Overview & 2010 Scientific Committee
General Meeting Information
Networking Opportunities
Official Scientific Program
Plenary Lectures
Symposia
Meet-the-Professor Sessions
Special Sessions
Ancillary Program
Registration Information
Hotel Information
Travel Information
Discover Toronto
Please join us for the ASBMR 2010 Annual Meeting, Friday, October 15, through Tuesday, October 19, 2010 at the Metro Toronto Convention Centre/South Building. In keeping with the tradition of the American Society for Bone and Mineral Research, Program Co-Chairs Vicki Rosen, Ph.D. and Dolores Shoback, M.D. have developed an outstanding scientific program showcasing the latest in research, technology and treatment in bone and mineral science.

Cutting-Edge Science

The ASBMR 2010 Annual Meeting features more than 100 scientific sessions highlighting the most recent advancements in basic, translational and clinical research. Featured on this year’s program are Dr. Ronald Evans from the Salk Institute who will deliver this year’s Gerald D. Aurbach Lecture on *PPARs: Tackling Frailty* and Benoit De Crombrugghe, M.D. who will present the Louis V. Avioli Lecture on *Transcriptional Control of Skeletogenesis*.

The meeting opens with a plenary symposium on *Osteoimmunology – New Pathways Invading Bone* followed by the ASBMR-ECTS clinical debate titled *Too Much Suppression of Turnover Is Bad for Bone*, the newly added oral poster session and the Welcome Reception/Plenary Poster Session. The following days are filled with Symposia, State-of-the-Art Lectures and Clinical Roundtables on such stimulating topics as genomic profiling, atypical femoral fractures, gene regulation, the Institute of Medicine’s report on Vitamin D recommendations and more.

Plus, this year marks the 60th Anniversary of the National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK). On Sunday, October 17 at 5:30 pm we will celebrate by having a very special anniversary symposium followed by a wine and cheese reception.

Professional Development & Networking

Once again, this year’s program includes professional development sessions focusing on practical topics such as grant writing techniques and work-life balance. In addition, fifteen Working Groups and one Industry-Supported Symposia (ISS) will supplement the ASBMR Official Program.

Opportunities to connect and engage with colleagues are key success factors in sharing and collaborating. The ASBMR 2010 Annual Meeting provides many opportunities including the Welcome Reception and Plenary Poster Session on Friday, October 15, and the ever-popular social event on Saturday night, October 16, featuring dessert, dancing and entertainment.

To foster stronger links among Young Investigators and under-represented minorities, they are invited to special Happy Hours that will take place on Friday, October 15 after the Welcome Reception. And, we are pleased that the ASBMR Women in Bone and Mineral Research Committee again will be hosting the speed networking event on Friday evening October 15.

We hope you plan to join us for the ASBMR 2010 Annual Meeting. Be sure to register by July 22, 2010 to receive the advance registration discount, adding even further value to this premier meeting in bone and mineral science.

We look forward to welcoming you in Toronto!

Sincerely,

Jane B. Lian, Ph.D
President

Ann L. Elderkin, P.A.
Executive Director

ASBMR 2010 Annual Meeting October 15–19, 2010 | 2
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 the Institute for the Advancement of Human Behavior (IAHB) and the American Society for Bone and Mineral Research (ASBMR). The IAHB is accredited by the ACCME to provide continuing medical education for physicians.

IAHB designates this educational activity for a maximum of 33.75 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 Tuesday, October 19. 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 regarding the online CME evaluation, contact Jillian Davis at +1 (651) 789-3722 or jillian@cmehelp.com.

Disclosure Policy

The American Society of 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

Intended Audience

The 2010 ASBMR Official Program is designed for researchers, physicians, and other health and allied health professionals with interests in:

- Biomechanics
- Cell Biology
- Dentistry
- Endocrinology
- Epidemiology
- Genetics
- Internal Medicine
- Metabolism
- Musculoskeletal Research
- Molecular Biology
- Molecular Genetics
- Nephrology
- Orthopaedics
- Pathology
- Pharmacology
- Physiology
- Rheumatology

Meeting Objectives

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

- Discuss the most current and significant advances in biomedical and clinical research in bone and mineral metabolism, specifically in the areas of osteoimmunology, mineral metabolism, genetics, stem cells, osteoporosis, metabolic bone diseases and therapeutics.
- Better understand the interrelationship among basic research, clinical research and patient care.
- Improve their ability to treat and care for their patients through an enhanced knowledge of osteoporosis, other diseases of bone, basic bone biology and its correlation to mineral metabolism.
- Develop new and enhanced strategies for the diagnosis and treatment of patients with disorders of bone and mineral metabolism.

Continued on page 4
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 2010 Annual Meeting and the 2010 Ancillary Program will provide informative and fully accurate content that reflects the highest level of scientific rigor and integrity.

The 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, the 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 meeting evaluations will seek feedback regarding commercial bias at ASBMR Annual Meeting sessions, including the 2010 Ancillary Program.

Annual Meeting Resource Materials

2010 Abstracts Book

A limited number of the 2010 Abstracts books will be printed and available for purchase and pick-up on site in Toronto. To obtain a copy, you must order it in advance. The price of the book is $25 USD. The 2010 Abstracts book will also be available in PDF format for download in advance of the meeting at no charge to members and meeting attendees.

2010 Abstracts on CD-ROM
Supported by an educational grant from Amgen, Inc.

As a registered meeting attendee, you will receive a copy of the ASBMR 2010 Annual Meeting abstracts on CD-ROM, allowing you the ability to do customized searches and review of abstracts while at the meeting. The Abstracts on CD-ROM will be distributed to attendees in their Annual Meeting delegate bags.
General Meeting Information

Continued from page 4

2010 Abstracts On-line Program
Only members and pre-registered Annual Meeting attendees will be able to access the 2010 Abstracts On-line 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.asbmr.org in mid-August 2010.

Meet-the-Professor Handout Booklet
Supported by an educational grant from Eli Lilly and Company.

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 $10 USD to be picked up on site at the Convention Centre.

On-Site Program Book
Supported by an educational grant from Eli Lilly and Company

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

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. Applications need to be submitted on or before July 23, 2010, to avoid late fees and space is limited. For more information visit www.asbmr.org.

Join ASBMR Today to Take Advantage of these Member-Only Benefits!

- Save 40% or more off the non-member Annual Meeting registration rate
- Gain full online access to the Annual Meeting Abstracts prior to the meeting
- Receive periodic updates on all the latest networking opportunities and events occurring at this year's Annual Meeting
- Get full online access to both the Journal of Bone and Mineral Research and Primer
- View the latest employment opportunities in the field via the online Career Center

To apply for membership, visit www.asbmr.org.
Networking Opportunities

**NIH and CIHR-IMHA Lounges**

Representatives from the U.S. National Institutes of Health (NIH), the Center for Scientific Review (CSR), and Canadian Institutes of Health Research-Institute of Musculoskeletal Health and Arthritis (CIHR-IMHA), will be in a special section of 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)
- Canadian Institutes of Health Research-Institute of Musculoskeletal Health and Arthritis (CIHR-IMHA)

**Young Investigator Lounge**

All young investigator attendees are invited to drop by the Young Investigator Lounge located in the Exhibit Hall. Don’t miss this opportunity to make new friends and expand your network of colleagues.

**Not-to-Miss Events**

**Friday, October 15**

**Welcome Reception and Plenary Poster Session**

5:45 pm – 7:00 pm

Attendees and registered guests are invited to meet and mingle during our Wine and Cheese Welcome Reception and Plenary Poster Session in Exhibit Hall E of the Metro Toronto Convention Centre/South Building. Simply display your badge for admission. Guests may purchase a badge for $35 USD at the ASBMR Registration Counter for entrance to the Welcome Reception. A special area of the Exhibit Hall will be set aside for Young Investigators and Minority Investigators to interact during this reception.

**New Investigator / New Member / First-time Attendee Reception**

5:45 pm – 7:00 pm

Sponsored by the ASBMR Membership Development Committee

Supported by an educational grant from Amgen, Inc.

The ASBMR Membership Development Committee and Young Investigator Subcommittee members will be in attendance for this meet-and-greet networking event. The event 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 a designated area adjacent to the ASBMR Networking Center in the Exhibit Hall at the Metro Toronto Convention Centre/South Building.

*Supported on Saturday and Sunday by an educational grant from Enobia Pharmaceuticals, Inc.*

**ASBMR Networking Center**

NEW THIS YEAR!!! The ASBMR Networking Center provides a central gathering place for people and resources to converge in conversations and other communications. The Center provides a place to:

- Check your email through either the Cyber Café* or the WiFi Lounge.
- Receive guidance on navigating the conference or information on the Society in the Membership Area.
- Find other Residents, Students, Fellows or Young Investigators in the Young Investigator Lounge.
- Meet with National Institutes of Health (NIH) or the Canadian Institutes of Health Research (CIHR) representatives.
- Peruse available jobs and meet with prospective employers.

* Supported on Saturday and Sunday by an educational grant from Enobia Pharmaceuticals, Inc.*

**Continued on page 7**
Networking Opportunities

Continued from page 6

<table>
<thead>
<tr>
<th>Friday October 15</th>
<th>Saturday October 16</th>
<th>Ongoing Opportunities</th>
</tr>
</thead>
</table>

**Friday October 15, continued**

**Young Investigator Happy Hour**
7:00 pm – 8:00 pm

*Sponsored by the ASBMR Membership Development Committee*

This cash-bar event is open to Young Investigators who want to continue to build connections with peers in a fun and informal setting. Sign up to attend when you register for the meeting!

**Minority Investigator Reception**
5:45 pm – 7:00 pm

*Sponsored by the ASBMR Membership Development Committee*

The purpose of this event is to provide attendees with the opportunity to meet other attendees and ASBMR leadership, including the ASBMR Minority Subcommittee members, creating an environment of interaction. The Minority Investigator Reception will be held concurrently with the Welcome Reception and the Plenary Poster Session in a designated area adjacent to the ASBMR Networking Center in the Exhibit Hall of the Metro Toronto Convention Centre/South Building.

**Minority Investigator Happy Hour**
7:00 pm – 8:00 pm

*Sponsored by the ASBMR Membership Development Center*

Investigators are invited to attend this cash-bar event which is open to under-represented minority investigators who want to continue fostering new professional relationships in a fun and informal setting. Sign up to attend when you register for the meeting!

**Special Event: Speed Networking**
8:00 pm – 10:00 pm

*Registration Fee: $35 USD ($15 USD students/trainees)*

*Sponsored by the ASBMR Women in Bone and Mineral Research Committee*

*Supported by an educational grant from Chugai Pharmaceutical Co., Ltd.*

The ASBMR Women in Bone and Mineral Research Committee (WBMRC) is sponsoring this Speed Networking event, providing you with a networking opportunity like no other. In 60 minutes, you will have an opportunity to meet more than 10 researchers and in four minutes learn about them and introduce yourself. Come prepared with a two-minute introduction that “sells” who you are and what you do. This is an opportunity to learn networking skills and meet members in all career stages. You will make key connections that are otherwise difficult to make in meetings as large as ASBMR. Come join the fun and expand your network! A reception will follow the event.

