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The logo features the text "ASBMR" in blue and "2014" in green, with a stylized arch over the numbers. Below this, the words "Annual Meeting" are written in a green, sans-serif font.

ASBMR[®] 2014

Annual Meeting

September 12–15, 2014
Houston, Texas, USA

Preliminary Program

The American Society for Bone and Mineral Research

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Join us in Houston this Fall!

On behalf of ASBMR, I am delighted to invite you to join us September 12-15 in Houston, Texas, USA for the ASBMR 2014 Annual Meeting.

Be a part of this year's exciting scientific program, featuring the latest discoveries in bone and mineral research. Set against the backdrop of the emerging city of Houston, this year's meeting will provide you with the opportunity to present your research, learn new concepts, make new connections and develop new ideas to strengthen and expand your own research.

Make New Connections

Meet your colleagues during numerous networking opportunities. Strengthen existing relationships, catch up with friends and develop new connections at the ASBMR Networking Center, located in the Discovery Hall. In addition, be sure to check out the networking breaks we have scheduled throughout the conference, as well as the Welcome Reception and Plenary Poster Session taking place on Friday, September 12. You also won't want to miss our networking event on Saturday evening, September 13.

Learn about Cutting-Edge Musculoskeletal Research

Experience the latest in bone and mineral research! Choose from an array of diverse sessions, including our Meet-the-Professor series, Plenary and Concurrent Oral presentations, clinical roundtables and topical symposia. Enjoy dinner while learning the latest on personalizing treatment for osteoporosis at the Clinical Evening; or how to best apply mouse models to musculoskeletal biology at the Basic Evening. Whether you're looking for new discoveries in your specific area, or are interested in learning about something new, you will find the sessions that meet your needs. In addition, check out this year's ASBMR Symposium: The Effects of Diabetes and Disordered Energy Metabolism on Skeletal Health. This special, one-day symposium will take place on September 11, the day before the start of the Annual Meeting.

This meeting is the year's "home for bone", the best opportunity to meet with leaders in the bone and mineral field to share your science. Be part of the excitement — register on or before July 17 to receive the early registration rate.

I look forward to seeing you in Houston!



Roberto Civitelli, M.D.
ASBMR President

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Visiting Houston

2014 Scientific Program Committee

ASBMR President
Roberto Civitelli, M.D.
*Washington University
in St. Louis, (USA)*

Program Co-Chairs
Stuart H. Ralston,
MBChB, M.D.
*University of Edinburgh
(United Kingdom)*

Ann V. Schwartz, Ph.D.
*University of California,
San Francisco (USA)*

Eileen M. Shore, Ph.D.
*University of Pennsylvania
(USA)*

Schedule-at-a-Glance (Official Scientific Program Overview)

Friday, September 12

8:00 am – 9:30 am	Louis V. Avioli Lecture & Award Presentations
9:30 am – 10:00 am	Break
9:30 am – 11:00 am	Publications Workshop: Improve Your Chances of Getting Published
10:00 am – 11:00 am	Meet-the-Professor Sessions
10:00 am – 11:30 am	Highlights of the ASBMR 2014 Annual Meeting Grant Writing Workshop
11:00 am – 11:30 am	Break
11:30 am – 12:45 pm	Symposium: Muscle and Bone Symposium: Bone and Inflammation
12:45 pm – 1:15 pm	Break
1:15 pm – 2:30 pm	Concurrent Orals
2:30 pm – 3:00 pm	Break
2:45 pm – 4:00 pm	Symposium: Cellular Mechanobiology
3:00 pm – 4:00 pm	ASBMR/ECTS Clinical Debate – Biochemical Markers are of Practical Value in the Routine Management of Osteoporosis
4:00 pm – 4:30 pm	Break
4:30 pm – 5:30 pm	Oral Poster Presentations
5:30 pm – 7:00 pm	Welcome Reception & Plenary Poster Session Discovery Hall Open
6:00 pm – 6:30 pm	Discovery Hall Quiz Show
8:00 pm – 10:00 pm	Speed Networking Event

Saturday, September 13

6:45 am – 8:00 am	ASBMR Networking Breakfast
8:00 am – 9:30 am	Gerald D. Aurbach Lecture & Award Presentations
9:30 am – 10:00 am	Break
9:30 am – 4:30 pm	Discovery Hall Open
10:00 am – 11:30 am	Plenary Orals
11:30 am – 12:30 pm	To Mars and Beyond: How Will We Preserve the Musculoskeletal System in Long-Term Space Flights? Meet-the-Professor Sessions Clinical Roundtable – Management of Premenopausal Women with Low Bone Density Breaking Through: Closing the Care Gap in Secondary Fracture Prevention
12:30 pm – 2:30 pm	Poster Session I & Poster Tours
2:30 pm – 4:00 pm	Concurrent Orals
4:00 pm – 4:30 pm	Break
4:30 pm – 6:00 pm	Concurrent Orals
6:30 pm – 8:30 pm	Basic Evening – Getting the Best Out of Your Animal Models
6:30 pm – 8:30 pm	Clinical Evening - Personalizing Treatment of Osteoporosis
8:30 pm – 11:30 pm	Networking Event

Schedule-at-a-Glance (Official Scientific Program Overview)

Sunday, September 14

8:00 am – 9:30 am	Plenary Symposium - Lessons from Brittle Bone Diseases: Control of Bone Mass and Quality Award Presentations
9:30 am – 10:00 am	Break
9:30 am – 4:30 pm	Discovery Hall Open
10:00 am – 11:30 am	Plenary Orals
11:30 am – 12:30 pm	Meet-the-Professor Sessions Clinical Roundtable – Management of Bone Health in CKD-MBD ENCODE Project – Supporting Musculoskeletal Research
11:30 am – 12:00 pm	The Clinical Diagnosis of Osteoporosis: Report of an NBHA Working Group
12:00 pm – 12:30 pm	International ONJ Task Force - 2014 Consensus on Diagnosis and Management
12:30 pm – 2:30 pm	Poster Session II & Poster Tours
2:30 pm – 4:00 pm	Concurrent Orals
4:00 pm – 4:30 pm	Break
4:30 pm – 5:45 pm	Symposium: Heterotopic Ossification Symposium: Falls and Fall Related Injuries
6:00 pm – 7:00 pm	ASBMR Town Hall Meeting

Monday, September 15

8:00 am – 9:30 am	Concurrent Orals
9:30 am – 10:00 am	Break
9:30 am – 3:00 pm	Discovery Hall Open
10:00 am – 11:30 am	Plenary Orals
11:30 am – 12:30 pm	Career Development Session: Identifying and Securing Alternate Funding Meet-the-Professor Sessions Clinical Roundtable – Management of Osteoporosis in Pregnancy and Pediatrics ASBMR Task Force Reports
12:30 pm – 2:30 pm	Poster Session III & Poster Tours
2:30 pm – 4:00 pm	Plenary Symposium: Next-Gen Therapies Award Presentations
4:00 pm – 5:00 pm	Closing Reception

Why Attend?

The ASBMR Annual Meeting always provides the best in scientific discoveries and networking opportunities. Whether you are a new investigator or recognized leader, attending the ASBMR Annual Meeting is time well spent. View this video for some highlights from last year, to give you a sense of what is in store for you this September.



Plenary Lectures



Louis V. Avioli Lecture

Friday, September 12 | 8:00 am – 9:30 am

What Changes Has Osteoimmunology Brought About?

Hiroshi Takayanagi, M.D., Ph.D., The University of Tokyo (Japan)

Bone is part of the skeletal system, supporting the body and enabling locomotion, while the immune system protects the host from the pathogens. Thus, the skeletal and the immune systems have totally different functions. However, bone marrow harbors immune cells, including hematopoietic stem cells, and bone homeostasis is often influenced by the activated immune responses. Therefore, osteoimmunology research on the interactions and shared molecules of the bone and immune systems has recently attracted much attention. Although osteoimmunology started mainly from studies on the pathogenesis of autoimmune arthritis, it has been shown to be implicated in a variety of disease conditions and thought to provide important insights into therapeutic strategies. Osteoimmunology sheds light on the interaction between distinct biological systems, which inspired researchers to investigate the undefined links of bone and various tissues. During this session, I will review the history and recent advances of osteoimmunology and the perspective for the osteonetwork beyond osteoimmunology.

About Dr. Hiroshi Takayanagi

By combining experiences as an orthopaedic surgeon and an immunologist, Dr. Takayanagi studied the mechanism of bone destruction in rheumatoid arthritis, which focused on the regulation of osteoclasts by T cells in the laboratory of Professor Tadatsugu Taniguchi (The University of Tokyo). He was a professor at Tokyo Medical and Dental University from 2003 to 2012 and pursued osteoimmunology. Since 2009, he has been the research director of the Takayanagi Osteonetwork Project, Exploratory Research for Advanced Technology (ERATO) Program, Japanese Science and Technology Agency (JST). In 2012, Dr. Takayanagi was appointed professor in the Department of Immunology, Graduate School of Medicine and Faculty of Medicine at The University of Tokyo.

