

## **Determinants of Peak Bone Mass**

**November 17, 2015, 8:00 a.m.–5:00 p.m.**  
**Lister Hill Auditorium (Building 38A), NIH Main Campus**

Co-Chairs: Clifford Rosen, MD (Maine Medical Center Research Institute), and Karen Winer, MD (NICHD)

**8:00 a.m. Welcome and Opening Remarks**

- Karen Winer, M.D., Director, Endocrine and Bone Programs, NICHD
- Della Hann, Ph.D., Director, Division of Extramural Research, NICHD
- Clifford Rosen, M.D., Maine Medical Center Research Institute

**Session 1 Intrinsic Factors in Bone Accretion**

Co-Chairs: Mary L. Bouxsein, Ph.D. (Harvard Medical School); John Shepherd, Ph.D. (University of California San Francisco [UCSF])

**8:10 a.m. Peak Bone Mass: When Is It Achieved?**

Babette Zemel, Ph.D. (Children's Hospital of Philadelphia)

**8:30 a.m. Gender Differences in Bone Accrual and Structure**

Vicente Gilsanz, M.D. (Children's Hospital Los Angeles)

**8:50 a.m. Bone Strength Accrual**

Tishya Wren, Ph.D. (Children's Hospital Los Angeles)

**9:10 a.m. Tracking and Fracture Risk**

Heidi J. Kalkwarf, Ph.D. (Cincinnati Children's Hospital Medical Center)

**9:30 a.m. Genetic Determinants of Bone Mass**

Struan F. A. Grant, Ph.D. (Children's Hospital of Philadelphia)

**9:50 a.m. Panel Discussion**

**10:10 a.m. Break**

**Session 2 Growth and Development**

Chair: Erik Imel, M.D. (Indiana University)

**10:30 a.m. Endocrine Aspects of Linear Bone Growth and Determinants of Epiphyseal Closure**

Ron Rosenfeld, M.D. (Oregon Health & Science University)

**10:50 a.m. Effects of Puberty on Bone**

Frank Rauch, M.D. (Shriners Hospitals for Children)

- 11:10 a.m. Bone as an Endocrine Organ**  
Gerard Karsenty, M.D., Ph.D. (Columbia University Medical Center)
- 11:30 a.m. Bone–Fat Interactions**  
Clifford Rosen, M.D. (Maine Medical Center Research Institute)
- 11:50 p.m. Maternal Obesity: Effects on Fetal Bone Development**  
Jin-Ran Chen, M.D., Ph.D. (University of Arkansas)
- 12:10 p.m. Panel Discussion**
- 12:30 p.m. Lunch**
- Session 3 Nutrition and Exercise**  
Co-Chairs: Jin-Ran Chen, M.D., Ph.D. (University of Arkansas); Catherine Gordon (University of Cincinnati)
- 1:30 p.m. Evidenced-Based Review of Nutrition and Physical Activity**  
Connie M. Weaver, Ph.D. (Purdue University)
- 1:50 p.m. Vitamin D Effects on Bone Development**  
Richard Lewis, Ph.D. (University of Georgia)
- 2:10 p.m. Calcium Effects on Bone Development**  
Joan Lappe, Ph.D. (Creighton University)
- 2:30 p.m. Effects of Physical Activity on Bone Development**  
Kathleen F. Janz, Ed.D. (University of Iowa)
- 2:50 p.m. Panel Discussion**
- 3:10 p.m. Break**
- Session 4 Chronic Illness and Impairment of Normal Bone Accrual**  
Chair: Laura Bachrach, M.D. (Stanford University)
- 3:30 p.m. Effects of Nutritional Deprivation on Bone**  
Catherine Gordon, M.D. (Cincinnati Children’s Hospital Medical Center)
- 3:50 p.m. Effects of Hormonal Contraception on Bone**  
Madhusmita Misra, M.D. (Harvard Medical School)
- 4:10 p.m. Effects of Glucocorticoids on Bone**  
Mary Leonard, M.D. (Stanford University)
- 4:30 p.m. Panel Discussion**

**4:50 p.m.      Wrap-Up Discussion and Future Directions**

Cliff Rosen (Maine Medical Center Research Institute) and Session Chairs: Mary L. Buxsein, Ph.D. (Harvard Medical School); John Shepherd, Ph.D. (UCSF), Erik Imel, M.D. (Indiana University), Jin-Ran Chen, M.D., Ph.D. (University of Arkansas); Catherine Gordon (University of Cincinnati); Laura Bachrach, M.D. (Stanford University)

**5:00 p.m.      Adjourn**