Continued on page 8
Networking Opportunities

Continued from page 7

<table>
<thead>
<tr>
<th>Friday</th>
<th>Saturday</th>
<th>Ongoing Opportunities</th>
</tr>
</thead>
<tbody>
<tr>
<td>October 15</td>
<td>October 16</td>
<td></td>
</tr>
</tbody>
</table>

**Saturday, October 16**

**ASBMR Networking Breakfast**
6:45 am - 8:00 am

*Sponsored by the ASBMR Membership Development Committee

*Supported by an educational grant from Chugai Pharmaceutical Co., Ltd.*

New Investigators (early-career stage), new ASBMR members and young and under-represented minority investigators are invited to join the ASBMR Membership Development Committee and colleagues for an informational breakfast. New Investigators and first-time attendees are encouraged to pick up a “New Investigator” or “First Time Attendee” ribbon, which will be distributed at the entrance to the room. You will want to get to the networking breakfast early to be eligible to win free tickets for the social event. The raffle drawing will take place at the beginning of the event and you will need to be present to win. Breakfast will be provided.

**ASBMR Annual Town Hall Meeting and Reception**
6:00 pm – 7:30 pm

You are invited to attend the ASBMR Town Hall Meeting and Reception at which you will learn about the Society, including the year in review, planned activities, strategic directions and leadership opportunities. The ASBMR Town Hall Meeting will be held at the Metro Toronto Convention Centre/South Building. Come learn more about ASBMR, meet with ASBMR leadership, ask questions during an open mike period and enjoy a wine and cheese reception.

**Dancing with the ASBMR Stars – Social Event**
8:30 pm – 11:30 pm

*Fairmont Royal York Hotel*

You saw it first on American television and now “bone docs” will be cutting loose on the dance floor. What better way to catch up with current friends and meet new ones than with some drinks, some sweets, a little dancing and a lot of fun.

Toronto's historic Fairmont Royal York ballrooms have hosted the likes of Her Majesty Queen Elizabeth II, Frank Sinatra, Cary Grant, Tina Turner and now ASBMR. The red carpet will be rolled out, so grab your business cards, put on your dancing shoes and come prepared to converse and dance with the ASBMR stars.

Enjoy dinner at one of Toronto's fabulous restaurants and then join us for dessert, drinks, music and a dance competition at the beautiful Fairmont Royal York Hotel. Tickets are $30 USD. You are encouraged to purchase tickets in advance when you register online.

**Ongoing Opportunities**

**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 $10 USD, to be picked up on site at the Convention Centre.

**Poster Tours**
The Annual Meeting Poster Session Tours will take place during each of the three poster sessions on Saturday, October 16, Sunday, October 17 and Monday, October 18. These poster tours will be guided by a prominent scientist in the bone field to assist attendees to navigate 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 the Exhibit Hall in the Metro Toronto Convention Centre/South Building and will last approximately 60 minutes. Please visit the ASBMR website at [www.asbmr.org](http://www.asbmr.org) 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 you wish to meet in your specific area of study. They are part of the ASBMR Ancillary Program and organized by members independent of the official ASBMR program. Additional tickets are required. See page 26 for topics and speakers.
## Official Scientific Program Overview

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Friday, October 15</strong></td>
<td>Click on the topics for more information</td>
<td></td>
</tr>
<tr>
<td>9:00 am – 11:00 am</td>
<td>Plenary Symposium I – Osteoimmunology - New Pathways Invading Bone</td>
<td></td>
</tr>
<tr>
<td>11:00 am – 11:30 am</td>
<td>Special Session for Health Professionals</td>
<td></td>
</tr>
<tr>
<td>11:00 am – 12:00 pm</td>
<td>Meet-the-Professor Sessions</td>
<td>Grant Writing Workshop: Show Me the Money!</td>
</tr>
<tr>
<td>12:00 pm – 1:30 pm</td>
<td>Symposium - Tissue Crosstalk in the Developing Skeleton</td>
<td>Symposium - Bone and Kidney: A Dangerous Relationship</td>
</tr>
<tr>
<td>1:45 pm – 3:15 pm</td>
<td>Symposium – Tumor Cell Signaling to Bone</td>
<td>Symposium – Treating Osteoporosis in the 21st Century</td>
</tr>
<tr>
<td>3:30 pm – 4:45 pm</td>
<td>Welcome &amp; Announcements</td>
<td>Presentation of ASBMR William F. Neuman Award</td>
</tr>
<tr>
<td>3:45 pm – 4:45 pm</td>
<td>Meet-the-Professor Sessions</td>
<td></td>
</tr>
<tr>
<td>5:00 pm – 5:45 pm</td>
<td>Oral Poster Sessions</td>
<td></td>
</tr>
<tr>
<td>5:45 pm – 7:00 pm</td>
<td>Welcome Reception &amp; Plenary Poster Session</td>
<td>New Investigator/New Member/First-Time Attendee Reception</td>
</tr>
<tr>
<td>7:15 pm – 10:00 pm</td>
<td>Working Groups</td>
<td></td>
</tr>
<tr>
<td>8:00 pm – 10:00 pm</td>
<td>Special Event - Speed Networking</td>
<td></td>
</tr>
<tr>
<td><strong>Saturday, October 16</strong></td>
<td>Click on the topics for more information</td>
<td></td>
</tr>
<tr>
<td>6:45 am – 8:00 am</td>
<td>ASBMR Networking Breakfast</td>
<td></td>
</tr>
<tr>
<td>8:00 am – 9:40 am</td>
<td>Plenary Symposium II – The Hip Fracture Epidemic</td>
<td>Presentation of ASBMR Gideon A. Rodan Excellence in Mentorship Award &amp; Lawrence G. Raisz Award</td>
</tr>
<tr>
<td>9:40 am – 10:00 am</td>
<td>Coffee Break</td>
<td></td>
</tr>
<tr>
<td>10:00 am – 11:30 am</td>
<td>Concurrent Oral Sessions</td>
<td></td>
</tr>
<tr>
<td>11:30 am – 1:30 pm</td>
<td>Poster Session I &amp; Poster Tours</td>
<td></td>
</tr>
<tr>
<td>1:30 pm – 2:30 pm</td>
<td>Clinical Roundtable/Case Conference - Clinical Utility of Genetic Testing Application to Parathyroid Disorders</td>
<td>Meet-the-Professor Sessions</td>
</tr>
<tr>
<td>2:45 pm – 4:15 pm</td>
<td>Concurrent Oral Sessions</td>
<td></td>
</tr>
<tr>
<td>4:00 pm – 4:30 pm</td>
<td>Coffee Break</td>
<td></td>
</tr>
<tr>
<td>4:30 pm – 6:00 pm</td>
<td>Symposium – Task Force Report on Atypical Femoral Fractures</td>
<td>Symposium - Can We Talk? Cell Communication in the Skeleton</td>
</tr>
<tr>
<td>6:00 pm – 7:30 pm</td>
<td>ASBMR Town Hall Meeting and Reception</td>
<td></td>
</tr>
<tr>
<td>8:30 pm – 11:00 pm</td>
<td>ASBMR Social Event – Dancing with the ASBMR Stars</td>
<td></td>
</tr>
<tr>
<td><strong>Sunday, October 17</strong></td>
<td>Click on the topics for more information</td>
<td></td>
</tr>
<tr>
<td>8:00 am – 9:10 am</td>
<td>Gerald D. Aurbach Lecture – PPARs: Tackling Frailty</td>
<td>Presentation of ASBMR Fuller Albright Award &amp; Frederic C. Bartter Award</td>
</tr>
<tr>
<td>9:10 am – 9:30 am</td>
<td>Coffee Break</td>
<td></td>
</tr>
<tr>
<td>9:30 am – 11:00 am</td>
<td>Concurrent Oral Sessions</td>
<td></td>
</tr>
<tr>
<td>11:00 am – 1:00 pm</td>
<td>Poster Session II &amp; Poster Tours</td>
<td></td>
</tr>
<tr>
<td>1:00 pm – 2:00 pm</td>
<td>Clinical Roundtable/Case Conference - Disorders of Phosphate Metabolism</td>
<td>Meet-the-Professor Sessions</td>
</tr>
<tr>
<td>2:15 pm – 3:45 pm</td>
<td>Concurrent Oral Sessions</td>
<td></td>
</tr>
<tr>
<td>3:30 pm – 4:00 pm</td>
<td>Coffee Break</td>
<td></td>
</tr>
<tr>
<td>4:00 pm – 5:30 pm</td>
<td>Symposium – Osteoporosis: Why Do Men Get It? (ASBMR/ECTS Joint Session)</td>
<td>Symposium - Pathways That Modify the Bone Landscape</td>
</tr>
<tr>
<td>5:30 pm – 7:00 pm</td>
<td>NIDDK 60th Anniversary Symposium and Reception</td>
<td></td>
</tr>
<tr>
<td>7:15 pm – 10:00 pm</td>
<td>Working Groups</td>
<td>Industry Supported Symposium</td>
</tr>
</tbody>
</table>
### Official Scientific Program Overview

*Schedule subject to change
Continued from page 9*

#### Monday, October 18

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:00 am – 9:35 am</td>
<td>Plenary Symposium III – The Periosteum: An Organizer for Bone Formation and Regeneration</td>
<td></td>
</tr>
<tr>
<td>9:35 am – 10:00 am</td>
<td>Coffee Break</td>
<td></td>
</tr>
<tr>
<td>10:00 am – 11:30 am</td>
<td>Concurrent Oral Sessions</td>
<td></td>
</tr>
<tr>
<td>11:30 am – 1:30 pm</td>
<td>Poster Session III &amp; Poster Tours</td>
<td></td>
</tr>
<tr>
<td>1:30 pm – 2:30 pm</td>
<td>Clinical Roundtable/Case Conference - Secondary Causes of Osteoporosis</td>
<td></td>
</tr>
<tr>
<td>2:45 pm – 4:15 pm</td>
<td>Concurrent Oral Sessions</td>
<td></td>
</tr>
<tr>
<td>4:00 pm – 4:30 pm</td>
<td>Coffee Break</td>
<td></td>
</tr>
<tr>
<td>4:30 pm – 6:00 pm</td>
<td>Concurrent Oral Sessions</td>
<td></td>
</tr>
<tr>
<td>6:30 pm – 9:30 pm</td>
<td>Working Groups</td>
<td></td>
</tr>
</tbody>
</table>

#### Tuesday, October 19

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:00 am - 9:30 am</td>
<td>Louis V. Avioli Lecture - Transcriptional Control of Skeletogenesis Keynote Speaker: Benoit de Crombrugghe, M.D., M.D. Anderson Cancer Center</td>
<td></td>
</tr>
<tr>
<td>9:30 am – 11:00 am</td>
<td>Concurrent Oral Sessions</td>
<td></td>
</tr>
<tr>
<td>9:30 am – 11:00 am</td>
<td>ASBMR/ISCD/NOF Co-sponsored Symposium on Osteonecrosis of the Jaw (ONJ)</td>
<td></td>
</tr>
<tr>
<td>11:00 am – 12:30 pm</td>
<td>State-of-the-Art Lecture- Stem Cells and the Future of Medicine</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Symposium – Shining Light on Vitamin D: Discussion of the IOM Recommendations</td>
<td></td>
</tr>
</tbody>
</table>