Plenary Lectures



Gerald D. Aurbach Lecture

Saturday, September 13 | 8:00 am – 9:30 am

Selective Autophagy: Cleaning and Fueling at the Old Trash Can

Ana Maria Cuervo, M.D., Ph.D., Albert Einstein College of Medicine (USA)

Autophagy mediates the digestion of cytosolic material in lysosomes and is often the first-front of defense against cellular stress. This essential cellular process fulfills two important functions under these stress conditions: It mediates the elimination of cellular components (proteins and organelles) damaged by the stressor; and it becomes an alternative source of energy to assure cellular survival in the energetically-demanding conditions that associate to stress.

Our group is interested in the dissection of the contribution of different types of autophagy to these dual functions in cellular quality control and in maintenance of the energetic balance. In this talk, I will provide examples of two mechanisms by which autophagy regulates cellular energy through the mobilization/recycling of intracellular energy stores and through the selective degradation of key metabolic enzymes. I will also comment on the key role of autophagy in the selective removal of cellular damage and the relevance of this process as an essential component of the cellular response to proteotoxic, genotoxic and lipotoxic stressors.

Lastly, I will discuss how the generation of tissue-specific autophagy-incompetent mouse models has provided strong evidence for the existence of a cross-talk among different autophagic pathways and for the importance that these compensatory mechanisms have in aging and age-related disorders.

About Dr. Ana Maria Cuervo

Dr. Ana Maria Cuervo is the Robert and Renee Belfer Chair for the Study of Neurodegenerative Diseases, Professor in the Departments of Developmental and Molecular Biology and of Medicine of the Albert Einstein College of Medicine and co-director of the Einstein Institute for Aging Studies.

Dr. Cuervo is considered a leader in the field of protein degradation in relation to biology of aging and has been invited to present numerous lectures including the prestigious Robert R. Konh Memorial Lecture, the NIH Director's Lecture, the Roy Walford Endowed Lecture, the Feodor Lynen Lecture and the Margaret Pittman Lecture. She has organized and chaired international conferences on protein degradation and on Aging, belongs to the editorial board of scientific journals in this topic and she is currently co-Editor-in-Chief of Aging Cell and associate editor of Autophagy. She has been the recipient of prestigious awards such as the P. Benson Award in Cell Biology, the Keith Porter Fellow in Cell Biology, the Nathan Shock Memorial Lecture Award, the Vincent Cristofalo Rising Start in Aging Award, the Bennett J. Cohen award in basic aging biology and the Marshall Horwitz Prize for excellence in research. She has also received twice the LaDonne Schulman Teaching Award. Dr. Cuervo is currently member of the NIA Scientific Council and of the NIH Council on Councils.

Symposia

Symposia are sessions that feature three to four invited talks covering basic and/or clinical topics.

Friday, September 12

Bone and Inflammation

This activity is supported by an educational grant from Merck & Co., Inc.

11:30 am – 12:45 pm

Co-Chairs:

Mary Goldring, Ph.D., Hospital for Special Surgery (USA)

Roberto Pacifici, M.D., Emory University School of Medicine (USA)

Pathophysiology of Inflammatory Bone Loss

Georg Schett, M.D., Universitätsklinikum Erlangen (Germany)

Treatment of RA to Prevent Bone Erosion: Are We Doing Enough?

Ellen Gravallese, M.D., University of Massachusetts Medical School (USA)

Novel Approaches for the Prevention and Treatment of Inflammatory Bone Loss

Nancy Lane, M.D., University of California Davis Medical Center (USA)

Muscle and Bone

11:30 am – 12:45 pm

Co-Chairs:

Lynda Bonewald, Ph.D., University of Missouri, Kansas City (USA)

Mark Hamrick, Ph.D., Georgia Health Sciences University (USA)

Cancer Metastases to Bone: Regulation of Muscle Function by the Bone Microenvironment

Theresa Guise, M.D., Indiana University (USA)

Is Mettl21c Gene Associated with Osteoporosis and Sarcopenia?

Marco Brotto, BSN, Ph.D., University of Missouri, Kansas City (USA)

Muscle, Fat and Bone in Health ABC: A Molecular Epidemiology Triangle

Tamara Harris, M.D., M.S., Intramural Research Program, National Institute on Aging (USA)

Cellular Mechanobiology

2:45 pm – 4:00 pm

Co-Chairs:

Tamara Alliston, Ph.D., University of California, San Francisco (USA)

Alexander Robling, Ph.D., Indiana University (USA)

The Impact of Mechanical Forces on the Forming Embryonic Skeleton: Uncovering Molecular Mechanisms in Vivo

Paula Murphy, Ph.D., Trinity College (Ireland)

Mechanoregulation of Stem Cell Differentiation

Robert Mauck, Ph.D., University of Pennsylvania (USA)

The Interplay Between Mechanobiology and Biomechanics in Primary Cilia

Christopher Jacobs, Ph.D., Columbia University (USA)

Symposia

Symposia are sessions that feature three to four invited talks covering basic and/or clinical topics.

Sunday, September 14

Lessons from Brittle Bone Diseases: Control of Bone Mass and Quality

This activity is supported by an educational grant from Lilly

8:00 am – 9:30 am

Co-Chairs:

Brendan Lee, M.D., Ph.D., Baylor College of Medicine, Howard Hughes Medical Institute (USA)

Deborah Krakow, M.D., University of California, Los Angeles (USA)

Genetics of OI and Homeostatic Mechanisms in the Skeleton

Brendan Lee, M.D., Ph.D., Baylor College of Medicine, Howard Hughes Medical Institute (USA)

Collagen/Matrix Abnormalities

David Eyre, Ph.D., University of Washington (USA)

OI Treatment, A Multidisciplinary Approach

Francis Glorieux, M.D., Ph.D., Shriners Hospital for Children, McGill University (Canada)

Falls and Fall-Related Injuries

This activity is supported by an educational grant from Merck & Co., Inc.

4:30 pm – 5:45 pm

Co-Chairs:

Marian Hannan, DSc, MPH, HSL Institute for Aging Research, Harvard Medical School (USA)

Elizabeth Samelson, Ph.D., Hebrew Senior Life, Harvard Medical School (USA)

Epidemiology of Falls, Injurious Falls, and Fall-related Fractures

Magnus Karlsson, M.D., Ph.D., Skåne University Hospital Malmö, Lund University (Sweden)

Preventing Falls and Fall-related Injuries: Effective Interventions

Stephen Lord, Ph.D., Neuroscience Research Australia (Australia)

Falls Risk Assessment and Prevention in High Risk Patients

Clemens Becker, M.D., Robert-Bosch-Krankenhaus (Germany)

Heterotopic Ossification

This activity is supported by an educational grant from Merck & Co., Inc.

4:30 pm – 5:45 pm

Co-Chairs:

Edward Hsiao, M.D., Ph.D., University of California, San Francisco (USA)

Harald Jueppner, M.D., Massachusetts General Hospital (USA)

Heterotopic Ossification in Combat Wounds

Jonathan Forsberg, M.D., Walter Reed National Military Medical Center (USA)

Activation of Hedgehog Signaling by GNAS Inactivation Causes Ectopic Osteoblast Differentiation in POH

Yingzi Yang, Ph.D., National Institutes of Health (USA)

Pharmacological Prevention of Heterotopic Ossification

Maurizio Pacifici, Ph.D., Children's Hospital of Philadelphia (USA)

Symposia

Symposia are sessions that feature three to four invited talks covering basic and/or clinical topics.

Monday, September 15

Next-Gen Therapies

This activity is supported by an educational grant from Lilly

2:30 pm – 4:00 pm

Co-Chairs:

Dennis Black, Ph.D., University of California, San Francisco (USA)

Bente Langdahl, M.D., DMSc, Aarhus University Hospital (Denmark)

Overview of Current Treatments

Dennis Black, Ph.D., University of California, San Francisco (USA)

Nitric Oxide Donors: A Novel Way to Increase Bone Mass, Density and Strength

Sophie Jamal, M.D., Ph.D., University of Toronto (Canada)

PTH Treatment of Hypoparathyroidism

Lars Rejnmark, M.D., Ph.D., Aarhus University Hospital (Denmark)

Anti-Sclerostin Therapy

E. Michael Lewiecki, M.D., FACP, FACE, University of New Mexico School of Medicine (USA)



"As a new investigator, I really value the opportunity to interact with so many like-minded scientists. After having meaningful conversations at last year's Annual Meeting, I was able to look at my own research in a new light. Attending the ASBMR Annual Meeting is something I will do again!"

Meet-the-Professor Sessions

The Meet-the-Professor sessions are informal sessions designed to provide an opportunity for meeting attendees to interact with experts in an intimate setting to discuss specific clinical and research topics. Sessions will be held Friday through Monday.

Please be sure to purchase a Meet-the-Professor handout booklet, which contains all the handouts supplied by the professors. The booklet can be purchased when you register for \$20 USD, to be picked up on site at the Convention Center. Handout booklets will also be available in PDF format for download in advance of the meeting at no charge to meeting attendees and ASBMR members.

Please Note: Tickets are not required for these sessions; however, space is extremely limited. Interested individuals are welcome to attend these sessions on a first-come, first-served basis. Room restrictions and professor preferences will dictate number of attendees.

