



Novel Aspects of Bone Biology

June 13–16, 2018 | Cliff Lodge | Snowbird, Utah | USA

Scientific Organizers:

Gerard Karsenty, Columbia University, USA

David T. Scadden, Massachusetts General Hospital and Harvard University, USA

This conference presents recent progress made in two relatively novel areas of skeletal biology not covered by other meetings. The first one is the cross-talk between bone, hematopoiesis and leukemogenesis. The second is the study of the multiple endocrine functions of bone and how their study impacts on our understanding of multiple degenerative diseases. Meetings of bone biology are traditionally dominated by the need to explain the bases and to propose treatments for the most frequent bone disease: osteoporosis. Aside from this very vivid field, two other aspects of bone biology have developed in the last decade. A feature shared by these two aspects of biology is that they link bone biology to multiple other organs and to other functions besides making bones. These two aspects are the dialog between bone and hematopoiesis, whether physiological or pathological, and the endocrine functions of bone. This conference will showcase the many advances made in these two aspects of skeleton biology and how these developments have enriched our understanding of the pathogenesis of multiple degenerative diseases affecting the bone marrow, energy metabolism or the brain. Because of its very nature, this meeting will bring together investigators from different fields rarely provided with an opportunity to meet.

Session Topics:

- The Origin of the Osteoblast
- The Bone Marrow Niche
- The Endocrine Function of the Osteoblast
- The Relationship between Bone and Leukemia
- Molecular Genetics of Bone Metastasis
- The Relationship between Bone and the Immune System

Scholarship Application & Discounted Abstract Deadline: February 27, 2018

Abstract Deadline: March 13, 2018

Discounted Registration Deadline: April 12, 2018



Note: Scholarships are available for graduate students and postdoctoral fellows and are awarded based on the abstract submitted. Submitting an abstract is an excellent opportunity to gain exposure for your work. Abstracts submitted by the abstract deadline will also be considered for short talks on the program.

Meeting Hashtag: #KSbone
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on Molecular and Cellular Biology

Novel Aspects of Bone Biology (E3)

June 13-16, 2018 • Snowbird Resort • Snowbird, Utah, USA
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Supported by the Directors' Fund

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WEDNESDAY, JUNE 13

Arrival and Registration

THURSDAY, JUNE 14

Welcome and Keynote Address

Daniel E. Lieberman, Harvard University, USA
An Evolutionary Medical Perspective on Bone Disease

The Origin of the Osteoblast

Roberta Faccio, Washington University, USA
Pathogenesis of Bone Diseases: The Role of the Immune System

Siddhartha Mukherjee, Columbia University Medical Center, USA
Definition of a Post-Natal Osteoblast Stem Cell

Henry M. Kronenberg, Massachusetts General Hospital, USA
The Origin of the Osteoblasts

Short Talk(s) Chosen from Abstracts

The Bone Marrow Niche

David T. Scadden, Massachusetts General Hospital and Harvard University, USA
Definition of the Bone Marrow Niche

Sean J. Morrison, University of Texas Southwestern Medical Center, USA
Molecular Identity of the Bone Marrow Niche

Paul S. Frenette, Albert Einstein College of Medicine, USA
Neuronal Regulation of the Bone Marrow Niche

John Chute, University of California, Los Angeles, USA
Bone Marrow Osteolineage Cells Regulate Hematopoietic Regeneration via Secretion of Dkk1

Poster Session 1

FRIDAY, JUNE 15

The Endocrine Function of the Osteoblast

Gerard Karsenty, Columbia University Medical Center, USA
The Impact of Bone on Whole-Organism Physiology

Aline Bozec, University of Erlangen, Germany
High Fat Diet and Microbiota Control the Bone Marrow Niche and Hematopoietic Stem Cell Differentiation

Seiji Fukumoto, Tokushima University, Japan
The Biology of FGF23

Yihong Wan, University of Texas Southwestern Medical Center, USA
Endocrine and Metabolic Regulation of Osteoclastogenesis

Short Talk(s) Chosen from Abstracts

The Relationship between Bone and Leukemia

Emmanuelle Passegué, Columbia University, USA
Aging of Stem Cells and Leukemogenesis

Stavroula Kousteni, Columbia University, USA
The Osteoblast as an Inducer of Leukemogenesis

Andreas Trumpp, German Cancer Research Center, Germany
Normal and Malignant Stem Cells in the Bone

Short Talk Chosen from Abstracts

Poster Session 2

SATURDAY, JUNE 16

Molecular Genetics of Bone Metastasis

Yibin Kang, Princeton University, USA
The Role of Bone Stromal Niches in the Seeding, Outgrowth and Treatment Resistance of Bone Metastasis

Theresa A. Guise, Indiana University, USA
Molecular Basis of Bone Metastase

G. David Roodman, Indiana University, USA
The Pathogenesis of Multiple Myeloma

Camilla Engblom, Massachusetts General Hospital, USA
Osteoblasts Remotely Supply Lung Tumors with Cancer-promoting SiglecFhigh Neutrophils

Short Talks Chosen from Abstracts

The Relationship between Bone and the Immune System

Hiroshi Takayanagi, University of Tokyo, Japan
Interaction between Bone and the Immune System

Roberto Pacifici, Emory University, USA
The Microbiota, a novel regulator of bone health and disease

Ralf H. Adams, Max Planck Institute for Molecular Biomedicine, Germany
Blood Vessel Growth, Function and Aging in the Skeletal System

Meeting Wrap-Up: Outcomes and Future Directions (Organizers)

SUNDAY, JUNE 17

Departure