

### Visiting Professorship Series-Academic Year 2017-2018

### Tuesday, October 24, 2017, 1:30-2:30pm/CRB Austrian Auditorium

How can we improve translation of pre-clinical osteoarthritis research to patients? Christopher Little, BVMS, PhD
Director, Raymond Purves Bone & Joint
Research Laboratories
Kolling Institute
Institute of Bone and Joint Research
University of Sydney

### Tuesday, September 12, 2017, 1:30-2:30pm/CRB Austrian Auditorium

Cartilage Repair and Osteoarthritis in Genetic Mouse Models Linda Sandell, Ph.D. Mildred B. Simon Research Professor and Director of Research Washington University

### Visiting Professorship Series-Academic Year 2016-2017

### Tuesday, June 2017 1:30-2:30pm/CRB Austrian Auditorium

Osteocytes and Bone Remodeling: They're Just Dying to do the Job. Mitchell B. Schaffler, PhD CUNY and Wallace Coulter Distinguished Professor of Biomedical Engineering Chairman, Department of Biomedical Engineering The City College of New York, City University of New York

# Tuesday, May 2017, 1:30-2:30pm/CRB Austrian Auditorium Title: "NF-kB Signaling in Muscle Growth and Disease"

Denis C. Guttridge, Ph.D. Professor, Department of Cancer Cachexia and Genetics Director, Research and Management for Cancer Cachexia Ohio State University

### Tuesday, April 4, 2017, 1:30-2:30pm/CRB Austrian Auditorium

MSC's and immunomodulation: are we moving closer to allogeneic use? Laurie Goodrich, DVM, PhD Associate Professor of Orthopaedics, Department of Clinical Sciences Colorado State University

### Tuesday, March 14, 2017, 1:30-2:30pm/CRB Austrian Auditorium

### **CANCELLED Rescheduled to September 2017**

Cartilage Repair and Osteoarthritis in Genetic Mouse Models Linda Sandell, Ph.D. Mildred B. Simon Research Professor and Director of Research

Washington University

# Tuesday, February 7, 2017, 1:30-2:30pm/CRB Austrian Auditorium

Cell-independent Manipulation of Bone Matrix Properties: A Novel Treatment Strategy for Osteoporosis and Type 2

Diabetes.

David Burr, PhD

Professor of Anatomy & Cell Biology

Profess, Department of Biomedical Engineering

Indiana University

#### Tuesday, January 10, 2017, 1:30-2:30pm/CRB Austrian Auditorium

Studing Bone as a Complex Adaptive System Reveals Inter-Individual Differences in Skeletal Growth and Aging. Karl Jepsen, PhD

Professor, Associate Chair of Research, Department of Orthopaedic Surgery

University of Michigan

### Tuesday, December 13, 2016, 1:30-2:30pm/JMB Class of '62 Auditorium

#### **CANCELLED Rescheduled to June 2017**

Mitchell B. Schaffler, PhD

CUNY and Wallace Coulter Distinguished Professor of Biomedical Engineering

Chairman, Department of Biomedical Engineering

The City College of New York, City University of New York

### ANNUAL SCIENTIFIC SYMPOSIUM (all day event)

### Wednesday, November 9, 2016, 9:00-5:30pm/BRB Auditorium

Title: Strategies for Improving Bone Properties in Patients with Osteogenesis Imperfecta

Matthew Warman, MD

Professor, Department of Genetics, Harvard Medical School

### Tuesday, October 25, 2016, 1:30-2:30pm/JMB Class of '62 Auditorium

Musculoskeletal Adaptation to Space Flight.

Henry J. Donahue, Ph.D.

Professor and Chair, Department of Biomedical Engineering

Virginia Commonwealth University, Richmond

### Tuesday, September 20, 2016, 1:30-2:30pm/JMB Class of '62 Auditorium

Mechanisms of Chondroprotection by TGF-\( \mathcal{B} \).

Rosa A. Serra, PhD

Professor, Department of Cell, Developmental and Integrative Biology

University of Alabama at Birmingham

### Visiting Professorship Series-Academic Year 2015-2016

### Tuesday, May 17, 2016, 1:30-2:30/CRB Austrian Auditorium

Microenvironmental regulation of skeletal muscle stem cell function

Alessandra Sacco, Ph.D.

Associate Professor

Development, Aging and Regeneration Program (DARe)

Sanford Burnham Medical Research Institute

### Tuesday, April 19, 2016, 1:30-2:30pm/CRB Austrian Auditorium

Genome and Epigenome editing for Gene Therapy and Programming Cell Fate

Charles Gersbach, Ph.D.

Associate Professor of Biomedical Engineering

Assistant Professor of Orthopaedic Surgery

**Duke University** 

### Tuesday, March 22, 2016, 1:30-2:30pm/ Class of 62 Auditorium, JMB

Scar Wars: New Frontiers in Flexor Tendon Repair

Hani Awad, Ph.D.

