

ERC & Bioengineering Program Joint Seminar Series at NCAT

2010

Date	Speaker/s	Institution	Role	Topic
03/19/2010	Dr. Jag Sankar	NCAT	RMB Director	Upcoming NSF Site Visit and Annual Report
03/26/2010	Masood Machingal	Wake Forest Institute for Regenerative Medicine	PhD Student	Toward functional tissue engineering: Perspectives from bioengineered blood vessels and skeletal muscle
04/02/2010	Talisha Haywood	NCAT	MEEN PhD Student	Titanium nitride as biocompatible implant materials
04/09/2010	Dr. Rex Jeffries	UNC-CH	Research Scientist	Bioengineering of a NMR-compatible Bioartificial Liver For Metabolomic Investigation of Drug Action
04/14/2010	Dr. Jacqueline Henderson	Bradley University	MEEN Faculty	Macro and Micro Scale Biomechanics of the Human Carpal Tunnel
04/16/2010	Dr. Donghui Zhu	University of Rochester Medical School	Research Associate	Protein S Protects Blood-brain Barrier
04/23/2010	Dr. Yeoheung Yun	NCAT	BMEN Faculty	Corrosion Characterization of Biodegradable Magnesium Metals and Coated Structures
06/30/2010	Dr. Sergey Yarmolenko	NCAT	RMB Research Scientist	Introduction to research methods and materials characterization tools
07/07/2010	Dr. Dhananjay Kumar	NCAT	MEEN Faculty	Thin Film Based Metallic and Ceramic Biomaterials
07/28/2010	Dr. Nick Bentley	NCAT	RMB Industrial Liaison Officer	A New Way to Teach Science (or You can't learn to play the violin by reading about the violin)
09/17/2010	Dr. Dhananjay Kumar	NCAT	MEEN Faculty	Pulsed Laser Deposition Assisted Development of Metallic and Ceramic Biomaterials
10/01/2010	Dr. Zhigang Xu	NCAT	RMB Research Scientist	Processing of Novel Porous and Dense Biocompatible Mg-based Alloys
10/08/2010	Dr. Niraj Ramachandran	NJ Center for Biomaterials	Research Associate	Ionic Charge Driven Gene Delivery: A Novel Non-Contact Physical Method
10/15/2010	Mainul Faruque	NCAT	MEEN PhD Student	Growth mechanism of TiN Nanowires and Their Physical, Structural and Biological Properties

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10/22/2010	Giridharan Venkataraman	NCAT	MEEN PhD Student	Computational Modeling of Vascular Stents – A Literature Review
10/29/2010	Dr. Donghui Zhu	NCAT	BMEN Faculty	Hemocompatibility of Biomaterials – A Review
11/19/2010	Dr. Robert Kulp	Kulp & Reid	General Dentist	Biocompatible Materials for Oral Care
12/09/2010	Dr. Venkatesh Balasubramanian	IITM	Engineering Design Faculty	Innovative Engineering Design and Rehabilitation Engineering – an Indian Perspective <i>(Trans-ERC Broadcast; 2 hours)</i>

2011

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01/07/2011	Dr. Giang Nguyen	National Institute of Environmental Health Sciences	Research Associate	Incorporation of the base-analog HAP into DNA and RNA
01/21/2011	Dr. Devdas Pai & Dr. Leonard Uitenham	NCAT	MEEN Faculty & BMEN Chair	Orientation to the ERC-RMB for Bioengineering Undergraduate and Graduate Students
01/28/2011	Dr. Yeohung Yun	NCAT	BMEN Faculty	Introduction to Systems Biology
02/04/2011	Dr. Skylar Stewart-Clark	Medical University of South Carolina	Post-doctoral Fellow	Layer-by-Layer Nanoassembly as a Tool for Designing Bioactive Material Interfaces
02/11/2011	Dr. Zhigang Xu	NCAT	RMB Research Scientist	Effect of Composition and Heat Treatment on <i>In Vitro</i> Biodegradation Property of MgZnCa Alloys
02/25/2011	Dr. Howard Kuhn, PE	Pitt	Adjunct Professor	Innovator to Entrepreneur (<i>Trans-ERC Broadcast; 3 hours</i>)
03/18/2011	Mr. Wayne Szafranski	NCAT	Asst VC for Research & Econ Dev	Translational University Research – A Case Study
03/25/2011	Dr. Harvey Borovetz	Pitt	BMEN Chair	Current and Future Perspectives in Cardiac Assist Devices (<i>Trans-ERC Broadcast; 2 hours</i>)
04/01/2011	Dr. Pratap Khanwilkar	IgnitionKey LLC	CEO	Development and Commercialization of Long-Term Implantable Blood Pumps for Heart Failure (<i>Trans-ERC Broadcast; 2 hours</i>)
04/08/2011	Ms. Donna Eaton	NCAT	Director, Office of Research Compliance and Ethics	RCR: Responsible Conduct of Research (REQUIRED training for ALL RMB researchers at NCAT)
04/15/2011	Dr. Robin Liles	NCAT	Education Faculty	Ethics
04/29/2011	Biosystems Inc. (Bianca Bullock, Autumn Conaway, Shenne Howell, David Jarvis & Michael Millington)	NCAT	BMEN Undergraduate Students (Dr. Matt McCullough, Coordinator)	Proposal for a Cost Effective Prosthetic Arm
06/08/2011	Dr. Jag Sankar	NCAT	MEEN Faculty	
06/15/2011	Dr. Yeohung Yun	NCAT	BMEN Faculty	Corrosion Characterization of Biodegradable Magnesium Metals and Coated Structures

