AIMM/ASBMR John Haddad Young Investigator Meeting
April 7-11, 2025
Snowmass, Colorado

Welcome to our 39th annual meeting for Advances in Mineral Metabolism! The purpose of this conference is to bring scientists and clinicians together in a format of open verbal communication that permits the translation of basic science advances into clinical concepts. Physicians and scientists working in the field of bone and mineral metabolism are encouraged to participate.

This activity has been planned and implemented in accordance with the accreditation requirements and policies of the Accreditation Council for Continuing Medical Education (ACCME) through the joint providership of the Minnesota Medical Association and Advances in Mineral Metabolism. The Minnesota Medical Association (MMA) is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians.

The Minnesota Medical Association designates this activity for a maximum of *9 AMA PRA Category 1 Credit(s)*™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

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2025 Young Investigator Awardees

AIMM Young Investigator

Haydee Torres
Mayo Clinic

Charles H. Turner Young Investigator

Mariana Moraes
Indiana University

ASBMR John Haddad Young Investigators

Mingxin Ashby
John Hopkins University

Birol Ay
MGM/Harvard

Muriel Babey
UCal-San Francisco

Jessica De Angelis
Columbia University

Giulia Furesi
Washington Univ-St Louis

Lingling Hu
Weill Cornell Medicine

Albert Kim
Garvan Institute

Hui Jean Kok
Indiana University

Tian Liang
U Michigan, Dentistry

Courtney Mazur
MGH/Harvard

Garyfallia Papaioannou
MGH/Harvard

2025 Advances in Mineral Metabolism
ASBMR John Haddad Young Investigator Meeting

April 7-11, 2025
All events are in the main floor conference area at Stonebridge Inn, Snowmass, CO
Listed times are Mountain Time (MT)

Monday, April 7, 2025

2:00pm	Registration opens (Stonebridge Inn)	
4:30 – 4:45pm	Welcome	Michael Mannstadt, MD (AIMM President)
Session 1	**Advancing Care for Fibrous Dysplasia: Innovations and Insights**	**Chair** Dan Perrien, PhD (Emory) **Co-Chair** Murat Bastepe, MD/PhD (Harvard)
4:45 – 5:30pm	*Fibrous dysplasia/McCune-Albright Syndrome: Natural history, treatment, and insights into mineral metabolism*	Alison Boyce, MD (NIDCR, NIH)
5:30 – 6:15pm	*Pain in fibrous dysplasia/McCune-Albright Syndrome*	Jaymin Upadhyay, PhD (Boston Children's Hospital)
6:15 – 6:30pm	Break	
6:30 – 7:00pm	*Mapping somatosensory afferent circuitry to bone identifies neurotrophic signals required for fracture healing*	Mingxin Ashby, PhD, 2025 John Haddad YI (John Hopkins University)
7:00 – 7:15pm	Open discussion & overview	
8:00 – 9:30pm	Welcome Reception (meeting registrants only)	

Tuesday, April 8, 2025

6:15 – 7:00am	Breakfast (must present breakfast voucher)	
Session 2	**Frontiers in CaSR Research: Emerging Discoveries and Innovations**	**Chair** John Wysolmerski, MD/PhD (Yale) **Co-Chair** Diana Athonvarangkul, MD/PhD (Yale)
7:00 – 7:45am	*Regulation of tonic PTH secretion by CaSR/GABBR1 heterodimer in hyperparathyroidism*	Wenhan Chang, PhD (University of California-San Francisco)
7:45 – 8:30am	*Structure-docking synergy for ligand discovery*	Fangyu Liu, PhD (University of California-San Francisco)
8:30 – 8:45am	Break	
8:45 – 9:15am	*Crosstalk between hormonal and mechanical signals in osteocytes*	Garyfallia Papaioannou, MD/PhD, 2025 John Haddad YI, (MGH/Harvard)
9:15 – 9:30am	Open discussion & overview	
9:30 – 10:00am	Group Photo	
noon – 1:30pm	Mid-day consultations between young and established investigators (optional)	
3:00 – 4:00pm	Meet The Professor: Society Leadership Panel	Jen Westendorf, Rene St Arnaud, Kurt Hankenson, Suzanne Jan de Beur