Professor of Biomedical Engineering

Professor of Orthopaedics University of Rochester

### Tuesday, February 16, 2016, 1:30-2:30pm/TBD

Unravelling the neurobiology of osteoarthritis pain Anna-Marie Malfait, MD, PhD Associate Professor of Medicine and Biochemistry Rush University Medical Center

# Tuesday, January 19, 2016, 1:30-2:30pm/TBD

Role of Connexin43 in Cortical Bone Adaptation to Mechanical Load Roberto Civitelli, MD, PhD Associate Professor of Chemical & Biological Engineering BioFrontiers Institute

### Tuesday, December 15, 2015, 1:30-2:30pm/CRB Auditorium

TGF-beta Integration of Physical and Biochemical Cues in the Skeleton Tamara Alliston, PhD Associate Professor, Department of Orthopaedic Surgery University of California, San Francisco

### ANNUAL SCIENTIFIC SYMPOSIUM (all day event)

Thursday, November 19, 2015, 9:30-5:30pm/BRB Auditorium

Title: "Treatment of Musculoskeletal Diseases with a little help from your own Stem Cells"

Nancy Lane, MD

Director, Center for Musculoskeletal Health

UC Davis Health System

### Tuesday, October 20, 2015, 1:30-2:30pm/8-146 SCTR

Title: "A Runted Tale of Skeletal Homeostasis and Repair"
M. Hicham Drissi, PhD
Profess of Orthopaedic Surgery
UConn Health

### Tuesday, September 8, 2015, 1:30-2:30pm/8-146 SCTR

Title: Evolving roles of Prolyl Hydroxylases in Intervertebral Disc Health and Disease Markarand V. Risbud, PhD Professor of Orthopaedic Surgery; Director, Spine Research Program Sidney Kimmel Medical College, Thomas Jefferson University

### **Visiting Professorship Series-Academic Year 2014-2015**

### Thursday, July 23, 2015, 1:30-2:30pm/8-146AB SCTR

The Osteoimmunology of Bone Infection and Development of a Passive Immunization for MRSA Osteomyelitis Edward Schwarz, PhD, Professor of Orthopaedics and Associate Director of the Center for Musculoskeletal Research University of Rochester, Rochester, NY

# Tuesday, June 23, 2015, 1:30-2:30pm/BRB 252 PCMD-PCI Industrial Interaction Seminar

Working with the Penn Center for Innovation to protect and commercialize your research. Viviane Martin, PhD, Director, PSOM Licensing Group, Penn Center for Innovation Sarah Frew, MBA, Director, Corporate Contracts and Alliances, Penn Center for Innovation

### Friday, May 22, 2015, 11:00am-12:00pm/BRB 252

Effects of Space Travel on Spine Function and Injury Tolerance

Jeffrey Lotz, PhD

Professor of Orthopaedic Surgery, Director of the Orthopaedic Bioengineering Laboratory

University of California, San Francisco

### Tuesday, May 12, 2015, 1:30-2:30pm/10-146 SCTR

Cell and Extracellular Matrix Dynamics in Skeletal Tissues

Sarah L. Dallas, PhD

Professor of Oral and Craniofacial Sciences, University of Missouri, Kansas City

### Tuesday, April 21, 2015, 1:30-2:30pm/10-146 SCTR

Orthopedic Tissue Engineering by Epigenetic Landscaping

Andre J. van Wijnen, PhD

Professor of Orthopedic Surgery & Biochemistry and Molecular Biology, Mayo Clinic

### Tuesday, March 10, 2015, 1:30-2:30pm/11-146 SCTR

Title: "Bone Health in Microgravity — Use It or Lose It"

Mary L. Bouxsein, PhD

Associate Professor of Orthopedic Surgery, Harvard Medical School

### Tuesday, February 10, 2015, 1:30-2:30pm/10-146 SCTR

Pluripotent Stem Cell Repair of Osteochondral Defects

Darryl D'Lima, MD, PhD

Associate Professor, Scripps Translational Science Institute

### Tuesday, January 20, 2015, 1:30-2:30pm/10-146 SCTR

Synthetic Hydrogel Niches for Musculoskeletal Tissue Engineering

Stephanie J. Bryant, PhD

Associate Professor of Chemical & Biological Engineering, BioFrontiers Institute

### Tuesday, December 09, 2014, 1:30-2:30pm/10-146 SCTR

Small Leucine Rich Proteoglycans: Fine Tune Regulators of Skeletal Function

Marian F. Young, PhD

Chief of the Molecular Biology of Bones and Teeth Section, National Institutes of Health/NIDCR

### **ANNUAL SCIENTIFIC SYMPOSIUM (all day event)**

### Wednesday, November 14, 2014, 10:45-5:30pm/BRB Auditorium

How PTHrP Regulates Chondrocyte Differentiation

Henry M. Kronenberg, MD

Professor of Medicine, Harvard Medical School

### Tuesday, October 28, 2014, 1:30-2:30pm/10-146 SCTR

The Strategic Role of Parathyroid Hormone in Resolution of Osseous Healing and Regeneration of Bone

Laurie K. McCauley, DDS, PhD

William K. and Mary Anne Najjar Professor, University of Michigan

### Tuesday, September 16, 2014, 1:30-2:30pm/11-146 SCTR

Development of a Gene-based Therapy for Osteoarthritis: Safety and Efficacy in an Equine Model

Steven C. Ghivizzani, Ph.D.

