

SUNY Downstate Medical Center and Polytechnic Institute of NYU
Joint Biomedical Engineering (BME) PhD Program

BME Seminars – Speakers and Topics 2007 – 2009

September 14, 2007 Jafar Vossoughi, PhD, President,
Biomed Research Foundation
“Cardiovascular Biomechanics”

September 21, 2007 Carmelita G. Frondoza, PhD,
Director, Research and Development – Nutramax Laboratories, Inc., and
Associate Professor, Orthopaedic Surgery – Johns Hopkins University
“Tissue Response to Biomaterials”

September 28, 2007 Ivan Selesnick, PhD, Associate Professor,
Department of Electrical and Computer Engineering, Polytechnic University
“Noise Reduction by Wavelet Based Processor”

October 12, 2007 CDR Mark B. Lyles, MS, DMD, PhD,
Commander, DC (FMF), U.S. Navy
“The Potential Health Risks from Dust Exposure in the Middle East”

November 2, 2007 W. Thomas Edwards, PhD,
Director, Rehabilitation Engineering,
Kessler Medical Rehabilitation Research and Education Center
“Postural Control – What’s Your Choice?”

November 16, 2007 Van P. Thompson, DDS, PhD,
Chair of Biomaterials and Biomimetics,
NYU College of Dentistry
“Ceramics versus tooth enamel, contrasts in damage tolerance and
reliability”

November 30, 2007 S. Berliner, III, Consultant, Ultrasonic Processing
“Ultrasonic Cavitation in Medicine: High-Intensity Acoustic Energy in
Medical Applications”

December 7, 2007 Dipak V. Patel, MD, MSc Orth., Director,
Department of Clinical Orthopaedics and Musculoskeletal Research,
St. Joseph's Hospital & Regional Medical Center and Seton Hall University
“Total Knee Replacement for Patients with Severe Valgus Deformity”

January 18, 2008 Norman Cranin, DDS,
Clinical Professor of Surgical Sciences, NYU College of Dentistry
“Biomaterials Used in Oral/Maxillofacial Reconstructive Surgery”

January 25, 2008 Langdon A. Hartsock, MD,
Chair, Orthopaedic Surgery,
Medical University of South Carolina
“The Role of Biomedical Engineering in Orthopaedics”

February 1, 2008 Dr. Yu Zhang, NYU College of Dentistry
“Fatigue Fracture of Layered Ceramic Structures under Simulated
Mastication”

February 8, 2008 Harold Alexander, PhD, CEO, Orthogen LLC
“Laser Microgeometry: Controlling soft tissue and bone attachment to
dental implants”

February 15, 2008 Dr. A. Cuneyt Tas, Visiting Research Scientist,
NYU College of Dentistry
“A New Rhenanite (β -NaCaPO₄) – Apatitic Calcium Phosphate Biphasic
Materials for Skeletal Repair”

March 14, 2008 Sundeep Mangla, MD, Director of Interventional
Neuroradiology and Director of Research, Department of Radiology,
SUNY Downstate Medical Center
“Interventional Neuroradiology: Engineering Advances in Neurovascular
Therapy”

March 21, 2008 Jess Ruan, PhD, Technical Specialist,
Biomechanics, Vehicle Safety Research and Development,
Ford Motor Company
“Lower Extremity Impact Simulations with Finite Element Human Body
Model”

March 28, 2008 Daniel Grande, PhD, Research Director,
Department of Orthopedic Surgery, Long Island Jewish Medical Center
“Tissue Engineering Strategies for Regeneration of the Musculoskeletal System”

April 25, 2008 Andre Fenton, PhD, Assistant Professor,
Department of Physiology & Pharmacology,
SUNY Downstate Medical Center
“Neural Coordination: Opportunities to Translate Bioelectricity to Medicine”

May 2, 2008 Jin Kim Montclare, PhD, Assistant Professor,
Chemical & Biological Sciences,
Polytechnic Institute of New York University
“Engineered Artificial Proteins as Potential Therapeutics and Tissue Scaffolds”

June 16, 2008 Lawrence Gettleman, DMD, MSD,
Professor of Prosthodontics & Biomaterials, School of Dentistry,
University of Louisville
“Multicenter Phase III Clinical Trial in Maxillofacial Prosthetics”

August 13, 2008 Amit Roychowdhury, PhD,
Visiting Faculty Member, Department of Applied Mechanics,
Bengal Engineering and Science University
“Application of Finite Element Method in Biomechanics”