#### Exhibits Open

<table>
<thead>
<tr>
<th>Day</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Friday, October 15</td>
<td>5:45 pm – 7:00 pm</td>
</tr>
<tr>
<td>Saturday, October 16</td>
<td>9:30 am – 4:30 pm</td>
</tr>
<tr>
<td>Sunday, October 17</td>
<td>9:00 am – 4:00 pm</td>
</tr>
<tr>
<td>Monday, October 18</td>
<td>9:30 am – 4:30 pm</td>
</tr>
</tbody>
</table>

#### Poster Viewing Open

<table>
<thead>
<tr>
<th>Session</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poster Session I</td>
<td>8:00 am – 6:00 pm</td>
</tr>
<tr>
<td>Saturday, October 16</td>
<td></td>
</tr>
<tr>
<td>Poster Session II</td>
<td>8:00 am – 6:00 pm</td>
</tr>
<tr>
<td>Sunday, October 17</td>
<td></td>
</tr>
<tr>
<td>Poster Session III</td>
<td>8:00 am – 4:30 pm</td>
</tr>
<tr>
<td>Monday, October 18</td>
<td></td>
</tr>
</tbody>
</table>
Gerald D. Aurbach Lecture

Sunday, October 17
8:00 am – 9:00 am

PPARs: Tackling Frailty

Ronald M. Evans, Ph.D.
The Salk Institute for Biological Studies (USA)

Dr. Ronald M. Evans is an Investigator at the Howard Hughes Medical Institute and a Professor at the Salk Institute for Biological Studies. He is known for his discoveries and characterization of nuclear hormone receptors, the establishment of the nuclear receptor super family and the elucidation of their universal mechanism of action, a process that governs how lipophilic hormones and drugs regulate diverse developmental and metabolic pathways in animals and humans.

At Salk, Dr. Evans isolated the growth hormone gene to study its transcriptional regulation by steroid and thyroid hormones. These lipid-soluble hormones control fundamental aspects of physiology including sugar, salt and fat metabolism, basal metabolic rate and reproduction. In 1982, with Palmiter and Brinster, he created the first transgenic growth hormone “super-mouse.” In 1985, his group cloned and characterized the first nuclear hormone receptor, the human glucocorticoid receptor. His subsequent isolation of the thyroid, mineralocorticoid and retinoic acid (vitamin A) established the existence of the nuclear receptor super family.

Though the ligands for nuclear receptors are chemically and biosynthetically distinct, the homology of their receptors revealed the existence of an underlying unity in their mechanism of action. This work led to the principles of DNA recognition, receptor heterodimer formation and the discovery of the DNA coding mechanism for hormone response elements. Over the past ten years, he has focused on the characterization of the so-called “orphan” members of the nuclear receptor family for which no physiologic ligands were known. He isolated the first orphan receptors (ERR1 and 2) as well as the unexpectedly important retinoid X receptor (RXR). He pioneered biochemical and molecular techniques that led to the identification of the RXR ligand 9-cis RA, the first new hormonal lipid since the isolation of aldosterone in 1952. RXR proved to be a Rosetta Stone for puzzling out the identity of a series of unknown receptors which have profound implications for normal physiology, disease pathogenesis and drug discovery. He also isolated and characterized the xenobiotic sensor SXR that acts as a molecular gateway to control the catabolism and clearance of steroids, bile acids, oxidized lipids and numerous prescription drugs.

Evans’ discoveries on the nuclear hormone receptors define a unitary signaling pathway and a central paradigm for the control of eukaryotic gene expression. His work established fundamental links between transcription, physiology and medicine and has led to the discovery and development of drugs for cancer and metabolic disease.
Plenary Lectures

continued from page 11

Louis V. Avioli Lecture

Tuesday, October 19
8:00 am – 9:00 am

Transcriptional Control of Skeletogenesis

Benoit de Crombrugghe, M.D.
University of Texas, M.D. Anderson Cancer Center (USA)

Benoit de Crombrugghe obtained his M.D. degree in Belgium and after a postdoctoral fellowship in the laboratory of Ira Pastan at the National Institutes of Health (NIH), he started his own laboratory at the National Cancer Institute. In the early 80s, he spent a sabbatical year at the Pasteur Institute in Paris and in 1987 became Chair of the Department of Molecular Genetics at The University of Texas M. D. Anderson Cancer Center in Houston. His work made major contributions to the understanding of the role of key transcription factors in skeletogenesis. His studies identified the transcription factor SOX9 as an essential factor for cartilage formation and his laboratory also discovered the transcription factor OSTERIX and characterized its essential role in osteoblast differentiation and bone formation. The more recent studies of de Crombrugghe’s laboratory are focusing on the postnatal homeostatic control by SOX9 of articular cartilage and of intervertebral discs and on the multiple functions of OSTERIX in the physiology of postnatal bones.

He has mentored numerous graduate students and postdoctoral fellows and is a member of the Belgian Royal Academy of Medicine and an Honorary Fellow of the Royal College of Physicians, United Kingdom.
Symposia

<table>
<thead>
<tr>
<th>Day</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Friday, October 15</strong></td>
<td><strong>Plenary Symposium I – Osteoimmunology: New Pathways Invading Bone</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Supported by an educational grant from Eli Lilly and Company</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Chairs:</strong> Joseph Lorenzo, M.D., University of Connecticut Health Center (USA)</td>
</tr>
<tr>
<td></td>
<td>Ellen Gravallese, M.D., University of Massachusetts Medical School (USA)</td>
</tr>
<tr>
<td></td>
<td>Introduction - Overview of the Field of Osteoimmunology</td>
</tr>
<tr>
<td></td>
<td>Joseph Lorenzo, M.D., University of Connecticut Health Center (USA)</td>
</tr>
<tr>
<td></td>
<td>Positive and Negative Regulators of Osteoclast Differentiation</td>
</tr>
<tr>
<td></td>
<td>Hiroshi Takayanagi, M.D., Ph.D., Tokyo Medical and Dental University (Japan)</td>
</tr>
<tr>
<td></td>
<td>Cytokines and NF-kappa B: Links Between Osteoimmune Cells and Diseases Affecting the Skeleton</td>
</tr>
<tr>
<td></td>
<td>Brendan Boyce, M.D., University of Rochester Medical Center (USA)</td>
</tr>
<tr>
<td></td>
<td>Introduction - Overview of Inflammatory Arthritis and Bone</td>
</tr>
<tr>
<td></td>
<td>Ellen Gravallese, M.D., University of Massachusetts Medical School (USA)</td>
</tr>
<tr>
<td></td>
<td>Induction and Regulation of Inflammatory Bone Loss in Arthritis</td>
</tr>
<tr>
<td></td>
<td>Georg Schett, M.D., Friedrich-Alexander University Medical School (France)</td>
</tr>
<tr>
<td><strong>Symposium - Tissue Crosstalk in the Developing Skeleton</strong></td>
<td></td>
</tr>
<tr>
<td>12:00 pm – 1:30 pm</td>
<td><strong>Chairs:</strong> Maurizio Pacifici, Ph.D., Thomas Jefferson University (USA)</td>
</tr>
<tr>
<td></td>
<td>Karen Lyons, Ph.D., University of California, Los Angeles (USA)</td>
</tr>
<tr>
<td></td>
<td>The Mechanisms That Underlie the Three-dimensional Morphology of Long Bones</td>
</tr>
<tr>
<td></td>
<td>Eli Zelzer, Ph.D., Weizmann Institute (Israel)</td>
</tr>
<tr>
<td></td>
<td>Hypoxia Sensing in Cartilage and Bone Development</td>
</tr>
<tr>
<td></td>
<td>Ernestina Schipani, M.D., Ph.D., Massachusetts General Hospital and Harvard Medical School (USA)</td>
</tr>
<tr>
<td></td>
<td>Co-regulation of Osteoblast Differentiation and Cartilage Vascularization During Endochondral Bone Development</td>
</tr>
<tr>
<td></td>
<td>Fanxin Long, Ph.D., Washington University School of Medicine (USA)</td>
</tr>
</tbody>
</table>

**Symposium – Bone and Kidney: A Dangerous Relationship**

12:00 pm – 1:30 pm

**Chairs:**
- Susan Ott, M.D., University of Washington Medical Center (USA)
- Justin Silver, M.D., Ph.D., Hadassah Hospital (Israel)

**Recharacterization of the CKD: MBD - Its Early Stages**
- Katherine Wesseling, M.D., UCLA Medical Center (USA)

**The Roles of Vitamin D and Calcitriol in the CKD: MBD—Are We Overdosing Vitamin D Receptor Analogues?**
- Keith Hruska, M.D., Washington University in St. Louis School of Medicine (USA)

**Noninvasive Assessment of Bone Quality in CKD: MBD**
- Mary Leonard, M.D., Children’s Hospital of Philadelphia (USA)

*Continued on page 14*
Symposia

Continued from page 14

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

Friday October 15 continued

Symposium - Tumor Cell Signaling to Bone
1:45 pm – 3:15 pm
*Dedicated to the life and memory of Gregory R. Mundy, M.D.*

Chairs:
Toshiyuki Yoneda, D.D.S., Ph.D., Osaka University Graduate School of Dentistry (Japan)
Katherine Weilbaecher, M.D., Washington University in St. Louis School of Medicine (USA)

Src Signaling in Cancer
Anna Teti, Ph.D., Universite of L’Aquila (Italy)
Controlling Morphogenetic Responses in Cancer
Jeff Wrana, Ph.D., Samuel Lunenfeld Research Institute (Canada)
The Nuclear Microenvironment in Cancer Progression
Gary Stein, Ph.D., University of Massachusetts Medical School (USA)

Symposium - Treating Osteoporosis in the 21st Century
1:45 pm – 3:15 pm

Chairs:
Suzanne Jan De Beur, M.D., Johns Hopkins University (USA)
Serge Livio Ferrari, M.D., Geneva University Hospital and Faculty of Medicine (Switzerland)

PTH and Skeletal Anabolism
Robert Nissenson, Ph.D., VA Medical Center and University of California, San Francisco (USA)
Sclerostin: From Gene Discovery to Bone Building Antibodies
Chris Paszty, Ph.D., Amgen, Inc. (USA)

Matching Treatments with Disease Mechanisms for an Aging Population
Stavros Manolagas, M.D., Ph.D., University of Arkansas for Medical Sciences (USA)
Symposia