Professor of Orthopaedics & Rehabilitation, University of Florida

### Visiting Professorship Series-Academic Year 2013-2014

### Tuesday, May 13, 2014, 1:30-2:30/CRB Austrian Auditorium

A translational approach to development of novel treatments for osteoarthritis-associated pain and joint tissue structural failure

Gloria Matthews, D.V.M, Ph.D., DACVS

Senior Director of Orthopaedic/Regenerative Medicine Research & Early Development, Genzyme, a Sanofi Company

### Tuesday, April 22, 2014, 1:30-2:30pm/CRB Austrian Auditorium

Dissecting the mechanisms of anabolic signaling in bone

Fanxin Long, Ph.D.

Professor of Internal Medicine Endocrinology, Metabolism & Lipid Research, Washington University, St Louis

### Tuesday, March 25, 2014, 1:30-2:30/CRB Austrian Auditorium

Structure & Symptom Modifying Therapies for Painful Disc Degeneration

James C. Iatridis, Ph.D.

Professor and Director of Spine Research, Mount Sinai School of Medicine

### Tuesday, February 18, 2014, 1:30-2:30pm/CRB Austrian Auditorium

Solid State MR Spectroscopy and Imaging of Bone Mineral and Matrix

Jerome L. Ackerman, Ph.D.

Associate Professor in Radiology, Harvard Medical School

### Tuesday, January 21, 2014, 1:30-2:30pm/CRB Austrian Auditorium

Osseointegration Past Present and Future

Mathias Bostrom, M.D.

Professor of Orthopaedic Surgery, Hospital for Special Surgery

### Tuesday, December 10, 2013, 1:30-2:30pm/CRB Austrian Auditorium

Epigenetic regulation of stem cell phenotypic plasticity and hedgehog signaling during early cartilage development Andrew Lasser, Ph.D.

Professor of Biological Chemistry and Molecular Pharmacology, Harvard Medical School

### **ANNUAL SCIENTIFIC SYMPOSIUM (all day event)**

### Wednesday, November 13, 2013, 10:45am-5:30pm/BRB Auditorium

Managing Science and Innovating in Challenging Times

Joan A. McGowan, Ph.D.

Director, Division of Musculoskeletal Diseases

National Institutes of Health, National Institute of Arthritis and Musculosketeal and Skin Diseases (NIAMS)

### Tuesday, October 22, 2013, 1:30-2:30pm/CRB Austrian Auditorium

The Biomolecular Science and Engineering of Bone's Extracellular Matrix

Deepak Vashishth, Ph.D.

Professor & Department Head of Biomedical Engineering, Rensselaer Polytechnic Institute

### Tuesday, September 17, 2013, 1:30-2:30pm/CRB Austrian Auditorium

Engineering Human Osteochondral Grafts

Gordana Vunjak-Novakovic, Ph.D.

Mikati Foundation Professor of Biomedical Engineering; Professor of Medical Sciences (in Medicine)

Columbia University

### Visiting Professorship Series-Academic Year 2012-2013

#### Tuesday, May 07, 2013, 1:00-2:00pm/ Austrian Auditorium CRB

Mechanical and Biological Regulation of Tissue Regeneration

Robert E. Guldberg, Ph.D.

Professor, Woodruff School of Mechanical Engineering, Georgia Institute of Technology

### Tuesday, April 09, 2013, 1:30-2:30pm/Austrian Auditorium CRB

Tendon Stem Cells, Tendinopathy, and Tendon Repair

James H-C. Wang, Ph.D.

Professor and Director MechanoBiology Laboratory, University of Pittsburgh

### Tuesday, March 12, 2013, 1:30-2:30pm/Austrian Auditorium CRB

Richard F. Loeser Jr, M.D.

Professor of Internal Medicine- Rheumatology & Immunology, Wake Forest University

### Tuesday, February 12, 2013, 1:30-2:30pm/Austrian Auditorium CRB

Coupling Bone Resorption and Formation

Xu Cao, Ph.D.

Lee Riley Professor and Co-Director Center for Musculoskeletal Research, Johns Hopkins University

### Tuesday, January 15, 2013, 1:30-2:30pm/Austrian Auditorium CRB

Sensorimotor and Serum Biomarkers Indicative of Underlying Pathologies in a Rat Model of Upper Extremity Overuse

Mary Barbe, Ph.D.

Professor of Anatomy & Cell Biology, Temple University

#### Tuesday, December 18, 2012, 1:00-2:00pm/252 BRB

A Novel Biomarker of Early Post-Traumatic Osteoarthritis Using the Horse as an Animal Model

Lisa A. Fortier, DVM, Ph.D, DACVS

Associate Professor of Surgery, Cornell University

### **ANNUAL SCIENTIFIC SYMPOSIUM (all day event)**

### Wednesday, November 14, 2012, 10:45am-5:30pm/BRB Auditorium

Osteoarthritis: From Palliation to Prevention

Constance R. Chu, M.D.