Session 3	**John Haddad Young Investigators**	**Chair** Courtney Karner, PhD (UTSW) **Co-Chair** Ryan Tomlinson, PhD (Thomas Jefferson University)
4:30 – 5:00pm	*Lysophosphatidic acid (LPA) and 1,25-dihydroxy Vitamin D coordinate skeletal synthesis of fibroblast growth factor-23 via MAPK and IL12a*	Birol Ay, PhD, 2025 John Haddad YI (MGH/Harvard)
5:00 – 5:30pm	*Bone as a sensor and acute responder to inflammation through rapid secretion of Lipocalin-2*	Jessica DeAngelis, PhD, 2025 John Haddad YI (Columbia University)
5:30 – 6:00pm	*Eccentric muscle contraction increases trabecular and cortical bone volume in aged mice*	Hui Jean Kok, PhD, 2025 John Haddad YI (Indiana University)
6:00 – 6:15pm	Break	
6:15 – 6:45pm	*Dentin sialoprotein, dentin phosphoprotein, and chondroitin sulfate synergistically modulate peritubular dentin mineralization*	Tian Liang, PhD, 2025 John Haddad YI (University of Michigan)
6:45 – 7:15pm	*Trafficking and translation of mRNA in osteocyte dendrites*	Courtney Mazur, PhD, 2025 John Haddad YI (MGH/Harvard)
8:00 – 10:00pm	Welcome Dinner (registrants & guests)	

Wednesday, April 9, 2025

6:15 – 7:00am	Breakfast (must present breakfast voucher)	
Session 4	**Progress & Innovation in Hypoparathyroidism Therapy**	**Chair** Ryan Tomlinson, PhD (Thomas Jefferson University) **Co-Chair** Tom Ambrosi, PhD (UC-Davis)
7:00 – 7:45am	*Calcilytic therapy for ADH1 and post-surgical hypoparathyroidism*	Kelly Lauter Roszko, MD (NIH)
7:45 – 8:30am	*Breakthroughs in PTH analogs*	Michael Mannstadt, MD (MGH/Harvard)
8:30 – 8:45am	Break	
8:45 – 9:15am	*CCN3, A novel hypothalamic hormone for sustaining the maternal skeleton and progeny*	Muriel Babey, MD, 2025 John Haddad YI (Univ California-San Francisco)
11:00 – 1:00pm	Ski Race (optional), Spider Sabich Race Arena	Suva, Hankenson, Athonvarangkul, Perrien
noon – 1:30pm	Mid-day consultations between young and established investigators (optional)	
3:00 – 4:00pm	Meet The Professor: Industry Panel	Beate Lanske, Roz Puleo, Scott Adler
Session 5	**Unlocking Tendon Regeneration Through Stem Cell Science**	**Chair** Alex Lambi, MD, PhD (New Mexico) **Co-Chair** Connor Dolan, PhD (Arizona State)
4:30 – 5:15pm	*Building a molecular roadmap of regenerative tendon healing*	Jenna Galloway, PhD (Harvard)
5:15 – 6:00pm	*Hedgehog signaling as a master regulator of enthesis fibrocartilage mineralization*	Nathaniel Dyment, PhD (UPenn)
6:00 – 6:15pm	Break	
6:15 – 6:45pm	*Identification of the tendon/ligament stem cell in mice and human*	Lingling Hu, PhD, 2025 John Haddad YI (Weill Cornell Medicine)
6:45 – 7:15pm	*Stat3 persistent activation in osteoblasts leads to high bone mass in mice*	Mariana Moreas, PhD candidate, 2025 Charles Turner YI (Indiana University)

