

ASBMR Symposium

Current Concepts in Bone Fragility: From Cells to Surrogates

September 7, 2017 | Colorado Convention Center | Denver, Colorado, USA

This activity is supported by educational funding donations provided by Amgen, Lilly USA, LLC and Scanco Medical

The importance of surrogate endpoints for fracture motivated the selection of the 2017 symposium entitled *Current Concepts in Bone Fragility: From Cells to Surrogates*. The timing of this symposium will correspond with completion of a large study funded by the Foundation for NIH Biomarkers Consortium focused on determining the utility of surrogate endpoints for clinical trials of osteoporosis drugs. There is currently an unmet medical need for more effective treatments for osteoporosis because currently available agents cannot fully restore skeletal integrity in patients with established disease and be safely given long-term for fracture prevention. Knowledge in identification and treatment of those at risk for fracture will be enhanced by bringing biologists, biomechanical engineers, imaging specialists, epidemiologists and clinicians together to discuss the factors underlying bone fragility and how to best measure them.

Current Concepts in Bone Fragility

8:00 am– 9:30 am

Co-Chairs: Galatia Kazakia, Ph.D., University of California, San Francisco, USA;
Claus Glueer, Ph.D., Christian Albrechts Universitaet zu Kiel, Germany

Hierarchical Material in Nature: How Bone is Tough

Peter Fratzl, Ph.D., Max Planck Institute of Colloids and Interfaces, Germany

Interaction of Skeletal Traits Determines Long Bone Fragility

Karl Jepsen, Ph.D., University of Michigan, USA

Beyond Whole Bone Strength

Chris Hernandez, Ph.D., Cornell University, USA

ASBMR Symposium (Continued)

Multi-scale Characterization on Bone Strength

10:00 am – 11:40 am

Co-Chairs: Matt Allen, Ph.D., Indiana University School of Medicine, USA;

Virginia Ferguson, Ph.D., University of Colorado, USA

Multiscale Characterization of Human Bone: The Osteocyte Network

Bjorn Busse, Ph.D., University Medical Center Hamburg-Eppendorf, Germany

Beyond Bone Mineral: Contributions of Collagen and Non-collagenous Proteins to Bone Strength

Lamya Karim, Ph.D., University of Massachusetts Dartmouth, USA

Contribution of Cortical vs Trabecular Bone to Whole Bone Strength

Bert van Rietbergen, Ph.D., Eindhoven University of Technology, The Netherlands

Mechanical Loading, Structural Heterogeneity and Bone Strength

Elise Morgan, Ph.D., Boston University, USA

Effect of Osteoporosis Therapies on Bone Mechanical Properties: Preclinical Studies

Paul Kostenuik, Ph.D., Phylon Pharma Services, USA

Beyond Areal BMD

12:45 pm – 2:20 pm

Chair: Fjola Johannessdotir, Ph.D., Harvard Medical School; Beth Israel Deaconess Medical Center, USA

Extending Beyond BMD

Bill Leslie, M.D., MSc, FRCs, University of Manitoba, Canada

Contribution of Bone Microarchitecture to Fracture Risk

Steven Boyd, Ph.D., University of Calgary, Canada

Bone Structure: Beyond Standard Metrics

Andrew Burghardt, Ph.D., University of California, San Francisco, USA

Identifying Patients with Fragile Bone via QCT-based FEA

Tony Keaveny, Ph.D., University of California, Berkeley, USA

Clinical Conundrums

2:50 pm – 3:50 pm

Chair: Marjolein van der Meulen, Ph.D., Cornell University, USA

Atypical Femoral Fractures: Clinical Risk Factors

Angela Cheung, M.D., Ph.D., University of Health Network-University of Toronto, Canada

Atypical Femoral Fractures: Tissue Level Contribution?

Eve Donnelly, Ph.D., Cornell University, USA

Skeletal Fragility in T2D

Robert Fajardo, UT Health Science Center, San Antonio, USA

ASBMR Symposium (Continued)

Is Now the Time for Surrogate Endpoints in Osteoporosis?

4:00 pm – 5:00 pm

Co-Chairs: Gayle Lester, Ph.D., National Institutes of Arthritis, Musculoskeletal & Skin Disease, USA;
Mary Bouxsein, Ph.D., Beth Israel Deaconess Medical Center, Harvard Medical School, USA

Introduction

Gayle Lester, Ph.D., National Institutes of Arthritis, Musculoskeletal and Skin Disease, USA

The FNIH Bone Quality Study

Dennis Black, Ph.D., UC San Francisco, USA

Clinical Perspective: What Do We Need?

Sundeep Khosla, M.D., Mayo Clinic College of Medicine, USA

Panel Discussion

Dennis Black, Ph.D., UC San Francisco, USA
Theresa Kehoe, M.D., CDER, FDA, USA
Sundeep Khosla, M.D., Mayo Clinic College of Medicine, USA

Reception and Poster Viewing

5:00pm – 6:15 pm



ASBMR provides valuable positive interactions with others in my field and supportive NIH representatives. These resources generate critical "bright spots" for researchers during this extended period of darkness due to funding scarcity.

– ASBMR 2016 Annual Meeting Attendee