Albert Ferguson Professor of Orthopaedic Surgery, University of Pittsburgh

### Tuesday, October 23, 2012, 1:00-2:00pm/Austrian Auditorium CRB

William L. Murphy, Ph.D.

Associate Professor , University of Wisconsin-Madison

### Tuesday, September 11, 2012, 1:30-2:30pm/251 BRB

Joint Injury and Osteoarthritis

Joseph A. Buckwalter, M.S., M.D.

Professor, Head and Arthur Steindler Chair, University of Iowa

### Visiting Professorship Series-Academic Year 2011-2012

### Tuesday, May 29, 2012, 1:00-2:00pm/251 BRB

Marfan Syndrome: Molecular Pathology and Therapeutic Opportunities

Francesco Ramirez, D.Sc.

Professor of Pharmacology and Systems Therapeutics, Professor of Medicine-Cardiology,

Mount Sinai Medical Center

# Tuesday, April 24, 2012, 1:00-2:00pm/251 BRB

The Role of the OSteocyte in Muscle-Bone Crosstalk

Lynda F. Bonewald, Ph.D.

Interim Vice Chancellor for Research and Curators Professor, University of Missouri at Kansas City

### Tuesday, April 10, 2012, 2:00-3:00pm/251 BRB

Musculoskeletal Medicine in the Comparative Effectiveness Era

Edward Schwarz, Ph.D.

Director, Center for Musculoskeletal Research

Richard Margaret Burton Distinguished Professor in Orthopaedics, University of Rochester Medical Center

### Tuesday, March 27, 2012, 1:00-2:00pm/251 BRB

Magnetic Resonance Imaging of Short T2 Tissues

Graeme Bydder, M.B., Ch.B.

Professor of Radiology, University of California, San Diego

### Tuesday, February 28, 2012, 1:00-2:00pm/251 BRB

The Carpus: the Beauty and the Beast of the Upper Extremity

J.J. Trey Crisco, Ph.D.

Henry Frederick Lippitt Professor of Orthopaedic Research, Director Bioengineering Laboratory, Department of Orthopaedics, The Warren Alpert Medical School of Brown University and Rhode Island Hospital

### Tuesday, January 24, 2012, 1:00-2:00pm/251 BRB

Chondrocyte Beta-catenin Signaling Regulates Osteoclastogenesis

Di Chen, M.D., Ph.D.

Professor of Biochemistry, John W. and Helen Watzek Endowed Chair, Rush University Medical Center

### Monday, January 9, 2012, 12:00-1:00pm/251 BRB

Statistically Significant Collaborations: How Biostatistics Can Contribute to Multidisciplinary Research Kathleen Propert, Ph.D.

Professor of Biostatistics, Department of Biostatistics & Epidemiology, University of Pennsylvania, Perelman School of Medicine

### Tuesday, December 13, 2011, 1:00-2:00pm/251 BRB

Stem Cell Mobilization and Wnt Signaling – Two Approaches to Enhancing Bone Regeneration D. Rick Sumner, Ph.D.

Professor for Medical Research and Chair, Department of Anatomy and Cell Biology, Rush Medical College

### Tuesday, November 15, 2011, 1:00-2:00pm/10-146 TRC

Maintaining and Enhancing Bone Morphology Via Exercise

Ted Gross, Ph.D.

Professor of Orthopaedics and Sports Medicine and Director, Orthopaedic Science Laboratories University of Washington

### **ANNUAL SCIENTIFIC SYMPOSIUM (all day event)**

### Wednesday, October 26, 2011, 8:00am-2:45pm/BRB Auditorium

Mechanisms of Pathological Bone Remodeling: Pathology Teaches Physiology

Steven R. Goldring, M.D.

St. Giles Chair and Chief Scientific Officer, Hospital for Special Surgery and Professor of Medicine, Weill Cornell Medical College

### **Visiting Professorship Series-Academic Year 2010-2011**

### Tuesday, April 5, 2011, 1:00-2:00pm/ BRB 252

Acoustoelasticity Analysis of Ultrasound Signals for Biomechanical Behavior

Ray Vanderby, Jr., Ph.D.

Professor of Orthopaedic Surgery and Biomedical Engineering, University of Wisconsin, Madison

### Tuesday, March 1, 2011, 1:00-2:00 pm/ BRB 252

Blood Supply and Fracture Repair: Bedside to Bench

Theodore Miclau, III, M.D.

Professor and Vice Chair, Trauma/Problem Fracture, Department of Orthopaedic Surgery

University of California, San Francisco

# Tuesday, February 1, 2011, 1:00-2:00pm/ BRB 253

Osteoarthritis: Translating New Insight into Pathogenesis to Prevention and Treatment

Martin Lotz, M.D.