Continued from page 14

<table>
<thead>
<tr>
<th>Saturday, October 16</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Plenary Symposium II – The Hip Fracture Epidemic</strong></td>
</tr>
<tr>
<td>Supported by an educational grant from Merck &amp; Co., Inc.</td>
</tr>
<tr>
<td>8:00 am – 9:30 am</td>
</tr>
<tr>
<td>Chairs:</td>
</tr>
<tr>
<td>Dennis Black, Ph.D., University of California, San Francisco (USA)</td>
</tr>
<tr>
<td>Bess Dawson-Hughes, M.D., Tufts University (USA)</td>
</tr>
<tr>
<td>Biomechanics of Hip Fracture: Involvement of Cortical and Trabecular Bone Compartments</td>
</tr>
<tr>
<td>Mary Bouxsein, Ph.D., Beth Israel Deaconess Medical Center (USA)</td>
</tr>
<tr>
<td>Muscle Quantity and Quality: Sarcopenia Contributes to Fracture Risk</td>
</tr>
<tr>
<td>Tamara Harris, M.D., M.S., Intramural Research Program, National Institute on Aging (USA)</td>
</tr>
<tr>
<td>Hip Fractures: Rising in the East and Setting in the West</td>
</tr>
<tr>
<td>Steven Cummings, M.D., San Francisco Coordinating Center (USA)</td>
</tr>
</tbody>
</table>

**State-of-the-Art Lecture – Genomic Profiling as a Tool for Discovery**

1:30 pm – 2:30 pm
Sponsored by the ASBMR Education Committee

Chairs:
Merry Jo Oursler, Ph.D., Mayo Clinic (USA)
Di Chen, M.D., Ph.D., University of Rochester Medical Center (USA)

Speaker:
Gabriela Loots, Ph.D., Lawrence Livermore National Laboratory (USA)

**Symposium - Task Force Report on Atypical Femoral Fractures**

4:30 pm – 6:00 pm

Chairs:
Elizabeth Shane, M.D., Columbia University College of Physicians & Surgeons (USA)
David Burr, Ph.D., Indiana University School of Medicine (USA)

Introduction
Elizabeth Shane, M.D., Columbia University College of Physicians & Surgeons (USA)
What Is an Atypical Femoral Shaft Fracture?
Thomas Einhorn, M.D., Boston Medical Center (USA)
Prevalence and Risk Factors for Atypical Femoral Fractures
Bo Abrahamsen, M.D., Ph.D., Copenhagen University Hospital Gentofte (Denmark)
Mechanical Pathogenesis of Atypical Femoral Fractures
Marjolein Van Der Meulen, Ph.D., Cornell University (USA)
Medical Insights – Exploring the Known and Unknown
Peter Ebeling, M.D., FRACP, University of Melbourne (Australia)
Summary of the Task Force Report
David Burr, Ph.D., Indiana University School of Medicine (USA)

Symposium – Can We Talk? Cell Communication in the Skeleton

4:30 pm – 6:00 pm

Chairs:
Henry Donahue, Ph.D., The Pennsylvania State University College of Medicine (USA)
Jean Jiang, Ph.D., University of Texas Health Science Center at San Antonio (USA)
Cell Chatter through Connexins and Cadherins for Skeletal Homeostasis
Roberto Civitelli, M.D., Washington University in St. Louis School of Medicine (USA)
N-cadherin-Wnt Signaling Crosstalks in Osteoblasts
Pierre Marie, Ph.D., INSERM Unit 606 and University Paris Diderot (France)
Connexin 43: Gap-junction-independent Functions Regulating Osteoblast and Osteocyte Signaling
Teresita Bellido, Ph.D., Indiana University School of Medicine (USA)

Continued on page 16 ➤
Symposia

Continued from page 15

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

Sunday, October 17

Symposium – Osteoporosis: Why Do Men Get It?
4:00 pm – 5:30 pm
Co-sponsored by the European Calcified Tissue Society (ECTS)
Supported by an educational grant from Eli Lilly and Company

Chairs:
Robert Adler, M.D., McGuire VA Medical Center (USA)
Cyrus Cooper, D.M., FRCP, MedSci, University of Southampton (United Kingdom)
Eric Orwoll, M.D., Oregon Health and Sciences University (USA)
Claes Ohlsson, M.D., Ph.D., Sahlgrenska University Hospital (Sweden)

Estradiol - A Key to Male Bone Health
Osteoporosis in Men: Whom Should Be Treated and How?
Nelson Watts, M.D., University of Cincinnati Bone and Health Osteoporosis Center (USA)

Symposium – Pathways that Modify the Bone Landscape
4:00 pm – 5:30 pm
Chairs:
Thomas Clemens, Ph.D., Johns Hopkins University (USA)
Marja Marie Hurley, M.D., University of Connecticut Health Center School of Medicine (USA)

NOTCHing Bone: From Stem Cells to Cancer
Brendan Lee, M.D., Ph.D., Baylor College of Medicine (USA)

FGF23 and Klotho: From Bone to Kidney and Parathyroid Glands
Beate Lanske, Ph.D., Harvard School of Dental Medicine (USA)

Overlapping and Unique Roles of LRPS/6 in Bone Development
Bart Williams, Ph.D., Van Andel Research Institute (USA)
Symposia

Continued from page 17

Monday, October 18

Plenary Symposium III - The Periosteum: An Organizer for Bone Formation and Regeneration
8:00 am – 9:30 am
Supported by an educational grant from Eli Lilly and Company

Chairs:
Louis Gerstenfeld, Ph.D., Boston University School of Medicine (USA)
Kristine Wiren, Ph.D., Oregon Health & Science University Research (USA)
The Periosteum Coordinates Growth Factor Signals in Skeletal Development
Rosa Serra, Ph.D., University of Alabama at Birmingham (USA)
The Periosteum Is a Predominant Source of Skeletal Progenitors for Bone Repair
Celine Colnot, Ph.D., University of California, San Francisco (USA)
Endochondral Bone Formation During Fracture Healing Is Coordinated by Periosteal Cell Signaling
Regis O’Keefe, M.D., University of Rochester (USA)

State-of-the-Art Lecture – Connections Between LRP5, Serotonin and the Skeleton
Supported by an educational grant from Merck & Co., Inc.
1:30 pm – 2:30 pm
Chairs:
Lynda Bonewald, Ph.D., University of Missouri (USA)
Roland Baron, D.D.S., Ph.D., Harvard School of Medicine and of Dental Medicine (USA)
Regulation of Bone Mass by Direct Action of LRP5 in Bone
Matthew Warman, M.D., Children’s Hospital Boston (USA)
Update on the Regulation of Bone Mass by Gut Serotonin
Patricia Ducy, Ph.D., Columbia University (USA)
Symposia

Continued from page 17

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

**Tuesday, October 19**

**State-of-the-Art Lecture - Stem Cells and the Future of Medicine**
11:00 am – 12:30 pm
Chairs:
Jane Aubin, Ph.D., University of Toronto Faculty of Medicine (Canada)
Paul Krebsbach, D.D.S., Ph.D., University of Michigan, School of Dentistry (USA)
Interactions of Bone and Bone Marrow
David Scadden, M.D., Massachusetts General Hospital (USA)
Enabling Stem Cell Therapies through Synthetic Stem Cell-Niche Engineering
Peter Zandstra, Ph.D., University of Toronto (Canada)

**Symposium - Shining Light on Vitamin D: Discussion of the IOM Recommendations**
11:00 am – 12:30 pm
Chairs:
J. Christopher Gallagher, M.D., Creighton University Medical Center (USA)
Francis Glorieux, M.D., Ph.D., Shriners Hospital for Children and McGill University (Canada)
How Much Vitamin D Do We Need?
Clifford Rosen, M.D., Maine Medical Center (USA)
Should We Adjust Vitamin D for Unique Clinical Circumstances?
Christopher Kovacs, M.D., FRCPC, Memorial University of Newfoundland (Canada)
Immunobiology of Vitamin D
Chantal Mathieu, M.D., Ph.D., Katholieke Universiteit Leuven (Belgium)
Role of Vitamin D in Cancer Prevention and Cancer Risk
JoAnn Manson, M.D., DrPH, Harvard Medical School (USA)
Role of Vitamin D in Muscle Functions, Falls and Frailty
Heike Bischoff-Ferrari, M.D., DrPH, University of Zurich (Switzerland)

Order Your Copy of ASBMR’s
*Primer on the Metabolic Bone Diseases and Disorders of Mineral Metabolism*

Seventh Edition
Editor: Clifford Rosen, M.D.

This text is an indispensible resource for scientists and students seeking an overview of the bone and mineral field and for clinicians who see patients with disorders of bone and mineral metabolism. More than 100,000 copies of the Primer are in print. Internationally renowned authors and editors have created a format designed for quick reference. The text provides valuable information on symptoms, pathophysiology, diagnosis and treatment of metabolic bone diseases and both common and rare disorders.

A free copy and online access to the Primer are benefits of ASBMR membership.
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 and discuss specific clinical and research topics. The sessions will be held Friday through Monday. You may 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 $10 USD to be picked up on site at the Convention Centre.

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 the number of attendees.

**Friday, October 15, 11:00 am – 12:00 pm**

<table>
<thead>
<tr>
<th>Session Title</th>
<th>Science</th>
<th>Professor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eph Signaling in Bone</td>
<td>Basic</td>
<td>Natalie Sims, Ph.D., St. Vincent’s Institute of Medical Research (Australia)</td>
</tr>
<tr>
<td>Biglycan Signaling Regulates Chondrogenesis in Disease</td>
<td>Basic</td>
<td>Marian Young, Ph.D., National Institutes of Health (USA)</td>
</tr>
<tr>
<td>TGF-b and Bone Remodeling</td>
<td>Basic</td>
<td>Xu Cao, Ph.D., Johns Hopkins University (USA)</td>
</tr>
<tr>
<td>Genetics of Bone Loss, Determinants of BMD and Fractures</td>
<td>Clinical</td>
<td>Doug Kiel, M.D., MPH, Hebrew SeniorLife, Institute for Aging Research (USA)</td>
</tr>
<tr>
<td>Supported by an educational grant from Eli Lilly and Company</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Primary Hyperparathyroidism: Diagnosis and Management Issues</td>
<td>Clinical</td>
<td>David Goltzman, M.D., McGill University Health Centre (Canada)</td>
</tr>
<tr>
<td>Osteoporosis and Hip Fracture in Asia: How to Rise up to this Challenge?</td>
<td>Clinical</td>
<td>Edith Lau, M.D., Hong Kong Orthopaedic and Osteoporosis Center for Treatment and Research (China)</td>
</tr>
<tr>
<td>Stem Cells: What Are They and What Is Their Potential for Treating Skeletal Disorders</td>
<td>Translational</td>
<td>Pamela Robey, Ph.D., National Institute of Dental and Craniofacial Research (USA)</td>
</tr>
</tbody>
</table>