Friday, September 12 10:00 am – 11:00 am

Topic	Speaker	Type
Exome Sequencing and How to Identify a Disease Gene	Ingrid Holm, M.D., MPH, Boston Children's Hospital (USA) Catherine Brownstein, Ph.D., MPH, Children's Research Connections (USA)	Basic
Epigenetic Regulators	Jane Lian, Ph.D., University of Vermont College of Medicine (USA) Jonathan Gordon, Ph.D., University of Vermont (USA)	Basic
Stem Cells, iPSCs and Regeneration	Edward Hsiao, M.D., Ph.D., University of California, San Francisco (USA)	Basic
Wnt Signaling in Bone	Michaela Kneissel, Ph.D., Novartis Institutes for Biomedical Research (Switzerland) Roland Baron, D.D.S., Ph.D., Harvard School of Medicine and of Dental Medicine (USA)	Basic
Sarcopenia: Definition and Assessment	Robert McLean, DSc, Hebrew SeniorLife Institute for Aging Research and Harvard Medical School (USA)	Translational
Monoclonal Gammopathies and Bone Health	G. David Roodman, M.D., Ph.D., Indiana University (USA)	Translational
How Long Should We Treat Osteoporosis? <i>This activity is supported by an educational grant from Merck & Co., Inc.</i>	Dennis Black, Ph.D., University of California, San Francisco (USA)	Clinical
Fibrous Dysplasia	Michael Collins, M.D., National Institutes of Health (USA)	Clinical

Meet-the-Professor Sessions

Saturday, September 13 11:30 am – 12:30 pm

Topic	Speaker	Type
Bone Cells and Energy Metabolism	<i>Fanxin Long, Ph.D., Washington University School of Medicine (USA)</i>	Basic
Connexins, Cadherins, and Cell-to-Cell Signaling in Bone	<i>Pierre Marie, Ph.D., INSERM and University Paris Diderot (France)</i> <i>Teresita Bellido, Ph.D., Indiana University (USA)</i>	Basic
In Vivo Microindentation	<i>Mary Bouxsein, Ph.D., Beth Israel Deaconess Medical Center (USA)</i>	Translational
Osteopetrosis	<i>Uwe Kornak, M.D., Ph.D., Charité - Universitätsmedizin Berlin (Germany)</i>	Translational
Strong Risk Factors for Hip Fracture for Clinicians <i>This activity is supported by an educational grant from Merck & Co., Inc.</i>	<i>Steven Cummings, M.D., San Francisco Coordinating Center (USA)</i>	Clinical
Bone Health in HIV	<i>Michael Yin, M.D., Columbia University (USA)</i>	Clinical

Sunday, September 14 11:30 am – 12:30 pm

Topic	Speaker	Type
Brown Fat and Bone	<i>Beata Lecka-Czernik, Ph.D., University of Toledo College of Medicine (USA)</i>	Basic
RNA Sequencing	<i>Matthew Warman, M.D., Boston Children's Hospital (USA)</i> <i>Ugur Ayturk, Ph.D., Boston Children's Hospital (USA)</i>	Basic
Bone Microdamage	<i>Christopher Hernandez, Ph.D., Cornell University (USA)</i>	Translational
Bone Metastasis and the Bone Microenvironment	<i>Roberta Faccio, Ph.D., Washington University in St Louis School of Medicine (USA)</i>	Translational
Nutrition and Bone Health in Adolescents	<i>John Pettifor, MBBCh, Ph.D., University of the Witwatersrand (South Africa)</i>	Clinical
Clinical Management of Phosphorus Disorders	<i>Marc Drezner, M.D., University of Wisconsin-Madison (USA)</i>	Clinical

Meet-the-Professor Sessions

Monday, September 15 11:30 am – 12:30 pm

Topic	Speaker	Type
What are Mesenchymal Stem Cells?	<i>Pamela Robey, Ph.D., National Institute of Dental and Craniofacial Research (USA)</i>	Basic
The NIH Geroscience Summit	<i>Robert Jilka, Ph.D., University of Arkansas for Medical Sciences (USA)</i> <i>Joan McGowan, Ph.D., National Institute of Arthritis, Musculoskeletal & Skin Disease (USA)</i> <i>John Williams, Ph.D., National Institute on Aging (USA)</i>	Translational
Cortical Bone Modeling (and Remodeling)	<i>Ego Seeman, M.D., FRACP, Austin Health, University of Melbourne (Australia)</i>	Translational
Diet and the Microbiome	<i>Connie Weaver, Ph.D., Purdue University (USA)</i>	Translational
Using Large Databases for Osteoporosis Research	<i>Jeffrey Curtis, M.D., MPH, University of Alabama at Birmingham (USA)</i>	Clinical
Management of Atypical Femoral Fractures	<i>Angela Cheung, M.D., Ph.D., University Health Network-University of Toronto (Canada)</i>	Clinical

"Each year I am pleased to see the improvements made to the program at the ASBMR Annual Meeting. Sessions continue to cover important issues, and even though not everything discussed applies to my research, it is presented in a way that makes me want to learn more."

Special Sessions

Friday, September 12

Publications Workshop: Improve Your Chances of Getting Published

9:30 am – 11:00 am

Meet with *JBMR*® Editor-in-Chief Dr. Juliet Compston at this year's Publications Workshop. You'll learn how to improve the quality of your journal manuscripts, what *JBMR*® is looking for and how to increase your chances of getting published. Wiley Senior Marketing Manager Larry Grodsky, Wiley Executive Editor Jinnie Kim, and Wiley Associate Editor Katie Simmons will also update you on maximizing visibility for your paper, navigating the submission process and timeline, and taking advantage of the latest technology. Whether you're a new author considering submitting a paper or a seasoned journal contributor, don't miss this unique opportunity to hear directly from and interact with *JBMR*®'s editor!

Highlights of the ASBMR 2014 Annual Meeting

10:00 am - 11:30 am

This session is of interest to all health professionals, first-time meeting attendees, young investigators, individuals new to the field, nurses, clinical research study coordinators, physical therapists and/or those seeking guidance in navigating through the extensive ASBMR program.

Co-Chairs:

Betsy McClung, R.N., M.N., Oregon Osteoporosis Center (USA)

Diane Krueger, CCRC, CDT, University of Wisconsin, Madison (USA)

Basic Science Meeting Overview

Roland Baron, D.D.S., Ph.D., Harvard School of Medicine and of Dental Medicine (USA)

Clinical Science Meeting Overview

John Bilezikian, M.D., Columbia University College of Physicians and Surgeons (USA)

Grant Writing Workshop: Selling Your Science

10:00 am - 11:30 am

Sponsored by the ASBMR Membership Engagement and Education Committee

A panel of experts made up of U.S. and international researchers will offer insights on how to write a research grant that will get you funded. Panelists will review three case studies and discuss how best to write the significance section of a grant. This session will feature ample time for interactive discussion between participants, panelists and designated small-group leaders. This is a can't-miss opportunity for researchers at any career stage who want to gain valuable insight into writing a significance section and getting their research funded.

Co-Chairs:

Melissa Kacena, Ph.D., Indiana University School of Medicine (USA), Membership Engagement Committee Chair

Stavroula Kousteni, Ph.D., Columbia University Medical Center (USA), Education Committee Chair

ASBMR/ECTS Clinical Debate: Biochemical Markers are of Practical Value in the Routine Management of Osteoporosis

3:00 pm - 4:00 pm

Co-Chairs:

Kristina Akesson, M.D., Ph.D., Skane University Hospital, Malmö (Sweden)

Bente Langdahl, M.D., DMSc, Aarhus University Hospital (Denmark)

Debaters:

For the motion

William Fraser, M.D., FRCP, University of East Anglia (United Kingdom)

Against the motion

Douglas Bauer, M.D., University of California, San Francisco (USA)

Special Sessions

Saturday, September 13

Clinical Roundtable: Management of Premenopausal Women with Low Bone Density

11:30 am – 12:30 pm

This activity is supported by an educational grant from Lilly

Chair:

Sundeep Khosla, M.D., Mayo Clinic (USA)

Speakers:

Karen Miller, M.D., Massachusetts General Hospital (USA)

Elizabeth Shane, M.D., Columbia University College of Physicians and Surgeons (USA)

To Mars and Beyond – How Will We Preserve the Musculoskeletal System in Long-Term Space Flights?

11:30 am – 12:30 pm

Co-Chairs:

Robert Gagel, M.D., University of Texas M.D. Anderson Cancer Center (USA)

Jean Sibonga, Ph.D., Bone Discipline Lead, Johnson Space Center Bone and Mineral Laboratory (USA)

Greeting from the Astronauts Currently on the ISS

Opportunities for Space-based Research

Julie Robinson, Ph.D., Chief Scientist, International Space Station, Johnson Space Center (USA)

Challenges in Assessing Bone Loss and Fracture Risk in Space Flights

Eric Orwoll, M.D., Oregon Health and Science University (USA)

Probabilistic Fracture Risk Assessment

Angelo Licata, M.D., Ph.D., Cleveland Clinic Foundation (USA)

Jerry Myers, Ph.D., NASA John Glenn Research Center (USA)

Experience of ASBMR Investigators with Active Space-based Research Programs: Working with NASA

Thomas Lang, Ph.D., University of California, San Francisco (USA)

Working with Industry

Mary Bouxsein, Ph.D., Beth Israel Deaconess Medical Center, Harvard Medical School (USA)

Working with NIH

Paola Divieti Pajevic, M.D., Ph.D., Massachusetts General Hospital and Harvard Medical School (USA)

Breaking Through: Closing the Care Gap in Secondary Fracture Prevention

11:30 am – 12:30 pm

Co-Chairs:

Ethel Siris, M.D., Columbia University College of Physicians and Surgeons (USA)

John Eisman, M.B. B.S., Ph.D., FRACP, Garvan Institute of Medical Research (Australia)

Implementation of Fracture Liaison Services: International Experience

Paul Mitchell, Osteoporosis New Zealand, University of Notre Dame Australia, Synthesis Medical NZ, Ltd. (Australia)

Implementation of Fracture Liaison Services: Progress in the United States

David Lee, National Bone Health Alliance (USA)

Special Sessions

Saturday, September 13 (continued)

Basic Evening: Getting the Best Out of Your Animal Models

6:30 pm – 8:30 pm

Space is limited and available on a first-come, first-served basis. Attendees must be registered for the ASBMR 2014 Annual Meeting.