Professor and Head, Division of Arthritis Research, The Scripps Research Institute, La Jolla, California

# Tuesday, January 18, 2011, 1:00-2:00pm/ BRB 253

Between a Muscle and a Hard Bone: The Regulation of Tendon Induction and Differentiation Ronen Schweitzer, Ph.D.

Associate Professor, Shriners Hospital-Research ,Dept. of Cell and Developmental Biology, Oregon Health and Science University

### Tuesday, December 14, 2010, 1:00-2:00pm/ BRB 251

Oxygen Sensing in Cartilage and Bone Development

Ernestina Schipani, M.D., Ph.D.

Associate Professor of Medicine, Division of Endocrinology, Massachusetts General Hospital-Harvard Medical School

### **ANNUAL SCIENTIFIC SYMPOSIUM (all day event)**

### Wednesday, November 17, 2010, 8:00am-3:00pm/BRB Auditorium

Musculoskeletal Regenerative Medicine

Michael Yaszemski, M.D., Ph.D.

Professor of Orthopaedics and Bioengineering, and the Director of the Tissue Engineering and Biomaterials Laboratory, Mayo Clinic, Minnesota

### Tuesday, October 5, 2010, 1:00-2:00pm/ BRB 251

Measurement of the Local Mechanical Environment of Skeletal Tissues

Elise F. Morgan, PhD

Associate Professor, Mechanical Engineering, Biomedical Engineering, Orthopaedic Surgery, Boston University

### Tuesday, September 14, 2010, 1:00-2:00pm/BRB 253

Histone Deacetylases Play Crucial Roles in Bone Development and Skeletal Health

Jennifer Westendorf, Ph.D.

Associate Professor of Biochem/Molecular Biology and Orthopedics, Mayo Clinic, Minnesota

### Visiting Professorship Series-Academic Year 2009-2010

### Tuesday, May 18, 2010, 1:00-2:00pm/ BRB 251

The Role of Mechanical Loading in Tendon-to-Bone Healing: Our Experience with Small Animal Models Scott A. Rodeo, MD

Professor of Orthopaedic Surgery, Weill Cornell Medical College, New York, NY

Attending Orthopaedic Surgeon, New York-Presbyterian Hospital

Attending Orthopaedic Surgeon, Hospital for Special Surgery, New York, NY

### Tuesday, April 13, 2010, 1:00-2:00pm/BRB 251

Biomechanics of Reactive Mixtures: Modeling Growth and Active Transport

Gerard A. Ateshian, Ph.D.

Professor of Mechanical Engineering and Biomedical Engineering

Columbia University, New York, NY

### Tuesday, March 16, 2010, 1:00-2:00 pm/BRB 251

The Biomechanics of Osteoarthritis: Progress vs. Progression?

Joel A. Block, M.D.

The Willard L. Wood M.D. Professor of Rheumatology

Director, Section of Rheumatology, Rush Medical College, Rush University Medical Center, Chicago, IL

# Tuesday, February 16, 2010, 1:15-2:15pm/BRB 251

Exploiting the Physical Environment to Optimize Stem Cells for Skeletal Regeneration Henry J. Donahue, Ph.D.

Baker Professor and Vice Chair for Research

Director, Division of Musculoskeletal Sciences

Director, Department of Orthopaedics and Rehabilitation, Pennsylvania State University College of Medicine

### Tuesday, January 19, 2010, 1:00-2:00pm/BRB 1412

Biologic Enhancement of ACL Repair and Reconstruction

Martha M. Murray, M.D.

Assistant Professor and Clinical Associate Orthopaedic Surgeon, Children's Hospital and Harvard Medical School, Boston, MA

### Tuesday, December 15, 2009, 1:00-2:00pm/BRB 251

Integration of Signaling Pathways in the Growth Plate

Karen M. Lyons, Ph.D.

Professor of Orthopaedic Surgery, Department of Biological Chemistry, University of California, Los Angeles

### Tuesday, November 17, 2009, 1:00-2:00pm/JMB Class of '62

Using Mechanical Loading to Enhance Bone Mass

Marjolein CH van der Meulen, Ph.D.

Professor, Sibley School of Mechanical and Aerospace Engineering, Cornell University

Senior Scientist, Laboratory for Biomedical Mechanics & Materials, Hospital for Special Surgery, New York

### **ANNUAL SCIENTIFIC SYMPOSIUM (all day event)**

### Wednesday, October 14, 2009, 8:00am-2:45pm/BRB Auditorium

Molecular and Cellular Control of Skeletal Morphogenesis

Bjorn R. Olsen, M.D., Ph.D.

Hersey Professor of Cell Biology, Harvard Medical School

Professor and Chair of Oral and Developmental Biology, Dean for Research, Harvard School of Dental Medicine

### Tuesday, September 22, 2009, 2:00-2:30pm/JMB Class of '62

Technology Transfer at Penn

Robert H. Schenkel, Ph.D.