**Friday, October 15, 3:45 pm – 4:45 pm**

<table>
<thead>
<tr>
<th>Session Title</th>
<th>Science</th>
<th>Professor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tutorial on Using Human Tissue for Research</td>
<td>Basic</td>
<td>Julie Glowacki, Ph.D., Brigham &amp; Women's Hospital (USA)</td>
</tr>
<tr>
<td>BAC Recombineering - Gene Engineering</td>
<td>Basic</td>
<td>Douglas Mortlock, Ph.D., Vanderbilt University Medical Center (USA)</td>
</tr>
<tr>
<td>How to Best Define Mineral Properties</td>
<td>Basic</td>
<td>Adele Boskey, Ph.D., Hospital for Special Surgery (USA)</td>
</tr>
</tbody>
</table>

Continued on page 20
<table>
<thead>
<tr>
<th>Session Title</th>
<th>Science</th>
<th>Professor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy Metabolism in Bone</td>
<td>Basic</td>
<td><strong>Beata Lecka-Czernik, Ph.D.</strong>, University of Toledo College of Medicine (USA)</td>
</tr>
<tr>
<td>Role of HDAC in Regulating Skeletogenesis</td>
<td>Basic</td>
<td><strong>Jennifer Westendorf, Ph.D.</strong>, Mayo Clinic (USA)</td>
</tr>
<tr>
<td>Choosing the Right Cre Mouse in Bone and Cartilage Biology</td>
<td>Basic</td>
<td><strong>Matthew Hilton, Ph.D.</strong>, University of Rochester School of Medicine (USA)</td>
</tr>
<tr>
<td>Management of Bone Health in Patients Undergoing Bariatric Surgery</td>
<td>Clinical</td>
<td><strong>Shonni Silverberg, M.D.</strong>, Columbia University (USA)</td>
</tr>
<tr>
<td>Chronic Kidney Disease and Osteoporosis: How to Diagnose It, How to Treat It and When Is Bone Biopsy Indicated?</td>
<td>Clinical</td>
<td><strong>Sophie Jamal, M.D., Ph.D.</strong>, The University of Toronto (Canada)</td>
</tr>
<tr>
<td>Diagnosing and Treating Vitamin D Deficiency and Insufficiency Supported by an educational grant from Eli Lilly and Company</td>
<td>Clinical</td>
<td><strong>John Adams, M.D.</strong>, University of California, Los Angeles (USA)</td>
</tr>
<tr>
<td>Targeting PTH Gene Expression as a Potential Treatment for Osteoporosis</td>
<td>Translational</td>
<td><strong>Tally Naveh-Many, Ph.D.</strong>, Hadassah University Hospital (Israel)</td>
</tr>
<tr>
<td>Bone Metastases: Mechanisms, Treatment Modalities and New Options</td>
<td>Translational</td>
<td><strong>Theresa Guise, M.D.</strong>, Indiana University (USA)</td>
</tr>
<tr>
<td>Fluorescence-based Dynamic and Cellular Histomorphometry of Murine Skeletal Structures Using Computer Controlled Imaging and Image Analysis</td>
<td>Basic</td>
<td><strong>David Rowe, M.D.</strong>, University of Connecticut Health Center (USA)</td>
</tr>
<tr>
<td>Imaging the Mechanisms of Osteoclast Migration, Differentiation and Function</td>
<td>Basic</td>
<td><strong>Masaru Ishii, M.D., Ph.D.</strong>, Immunology Frontier Research Center, Osaka University (Japan)</td>
</tr>
<tr>
<td>Premenopausal Bone Loss: Etiology and Management Supported by an educational grant from Merck &amp; Co., Inc.</td>
<td>Clinical</td>
<td><strong>Robert Recker, M.D.</strong>, Creighton University Osteoporosis Research Center (USA)</td>
</tr>
<tr>
<td>Management of Skeletal Health in Women with Breast Cancer</td>
<td>Clinical</td>
<td><strong>Meryl Leboff, M.D.</strong>, Brigham &amp; Women’s Hospital (USA)</td>
</tr>
<tr>
<td>Diagnosing and Treating Vitamin D Deficiency and Insufficiency</td>
<td>Clinical</td>
<td><strong>John Adams, M.D.</strong>, University of California, Los Angeles (USA)</td>
</tr>
<tr>
<td>Anabolic Therapies and Strategies in the Treatment of Osteoporosis Supported by an educational grant from Eli Lilly and Company</td>
<td>Clinical</td>
<td><strong>Ben Leder, M.D.</strong>, Massachusetts General Hospital, Harvard Medical School (USA)</td>
</tr>
<tr>
<td>Non-invasive Assessment of Bone Structure and Strength</td>
<td>Translational</td>
<td><strong>Sundeep Khosla, M.D.</strong>, College of Medicine, Mayo Clinic (USA)</td>
</tr>
</tbody>
</table>
Meet-the-Professor Sessions

Continued from page 20

Monday, October 18, 1:30 pm - 2:30 pm

<table>
<thead>
<tr>
<th>Session Title</th>
<th>Science</th>
<th>Professor</th>
</tr>
</thead>
<tbody>
<tr>
<td>From Development to Disease: Hedgehog in Tumors and Arthritis</td>
<td>Basic</td>
<td>Benjamin Alman, M.D., Sick Children’s Hospital (USA)</td>
</tr>
<tr>
<td>Foxo1 and Osteoblast Physiology</td>
<td>Basic</td>
<td>Stavroula Kousteni, Ph.D., Columbia University Medical Center (USA)</td>
</tr>
<tr>
<td>Cartilage Formation and Maintenance</td>
<td>Basic</td>
<td>Mary Goldring, Ph.D., Hospital for Special Surgery (USA)</td>
</tr>
<tr>
<td>Phosphate Disorders in Childhood</td>
<td>Clinical</td>
<td>Ingrid Holm, M.D., MPH, Children’s Hospital Boston (USA)</td>
</tr>
<tr>
<td>Treatment and Prevention of Skeletal Complications in Men with Prostate Cancer</td>
<td>Clinical</td>
<td>Matthew Smith, M.D., Ph.D., Massachusetts General Hospital (USA)</td>
</tr>
<tr>
<td>Vitamin D and Immunity - Why Do We Need More?</td>
<td>Clinical</td>
<td>Chantal Mathieu, M.D., Ph.D., Katholieke Universiteit Leuven (Belgium)</td>
</tr>
<tr>
<td>Inflammation and Bone Loss in Rheumatic Disorders: Mechanisms and Approach to Management</td>
<td>Translational</td>
<td>Mary Nakamura, M.D., University of California, San Francisco (USA)</td>
</tr>
</tbody>
</table>

Submit Your Manuscripts to Journal of Bone and Mineral Research

The Journal of Bone and Mineral Research is the world’s leading journal for basic and clinical research in the bone field, and boasts the highest impact factor (6.443) among all bone journals.

- Enhanced Print and Online Presentation: JBMR is offered on Wiley Intersource®, offering easy access to researchers and clinicians around the world as well as a host of new and dynamic online research features.
- High Quality Content: The internationally renowned editors, coupled with an efficient peer review system, have given JBMR a global reputation for publishing landmark findings in the field of bone and mineral research.
- Enhanced Discoverability: With CrossRef links, eTOC alerts, RSS feeds, social media and a host of sophisticated study tools, your paper will be noticed and read.

Log on to: www.editorialmanager.com/jbmr to submit your manuscript.
Special Sessions

Friday, October 15

C  YI  Special Session for Health Professionals
11:00 am – 1:00 pm
This special 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.

Chairs:
Betsy McClung, R.N., M.N., Oregon Osteoporosis Center (USA)
Joan Lappe, R.N., Ph.D., Creighton University Osteoporosis Research Center (USA)
Diane Krueger, CCRC, CDT, University of Wisconsin, Madison (USA)

Overview of the ASBMR 2010 Annual Meeting
Lawrence Raisz, M.D., University of Connecticut Health Center (USA)

Bone Structure in Health and Disease
David Dempster, Ph.D., Helen Hayes Hospital (USA)

The Science and Art of Osteoporosis
Michael McClung, M.D., Oregon Osteoporosis Center (USA)

YI  Grant-Writing Workshop:
Show Me the Money!
11:00 am – 12:00 pm
Co-sponsored by the ASBMR Membership Development and Education Committees

U.S. and international investigators at all career levels are urged to attend this interactive forum that will include grant-writing fundamentals, grant-submission strategies and an “insider’s perspective” on winning NIH grants. This session is a can’t-miss opportunity for anyone writing a research grant or wanting to gain invaluable insight into the grant-writing process.

Chairs
Suzanne Jan de Beur, M.D., Johns Hopkins University (USA), Membership Development Committee Chair
Merry Jo Oursler, Ph.D., Mayo Clinic (USA), Education Committee Chair

C  YI  ASBMR/ECTS Clinical Debate – Too Much Suppression of Turnover Is Bad for Bone
3:45 pm – 4:45 pm

Chairs:
Douglas Bauer, M.D., University of California, San Francisco (USA)
Socrates Papapoulos, M.D., Leiden University Medical Center (USA)

Debaters:
Richard Eastell, M.D., FRCP, University of Sheffield (United Kingdom)
Ian Reid, M.D., MBChB, University of Auckland (New Zealand)

Short and Sweet: Selling Your Science in 12 Pages
Jane Aubin, Ph.D., University of Toronto Faculty of Medicine (Canada)

Getting Your First Grant: Tips for New Investigators
Jennifer Westendorf, Ph.D., Mayo Clinic (USA)

An Update on NIH Peer Review from the Scientist’s Perspective
Larry Suva, Ph.D., University of Arkansas for Medical Sciences (USA)

Q&A – Panelist Discussion: Speakers and Joan McGowan, Ph.D., National Institute of Arthritis, Musculoskeletal & Skin Disease

Continued on page 23
Special Sessions

Continued from page 22

Saturday, October 16

Clinical Roundtable/Case Conference - Clinical Utility of Genetic Testing – Application to Parathyroid Disorders
1:30 pm – 2:30 pm
Chair:
Rajesh Thakker, M.D., FRCP, Oxford University (United Kingdom)
Speakers:
Andrew Arnold, M.D., University of Connecticut School of Medicine (USA)
Michael Levine, M.D., FAAP, FACP, Children’s Hospital of Philadelphia (USA)

Sunday, October 17

Clinical Roundtable/Case Conference – Disorders of Phosphate Metabolism
1:00 pm – 2:00 pm
Chair:
Michael Econs, M.D., Indiana University School of Medicine (USA)
Speakers:
Tom Carpenter, M.D., Yale University School of Medicine (USA)
Michael Whyte, M.D., Shriners Hospital for Children (USA)

W&M Career Development: Work/Life Satisfaction
1:00 pm – 2:00 pm
Co-sponsored by the Women in Bone and Mineral Research and Membership Development Committees

We would all like to achieve a state of well being that allows us to effectively manage the multiple responsibilities we have at work, at home and in our communities. In this session we will have a panel of speakers at different stages in their careers talking about their experiences and strategies. Panelists include Nicole Partridge, Ph.D., Beatrice Edwards, M.D., FACP, and Melissa Kacena, Ph.D. Following the panel will be an interactive discussion.
Sunday, October 17, continued