Co-Chairs:

Henry Kronenberg, M.D., Massachusetts General Hospital (USA)

Cheryl Ackert-Bicknell, Ph.D., The Jackson Laboratory (USA)

Strategies for Regulating Gene Recombination

Henry Kronenberg, M.D., Massachusetts General Hospital (USA)

Cre Drivers and Lineage Tracking

David Rowe, M.D., University of Connecticut Health Center (USA)

Analysis of Mouse Models: Histomorphometry and Imaging

Deborah Novack, M.D., Ph.D., Washington University in St. Louis School of Medicine (USA)

One-Step Generation of Mice Carrying Multiple Mutations using Guided Nucleases

Jorge Henao-Mejia, M.D., Ph.D., Yale School of Medicine (USA)

Clinical Evening: Personalizing Treatment of Osteoporosis

6:30 pm – 8:30 pm

This activity is sponsored by an educational grant from Lilly

Space is limited and available on a first-come, first-served basis. Attendees must be registered for the ASBMR 2014 Annual Meeting.

Co-Chairs:

Michael McClung, M.D., Oregon Osteoporosis Center (USA)

Felicia Cosman, M.D., Helen Hayes Hospital (USA)

Should Severe Osteoporosis Be Managed Differently?

Erik Eriksen, M.D., DMSc, Oslo University Hospital (Norway)

Glucocorticoid-Induced Osteoporosis: A Personalized Approach To Prevention and Treatment

Kenneth Saag, M.D., University of Alabama at Birmingham (USA)

Management of the Patients Who Fail to Respond to Therapy

Richard Eastell, M.D., FRCP, University of Sheffield (United Kingdom)

Special Sessions

Sunday, September 14

Clinical Roundtable: Management of Bone Health in CKD-MBD

11:30 am - 12:30 pm

Chair:

Keith Hruska, M.D., Washington University in St. Louis School of Medicine (USA)

Speakers:

Paul Miller, M.D., FACP, Colorado Center for Bone Research (USA)

Stuart Sprague, D.O., Northwestern University, Evanston (USA)

The Clinical Diagnosis of Osteoporosis: Report of an NBHA Working Group

11:30 am – 12:00 pm

An NBHA Working Group, composed of representatives of ASBMR, NOF, AAOS and the liaison to NBHA from the CDC, was charged with the task of expanding the criteria by which a diagnosis of osteoporosis can be made in postmenopausal women and men age 50 and older in the US. Ethel Siris, M.D., Columbia University College of Physicians and Surgeons, will present the report detailing the process and the conclusions.

International ONJ Task Force - 2014 Consensus on Diagnosis and Management

12:00 pm – 12:30 pm

This session will present an update on the 2014 Consensus on Diagnosis and Management by the International ONJ Task Force. The presentations will cover diagnosis and pathophysiology, incidence and prevention strategies and staging and advances in management.

Special Sessions

Monday, September 15

Clinical Roundtable: Management of Osteoporosis in Pregnancy and Pediatrics

11:30 am - 12:30 pm

Chair:

Maria Luisa Bianchi, M.D., Istituto Auxologico Italiano IRCCS (Italy)

Speakers:

Christopher Kovacs, M.D., Memorial University of Newfoundland (Canada)

Leanne Ward, M.D., Children's Hospital of Eastern Ontario (Canada)

Career Development Session: Identifying and Securing Alternate Funding Sources

11:30 am – 12:30 pm

Sponsored by the ASBMR Membership Engagement and Women in Bone and Mineral Research Committees

Investigators across all career stages are feeling the effects of the worldwide decrease in research funding availability. In this session, investigators who have successfully sought alternate funding sources will share their tips for partnering with industry and identifying funding opportunities from philanthropic organizations. This session is designed for investigators at all career stages. The audience will have the opportunity to ask questions.

Co-Chairs:

Teresita Bellido, Ph.D., Indiana University School of Medicine (USA), Women in Bone and Mineral Research Committee Chair

Melissa Kacena, Ph.D., Indiana University School of Medicine (USA), Membership Engagement Committee Chair

Speakers:

Peter Ebeling, M.D., FRACP, Monash University (Australia)

Theresa Guise, P.h.D., Indiana University (USA)

ASBMR Task Force Reports

11:30 am – 12:30 pm

This session will feature presentations from the ASBMR Task Force on Managing Osteoporosis Patients after Long-term Bisphosphonate Treatment and the ASBMR-NOF Task Force on Goals for Osteoporosis Treatment.



Networking and Social Opportunities

Friday, September 12

Welcome Reception and Plenary Poster Session

5:30 pm – 7:00 pm

Attendees are invited to meet and mingle during our Wine and Cheese Welcome Reception and Plenary Poster Session in the ASBMR Discovery Hall.

NIH Lounge

Representatives from the U.S. National Institutes of Health (NIH) and the Center for Scientific Review (CSR) will be available in the NIH Lounge in the ASBMR Networking Center to discuss grant proposals and ideas. Program staff from the following institutes and centers will be available to talk with you:

- National Institute of Arthritis and Musculoskeletal and Skin Diseases (NIAMS)
- National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK)
- National Cancer Institute (NCI)
- National Institute of Dental and Craniofacial Research (NIDCR)
- National Institute on Aging (NIA)
- National Institute of Child Health and Human Development (NICHD)
- Center for Scientific Review (CSR)

Young Investigator and New Member Lounge

All young investigator and new member attendees are invited to visit the Young Investigator Lounge, located in the ASBMR Networking Center in the Discovery Hall. Don't miss this opportunity to make new friends and expand your network of colleagues.

Discovery Hall Quiz Show

Young Investigators are invited to participate in the 2nd Annual ASBMR Discovery Hall Quiz Show. This fast paced trivia game will test your knowledge of bone science and ASBMR history, and will feature cash prizes for all who play. Moderated by Larry Suva, this is a fun event for participants and spectators. If you're interested in participating, please email asbmr@asbmr.org.

Young Investigator and New Member Reception

5:30 pm – 7:00 pm

Sponsored by the ASBMR Membership Engagement Committee and Young Investigator Subcommittee

The ASBMR Membership Engagement Committee and Young Investigator Subcommittee members will be in attendance for this meet-and-greet networking event. The reception has been organized to promote interactions among young investigators and ASBMR leadership so that they may begin building a network of career-long contacts. The New Investigator Reception will be held concurrently with the Welcome Reception and the Plenary Poster Session in the Young Investigator Lounge in the ASBMR Networking Center in the Discovery Hall.

Diversity in Bone and Mineral Research Reception

5:30 pm – 7:00 pm

Sponsored by the ASBMR Membership Engagement Committee and Minority Subcommittee

This reception provides attendees the opportunity to meet other attendees and ASBMR leadership, including the ASBMR Diversity in Bone and Mineral Research Subcommittee, creating an environment of interaction. The Reception will be held concurrently with the Welcome Reception and the Plenary Poster Session in the Young Investigator Lounge in the ASBMR Networking Center in the Discovery Hall.

Networking and Social Opportunities

Friday, September 12 (continued)

Young Investigator and Diverse Member Networking Hour

7:15 pm – 8:00 pm

Sponsored by the ASBMR Membership Engagement Committee, Diversity in Bone and Mineral Research Subcommittee and Young Investigator Subcommittee

Young Investigators and diverse members who wish to continue building connections with peers in a fun and informal setting are invited to attend this event, which will precede the speed networking event. Sign up to attend when you register for the meeting.

Speed Networking Event

8:00 pm – 10:00 pm

Sponsored by the Women in Bone and Mineral Research and Membership Engagement Committees

Registration fee: \$35 (\$15 students/trainees)

The annual Speed Networking Event provides you with a networking experience like no other. You will have an opportunity to meet more than 10 researchers and, in short networking conversations, learn about them and introduce yourself. Come prepared with a two-minute introduction that “sells” who you are and what you do, and don’t forget your business cards! This is an opportunity to learn networking skills and meet members in all career stages and across various scientific specialties. A reception will follow the event.

Saturday, September 13

ASBMR Networking Breakfast

6:45 am – 8:00 am

Sponsored by the ASBMR Membership Engagement Committee

New Investigators, new ASBMR members and young and diverse investigators are invited to join ASBMR leadership, senior investigators and NIH Representatives for an informal networking breakfast. Attendees will have the opportunity to network with senior investigators at tables assigned by research topic. Breakfast will be provided. Sign up to attend when you register for the meeting.