Director Life Sciences Licensing, Center for Technology Transfer, University of Pennsylvania

### Tuesday, September 22, 2009, 1:00-2:00pm/JMB Class of '62

Making Cartilage: Architecture, Scaffolding and Builders

Brian Johnstone, Ph.D.

Director of Research, Department of Orthopaedics and Rehabilitation, Oregon Health & Science University

### Visiting Professorship Series-Academic Year 2008-2009

#### Tuesday, May 5, 2009, 1:00-2:00pm/Room TBA

Effect of Mechanical Forces on Soft Tissue Healing

Jo A. Hannafin, MD, PhD cancelled

Attending Orthopaedic Surgeon and Director of Orthopaedic Research, Hospital for Special Surgery, New York

### Tuesday, April 21, 2009, 1:00-2:00pm/BRB 251

Mechanotransduction Mechanisms in Connective Tissue Cells

Albert J. Banes PhD

Professor of Biomedical Engineering

President of Flexcell International Corp, North Carolina State University and University of North Carolina Chapel Hill

### Tuesday, March 3, 2009, 1:00-2:00 pm/BRB 251

Gene: Environment Interaction in Osteoarthritis

Joanne Jordan, MD, MPH

Director, Thurston Arthritis Research Center

Chief, Division of Rheumatology, Allergy, and Immunology, University of North Carolina

# Thursday, February 26, 2009, 1:00-2:00pm/BRB 252

The Influence of Interleukin-1 and Mechanical Loading on the

Release of Nitric Oxide and Prostaglandin E\_2 by Articular Chondrocytes

David Lee, PhD

Professor of Cell and Tissue Engineering, Queen Mary University of London

### Tuesday, February 3, 2009, 1:00-2:00pm/BRB 251

BMPs Mediate Bone Homeostasis

Vicki Rosen, PhD

Professor and Chair of Developmental Biology, Harvard School of Dental Medicine

### Tuesday, January 13, 2009, 1:00-2:00pm/BRB 251

Effect of Mechanical Forces on Soft Tissue Healing

Jo A. Hannafin, MD, PhD rescheduled May 5

Attending Orthopaedic Surgeon and Director of Orthopaedic Research, Hospital for Special Surgery, New York

### Tuesday, December 9, 2008, 1:00-2:00pm/BRB 253

Quantitative Assessment of Bone by Radiologic Methods

Thomas N. Hangartner, PhD, FAAPM

Distinguished Professor of Biomedical Engineering, Medicine & Physics

Director, BioMedical Imaging Laboratory, Wright State University

### ANNUAL SCIENTIFIC SYMPOSIUM (all day event)

### Wednesday, November 12, 2008, 8:00am-3:30pm/BRB Auditorium

Osteoarthritis and Fat: The Good, the Bad, and the Ugly

Farshid Guilak, PhD

Ormandy Professor and Director of Orthopaedic Research, Duke University

### Tuesday, October 7, 2008, 1:00-2:00pm/CRB Austrian Auditorium

### Albert J. Banes PhD rescheduled Apr. 21

Professor of Biomedical Engineering

President of Flexcell International Corp

North Carolina State University and University of North Carolina Chapel Hill

Matrix Elasticity Directs Stem Cell Lineage Specification

Dennis E. Discher, PhD

Professor of Chemical & Biomolecular, Mechanical, and Bio-Engineering, University of Pennsylvania

### Tuesday, September 9, 2008, 1:00-2:00pm/BRB 253

Multiscale Approaches to Cartilage Tissue Engineering

Lawrence J. Bonassar, PhD

**Associate Professor** 

Department of Biomedical Engineering, Cornell University

### Visiting Professorship Series-Academic Year 2007-2008

#### Thursday, June 5, 2008, 3:30-4:30 pm/BRB 252

Animal Models of Mucopolysaccharidoses

Mark Haskins VMD, PhD

Professor, Pathology and Medical Genetics

School of Veterinary Medicine, University of Pennsylvania

#### Tuesday, May 6, 2008, 3:30-4:30pm/BRB 252

Molecular and Cellular Mechanisms of Synovial Joint Formation During Mouse Skeletogenesis

Maurizio Pacifici, Ph.D.

Professor of Orthopaedic Surgery, Thomas Jefferson University College of Medicine

### Tuesday, April 8, 2008, 3:30-4:30pm/BRB 251

Effects of Decorin and Biglycan on Neocartilage and Cartilage Material Properties Jack Lewis, PhD

Professor of Orthopaedic Surgery and Mechanical Engineering, University of Minnesota

### Tuesday, March 11, 2008, 3:30-4:30 pm/BRB 251

Ischemia/reperfusion injury and Apoptosis of the Muscle and Skin in an Animal Model

Richard Salcido, MD

Erdman Professor and Chair of Physical Medicine and Rehabilitation

Director of Rehabilitation Services, University of Pennsylvania

### Tuesday, February 5, 2008, 3:30-4:30pm/BRB 251

Morphological and Biological Characteristics of Articular Cartilage in Osteoarthritis