C YI W&M NIDDK 60th Anniversary Symposium and Reception
5:30 pm – 7:00 pm
Chairs:
Henry Kronenberg, M.D., Massachusetts General Hospital (USA)
Ronald Margolis, Ph.D., National Institute of Diabetes and Digestive and Kidney Diseases (USA)

Introduction—History of NIDDK
John Potts, M.D., Massachusetts General Hospital (USA)

The Ups and Downs of Bone Formation: Growth Factors and Glucocorticoids
Ernie Canalis, M.D., St. Francis Hospital & Medical Center (USA)

Phosphate Sensing, Phosphatonin and the Skeleton
Rajiv Kumar, M.D., Mayo Clinic College of Medicine (USA)

Neuroendocrine Dysregulation and Bone Disorders
Anne Klibanski, M.D., Massachusetts General Hospital (USA)

Vitamin D Molecular Interactions
Marie Demay, M.D., Massachusetts General Hospital and Harvard Medical School (USA)

The Calcium Sensing Receptor: Biology and Pathology
Edward Brown, M.D., Brigham & Women’s Hospital (USA)

Future of NIDDK
Griffin P. Rodgers, M.D., National Institute of Diabetes and Digestive and Kidney Diseases (USA)

Monday, October 18

C Clinical Roundtable/Case Conference – Secondary Causes of Osteoporosis
1:30 pm – 2:30 pm
Supported by an educational grant from Eli Lilly and Company

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

Speakers:
Juliet Compston, M.D., FRCP, University of Cambridge School of Clinical Medicine (United Kingdom)
Neil Binkley, M.D., University of Wisconsin (USA)
# 2010 Ancillary Program

*Overview*

<table>
<thead>
<tr>
<th>Wednesday, October 13</th>
<th>Thursday, October 14</th>
<th>Friday, October 15</th>
<th>Sunday, October 17</th>
<th>Monday, October 18</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>The International Society for Clinical Densitometry (ISCD)</strong></td>
<td><strong>The International Society for Clinical Densitometry (ISCD)</strong></td>
<td>7:15 pm - 9:30 pm Bone Turnover Marker Working Group</td>
<td>7:15 pm - 9:45 pm Adult Bone and Mineral Working Group</td>
<td>6:30 pm - 9:30 pm Bone Strength Working Group</td>
</tr>
<tr>
<td>7:30 am On-site Registration and Sign-in*</td>
<td>7:30 am Sign-in*</td>
<td>7:15 pm - 9:15 pm In Vivo Working Group</td>
<td>7:15 pm - 9:45 pm Muscle and Bone Working Group</td>
<td>7:30 pm - 9:30 pm The CKD-MBD Working Group</td>
</tr>
<tr>
<td>8:00 am - 6:15 pm Bone Densitometry Technologist and Clinician Course</td>
<td>8:00 am - 3:00 pm Bone Densitometry Technologist and Clinician Course</td>
<td>7:15 pm - 9:15 pm Non-Invasive Assessment of Bone Microarchitecture and Function Working Group</td>
<td>7:15 pm - 9:15 pm Working Group on Osteoporosis in Rheumatic Diseases</td>
<td>7:00 pm - 9:00 pm Molecular Biology and Pathology of Bone Working Group</td>
</tr>
<tr>
<td>*ISCD courses require separate fees and registration</td>
<td></td>
<td>7:15 pm - 10:00 pm Nutrition and Bone Health Working Group</td>
<td>7:15 pm - 10:00 pm Working Group on Systems-based Approaches to Fracture Secondary Prevention</td>
<td>7:00 pm - 9:00 pm Working Group on Musculoskeletal Rehabilitation in Patients with Osteoporosis</td>
</tr>
<tr>
<td></td>
<td></td>
<td>7:15 pm - 9:30 pm Pediatric Bone and Mineral Working Group</td>
<td>7:15 pm - 9:15 pm Working Group on Vitamin D Working Group</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>7:15 pm - 9:45 pm Working Group on Skeletal Aging</td>
<td>7:15 pm - 9:45 pm Translating Osteoporosis Research to Enduring Practice Change</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><strong>Industry-Supported Symposia (ISS)</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>7:15 pm - 9:45 pm Translating Osteoporosis Research to Enduring Practice Change</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Sponsored by Med-IQ</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Supported by Warner Chilcott</td>
</tr>
</tbody>
</table>

There are no programs scheduled for Saturday, October 16.

Please note that the International Society for Clinical Densitometry (ISCD) Courses, the Industry-Supported Symposia (ISS) and the Working Groups are not part of the ASBMR 2010 Official Scientific Program. These meetings are held in conjunction with the ASBMR Annual Meeting. The Sponsor/Organizer of each meeting is responsible for the organization and scientific content of the educational activity. For the ISS, ACCME-accreditation is required and the programs must be in accordance with the Essential Areas and Policies of the ACCME as well as with FDA guidelines stated below. Please note the following definitions: “Supporter” refers to the supporting company and “Sponsor” refers to the managing or organizing party and/or the CME provider.

# ASBMR Expectation of Authors and Presenters

The 2010 Ancillary Program is not part of the ASBMR Official Scientific Program. However, the ASBMR expects that all authors and presenters affiliated with the ASBMR 2010 Annual Meeting and the 2010 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 2010 Ancillary Meetings — the International Society for Clinical Densitometry (ISCD) Courses, the Industry Supported Symposia (ISS) 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. Please review further expectations regarding [speaker disclosures and presentation guidelines](#).
Working Groups

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 on-line](#). Waiting lists are not maintained for Working Groups that have met their attendance limit.

Friday, October 15

**Bone Turnover Marker Working Group**

7:15 pm – 9:30 pm  
Registration Fee: $25 USD

Clinical Applications of Bone Turnover Markers

Biochemical bone turnover markers are increasingly being used in clinical practice, as well as in clinical research. In some cases, such as the use of serum β-CTX in predicting the risk of developing osteonecrosis of the jaw in patients starting bisphosphonates, their use is controversial.

This workshop will focus on the clinical applications of biochemical bone turnover markers. It will provide current knowledge about: 1) clinical indications for the use of bone turnover markers, 2) the different types of bone turnover markers and their appropriate use and 3) how to best interpret bone turnover marker data.

Ample time will be allocated for questions and answers, comparisons and a short summation. A boxed dinner with beverages will precede the program.

There will be three thirty-minute talks, each followed by 10 minutes of questions. Featured speakers include: John Bilezikian, M.D., Columbia University College of Physicians & Surgeons, Patrick Garnero, Ph.D., Synarc SAS and Felicia Cosman, M.D., Helen Hayes Hospital.

**For further information, please contact:**

Peter R. Ebeling M.D.  
The University of Melbourne, Western Hospital  
Melbourne (Australia)  
Telephone: 61-383456429  
E-mail: peterre@unimelb.edu.au

---

**In Vivo Working Group**

7:15 pm – 9:15 pm  
Fifteenth Annual Meeting  
Registration Fee: $15 USD

Bone Fracture Repair: From Bench to Bedside

Bone fracture is the most devastating consequence of osteoporosis, and the effect of a potential osteoporosis treatment on bone fracture rate is one of the most important outcomes of long-term clinical trials. These points emphasize the importance of bone fracture and its repair process in the field of bone research. Prominent investigators will describe the use of animal models for studies of the cellular and molecular mechanisms of bone fracture repair, and for preclinical testing of the effects of established and novel osteoporosis therapies on bone-fracture healing. Clinical studies of novel strategies to enhance the repair of bone fractures will also be presented. Ample time will be allowed for questions and discussion. A buffet dinner will precede the program.

**For further information, please contact:**

Thomas J. Wronski, Ph.D.  
University of Florida (USA)  
Telephone: (352) 294-4044  
E-mail: wronskit@vetmed.ufl.edu

---

For further information, please contact:

Peter R. Ebeling M.D.  
The University of Melbourne, Western Hospital  
Melbourne (Australia)  
Telephone: 61-383456429  
E-mail: peterre@unimelb.edu.au
2010 Ancillary Program

Working Groups

Friday, October 15, continued

Non-Invasive Assessment of Bone Microarchitecture and Function Working Group
7:15 pm – 9:15 pm
Thirteenth Annual Meeting
Registration Fee: $15 USD

The working group includes a presentation and a discussion forum for researchers to exchange ideas pertaining to the technical, basic science and clinical aspects of bone microarchitecture assessment. This thirteenth annual meeting will focus on microarchitecture and bone quality and cover both clinical and experimental aspects of these entities. The working group will outline and discuss potential clinical applications of bone quality imaging and present how different therapeutic regimens will affect bone quality. In addition, a new parameter for assessment of bone quality “microelastic imaging” will be introduced. The goals of the working group are to initiate communication and exchange of ideas, stimulate future development and adequate support in this area and accelerate advances in the field of non-invasive assessment of bone microarchitecture and function. Beverages and a buffet style dinner will be provided.

For further information, please contact:
Thomas M. Link, M.D., Ph.D.
Department of Radiology
University of California, San Francisco (USA)
Telephone: (415) 353-2450
Email: tmlink@radiology.ucsf.edu

Pediatric Bone and Mineral Working Group
7:15 pm – 9:30 pm
Registration Fee: $35 USD

Osteonecrosis in Children: Clinical and Basic Science Perspectives

This year’s Pediatric Bone and Mineral Working Group will focus on a review of the literature highlights from 2009 and 2010 (Dr. Craig Munns) and discussion of the clinical and experimental aspects related to pediatric osteonecrosis (isolated and in the context of chronic illness [Drs. Harry Kim and Sue Kaste]. This will be followed by a presentation of up to two abstracts selected from posters in the main forum on pediatric osteonecrosis, each to be presented as 10-minute orals with five minutes for questions. A boxed dinner will be provided.

For further information, please contact:
Leanne Ward, M.D.
Children’s Hospital of Eastern Ontario (Canada)
Telephone: (613) 737-7600 ext. 2253
Email: Lward@cheo.on.ca

Working Group on Skeletal Aging
7:15 pm – 9:45 pm
Registration fee: $35 USD

Muscle-Bone Interactions in the Aging Skeleton

The program will consist of multiple talks on the importance of muscle-bone interactions in skeletal homeostasis with age. Topics will include sarcopenia and aging (Thomas Lang, UCSF), pleiotropy for muscle and bone traits (Douglas P. Kiel and David Karasik, Institute for Aging Research, Hebrew SeniorLife, and Harvard Medical School), the functional muscle-bone unit across the ages, (Mary Leonard, The Children’s Hospital of Philadelphia), and the muscle-bone endocrine axis (Mark Johnson, University of Missouri). Time will be allocated for questions and discussion after each presentation. A dinner will precede the program.

For further information, please contact:
Robert J. Pignolo, M.D., Ph.D.
University of Pennsylvania (USA)
Telephone: (215) 573-1514 or (215) 898-8653
E-mail: pignolo@mail.med.upenn.edu

Continued on page 28
Nutrition and Bone Health Working Group
7:15 pm – 10:00 pm
Registration Fee: $15 USD
Supported by an educational grant from National Dairy Management Inc.