ASBMR Networking Event

8:30 pm – 11:30 pm

This activity is supported by Lilly

Enjoy an engaging and energetic live music performance with Howl at the Moon’s world famous **dueling piano** show! Build new connections, meet with old friends, and dance the night away while listening to experienced musicians perform a medley of songs that will satisfy your musical tastes, no matter what your favorite genre is.

Networking and Social Opportunities

Sunday, September 14

ASBMR Annual Town Hall Meeting and Reception

6:00 pm – 7:00 pm

You are invited to attend the ASBMR Annual Town Hall Meeting and Reception where you will learn about the Society, including the year in review, planned activities, strategic directions and leadership opportunities. Come learn more about ASBMR, meet with ASBMR leadership, ask questions during an “open-mic” time, and enjoy a wine and cheese reception.

Ongoing Opportunities

ASBMR Networking Center

Located in the ASBMR Discovery Hall, the ASBMR Networking Center is a central spot to meet up with old colleagues and to make new connections. It's also a great place to meet our friendly ASBMR staff, to hold discussions with NIH representatives, and enjoy free WiFi.

Meet-the-Professor Sessions

The Meet-the-Professor sessions are informal sessions designed to provide an opportunity to interact with experts in an intimate setting and discuss specific clinical and research topics. The sessions will be held Friday through Monday. Please be sure to purchase a Meet-the-Professor Handout Booklet that contains all the handouts supplied by the professors. The booklet can be purchased when you register for \$20 USD, to be picked up on site at the Convention Center. Handout booklets will also be available in PDF formation for download in advance of the meeting at no charge to meeting attendees and ASBMR members. A full list of sessions can be found on page 11.

Poster Tours

Sponsored by the ASBMR Education Committee

Back by popular demand, the Annual Meeting Poster Session Tours will take place during each of the three poster sessions on Saturday, September 13, Sunday, September 14 and Monday, September 15. These poster tours will be guided by prominent scientists in the bone field to assist attendees in navigating the science within the poster hall. Participants will be able to choose between tours focused on either basic or clinical science. The tours will begin at the ASBMR Networking Center located in Discovery Hall in the Convention Center and will last approximately 60 minutes. Please visit the ASBMR website in mid-August to sign up to attend one of these exciting poster tours.

Working Groups

Working Groups are small interactive evening sessions organized around focused topics of special interest to you and others in your specific area of study. They are part of the ASBMR Ancillary Program and are organized by members independent of the official ASBMR program. Additional tickets are required.

Immerse Yourself in Discovery: The ASBMR Discovery Hall

Travel beyond the traditional exhibit hall and enter the ASBMR Discovery Hall, a truly unique experience in one central location.



Discover Innovation

With approximately 1,500 poster presentations to browse, this is your opportunity to learn about the newest insights in bone science, presented by your colleagues. Take part in a 60 minute Poster Tour guided by prominent scientists in the bone field as you explore the latest science.

Discover Opportunities

Making connections with colleagues is what brings the Annual Meeting to life. Visit the ASBMR Networking Center to network with meeting attendees. Find an opportunity for collaboration, or just learn more about what someone else is working on!

Discover Entertainment

Back by popular demand, ASBMR is pleased to present our second annual Discovery Hall Quiz Show! This fast-paced trivia game will test your knowledge of bone science and ASBMR history, and will feature cash prizes for all who play.

Discover Solutions

Visit our exhibitor booths to learn about the newest products and services that can help you in your lab or clinic. Make sure you get your raffle card signed for a daily chance to win an iPad!

Find everything you need in the ASBMR Discovery Hall!

ASBMR Symposium:

The Effects of **Diabetes** and
Disordered Energy Metabolism
on **Skeletal** Health

September 11, 2014 | 8:00 am – 5:00 pm

George R. Brown Convention Center | Houston, Texas, USA

Supported in part by an educational grant from Lilly

The ASBMR Symposium: The Effects of Diabetes and Disordered Energy Metabolism on Skeletal Health will be held one day prior to the ASBMR 2014 Annual Meeting. This special one-day symposium has been organized in an effort to present the latest research on the effects of diabetes and energy metabolism on bone, provide a venue for investigators to interact across traditional barriers and promote a new level of maturity for this rapidly expanding interdisciplinary research. *Separate registration fee is required.*

Continental Breakfast

8:00 am – 9:00 am

Advances in Understanding Insulin Resistance

9:00 am – 10:15 am

Chairs:

Solomon Epstein, M.D., FRCP, Mount Sinai School of Medicine (USA)

Beata Lecka-Czernik, Ph.D., University of Toledo College of Medicine (USA)

An Epigenomic and Transcriptional Basis for Insulin Resistance

Evan Rosen, M.D., Ph.D., Beth Israel Deaconess Medical Center (USA)

Adipose Tissue, Insulin Resistance and Systemic Metabolic Flexibility

Philipp Scherer, Ph.D., University of Texas Southwestern Medical Center (USA)

The Regulation of Glucose Metabolism by Bone and its Implication

Gerard Karsenty, M.D., Ph.D., Columbia University (USA)

Break and Poster Viewing

10:15 am – 11:00 am

Lessons from Preclinical Models of Diabetes and Bone

11:00 am – 12:15 pm

Chairs:

Roberto Fajardo, Ph.D., University of Texas Health Center, San Antonio (USA)

John Fowlkes, M.D., University of Arkansas for Medical Sciences (USA)

Skeletal Phenotype of Preclinical T1DM Models: Mechanisms Underlying Reduced Bone Formation

Laura McCabe, Ph.D., Michigan State University (USA)

Fat Metabolic Status and Bone

Beata Lecka-Czernik, Ph.D., University of Toledo College of Medicine (USA)

Role of the Skeleton in Insulin Signaling and Glucose Homeostasis

Stavroula Kousteni, Ph.D., Columbia University Medical Center (USA)

Effects of Advanced Glycation End Products on Bone

Deepak Vashishth, Ph.D., Rensselaer Polytechnic Institute (USA)

Lunch and Poster Viewing

12:15 pm – 1:30 pm

Human Bone Metabolism in Diabetes

1:30 pm – 2:45 pm

Chairs:

Mary Bouxsein, Ph.D., Beth Israel Deaconess Medical Center (USA)

Nicola Napoli, M.D., University Campus Biomedico (Italy)

Biochemical Markers: Novel Regulators of Bone Metabolism in Diabetes

Mishaela Rubin, M.D., Columbia University (USA)

Beyond DXA: Imaging in Diabetes

Thomas Link, M.D., University of California, San Francisco (USA)

**Bone Material Properties in Type 2 Diabetes: Is Skeletal Deterioration
Another Diabetic Complication?**

Sundeep Khosla, M.D., Mayo Clinic (USA)

Break and Poster Viewing

2:45 pm – 3:15 pm

Clinical Management

3:15 pm – 4:45 pm

Chairs:

Christian Meier, M.D., University Hospital Basel (Switzerland)

Clifford Rosen, M.D., Maine Medical Center (USA)

New Diabetes Treatment and Bone

Christian Meier, M.D., University Hospital Basel (Switzerland)

Identifying Diabetic Patients at High Risk of Fracture

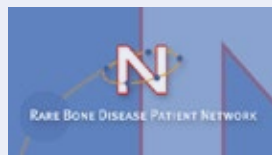
William Leslie, M.D., FRCPC, University of Manitoba (Canada)

**Options for Pharmacological Treatment of Osteoporosis in the Patient with
Diabetes**

- **Currently Available Therapies:** Clifford Rosen, M.D., Maine Medical Center (USA)
- **Novel Therapies:** Sophie Jamal, M.D., University of Toronto (Canada)

Clinical Management: What's Known and Where is More Research Needed?

Panel Discussion with Program Speakers



National Bone Health Alliance/Rare Bone Disease Patient Network Workshop: **Mechanistic and Therapeutic Insights into Skeletal Biology Learned from the Study of Rare Bone Diseases**

Thursday, September 11, 2014 | 8:00 am – 6:00 pm
George R. Brown Convention Center | Houston, Texas, USA

To date, nearly 500 unique rare bone diseases have been described, which in the aggregate affect 1 in 5,000 live births, and comprise 5% of all birth defects. Typically, the disability caused by these diseases affects individuals throughout their lives. Currently, the vast majority of these disorders have no cure, yet studying rare bone diseases has helped elucidate biological pathways and reveal valuable targets for drug discovery that are benefitting patients with common bone diseases too.