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06/21/2011	Dr. Dhananjay Kumar	NCAT	MEEN Faculty	Pulsed Laser Deposition-assisted Fabrication of Nanostructured Coating Materials for Electronic and Biological Applications
06/29/2011	Dr. Peter Seoane	NCAT	ERC ILO	From Innovation to Product
07/13/2011	Dr. Narayan Bhattarai	NCAT	BMEN Faculty	Electrospun Nanofibrous Nonwovens for Biomedical Applications
07/20/2011	Dr. Sergey Yarmolenko	NCAT	CAMSS Senior Research Scientist	Applications of X-Rays in Materials Characterization
07/27/2011	Mr. Hector Carmona / Ms. Monica Quintero / Ms. Karen Lumbu / Mr. Kaidan Xu / Ms. Jeanette Delva / Mr. Sanchit Anand / Ms. Dominique Tucker-Roberson / Ms. Crystal Jessamy	Cal State U – LA / Cal State U – La / UNC – Charlotte / UNC – Chapel Hill / Bennett College / UNC – Charlotte / Bennett College/ NCAT	REU 2011 Participants	(Coordinated by Dr. DeRome Dunn) Novel Microfluidic Device to Study Cytotoxicity under Magnesium Ion Gradient (Dr. Yun) / Corrosion Testing and Characterization of Magnesium Alloys (Dr. Xu) / Plasma Protein Adsorption on Biomaterial Surface Measured by AFM (Dr. Zhu) / Characterization of Oxidant Stress Mediators following Mg Ion Exposure (Dr. Waterman) / Surface Functionalization of Magnesium Based Alloy with Biopolymer (Dr. Bhattarai) / Mathematical Optimization and the ACL Screw (Dr. McCullough) / Corrosion Analysis of Mg Alloys in Simulated Airway Fluid (Dr. Waterman) / Nanostructured Coating Materials for Electronic and Biological Applications (Dr. Kumar)
08/19/2011	Dr. Jag Sankar, Dr. Leonard Uitenham	NCAT	MEEN Faculty, BMEN Faculty	ERC for Revolutionizing Metallic Biomaterials and Bioengineering Programs at NCAT: Working (Prosthetic) Hand in (Advanced Material) Glove
08/26/2011	Dr. Christa Watson	Harvard School of Public Health	NIH Post-doctoral Fellow	Influence of Anthropogenic and Biogenic Nanomaterials on Human Airway Cells
09/09/2011	Dr. Lisa Ferrara	OrthoKinetic Technologies, Inc.	Owner and President	Biomaterials: Bench Top to Commercialization
09/16/2011	Dr. Thaddeus McEwen	NCAT	School of Business and Economics Faculty	Create your Future: Become an Entrepreneurial Engineer
09/23/2011	Dr. Robin Liles	NCAT	School of Education Faculty	Continuing to Understand the Interplay between Ethics and Bioengineering