Update on Vitamin D and Calcium Requirements and Recommendations
There is well-established evidence about the role of vitamin D and calcium in bone metabolism. However, recent research shows that vitamin D might be involved in metabolic process in other tissues and that its requirements might be higher than previously thought. This working group will provide an update on the requirements and dietary recommendations for vitamin D and calcium. The science behind new recommendations/requirements and the processes that took place in establishing them will be discussed as well. The program will include two 40-minute expert talks, followed by panel-member presentations and discussion. A plated dinner will precede the program.

For further information, please contact:
Jasminka Ilich-Ernst, Ph.D., RD, FACN
Florida State University (USA)
Telephone: (850) 645-7177
E-mail: jilichernst@fsu.edu

Muscle and Bone Working Group
7:15 pm – 9:45 pm
Registration Fee $30 USD
The Muscle Strength-Bone Strength Relationship in the Young and Old
The largest forces on skeletons come from muscle 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 further information, please contact:
Christopher L. Gordon, Ph.D.
McMaster University (Canada)
Telephone: (905) 628-5677
E-mail: chrisgordon@sympatico.ca
Working Groups on Osteoporosis in Rheumatic Diseases

7:15 pm – 9:15 pm
Registration Fee: $25 USD

The theme for this session will be "New Insights in Osteo-Arthritis, from Bench to Bedside." The invited speakers and topics include: Introduction by William Lems M.D. (Netherlands); Georg Schett, M.D. (Germany) on Current Concepts and Novel Targets in Osteoarthritis; Nancy Lane, M.D. (USA) on Wnt Signalling Pathway and Osteoarthritis; Piet Geusens, M.D., Ph.D. (Belgium) on Lessons from Imaging Techniques in Hand-Osteoarthritis; Mark Hochberg, M.D., MPH (USA) on Current Symptomatic Treatment of Osteoarthritis (comparison of ACR, EULAR and OARSI recommendations). The speaker presentations will be followed by the presentation of the top two abstracts that the working group receives.

For further information, please contact:
Willem F. Lems, M.D., Ph.D.
Vrije Universiteit Medical Centre (Amsterdam)
Telephone: 31-204443432
Email: wf.lems@vumc.nl

Working Group on Systems-based Approaches to Fracture Secondary Prevention

7:15 pm – 10:00 pm
Third Annual Meeting
Registration Fee: $10 USD


Despite availability of effective treatments, most patients with a new fracture are still not offered assessment or treatment for prevention of secondary fractures. This working group is for clinicians from institutions and all health care systems that are not assessing at least 80 percent of their patients with new fractures.

Dr. E. Bogoch and colleagues (Canada) will present a review of the evidence of benefits from services that have been established around the world to effect systematic assessment for fracture secondary prevention. Dr. A.R. McLellan, (United Kingdom) will present 10-year outcomes and health economic evaluation from the world’s first fracture liaison service that was established in 1999. Mr. P. Mitchell (United Kingdom) will describe how United Kingdom national health policy has been shaped to prioritize strategies for fracture secondary prevention. Dr R. Dell (USA) will present a step-by-step guide on how to implement services for post-fracture assessment & treatment for fracture secondary prevention based on his experience as head of Kaiser Parmanente’s Healthy Bones Program in California. Mr. S. Bavonratanavech (Thailand) will describe the growing burden of osteoporotic fractures in the Far East and the challenges they face in affecting strategies for systematic assessment for fracture secondary prevention. Abstracts describing service models that have been established to effect fracture secondary prevention and their outcomes are invited. Two oral presentations will be included in the working-group program. The meeting will conclude with a discussion. A buffet dinner will precede the program.

For further information, please contact:
Alastair R. McLellan, M.D., MBChB
Gardiner Institute, Western Infirmary (United Kingdom)
Tel.: 44-141-211-2513
E-mail: alastair.mclellan@ggc.scot.nhs.uk
Contributions of Vitamin D to Heart and Cardiovascular and Pancreas and Diabetes

It is now agreed that the actions of the steroid hormone 1α,25(OH)2D3 acting through its receptor the VDR, extend far beyond the classical calcium centric intestine, kidney and bone. There are now five additional physiological systems where the VDR in collaboration with 1α,25(OH)2D3 is responsible for a host of newly identified biological responses. These include the immune system, pancreas and metabolic homeostasis, heart-cardiovascular, muscle and brain systems. This working group will focus on the cardiovascular and diabetes-related actions of 1α,25(OH)2D3. There will be three 20-minute presentations by expert speakers and three 10-minute talks on vitamin D selected from free communication abstracts submitted to the ASBMR meeting.

For further information, please contact:
Anthony W. Norman, Ph.D., and
Roger Bouillon, M.D., Ph.D.
University of California, Riverside (USA)
Email: Anthony.norman@ucr.edu
and Roger.Bouillon@med.kuleuven.be

Bone Strength Working Group
6:30 pm – 9:30 pm
Registration Fee: $20 USD

This program will begin with opening remarks from Dr. Richard Kremer, followed by a presentation of the top abstracts that the working group will select from the ASBMR Poster Program. Presentations will include talks on Bone Quality and Bone Quantity, which will be followed by an open debate. A plated dinner will precede the program.

For further information, please contact:
Richard Kremer, M.D., Ph.D.
McGill University Health Center (Canada)
Telephone: (514) 843-1632
Email: Richard.kremer@mcgill.ca

Continued on page 31
Molecular Biology and Pathology of Bone Working Group
7:00 pm - 9:00 pm
Fifteenth Annual Meeting
Registration Fee: $30 USD
Supported by an educational grant from Abbott Laboratories

Epigenetic Control and Regulatory Networks for Bone Biology and Pathology
This working group has as its goal the exploration of new concepts and experimental approaches to addressing parameters of bone biology and skeletal disease. This year’s workshop will focus on multiple levels of gene regulation as understanding of these mechanisms is advancing areas of bone biology and pathology. Presentations to date will include the topics: Epigenetic Control Mechanisms, Dr. J. Wesley Pike; Combinatorial Control of Gene Expression, Dr. Rene St-Arnaud; BMP and Wnt Signaling in Pathologic Mineralization, Dr. Dwight Towler; and the Role of Transcription Factor Phosphorylation in the Control of Osteoblast Activity, Dr. Renny Franceschi. Following the presentations, the panel of speakers will answer questions from the audience. An important component of the program will be an open discussion between the speakers and the audience to explore various levels of gene regulation for future studies, including translational and therapeutic approaches. A light fare will precede the program.

For further information, please contact:
Gary S. Stein, Ph.D.
University of Massachusetts Medical School (USA)
Telephone: (508) 856-5625
E-mail: gary.stein@umassmed.edu

The CKD: MBD Working Group
7:30 p.m. – 9:30 p.m.
Twelfth Annual Meeting
Registration Fee: $25 USD

Non-pharmacologic Management of Osteoporosis
The program will be selected by members of our Working Group from submitted abstracts to the ASBMR Official Program using the following key words: Exercise (Bone, Joint, Muscle), Nutrition, Orthopaedics (Mechanical Loading) and Treatments (Non-pharmacological treatment). In addition, special lectures highlighting new developments in our field will be given. These lectures will be invited by the scientific committee of our Working Group.

For further information, please contact:
Mehrsheed Sinaki, M.D.
Mayo Clinic and Mayo Clinic College of Medicine (USA)
Telephone: (507) 284-4904
Email: sinaki.mehrsheed@mayo.edu
Michael Pfeifer, M.D.
Medwiss Bad Pyrmont (Germany)
Telephone: 49-5281-151414
Email: iko_pyrmont@t-online.de
2010 Ancillary Program

Industry-Supported Symposia

ASBMR Disclaimer

Industry-Supported Symposia (ISS) are not part of the ASBMR Official Program. ISS are held in conjunction with the ASBMR 2010 Annual Meeting. The sponsor of each ISS is responsible for the organization and scientific content of the educational activity in accordance with the Essential Areas and Policies of the ACCME guidelines. Please note the following definitions: “Supporter” refers to the supporting company and “Sponsor” refers to the managing or organizing party and/or the CME provider.

Sunday, October 17

Translating Osteoporosis Research to Enduring Practice Change

*Sponsored by Med-IQ
Supported by an educational grant from Warner Chilcott Company, LLC

7:15 pm - 9:30 pm

Through interactive patient cases, small group discussions and faculty debate, this symposium will examine the current state of osteoporosis care, the application of current standards of care and the future of osteoporosis care. This activity will also explore current issues in osteoporosis recognition, the individualization of treatment, successful patient monitoring and the evolution of treatment with new strategies and changing legislation and policies.

Accreditation/Credit Designation Statement

Med-IQ is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians. Med-IQ designates this activity for a maximum of 2.0 AMA PRA Category 1 Credits™. Physicians should only claim credit commensurate with the extent of their participation in the activity.

Registration Information

For more information or to register and guarantee a seat for this educational activity, please complete a brief survey, e-mail info@med-iq.com, or call toll-free (866)- 858-7434 no later than September 17. After the registration deadline, seats will be available only on a first-come, first-served basis.
The ISCD Bone Densitometry Course is divided into two programs that will take place on Wednesday and Thursday, October 13-14:

**Clinician Course** (open to M.D.s, Ph.D.s, D.O.s, Nurse Practitioners and Physician Assistants) is most appropriate for those involved in the interpretation of DXA scans.

**Technologist Course** (open to Technologists and Allied Health Professionals) is most appropriate for those involved in the performance of the bone densitometry examination.

Technologists may attend the Clinician Course if gaining information about interpreting DXA scans would assist them with their job responsibilities. However, it is recommended that the Technologist Course be taken first.

**Accreditation Statement**

The International Society for Clinical Densitometry is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to offer continuing medical education for physicians.
Exhibitors and Sponsors

Experience the Exhibits
Visit the Exhibit Hall to discover the latest new products, services and advancements in technology.

Annual Meeting registrants receive exclusive admission to the Exhibit Hall where you will have access to more than 65 exhibiting companies. Take the opportunity to ask questions and speak directly with company representatives about what is on the horizon.

Check out the current list of exhibitors.

2010 Supporters
Special thanks to our 2010 Supporters for their participation in the ASBMR 2010 Annual Meeting (list as of June 2010):

Diamond Level Supporters

Silver Level Supporters

Bronze Level Supporter

Friend Level Supporters

Answers That Matter.

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 IAHB, the commercial supporters of this meeting have no influence regarding topics or speakers.
Why Pay Increased Fees as a Non-Member?

By joining ASBMR prior to the meeting, not only will you receive a significant member discount on your registration fee, but you receive year-round benefits such as the *Journal for Bone and Mineral Research*. If you are not a member, check out the membership criteria and join today. If you currently are a member, make sure to renew your membership in time to get meeting discounts.

Who Are Allied Health Professionals?

Allied Health Professionals are defined as professionals who participate and help physicians in delivering health care and professionals who contribute to the scientific efforts of physicians or Ph.D.s, etc. Allied Health Professionals may obtain the reduced registration fee by having their director sign the Registration Form verifying their status.