This one-day workshop will include lectures by invited speakers and multiple opportunities to initiate collaborations and encourage future research partnerships. Following the workshop will be a networking reception and posters presentations. *Separate registration fee is required.*

Session I, Part I

Moderator

Jacqui Hecht, University of Texas (USA)

The Nosology of Rare Bone Diseases Based upon their Clinical, Radiographic, Histologic, Biochemical and Molecular Characteristics

Deborah Krakow, University of California, Los Angeles (USA)

Osteoblast and Osteocyte Biology

Lynda Bonewald, University of Missouri (USA)

Osteoclast Biology

Stuart Ralston, University of Edinburgh (UK)

Session I, Part II

Moderator

Henry Kronenberg, Massachusetts General Hospital (USA)

Chondrocyte Biology

Maurizio Pacifici, Children's Hospital of Pennsylvania (USA)

Vascular Biology

Bjorn Olsen, Harvard University (USA)

Matrix Biology

Brendan Lee, Baylor College of Medicine (USA)

Questions about this workshop? Please contact Taylor Wallace at
+1 (202) 721-6363 or taylor.wallace@nbha.org

Lunch/Keynote Lecture

Coupling Knock in Mice with Massively Parallel Sequencing to Unravel the Role of Runx2 in Transcriptional Regulation of Bone Cell Differentiation and Function

Andy McMahon, University of Southern California (USA)

Session II, Part I

Moderator

Christopher Niyibizi, Pennsylvania State University, (USA)

Treating Osteoclast Over-Activity with Bisphosphonates and Interferon

Graham Russell, University of Oxford (United Kingdom)

Treating Hypophosphatasia by Targeting Enzyme Replacement Therapy to Bone

Michael Whyte, Shriners Hospital, St. Louis (USA)

Treating Skeletal Fragility by Antibody-Based Inhibition of Wnt or TGF β Antagonists

Matthew Warman, Boston Children's Hospital (USA)

Session II, Part II

Moderator

Laura Tosi, Children's National Medical Center (USA)

Small Molecule Inhibitors of the mTor Signaling Pathway

Denise Adams, Cincinnati Children's Hospital (USA)

Promotion of Skeletal Anabolism using Synthetic Polypeptides

Laurence Legeai-Mallet, INSERM, Paris (France)

2014 Ancillary Programs

Thursday, September 11	Friday, September 12	Sunday, September 14
8:00 am – 3:00 pm National Osteoporosis Foundation (NOF) Fracture Liaison Service (FLS) Model of Care Training	7:15 pm – 9:30 pm Pediatric Bone and Mineral Working Group 7:30 pm – 9:30 pm Bone Turnover Markers Working Group 7:30 pm – 9:30 pm Muscle and Bone Working Group	7:15 pm – 9:45 pm Bone Strength Working Group 7:15 pm – 9:45 pm Nutrition Working Group 7:15 pm – 9:15 pm Working Group on Musculoskeletal Rehabilitation 7:30 pm – 10:00 pm Adult Bone and Mineral Working Group

ASBMR Expectation of Authors and Presenters

The 2014 Ancillary Program is not part of the ASBMR Official Scientific Program. However, ASBMR expects that all authors and presenters affiliated with the ASBMR 2014 Annual Meeting and the 2014 Ancillary Program will provide informative and fully accurate content that reflects the highest level of scientific rigor and integrity. This includes the presentations at the 2014 Ancillary Meetings — the International Society for Clinical Densitometry (ISCD) courses and working groups.

ASBMR depends upon the honesty of the authors and presenters and relies on their assertions that they have had sufficient full access to the data and are convinced of its reliability.

Working Groups

To round out an attendee's educational experience, working groups are interactive meetings related to a focused topic not specifically addressed in the ASBMR Official Program. These meetings are organized by ASBMR members and not initiated by industry. Please note that working groups are not part of the ASBMR official program and have been organized by the parties indicated.

Working Group Registration Procedures

Tickets for all working groups are available on a first-come, first-served basis through pre-registration and during on-site registration hours, space permitting. We strongly encourage you to pre-register online. Waiting lists are not maintained for working groups that have met their attendance limit.

2014 Ancillary Programs

Thursday, September 11

National Osteoporosis Foundation (NOF) Fracture Liaison Service (FLS) Model of Care Training

8:00 am – 3:00 pm

Osteoporosis is responsible for approximately two million fractures every year, yet less than 25 percent of older women who suffer from a fracture are tested or treated for osteoporosis. The solution to changing the nearly 75 percent care gap in existence today is the widespread implementation of FLS programs. Over the past 15 years of operation in the U.S. and internationally, the FLS model of care has been proven to improve patient outcomes and significantly reduce the incidence of secondary fractures.

The comprehensive FLS curriculum is designed to help doctors, nurse practitioners, physician assistants, registered nurses and other healthcare professionals navigate the complicated coordination of care process across hospitals, medical offices and multiple medical specialties in the community to ensure that fracture patients receive appropriate osteoporosis testing, diagnosis, treatment and ongoing support after they leave the hospital. The program aims to help healthcare professionals who seek to:

- Become FLS coordinators
- Learn FLS program fundamentals
- Incorporate principals of the FLS model of care into their current practice
- Start an FLS program on their own

The one-day training program will cover:

- FLS basics
- Database and practice issues and
- Resource allocation

CME/CNE/CE credit will be offered for this session.

FLS Certificate Program: Participants will be able to complete requirements for an FLS Certificate by participating in several additional online CME/CE activities available from the National Osteoporosis Foundation.

**For more information or to register, please visit www.nof.org/hcp.
The deadline to register is August 25.**

Friday, September 12

Pediatric Bone and Mineral Working Group

7:15 pm – 9:30 pm

Supported by an educational grant from Ultragenyx

Registration fee: \$35

The Pediatric Bone and Mineral Working Group will convene its 31st annual meeting to hear scientific presentations and engage in discussion regarding discoveries relevant to pediatric bone and mineral diseases, healthy skeletal development, and advances in diagnostic and therapeutic modalities. In addition to our keynote speaker, we will be accepting abstracts for presentation. Four abstracts will be chosen, each to deliver a 15 minute oral presentation. Abstracts submitted for the Pediatric Bone and Mineral Working Group can also be submitted separately to the main ASBMR program. Abstracts should be submitted via email to one of the program co-chairs noted below.

For more information, please contact:

Peter Tebben, M.D.
Mayo Clinic
(507) 284-3300
tebben@mayo.edu

Farzana Perwad M.D.
University of California, San Francisco
(415) 476-2423
PerwadF@peds.ucsf.edu

2014 Ancillary Programs

Friday, September 12 (continued)

Bone Turnover Markers Working Group

7:30 pm – 9:30 pm

Registration Fee: \$30

Update on New Bone Turnover Markers and the Ongoing Efforts to Improve Quality for Clinical Use

The area of bone turnover measurement continues to evolve rapidly. This year, the meeting will address some of the newer bone turnover biomarkers, such as sclerostin, Dickkopf-1 and others, and explore the biologic information provided by each one. Building upon last year's successful discussion and debate about the clinical utility of bone turnover markers, there will also be a progress report on the efforts to standardize bone turnover assays and develop robust normative data.

A light dinner will precede the program.

For more information, please contact:

Douglas C. Bauer, M.D.
University of California, San Francisco
(415) 514-8039
dbauer@psg.ucsf.edu

Muscle and Bone Working Group

7:30 pm – 9:30 pm

Eleventh Annual Meeting

Registration Fee: \$30

The Muscle Strength-Bone Strength Relationship in the Young and Old

The largest forces on skeletons come from muscles contractions. This suggests that changes in muscle strength should cause changes in bone strength. This idea has been tested and observed in several studies of growing children, immobilized individuals and in the elderly. There will be five 20-minute expert talks about specific aspects of the muscle bone interaction in these varied populations. A box dinner will precede the program.

For more information, please contact:

Christopher L. Gordon, Ph.D.
McMaster University, Department of Radiology
(905) 628-5677
chrisgordon@sympatico.ca

2014 Ancillary Programs

Sunday, September 14

Nutrition Working Group

7:15 pm – 9:45 pm

Supported by an educational grant from Dairy Research Institute

Registration Fee: \$35

Interaction of physical activity and nutrients on bone – New developments

There is much evidence for an interaction between nutrients and physical activity on bone, yet these topics are typically discussed and often examined in isolation. Both are important lifestyle recommendations for treating osteoporosis both in the presence and absence of medication. There will be a five-minute overview, followed by three 25-minute expert talks on exercise with specific topics including visceral adipose tissue, the nutrient interaction with disuse, and the neuromuscular benefits of vitamin D and protein. Ample time will be allocated for questions and answers, and there will be a short summation. A plated dinner will be served with the program.

For more information, please contact:

Sue Shapses, Ph.D.

Rutgers University

shapses@aesop.rutgers.edu

Bone Strength Working Group

7:15 pm - 9:30 pm

Sponsored by the Canadian Bone Strength Working Group

Registration fee: \$35

This year, the program will consist of short oral presentations followed by a keynote debate. The top 5 abstracts related to bone strength will be selected from the ASBMR Poster program for oral presentation. The keynote debate topic will be: "Atypical fractures are a function of biomechanical factors and not reduction in bone turnover." Arguing for the motion will be Professor Marjolein van der Meulen from Cornell University, and arguing against the motion will be Professor David Burr from Indiana University. After the debate, there will be time set aside for questions, discussion and a final vote. A plated dinner will precede the program.

For more information, please contact:

Richard Kremer, M.D., Ph.D.

McGill University Health Center

(514) 843-1632

richard.kremer@mcgill.ca

Angela Cheung, M.D., Ph.D.

University of Toronto

(416) 340-4301

angela.m.cheung@gmail.com

2014 Ancillary Programs

Sunday, September 14 (continued)

Working Group on Musculoskeletal Rehabilitation

7:15 pm – 9:15 pm

16th Annual Meeting

Registration Fee: \$25

The program will be selected by core members of our working group from submitted abstracts to the ASBMR official program using the following key words: exercise and effects of bone, joints, and muscles, as well as bone markers; exercise to improve fitness in order to prevent falls, frailty and sarcopenia; nutrition; orthopaedics (mechanical loading); treatments (non-pharmacological treatment), rehabilitation measures for hip fractures. In addition, special lectures highlighting new developments in the field will be given. These lectures will be invited by the scientific committee of our group ("Core Members").