October 24, 2008 Nikhil Gupta, PhD, Mechanical & Aerospace
Engineering Department, Polytechnic Institute of New York University
“Porous Functionality Graded and Smart Composites”

December 5, 2008 Fred R. Nelson, MD,
Director, Osteoarthritis Center, Department of Orthopaedics,
Henry Ford Hospital
“The Use of Applied Electrical Fields in Musculoskeletal Disorders”

December 12, 2008 Susannah P. Fritton, PhD, Associate Professor,
Department of Biomedical Engineering, City College of New York
“Bone Microstructure and Interstitial Fluid Flow in Normal and Osteoporotic Conditions”

January 9, 2009 George Delagrammatikas, PhD,
Assistant Professor of Mechanical Engineering,
The Cooper Union for the Advancement of Science and Art
“Biomedical Engineering Research at the Cooper Union”

January 16, 2009 Paulo G. Coelho, DDS, PhD, Assistant Professor,
NYU College of Dentistry
“Current Trends on Endosseous Implant Bulk and Surface Design”

January 23, 2009 Joseph A. Spadaro, PhD, Research Professor,
Department of Orthopedic Surgery, Upstate Medical University, SUNY
“An Electromagnetic Treatment for Osteoporosis?”

March 12, 2009 Virginia Klausmeier, MS,
Clinical Research Manager, Stryker Trauma & Extremity
“Career Opportunities in the Orthopaedics Industry”

March 20, 2009 John N. Carter, PhD, Visiting Assistant Professor,
Cardiovascular Disease, SUNY Downstate Medical Center
“Bioengineering’s Role in Cardiovascular Research”

April 10, 2009 Mark Ehrensberger, PhD,
Director, Orthopaedic Research Lab, Department of Orthopaedics,
University at Buffalo
“Titanium is NOT the Most Biocompatible Metal under Cathodic Potential”

April 17, 2009 Gene DiResta, PhD, PE,
Director of Bioengineering Program,
Polytechnic Institute of New York University
“Enhancing Drug Delivery into Solid Tumors – Pre-Clinical Study Findings
using an ‘Artificial Lymphatic System’”

May 8, 2009 Ulhas Naik, PhD,
Professor of Biological Sciences, Chemistry & Biochemistry,
and Chemical Engineering, University of Delaware
“Bioengineering Strategies in Cardiovascular Disease”

May 13, 2009 Mrinal Kanti Musib, PhD,
University of Texas Health Science Center/
University of Texas, San Antonio
“Isolation and Characterization of Ultra-high Molecular Weight
Polyethylene (UHMWPE) Nanoparticles for Cell Response Studies”

May 29, 2009 Racquel Z. LeGeros, MS, PhD,
Professor, Calcium Phosphate Research Lab,
Department of Biomaterials & Biomimetics, NYU College of Dentistry
“Calcium Phosphate-based Biomaterials”

June 12, 2009 Ta Kang (David) Keng, PhD,
Microparticle Photophysics Laboratory for BioPhotonics,
Polytechnic Institute of New York University
“Whispering Gallery Mode sensing and transport of a single virus”

July 10, 2009 Sheldon Krinsky, PhD, Professor,
Department of Urban & Environmental Policy & Planning, and
Adjunct Professor, Department of Public Health & Family Medicine,
Tufts University
“The Ethics and Coping Mechanisms Behind Scientific Conflicts of Interest”

September 25, 2009 Steven Hoenig, Ph.D.,
Certified LabVIEW Architect, Bloomy Controls, Inc.
“Medical Diagnostics Using LabVIEW”

October 5, 2009 Zahra Moussavi. Ph.D.,
Associate Professor & Canada Research Chair,
Department of Electrical & Computer Engineering
University of Manitoba
“Acoustic Sleep Apnea Detection”

October 9, 2009 Timothy Bromage, M.A., Ph.D.,
Adjunct Professor, Biomaterials and Biomimetics,
NYU College of Dentistry
“Baggage Handlers and TSA Agents: New Elements in the Pursuit of Art
and Science in Microscopy”

October 23, 2009 Robert Berger,
District Sales Manager – NYC and Long Island,
National Instruments
Hands-on Workshop of LabVIEW Applications

October 30, 2009 Thomas Webster, Ph.D., Editor, International
Journal of Nanomedicine, and
Associate Professor, Division of Engineering and Department of
Orthopedics, Brown University
“Nanotechnology to Regenerate Tissues: Hype or Reality?”