

PROGRAM
AIMM/ASBMR JOHN HADDAD YOUNG INVESTIGATORS MEETING
April 5 – 9, 2021
VIRTUAL (VIA ZOOM) AND SNOWMASS COLORADO

All times listed are Mountain Time (MDT)

SUNDAY, APRIL 4 4-7pm REGISTRATION

MONDAY, APRIL 5 6:30am REGISTRATION continues

6:55am INTRODUCTION AND WELCOME: Kurt Hankenson (University of Michigan), AIMM President

SESSION 1 PTH Action in bone: 'back to the future'

Chair: Larry Suva (Texas A&M)

7:30-8:10am René St. Arnaud (McGill University and Shriners Hospital)
"The NACA transcriptional coregulator is an effector of PTH anabolism"

8:10-8:50am Marc Wein (Harvard University)
"Salt inducible kinases dictate Pth1r action in bone and mineral metabolism"

8:50 – 9:00am Break

9:00-9:20am John Haddad Young Investigator: Sabashini Ramchand (Harvard-MGH)
"Effects of standard versus high dose PTH in combination with denosumab on bone microarchitecture"

9:20-9:40am John Haddad Young Investigator: Annegreet Veldhuis-Vlug (Leiden Univ Med Center)
"Intermittent Parathyroid Hormone Treatment Reduces Marrow Adipose Tissue In Patients with Hypoparathyroidism"

Mid-day break

4:00-5:00pm **Meet the Young Investigators (5 minutes introduction over Zoom)**

5:00-6:00pm: **Meet the Professor Session (separate break out rooms)**

1. Dana Gaddy (Texas A&M) "Non-rodent animal models to study the skeleton"
2. Eileen Shore (Univ. of Pennsylvania) "Heterotopic ossification - how does bone form outside of the skeleton?"

6:00-8:00pm **Meet-and-Greet (for in-person attendees)**

TUESDAY, APRIL 6

SESSION 2 Cutting Edge Genetics in Diagnosis and Treatment of Musculoskeletal Disease

Chair: Suzanne Jan de Beur (Johns Hopkins)

7:30-8:10pm Ingrid Holm, MD, MPH (Boston Children's Hospital)
"Application of New Genetic Technologies in the Clinic"

8:10-8:50pm Julie Hoover Fong, MD, PhD, (Johns Hopkins)
"The Latest in Skeletal Dysplasias: Genetics, Phenotyping and Treatment"

8:50 – 9:00am Break

9:00-9:20am John Haddad Young Investigator: Megan Michalski (Van Andel Institute)
“Frizzled 2 and Craniofacial Bone Development: A Tale of Two Mouse Models”

9:20- 9:40am John Haddad Young Investigator: Sirui Zhou (Lady Davis Institute of Jewish General Hospital)
“Identifying Targets for Osteoporosis via Whole Exome Sequencing and CRISPR-Cas9

9:40-10:00am John Haddad Young Investigator: Christian Jacome-Galarza (Brigham and Women's Hospital)
“Origin and Functions of Osteoclasts and Macrophages in Inflammatory Arthritis”

Mid-day break

4:00-5:00pm **Young investigator mentoring sessions – break-out**

5:00-6:00pm **Meet the Professor Session**

1. Julie Hoover Fong (Johns Hopkins) "Controversies in pharmaceutical treatment of patients with achondroplasia"
2. Joy Wu (Stanford) and Courtney Karner (UTSW) “Career development: Starting your new lab”

WEDNESDAY, APRIL 7

SESSION 3 Novel therapies to target the bone marrow niche in cancer

Co-Chairs: Melissa Kacena (Indiana Univ) & Jesús Delgado-Calle (UAMS)

7:30-8:10am Teresita Bellido (University of Arkansas Medical School):
“Osteocytes and the bone/bone marrow niche of cancer in bone”

8:10-8:50am Joy Wu (Stanford):
“PTH actions in the breast cancer bone metastatic niche”

8:50-9:00am Break

9:00-9:20am John Haddad Young Investigator: Neha Dole (UCSF)
“Remodeling our perspective on osteocytes: the link between bone and energy homeostasis”

9:20-9:40am Charles H. Turner Young Investigator: Christian Wright (Indiana University)
“Osteocyte-specific deletion of the auxiliary $\alpha 2\delta 1$ voltage sensitive calcium channel subunit impairs femur strength and load-induced bone formation”

9:40-10:00am AIMM Investigator: Michael Friedman (Virginia Commonwealth University)
“Influence of Genetic Variability on Musculoskeletal Response to Unloading in Diversity Outbred Mouse Founder Strains”

Mid-day break

4:00-5:00pm **Business Meeting**

5:00-6:00pm **Workshop**

1. Kristy Nicks (NIH-NIAMS) “NIH initiatives to promote diversity in science”

THURSDAY, APRIL 8

SESSION 4 Fracture repair, a model of regeneration: evolving concepts

Chair: Dan Bikle (UCSF)

- 7:30-8:10am Jie Shen (Washington University):
"Fracture Nonunion: New Insights into Mechanism and Therapy"
- 8:10-8:50am Ralph Marcucio (UCSF):
"Life, Death and Transformation in the Transition Zone: an Emerging Model of Endochondral Ossification"
- 8:50-9:00am Break
- 9:00-9:20am John Haddad Young Investigator: Daniel Youngstrom (Univ of Connecticut Health Center)
"From fish to fractures: Translational biology of Notch signaling"
- 9:20-9:40am John Haddad Young Investigator: Shawon Debnath (Weill Cornell Medicine College)
"The stem cell basis of bone versus fat formation"

Mid-day break

4:00-5:00pm **Young investigator break out rooms - scientific discussions**

5:00-6:00pm **Meet the Professor Session**

1. Madhu Misra (Harvard): "Management of low bone density in functional hypothalamic amenorrhea"
2. Matt Greenblatt (Weill-Cornell): "How to use the versatility of a FACS machine for bone and mineral research"

FRIDAY, APRIL 9

SESSION 9 Neuropsychiatric disorders and medications: Impact on bone

Chair: Tamara King (Univ. of New England)

- 7:30-7:50am John Haddad Young Investigator: Alberto Rosello-Diez (Monash University)
"Dances with bones: inter-tissue communication in the regulation of long bone growth"
- 7:50-8:30am: Madhu Misra (Harvard Medical School):
"Impact of autism spectrum disorder and anorexia nervosa on bone in adolescents and young adults"
- 8:30-8:40am: Break
- 8:40-9:20am: Katie Motyl (Maine Medical Research Center Institute (MMCRI))
"Atypical antipsychotic drug effects on bone and metabolism: new insights after warming up the mice"
- 9:20-9:40am John Haddad Young Investigator: Amy Sato (UAMS)
"Vitamin D receptor signaling prevents the adverse actions of glucocorticoid excess in bone, skeletal muscle, and the heart, by interfering with the atrogene pathway"

Mid-day break

5:00-7:00pm **Strategic planning discussions** (for in-person attendees)

SEE YOU NEXT YEAR!!