For more information, please contact:

Mehrsheed Sinaki, M.D.
Mayo Clinic and Mayo Clinic College
of Medicine
(507) 284-2608
sinaki.mehrsheed@mayo.edu

Michael Pfeifer, M.D.
Institute of Clinical Osteology
+49-5281-151414
mdrpfeifer@aol.com

Adult Bone and Mineral Working Group

7:30 pm – 10:00 pm

Registration fee: \$45

The ABMWG is one of the oldest working groups of the ASBMR. The ABMWG meeting presents an historical vignette, and is followed by a didactic forum in which several peer reviewed oral abstracts dedicated to clinical metabolic bone and mineral disorders are presented and scrutinized by rigorous attendee dialogue. ABMWG attendees/discussants are internationally revered clinical bone scientists, clinical bone educators and trainees in diseases related to bone and mineral metabolism. The ABMWG also bestows the coveted Boy Frame Award for "Excellence in Clinical Research" at its annual meeting. A buffet dinner will precede the program.

For more information, please contact:

Vin Tangpricha, M.D., Ph.D.
Emory University School of Medicine
vin.tangpricha@gmail.com

General Information

Intended Audience

The ASBMR 2014 Official Scientific Program is designed for researchers, physicians and other health and allied health professionals with interests in:

- Biomechanics
- Cell biology
- Dentistry
- Endocrinology
- Epidemiology
- Genetics
- Metabolism and musculoskeletal research
- Molecular biology
- Nephrology
- Pathology
- Pharmacology
- Physiology
- Rheumatology

Meeting Objectives

Upon returning home from the meeting, participants should be able to:

- Identify and discuss the most current and significant advances in biomedical and clinical research in bone and mineral metabolism and better understand the interrelationship among basic research, clinical research and patient care.
- Improve the ability to treat and care for patients through an enhanced knowledge of osteoporosis, other diseases of bone, basic bone biology and its correlation to mineral metabolism.
- Develop and apply new and enhanced strategies for the assessment, diagnosis and treatment of patients at risk for or with osteoporosis and improve the ability to treat and care for patients.

Continuing Medical Education (CME)

This educational activity has been planned and implemented in accordance with the Essential Areas and policies of the Accreditation Council for Continuing Medical Education (ACCME) through the joint sponsorship of Duke CME and the American Society for Bone and Mineral Research (ASBMR). Duke CME is accredited by the ACCME to provide continuing medical education for physicians.

AMA PRA Statement

Duke CME designates this educational activity for a maximum of 29.5 AMA PRA Category 1 Credits™. Physicians should only claim credit commensurate with the extent of their participation in the activity.

Online CME

The CME online evaluation will be available beginning Thursday, September 18. Please Note: There will be a \$50 fee per application. This fee can be paid when you register for the Annual Meeting. Please check the Continuing Medical Education Credits (CME) box under Optional Events and Products. Should you have questions, contact the ASBMR Business Office at asbmr@asbmr.org or (202) 367-1161.

Disclosure Policy

The American Society for Bone and Mineral Research is committed to ensuring the balance, independence, objectivity and scientific rigor of all its individually sponsored or industry-supported educational activities. Accordingly, the ASBMR adheres to the requirement set by ACCME that audiences at jointly sponsored educational programs be informed of a presenter's (speaker, faculty, author or planner) academic and professional affiliations, and the disclosure of the existence of any significant financial interest or other relationship a presenter or their spouse has with any proprietary entity over the past twelve months producing, marketing, re-selling or distributing health care goods or services, consumed by, or used on patients, with the exemption of non-profit or government organizations and non-health care related companies. When an unlabeled use of a commercial product, or an investigational use not yet approved for any purpose, is discussed during the presentation, it is required that presenters disclose that the product is not labeled for the use under discussion or that the product is still investigational. This policy allows the listener/attendee to be fully knowledgeable in evaluating the information being presented. The On-Site Program book will note those speakers who have disclosed relationships, including the nature of the relationship and the associated commercial entity.

Disclosure should include any relationship that may bias one's presentation or which, if known, could give the perception of bias. This includes relevant financial relationships of a spouse or partner. Disclosures will be printed in the program materials. These situations may include, but are not limited to: 1) Stock options or bond holdings in a for-profit corporation or self-directed pension plan; 2) Research grants; 3) Employment (full or part-time); 4) Ownership or partnership; 5) Consulting fees or other remuneration (payment); 6) Non-remunerative positions of influence such as officer, board member, trustee or public spokesperson; 7) Receipt of royalties; 8) Speaker's bureau; 9) Other.

ASBMR Expectation of Authors and Presenters

Through ASBMR meetings, the Society promotes excellence in bone and mineral research. To that end, ASBMR expects that all authors and presenters affiliated with the ASBMR 2014 Annual Meeting and the 2014 Ancillary Program will provide informative and fully accurate content that reflects the highest level of scientific rigor and integrity.

ASBMR depends upon the honesty of the authors and presenters and relies on their assertions that they have had sufficient full access to the data and are convinced of its reliability.

Furthermore, ASBMR expects that:

- Authors and presenters will disclose any conflicts of interest, real or perceived.
- Authors of an abstract describing a study funded by an organization with a proprietary or financial interest must affirm that they had full access to all the data in the study. By so doing, they accept complete responsibility for the integrity of the data and the accuracy of the data analysis.
- The content of abstracts, presentations, slides and reference materials must remain the ultimate responsibility of the author(s) or faculty.
- The planning, content and execution of abstracts, speaker presentations, slides, abstracts and reference materials should be free from corporate influence, bias or control.
- All authors and presenters (invited and abstracts-based oral and poster presenters) should give a balanced view of therapeutic options by providing several treatment options, whenever possible, and by always citing the best available evidence.

In addition, ASBMR's meeting evaluations will seek feedback regarding commercial bias at ASBMR Annual Meeting sessions, including the 2014 Ancillary Program.

Annual Meeting Resource Materials

2014 Abstracts Book

The 2014 Abstracts book is published as a supplement of the *Journal of Bone and Mineral Research (JBMR®)*. A limited number of the 2014 Abstracts books will be printed and available for purchase and pick-up on site in Houston. To obtain a copy, you must order it in advance through the registration form by July 17. The price of the book is \$50 USD. The 2014 Abstracts book will also be available in PDF format for download in advance of the meeting at no charge to meeting attendees and ASBMR members.

2014 Abstracts Online Program

Only ASBMR members and pre-registered Annual Meeting attendees will be able to access the 2014 Abstracts Online Program before the Annual Meeting. This tool can be used to help you search for and review abstract presentations, as well as plan your meeting itinerary. You may access this convenient program via the ASBMR website at www.asbmr2014.org starting in mid-August.

Meet-the-Professor Handout Booklet

The Meet-the-Professor Handout Booklet contains all the handouts supplied by the professors in one convenient booklet. The booklet can be purchased in advance through the registration form for \$20 USD to be picked up on site. Handout booklets will also be available in PDF format for download in advance of the meeting at no charge to meeting attendees and ASBMR members.

On-Site Program Book

Supported by an educational grant from Lilly

As a registered meeting attendee you will receive an On-Site Program book once you arrive at the Convention Center and check in at the registration counter. This book contains a detailed schedule and description of the events for the entire meeting, including the Ancillary Program.

ASBMR Mobile App

This free smartphone app is a mobile version of the on-site program book and includes the meeting abstracts. The app also features general meeting information, exhibitor listings and detailed maps of the convention center. The app will be available to download in mid-August.

Ancillary Meetings

If you are looking to connect with colleagues on a special topic or reconnect with former classmates for a mini reunion, we have a process that might help you. Space is limited, so please submit your application before July 11 for best availability. For more information, visit www.asbmr2014.org.

2014 Supporters

ASBMR would like to thank our 2014 Supporters for their participation in the ASBMR Annual Meeting.

Platinum Level



Answers That Matter.



Gold Level

Silver Level



Bronze Level



Friend Level



KYOWA KIRIN



ultragenyx
pharmaceutical

The ASBMR scientific program is developed by the Society's Annual Meeting Program Committee prior to, and independent of, educational grant support. In accordance with the standards of ACCME and Duke CME, the commercial supporters of this meeting have no influence regarding topics or speakers.

As of June 16, 2014.

Registration Information

Take advantage of the best conference rates by registering on or before **Thursday, July 17!**

ASBMR 2014 Annual Meeting Registration Fees

	On or before July 17		July 18 – September 10		One-day Pre-Meeting* Only
	Annual Meeting Only	Annual Meeting with Pre-Meeting	Annual Meeting Only	Annual Meeting with Pre-Meeting	
Member	\$385	\$510	\$510	\$635	\$275
Non-Member	\$710	\$835	\$835	\$960	\$275
Student/Resident/Fellow Member	\$235	\$285	\$285	\$335	\$175
Student/Resident/Fellow Non Member	\$335	\$385	\$385	\$435	\$175
Allied Health Professional	\$335	\$385	\$385	\$435	\$175

*Pre-Meeting Program options include either the ASBMR Symposium: *The Effects of Diabetes and Disordered Energy Metabolism on Skeletal Health* or the NBHA/RBDPN Workshop: *Mechanistic and Therapeutic Insights into Skeletal Biology Learned from the Study of Rare Bone Diseases*. The Pre-Meeting Programs will be held on Thursday, September 11 at the George R. Brown Convention Center in Houston, Texas, USA.