Sharmila Majumdar, PhD

Director of Musculoskeletal and Quantitative Imaging Research Group

Professor of Radiology and Orthopaedic Surgery, UCSF and of Bioengineering UC Berkeley

### Tuesday, January 8, 2008, 3:30-4:30pm/BRB 251

New Insights into the Pathogenesis of Achondroplasia

William Horton, PhD

Senior Investigator and Director of Research, Portland Shriners Research Center

### Tuesday, December 4, 2007, 3:30-4:30pm/BRB 251

The Skeletal Consequences of Disease: Diabetes to Cancer

Larry Suva, PhD

Director, Center for Orthopaedic Research

Professor, Departments of Orthopaedic Surgery and Physiology and Biophysics, University of Arkansas for Medical Sciences

### **ANNUAL SCIENTIFIC SYMPOSIUM (all day event)**

### Wednesday, November 7, 2007, Time 8:45 am-3:45 pm/BRB Auditorium

*Is the intervertebral disc a source of pain?* 

Gunnar Andersson, MD, PhD

Professor and Chair of Orthopaedic Surgery, Rush-Presbyterian Medical Center

### Tuesday, October 9, 2007, 3:30-4:30pm/BRB 251

Molecular Mechanisms of Bone Metastasis

Katherine Weilbaecher, MD

Assistant Professor of Molecular Oncology, Washington University

# Tuesday, September 18, 2007, 3:30-4:30pm/JMB Reunion 40

Understanding Growth Plate Dynamics by In Vivo Imaging Using Multiphoton Microscopy

Cornelia Farnum, DVM, PhD

Professor of Zoology, Cornell University

### Visiting Professorship Series - Academic Year 2006-2007

### Tuesday, May 22, 2007, 3:30-4:30pm/BRB 252

Mechanical Forces and Articular Cartilage Formation: What We Have Learned From Tissue Engineering Rita Kandel, MD

Professor, Dept. of Laboratory Medicine and Pathobiology, University of Toronto

### Tuesday, April 17, 2007, 3:30-4:30pm/BRB 252, Postponed until September 18, 2007 due to Weather

Understanding Growth Plate Dynamics by In Vivo Imaging Using Multiphoton Microscopy

Cornelia Farnum, DVM, PhD

Professor of Zoology, Cornell University

### Tuesday, March 20, 2007, 3:30-4:30pm/BRB 252

The Use of Transgenic Mouse Models to Study the Hormonal Regulation of Bone Remodeling Barbara Kream, PhD

Professor of Medicine and Genetics & Developmental Biology

Director, Medical Scientist Training Program, University of Connecticut Health Center

### Tuesday, March 19, 2007, 11:00am-12:00pm/BRB 251

Gene Therapy Based on Muscle Stem Cells: Potential for Tissue Regeneration and Repair Johnny Huard, PhD

Professor of Molecular Genetics and Biochemistry and Bioengineering, University of Pittsburgh

### Tuesday, February 27, 2007, 3:30-4:30pm/BRB 252

Mechanical Signals as a Non-pharmacologic Intervention for Osteoporosis

Clinton Rubin, PhD

Distinguished Professor & Chair - Department of Biomedical Engineering

State University of New York Stony Brook

### Tuesday, January 16, 2007, 3:30-4:30pm/BRB 252

Oxygen-Dependent Regulation of Bone Growth: Epiphyseal Chondrocyte Proliferation, Autophagy and Apoptosis Irving Shapiro, PhD

Professor and Director of Orthopaedic Research, Thomas Jefferson University

### Tuesday, December 19, 2006, 4:00-5:00pm/BRB 251

Using Genes to Repair Bone and Cartilage

Chris Evans, PhD

The Robert Lovett Professor of Orthopaedic Surgery, Center for Molecular Orthopaedics, Harvard Medical School

### **ANNUAL SCIENTIFIC SYMPOSIUM (all day event)**

### Wednesday, November 29, 2006, 8:00 am-3:30 pm/BRB Auditorium

Digital Humans: From Medical Images to Simulated Surgery

Scott Delp, PhD

Professor, Departments of Bioengineering, Mechanical Engineering, and Orthopaedic Surgery,

Stanford University

### Wednesday, October 4, 2006, 1:00-2:00pm/BRB 251

Tendon Ageing and Regeneration – Lessons from the Racehorse

Roger K.W. Smith, MA VetMB PhD DEO DipECVS MRCVS RCVS & European Specialist in Equine Surgery Professor of Equine Orthopaedics, The Royal Veterinary College

### Tuesday, September 19, 2006, 4:00-5:00pm/JMB Class 62

Degeneration of Cartilage and Meniscus: Insights From In Vitro Model Systems

Marc Levenston, PhD

Associate Professor, George W. Woodruff School of Mechanical Engineering, Georgia Institute of Technology

### Visiting Professorship Series - Academic Year 2005-2006

#### Tuesday, June 13, 2006/BRB 251

Biological Fixation of Soft Tissue to Bone: A Tissue Engineered Approach

Helen Lu, PhD

Assistant Professor of Biomedical Engineering, Columbia University

### Tuesday, May 9, 2006/BRB 251

Linking Endochondral Skeletal Development to Hematopoiesis through Analysis of Transgenic Mouse Models Olena Jacenko, PhD