Thursday, April 10, 2025

6:15 – 7:00am	Breakfast (must present breakfast voucher)	
Session 6	**Oncology Meets Osteology: Advances in Cancer & Bone Research**	**Chair** Gabe Pagnotti, PhD (MD Anderson) **Co-Chair** Shreya Venkatesh (CU-Boulder)
7:00 – 7:45am	*Immunotherapy checkpoint signaling in bone metastatic niche regulates skeletal health and cancer outcomes*	Rachelle Johnson, PhD (Vanderbilt)
7:45 – 8:30am	*Pathological bone formation in cancer and vascular disease*	Masayuki Tsukasaki, DDS/PhD (Showa University, Tokyo)
8:30 – 8:45am	Break	
8:45 – 9:15am	*Bone-marrow derived Osterix+ cells drive breast cancer progression*	Giulia Furesi, PhD, 2025 John Haddad YI (Washington University, St. Louis)
9:15 – 9:45am	*Role of PHLPP phosphatases in sensory neuron joint innervation during OA progression in vivo*	Haydee Torres, PhD, 2025 AIMM YI (Mayo Clinic)
noon – 1:30pm	Mid-day consultations between young and established investigators (optional)	
1:00 – 2:00pm	AIMM Board Meeting (lunch location TBD)	Michael Mannstadt (AIMM President)
3:00 – 4:00pm	Meet The Professor: Osteoarthritis	Jen Westendorf, PhD (Mayo)
4:00 – 5:00pm	AIMM business meeting & election of new officers (all registrants invited)	Michael Mannstadt (AIMM President)
Session 7	***Late-Breaking Topics: Clinical & Basic Science***	*Chair* *Gabe Pagnotti, PhD (MD Anderson)* *Co-Chair* *Shirley Wang, PhD (UTSW)*
5:00 – 5:30pm	*Prevention of rebound bone loss following withdrawal of RANKL inhibition*	Albert Kim, PhD, 2025 John Haddad YI (Garvan Institute, Darlinghurst, Australia)
5:30 – 5:45pm	*The inhibitory role of the bone-lineage transcription factor SP7 in osteosarcoma*	Shirley Wang, PhD (UTSW)
5:45 – 6:00pm	Break	
6:00 – 6:15pm	*A sheep model of progressive pseudorheumatoid arthropathy of childhood (PPAC)*	Larry Suva, PhD (Texas A&M)
6:15 – 6:30pm	*A modified type II activin receptor ligand trap as a novel treatment for osteogenesis imperfecta*	Hitoshi Tanigawa (UConn)
6:30 – 6:45pm	*A case of x-linked hypophosphatemic rickets that wasn't: A case of achondroplasia without short stature*	Robert Gensure, MD/PhD (Dartmouth)
6:45 – 7:00pm	*TBD*	TBD
8:00 – 10:00pm	Awards Dinner (registrants & guests)	

Friday, April 11, 2025

6:15 – 7:00am	Breakfast (must present breakfast voucher)	
Session 8	**Intersection of Sickle Cell Disease and Bone Biology**	**Chair** Rob Gensure, MD/PhD (Dartmouth) **Co-Chair** Abhishek Chanda, PhD (Mayo)
7:00 – 7:45am	*Potential treatment for sickle cell bone loss in Sickle Cell Disease mice*	Liping Xiao, MD (UConn)
7:45 – 8:30am	*Engineering hope: The promise of gene therapy for Sickle Cell Disease*	Nowah Afangbedji, PhD (Stanford)
8:30 – 9:15am	Discussion & Overview	
noon – 1:30pm	Mid-day consultations between young and established investigators (optional)	
Session 9	**Late-Breaking Topics: Basic & Translational Science**	**Chair** Michaela Reagan, PhD (Maine Hlth) **Co-Chair** Brya Matthews, PhD (UConn)
4:30 – 4:45pm	*Genome-wide screen reveals protein translation and GAPDH as regulators of phosphate transporter SLC20A1/PiT1 and cellular phosphate sensing*	Christoph Zechner, MD/PhD (UTSW)
4:45 – 5:00pm	*BMP-induced X chromosome inactivation regulates mesenchymal cell fate towards chondrogenic lineage during craniofacial and limb development in both sexes*	Yuji Mishina, PhD (Michigan)
5:00 – 5:15pm	*Characterizing the biochemical responses that upset bone homeostasis in the metastatic vicious cycle*	Shreya Venkatesh (Univ Colorado-Boulder)
5:15 – 5:30pm	*Characterizing and targeting acute senescence-related changes to prevent chronic bone loss*	Abhishek Chandra, PhD (Mayo)
5:30 – 5:45m	*TBD*	TBD
5:45 – 6:15pm	*TBD*	TBD
6:15 – 6:30pm	Final remarks & adjourn	Melissa Kacena, PhD (in-coming President)

Next AIMM Meeting will be April 06-10, 2026