Please Note: Attendees will be charged an additional \$50 fee to register on site.

Extra Events and Resources

Working Groups	Fees vary from \$25 – \$50 per ticket
ASBMR Networking Event	One ticket included in Annual Meeting registration fee
Speed Networking Event	\$35 per ticket/\$15 for students
2014 Abstracts Book	\$50 per print copy (PDF will be posted online for download free of charge to attendees)
Meet-the-Professor Handout Book	\$20 per print copy (PDF will be posted online for download free of charge to attendees)
Continuing Medical Education Credits	\$50 application fee
Exhibit Hall Only	\$100 per guest/\$150 after July 17

All prices are in US dollars.

Registration Information

ASBMR Members Receive Valuable Savings

The Value of ASBMR Membership



Invest \$250 and save more than \$2,000!

Get Connected and Save with ASBMR Membership

\$250

\$250 - Full Member

*In-Training membership is only \$80 and includes all member benefits

What a Non-Member Would Pay

\$2,310

Members Receive Unlimited Access:

All ASBMR online content, abstracts, career center, weekly e-News, opportunity to engage with thought leaders in the field, advocacy efforts, grant opportunities and more

\$745

Journal of Bone and Mineral Research (JBMR) Subscription

\$710

ASBMR Annual Meeting registration (members receive discounted registration)

\$130

Primer on Metabolic Bone Diseases and Disorders of Mineral Metabolism

\$725

ASBMR Education Resource Center, value of material available to ASBMR members in 2014

Not a member? Join Now!

What's included with registration fees?

Annual Meeting Registration fees entitle the registrant to:

- Admission to all sessions, which includes over 30 hours of educational content
- Admission to the ASBMR Discovery Hall, which includes over 1,500 scientific posters
- Friday's Welcome Reception
- Saturday Evening's Networking Event
- All coffee breaks
- Digital copy of the 2014 Abstracts book and Meet-the-Professor handout booklet
- Access to the abstracts online and itinerary builder
- Unlimited networking opportunities to collaborate with other leaders in the field

Pre-Meeting Registration for *ASBMR Symposium: The Effects of Diabetes and Disordered Energy Metabolism on Skeletal Health* entitles the registrant to:

- Admission to one full day symposium on Thursday, September 11
- Continental breakfast, coffee breaks and lunch on Thursday, September 11
- Access to symposium posters
- Print copy of symposium abstracts

Registration Information

Refunds/Substitutions

Refunds for Annual Meeting registrations will be made if cancellation is received in writing by July 17, 2014. The Pre-Meetings and the items listed in the Extra Events and Resources section on page 36 are non-refundable at any time. Only current members at the time of registration are eligible for discounted member registration rates. ASBMR does not refund the difference in registration fees paid by individuals who register as non-members and later apply/are accepted as members. All refunds will be processed after the Annual Meeting and will be assessed a \$100 administrative fee.

There is no charge for substitutions. Eligibility requirements for Member or Student rates will apply. Late registration rates may apply to substitutions made after July 17, 2014. Once a badge is printed, changes can only be made on site. Badge sharing is not allowed.

Admission Policy

ASBMR shall have sole control over all admission policies at all times. Any person (including family members) visiting the exhibits/posters or attending any function of the meeting is required to register and wear an appropriate badge while in attendance. Children age 12 and under are not permitted in the Discovery Hall at any time. There are no exceptions to this policy. If child care is required, please make arrangements in advance. ASBMR Annual Meeting participants must abide by the Society's policy on re-use of meeting materials, which may be found on the [ASBMR website](http://www.asbmr.org).

Group Registration

Tour leaders and other group organizers may register online using the same system as individuals. The system allows you to enter a list of delegates and enter the payment information only once at the end of the process. Once payment is complete, confirmations will be immediately sent to the confirmation email address you provide. Your confirmation will include instructions on how to log on and request changes or additional receipts. To register a group of 10 or more, email asbmr@showcare.com for group registration instructions.

For more information about registration, visit www.asbmr2014.org.



Hotel Information

ASBMR has secured rates at seven hotels within walking distance of the Convention Center. Rates range from \$142 USD - \$249 USD. [Click here](#) to learn more, including hotel descriptions, group housing instructions, and international housing information.

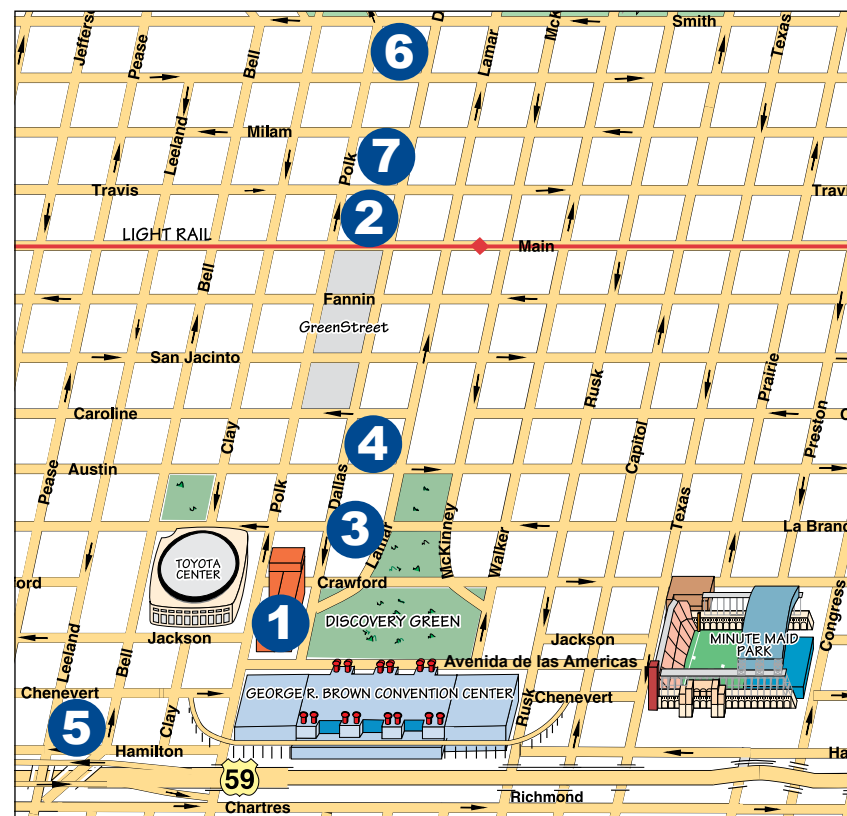
We encourage you to support ASBMR by using our official housing service. By doing so, we are able to reduce the long-term negative effect on ASBMR by documenting the economic impact of our meeting in the city. This in turn is critical to negotiating rates with the city's meeting facilities, allowing us to keep costs low in other areas for our attendees. Thank you in advance.

To book your housing for the ASBMR 2014 Annual Meeting please [click here](#).

Click here for more information about housing for international groups, or email us at ASBMRgrouphousing@asbmr-igd.com. For information about housing for US-based groups, please email us at housing@asbmr.org.



Houston Hotel Map



ASBMR HOTELS

	SINGLE	DOUBLE	BLOCKS FROM THE CONVENTION CENTER
1. Hilton Americas (Headquarters)	\$224	\$249	Connected
2. Courtyard by Marriott	\$142	\$142	8
3. Embassy Suites	\$179	\$179	2
4. Four Seasons	\$199	\$199	3
5. Holiday Inn Express	\$149	\$149	2
6. Hyatt Regency	\$177	\$177	10
7. Residence Inn by Marriott	\$147	\$147	8

A 17.00% state and city tax will be added to the room rate. Taxes are subject to change.

Visiting Houston

Join ASBMR in Houston

As the fourth largest city in America, Houston offers southern hospitality and urban chic in one exciting location. From NASA to medical centers, cutting-edge science and technology is on the forefront in Houston. Home to hundreds of hospitals and clinics, as well as top research facilities in the country, Houston is a great host for the ASBMR Annual Meeting. During your time, take advantage of the activities and attractions that Houston has to offer.

Bloomberg BusinessWeek ranked Houston one of the best cities in the U.S. in 2012 thanks to the local food scene, sports and parks.

Houston was named one of the 10 greenest cities in the U.S. by *causes.com*

Houston has one of the largest **museum districts** in the country with 19 museums.

Houston is considered to have one of the **best culinary scenes** in the country, with cuisine from around the world. There are more than **8,000 restaurants** in the Houston area with culinary choices that represent more than **35 countries and American regions**.

Houstonians dine out more than residents of any other city—4.1 times per week, compared with the national average of 3.1. The average meal in Houston—\$32.53—is less than the national average of \$35.10.

"America's newest capital of great food."

***Food & Wine* magazine**

"America's coolest city"

***Forbes* magazine**

"Most diverse city in the country"

***Kinder Institute* magazine**