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09/30/2011	Ms. Ashlyn Worthy	NCAT	MEEN MS Student	A Study of Magnesium Oxide Biodegradable Coatings for Magnesium-based Implants
10/07/2011	Dr. Shanta Raj Bhattarai	Lawrence Berkeley National Lab	Lawrence Berkeley National Lab	Biologically Engineered Nanophage: A Platform for Controlling and Prevention of Chlamydial Disease
10/28/2011	Ms. Jonquil Flowers	NCAT	BMEN MS Student	Understanding Thread Stripping of an Mg-based Interference Screw for ACL Reconstruction using Finite Element Analysis: A Preliminary Presentation
11/04/2011	Dr. Ram Gupta	NCAT	Research Scientist, ERC	Role of Nano-structured Materials in Developing New Science and Technology
11/11/2011	Ms. Laura Faulconer / Mr. Andrew DiMeo, Sr.	Durham SciNergy / UNC/NCSU Joint Department of Biomedical Engineering	Executive Director / Assistant Professor of the Practice	Life After Earning Your Advanced Degree: A Panel Discussion (organized by Mr. Leon White, President, ERC SLC at NCAT and PhD MEEN student)
11/18/2011	Dr. Laura Collins	NCAT	Director of Development, Office of Technology Transfer	Patent Basics: The What, How and Why of Applying for a Patent

2012

Date	Speaker/s	Institution	Role	Topic
1/27/2012	Dr. Boyce Collins	NCAT	Senior Research Scientist, ERC	Porous Silicon as BioMaterial: The Makings of an Interdisciplinary Scientist
02/03/2012	Dr. Suveen Mathaudhu	US Army Research Office	Program Manager – Materials Science Division	Fabrication and Deformation Mechanisms in Nanocrystalline Mg Alloys
02/10/2012	Ms. Jonquil Flowers / Dr. Shamsuddin Ilias / Ms. Nina Exner / Dr. Bala Ram / Ms. Ayanna Boyd-Williams	NCAT	BMEN MS Student / CHEN Faculty, Library Science Faculty / Interim Associate Dean for Research, College of Engineering / Assistant Dean, Graduate School	Workshop on Thesis and Dissertation Writing (organized by Ms. Jonquil Flowers) – record attendance of 110
3/2/2012	Dr. Linsey Phillips	UNC - Chapel Hill	NIH-SPIRE Post-doctoral Fellow	More than Imaging: Tumor Ablation, Gene Delivery, & Drug Therapy via Focused Ultrasound
6/27/2012	Ms. Donna Eaton	NCAT	Director for Research Compliance and Ethics	Whistle Blowing
7/10/2012	Dr. Robin Liles	NCAT	Education Faculty	The Possibilities of Bioengineering: Do They Address Concomitant Mental Health Issues Such as Trauma, Stress, and Adjustment?
7/11/2012	Dr. Cindy Waters	NCAT	MEEN Faculty	How to Improve Your Presentation
7/18/2012	Dr. Dhananjay Kumar	NCAT	MEEN Faculty	Recent Research in Titanium Nitride Thin Films and Nanowires
7/25/2012	Dr. Yeo Heung Yun	NCAT	BMEN Faculty	Recent Research in Biodegradability of Mg Alloys: Summer Student and Teacher Activities
7/31/2012	Mr. Aebeyo Abraha	Smith High School, Greensboro, NC	Chemistry Teacher	Global Awareness and Education: An ERC RET Participant's Visit to India
8/24/2012	Dr. Jag Sankar	NCAT	RMB Director	Overview of ERC-RMB
9/7/2012	Dr. Peter Seoane	NCAT	RMB Industrial Liaison Officer	Why Should I Care About QUAD Charts?
9/21/2012	Dr. Laura Collins	NCAT	Director of Development, Office of Technology Transfer	Understanding a Technology Landscape Using Patent Databases
10/5/2012	Dr. Harvey Borovetz	Pitt	BMEN Chair	Current and Future Considerations Regarding NIH and NSF Funding

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10/26/2012	Dr. Linsey Phillips	UNC - Chapel Hill	Adjunct BMEN Faculty @NCAT	Biomedical Imaging Fundamentals and Frontiers Studies from Traditional Imaging to Novel Research Techniques
11/2/2012	Dr. Salil Desai	NCAT	INEN Faculty	Direct Writing of Biofunctional Coatings for Cardiovascular Devices
11/9/2012	Mr. Kwadwo Mensah-Darkwa	NCAT	RMB MEEN PhD Student	Coating of Magnesium - Hydroxyapatite Nanocomposites on Magnesium for Biodegradable Implant Applications