---

* Graduate and medical students and those holding M.D. or Ph.D. degrees in residency or post-graduate fellowship programs may obtain the reduced fee by having their mentor sign the Registration Form, verifying their training status.
What’s Included with Registration Fees?
Registration fees entitle the registrant to admission to all sessions, posters, exhibits, Friday’s Welcome Reception, all coffee breaks and a digital copy of the 2010 Abstracts book. An additional ticket and fee is required for all Working Groups, the Social Event, Speed Networking session, a printed/bound copy of the 2010 Abstracts book and the Meet-the-Professor Handout Booklet.

What Are Benefits of Registering Before July 22?
You not only receive a discount on your fees, but also your badge and tickets will be mailed to you prior to the meeting, cutting down your on-site registration to just one line.

On-site Registration in Toronto
Registration desks will be open for new registrants and material pick-up in the Metro Toronto Convention Centre/South Building on Level 600 during the following hours:

- Thursday, October 14: 12:00 pm – 6:00 pm
- Friday, October 15: 7:00 am – 7:00 pm
- Saturday, October 16: 7:00 am – 5:30 pm
- Sunday, October 17: 7:30 am – 5:00 pm
- Monday, October 18: 7:30 am – 5:00 pm

Refunds/Substitutions
Refunds will be made if cancellation is received in writing by July 22, 2010. Spouse/Guest fees, Working Group ticket fees and Social Event tickets are non-refundable. All refunds will be processed after the Annual Meeting and will be assessed a $50 USD 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 22, 2010. Once a badge is printed changes can only be made on site. Badge sharing is not allowed.

Admission
ASBMR shall have sole control over all admission policies at all times. Any person (including family members) visiting the exhibits 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 exhibit/poster hall at any time. There are no exceptions to this policy. If child care is required, please make arrangements in advance.

Spouse/Guest Admission
A badge for spouses and/or other guests may be obtained for a $40 USD fee. This fee includes admission to the Welcome Reception on Friday, October 15, as well as to the Exhibit/Poster Hall for all breaks. Spouse/Guest badges are intended for spouses/guests of fully registered attendees who are not employed or active in the field. Spouse/Guest tickets to the Social Event are a separate fee.

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 e-mail address you provide. Your confirmation will include instructions on how to log on and request changes or additional receipts.

Questions?
If you are an ASBMR member and do not have your membership number, please contact asbmr@asbmr.org or +1 (202) 367-1161.

If you have questions about your registration, please contact asbmr@showcare.com or +1 (202) 367-1173.
ASBMR has reserved rooms in the hotels listed below for your use. Reservations for these hotels must be made through the ASBMR Housing Bureau.

The Hotel Reservation Deadline is Wednesday, September 15.

Why Book in the ASBMR Housing Block?
Booking your reservation outside of the ASBMR block of rooms has a long-term negative impact on the ASBMR meeting. The number of rooms that ASBMR can attribute as reserved by ASBMR attendees helps us to negotiate rates with the city’s meeting facilities. With fewer rooms directly attributable to ASBMR, convention center rental rates will rise, which may impact the rates ASBMR must charge for meeting registration. Additionally, hotels place financial penalties on associations for each room not used by our attendees. We appreciate you supporting ASBMR by booking hotel rooms within our official block.

New This Year! ASBMR International Group Housing
The newly formed ASBMR International Group Department can arrange official group housing for groups traveling with five or more delegates from outside of the USA. They offer all-inclusive travel packages at the lowest possible rates and your own personal multilingual meeting planner from online to on site. This personal meeting planner is always available to provide support at their European or U.S. offices. Contact them by email at ASBMRgrouphousing@asbmr-igd.com or visit their website www.asbmr-igd.com/default.aspx.

Student Housing Discounts
If you registered as a resident, student or fellow, you are eligible for discounted housing while supplies last. To receive the discount, use the access code found in your registration confirmation letter when you book your hotel online.

<table>
<thead>
<tr>
<th>Hotel Name</th>
<th>Address</th>
<th>Mobile / AAA Rating:</th>
<th>ASBMR Rates:</th>
<th>Distance to Metro Toronto Convention Centre/South Building</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fairmont Royal York (Headquarter Hotel)</td>
<td>100 Front Street West</td>
<td>★★★★★ / ♦♦♦♦♦</td>
<td>$239 CAD single/double occupancy</td>
<td>2 blocks</td>
</tr>
<tr>
<td>Intercontinental Toronto</td>
<td>225 Front Street West</td>
<td>★★★★★ / ♦♦♦♦♦</td>
<td>$239 CAD single/double occupancy</td>
<td>1 block (connected to North Building)</td>
</tr>
<tr>
<td>Sheraton Centre Hotel</td>
<td>123 Queen Street West</td>
<td>★★★★★ / ♦♦♦♦♦</td>
<td>$227 CAD single/double occupancy</td>
<td>5 blocks</td>
</tr>
<tr>
<td>The Westin Harbour Castle Hotel</td>
<td>1 Harbour Street</td>
<td>★★★★★ / ♦♦♦♦♦</td>
<td>$227 CAD single/double occupancy</td>
<td>5 blocks</td>
</tr>
</tbody>
</table>
Travel Information

Discount Air Travel and Car Rental Information

ASBMR has partnered with Tower Travel to provide discounted airfare and car rental for the 2010 Annual Meeting. Pick one of the three ways listed below to book your airfare or car rental. Be sure to mention the ASBMR 2010 Annual Meeting.

Web: https://asbmr-towertravel.reardencommerce.com

You will be guided through setting up a user name/password to access the discounts.

Telephone: +1 (888) 886-7656 or +1 (630) 928-7144

E-mail: travel@towertravel.com

For assistance in confirming the least expensive travel rate, contact Tower Travel. Reservation lines are open from 7:00 am to 10:00 pm, Monday through Friday CDT and 9:00 am to 1:00 pm CDT on Saturdays.

Discounted Airport Shuttle Service

Use the ASBMR discount for the Airport Express Shuttle between Toronto’s Pearson Airport and the downtown hotels. ASBMR attendees receive a special discount making your rate $17.94 CAD for one-way and $29.66 CAD for roundtrip. Leather seating, WiFi capability and laptop plug-ins offer you business class service to ensure your transport time is most productive. To make your Airport Express Shuttle reservation visit their website.

Where to Catch the Shuttle at the Airport:

Airport pick up is conveniently located on the Arrivals level of Terminals 1 and 3. The shuttles will depart from Pearson Airport to Hotels at the following time intervals:

- 4:55 am – 11:25 am: Shuttles Depart Every 30 Minutes
- 11:55 am – 8:35 pm: Shuttles Depart Every 20 Minutes
- 8:55 pm – 12:55 am: Shuttles Depart Every 30 Minutes

Where to Catch the Shuttle at the Hotels for Departure to Pearson Airport:

Shuttles will pick up at all of the Official ASBMR Hotels. You can find the shuttle to the airport at the following locations/times:

- Fairmont: Pickup Location on York Street
- Royal York Hotel: Pickup Location on Front Street
- InterContinental: Pickup Location on Richmond Street
- Toronto Centre Hotel: Pickup Location on Queens Quay
- Sheraton Centre Hotel: Pickup Location on Richmond Street
- Westin Harbour Castle Hotel: Pickup Location on Queens Quay

- 4:00 am – 11:45 am: Shuttles Depart Every 30 Minutes
- 12:05 pm – 7:45 pm: Shuttles Depart Every 20 Minutes
- 8:15 pm – 11:45 pm: Shuttles Depart Every 30 Minutes

Continued on page 39
Travel Information

Continued from page 38

Special Needs
We want to ensure that you enjoy the ASBMR 2010 Annual Meeting. If you have special needs due to a disability, please contact ASBMR at asbmr@asbmr.org or +1 (202) 367-1138 and we will do our best to assist you.

Wheelchair Rentals
Scooter and wheelchair rentals are available by contacting Scootaround, Inc., at their toll-free hotline: +1 (888) 441-7575. You can also submit a rental inquiry on the web at www.scootaround.com.

Child Care Services
ASBMR makes no endorsement of any providers and accepts no liability should you employ child-care services while in Toronto. Below are services to contact for child-care services. Please note: Children under 12 years of age are not permitted in any ASBMR meeting, session rooms or Exhibit/Poster Hall at any time.

ImprovCare Services for Children
This service provides child care in your hotel room. Their rates are $28 CAD per hour for one-two children or $34 CAD per hour for three children with a three-hour minimum booking and a 48-hour cancellation policy. This company accepts only Visa and MasterCard as payment. To register your child, call +1 (647) 287-5433 or send an email to dahla@improvcare.ca. For more information, visit their website at www.improvcare.ca.

Hotel Concierge
Your hotel concierge will be able to provide you with the name and phone number of their preferred child care services.
Discover Toronto

What to See and Do

Whether you have a few extra hours or a few extra days, the lake-front city of Toronto has much to offer. If you are interested in museums, markets, architectural highlights, sporting venues, recreational attractions, restaurants and/or shopping, then Toronto is the city for you. Here is a short list of popular attractions:

- Air Canada Center (Home of the Toronto Raptors and Toronto Maple Leafs)
- Canada’s Wonderland
- CN Tower
- Eaton Centre
- Harbourfront Centre
- Ontario Place
- Ontarion Science Centre
- Rogers Centre (Formerly the Skydome, home of the Toronto Argonauts and Toronto Blue Jays)
- Royal Ontario Museum
- St. Lawrence Market
- Toronto Islands
- Toronto Zoo

For those who have ethnically diverse tastes, Toronto boasts five Chinatowns, Little Italy, a Greek community, Little Portugal and Gerrard India Bazaar. You can take a side trip in one or many of these interesting neighborhoods.

How to Get Around

Public Transit

Explore Toronto on one of North America’s finest transportation systems – the Toronto Transit Commission (TTC). With easy-to-navigate subways, buses and streetcars, getting around the city is a snap. When using the TTC a single fare will take you anywhere in the city on a one-way trip. You can freely transfer between subway, streetcar and bus, but make sure you obtain a transfer when and where you pay your fare. On buses and streetcars, exact change is required.

GO Transit is Ontario’s inter-regional bus and train service. It links Toronto with outlying areas of the Greater Toronto and beyond. GO Trains and buses depart from Toronto’s Union Station at regular intervals throughout the day.

Hail a Taxi

There are a number of different taxi companies in Toronto – each has a distinct look.

- Fares are standard, metered and non-negotiable
- The driver should start the meter at the beginning of your ride and stop it when you reach your destination
- Refuse to ride in a taxi without an operational meter
- If your service was acceptable, a 10-15% tip is customary

A taxi from the Pearson Airport will cost approximately $58 CAD to the ASBMR headquarters hotel.

The Underground City

PATH is downtown Toronto’s underground walkway linking 27 kms (16 miles) of subterranean shopping, services and entertainment. Follow the brightly colored PATH signs and you’ll reach your downtown destination easily in weatherproof comfort.

For more information on what to do and how to get around, visit www.seetorontonow.com.