Associate Professor of Animal Biology, University of Pennsylvania

### Tuesday, April 11, 2006/BRB

New Insights into the Multisystem Pathogenesis of Marfan Syndrome

Hal Dietz, MD

Victor A. McKusick Professor of Medicine and Genetics, Johns Hopkins University

### Tuesday, March 7, 2006/BRB

Developmental Paradigms for Cell-Based Tissue Engineering

Rocky S. Tuan, PhD

Branch Chief, Cartilage Biology and Orthopaedics, The National Institutes of Health

### Tuesday, February 21, 2006/BRB

Mechanics of Osteoporotic Trabecular Bone

X. Edward Guo, PhD

Associate Professor of Biomedical Engineering, Columbia University

### Tuesday, January 17, 2006/BRB

Molecular Motors: Smart, Soft Musculoskeletal Nano-Machines

Yale Goldman, MD, PhD

Director, Pennsylvania Muscle Institute

Professor of Physiology, University of Pennsylvania

### Tuesday, December 13, 2005/BRB 251

Mechanosensitivity of Stem Cells

Jeffrey C. Lotz, PhD

Professor, Orthopaedic Surgery, University of California, San Francisco

### Tuesday, November 8, 2005/BRB 251

Development of Tendon Extracellular Matrix Structure and Function: Regulation by

Collagen and Proteoglycan Interactions

David E. Birk, PhD

Professor, Department of Pathology, Anatomy & Cell Biology, Jefferson Medical College

### **ANNUAL SCIENTIFIC SYMPOSIUM (all day event)**

### Tuesday, October 11, 2005, 8:00am-3:30pm/BRB Auditorium

Is There Potential for Cartilage Repair?

Linda J. Sandell, PhD

Professor and Director of Research, Department of Orthopaedic Surgery

Professor, Department of Cell Biology and Physiology, Washington University School of Medicine

### Thursday, September 15, 2005/BRB 251

Mechanotransduction in Tendon Cells: Implications for Rehabilitation and Overuse Injuries

Steven P. Arnoczky, DVM

Wade O. Brinker Endowed Professor of Veterinary Surgery

Director, Laboratory for Comparative Orthopaedic Research, Michigan State University

### Visiting Professorship Series - Academic Year 2004-2005

### Tuesday, July 26, 2005/BRB 252

Biological and Mechanical Studies of Skeletal Muscle Injury

Richard Lieber, PhD

Professor of Orthopaedics and Bioengineering, University of California, San Diego & V.A. Medical Centers

#### Tuesday, June 14, 2005/BRB 252

Molecular MRI of Connective Tissues

Ravinder Reddy, PhD

Scientific Director, MMRRCC; Associate Professor, Department of Radiology, University of Pennsylvania

### Tuesday, May 17, 2005/BRB 252

Structure and Function of Decorin-based Proteoglycans in Ligament

Jeffrey A. Weiss, PhD

Director, Musculoskeletal Research Laboratories; Associate Professor Bioengineering, University of Utah

### Tuesday, April 19, 2005/BRB 252

Applications of Medical Imaging in Orthopedic Biomechanics and Biomechanics in Functional Tissue Engineering Kai-Nan An, PhD

Chair, Orthopaedic Research; Co-Director, Biomechanics Laboratory, Mayo Clinic, Rochester, MN

### Tuesday, March 15, 2005/BRB 252

Molecular Mechanisms of Bone Repair

Louis Gerstenfeld, PhD

Director, Musculoskeletal Research Lab; Professor of Orthopaedic Surgery & Biochemistry, Boston University

### Tuesday, February 15, 2005/BRB 252

Skeletal Response to in vivo Fatigue Loading

Matthew J. Silva, PhD

Associate Professor, Orthopaedic Surgery & Biomedical Engineering, Barnes-Jewish Hospital at Washington University

### **Tuesday, January 18, 2005/BRB 252**

Magnetic Resonance Microimaging and Spectroscopy of Engineered Cartilage Tissue Developing in a Hollow-Fiber Bioreactor

Richard Spencer, MD, PhD

Chief, Nuclear Magnetic Resonance Unit, NIH/National Institute on Aging

### Thursday, December 16, 2004/BRB 252

Control of Endochondral Bone Formation by Retinoids and BMPs

Sherrill Adams, PhD

Professor and Chair, Biochemistry, School of Dental Medicine, University of Pennsylvania

### Thursday, November 11, 2004/BRB 251

Muscle in Health and Disease: Building Pathways using Genome-Enabled Tools

Eric P. Hoffman, PhD

Director, Research Center for Genetic Medicine, Children's National Medical Center

### Monday, October 18, 2004/BRB 252

Muscular Dystrophy: Seeing a Solution

Tejvir S. Khurana, MD, PhD

Assistant Professor, Physiology, Pennsylvania Muscle Institute, University of Pennsylvania