 1, 5, and 8 in cartilage. She has been a regular member of the Skeletal Biology: Disease and Development (SBDD) and Skeletal Biology: Structure and Regeneration (SBSR) study sections for the NIH. She co-chaired the 2008 Cartilage Biology and Pathology Gordon Conference, and an American Association of Orthopaedic Surgery (AAOS) symposium on fracture repair. She was the Cartilage and Synovium topic co-chair for the 2017 Orthopaedic Research Society annual meeting. She was a Section Editor for the 8th and 9th Editions of the Primer on the Metabolic Bone Diseases and Disorders of Mineral Metabolism published by the American Society for Bone and Mineral Research (ASBMR). In ongoing studies, her laboratory is investigating the function of the TGFbeta pathway in articular and growth plate cartilage. These studies are revealing unexpected functions for BMP and TGFbeta receptor in growth plate and cartilage.

PILOT AND FEASIBILITY SPEAKERS



Dr. Diana L. Carlone received her BSc at the University of Connecticut and completed a PhD in Cell, Molecular and Developmental Biology at the Sacker School of Graduate Biomedical Sciences, Tufts University. She studied epigenetic regulation of embryonic stem cells at the Herman B Wells Center for Pediatric Research, Indiana University and is now an Instructor in Pediatrics at Boston Children's Hospital/Harvard Medical School. Her work focuses on identifying the molecular mechanisms that regulate progenitor/stem cells in musculoskeletal tissues.



Dr. Li Zeng received her undergraduate degree in Plant Physiology and Biochemistry from Beijing Agricultural University in China, where she studied the role of chlorophyll-binding proteins in spinach.

After receiving her master's degree in Biochemistry from Tsinghua University, she pursued her PhD at Columbia University. She studied with Dr. Frank Costantini and cloned Axin, which she characterized to be a key component in the Wnt signaling cascade.

Dr. Zeng carried out her postdoctoral training in Dr. Andrew Lassar's laboratory at Harvard Medical School, where she investigated the roles of the transcription factors Nkx3.2 and Sox9 in somite cell fate determination in the chick embryo.

Since she joined the faculty of Tufts University School of Medicine, she has been focusing on understanding postnatal cartilage development and articular cartilage maintenance. Dr. Li's team has been studying the control of glucose metabolism in endochondral ossification., Dr. Zeng's team has investigated the role of a variety of signaling molecules including Wnt7a, PEDF and IGF2 in osteoarthritis. She has now started to approach osteoarthritis from an immunological perspective.