



UNC CHARLOTTE

The WILLIAM STATES LEE COLLEGE of ENGINEERING

The Center for Biomedical Engineering & Science

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Charlotte Biomedical Science and Engineering 2017

Special Topics: Imaging, Cancer Research, and Orthopedic

Friday, May 5, 2017

Symposium Agenda:

- 08:00 AM - 08:20 AM Arrival, Registration, Badges (Atrium)
- 08:20 AM - 08:25 AM Welcome and Introductory remarks at Lecture Hall (Charles Lee)
- 08:25 AM - 08:30 AM Greetings from Chip Yensan at Lecture Hall
Associate Director, Charlotte Research Institute
- 08:30 AM - 09:30 AM Keynote Session at Lecture Hall
- Edward Kim, MD, Chair, Solid Tumor Oncology and Investigational Therapeutics
Levine Cancer Institute
“Cancer Research: Present and Future”
 - Iain McKillop, PhD, Director of Research
Cannon-Research Center
“Advances in Imaging, Targeting & Ablation Technology in Hepato-Pancreato-Biliary Surgery”
 - Susan Odum, PhD, Senior Research Scientist
OrthoCarolina Research Institute
“Orthopedic Research at the OrthoCarolina Research Institute: Present and Future”
- Panel Discussion (moderated by Charles Lee)
- 09:30 AM - 10:00 AM Break and Vendors (Atrium)
- 10:00 AM - 11:00 AM Invited Speaker at Lecture Hall
- Imaging and Cancer Research
Clemens Burda, Pr. PhD, Professor, Department Of Chemistry
Case Western Reserve University Cleveland, OH
“Theranostic Nanoparticle Systems for Photodynamic Cancer Therapy”
- 11:00 AM - 12:00 PM Vendor/Lunch (Atrium)
- 11:40 AM - 12:00 PM Organization Meeting for Charlotte Biomedical Science and Engineering 2018 (All are welcome, Lecture Hall)
- 12:00 PM - 02:00 PM Topic Breakout Sessions
- 02:00 PM - 02:15 PM Regroup at Lecture Hall
- 02:15 PM - 04:30 PM 9th Annual CBES Graduate Student Poster Competition (Atrium)



Topic Breakout Sessions (12:00pm – 2:00pm):

1. Imaging and Cancer Session (Chaired by Drs. Clemens & Dréau) – Lecture Hall

Introduction

Drs. Dréau & Clemens

Introduction of new member

Drs. Dréau & Clemens

Pre-targeted delivery of nanoparticles for tumor imaging and therapy

Dr. Steven Park

Short-talks

- Leukemia Stem Cells: New Translations Dr. Jonathan Gerber
- Molecular mechanisms of DNA damage response in oxidative stress Dr. Shan Yan
- Oncolytic virotherapy against pancreatic cancer Dr. Valery Grdzlishvili
- Hyperspectral Imaging as a Tool for Cancer Detection Dr. Susan Trammell
- Multifunctional Hybrid Silica-Based Nanoparticles for Cancer Treatment Dr. Juan Vivero-Escoto
- Cooperative role of glioma and microglia migration in tumor mimicking microenvironment through the paracrine G-CSF/IL6 signaling Drs. Joseph Park & Hansang Cho

2. Orthopedic Session (Chaired by Dr. Zheng) – 9th Floor

Introduction

Dr. Nigel Zheng

Short-talks

- Finite element modeling and simulation of impact problems Dr. Howie Fang
- Interlimb Differences in Corticospinal Excitability in Patients with Chronic ankle Instability Dr. Abbey Thomas
- Toward the future of data analysis with virtual and augmented reality Dr. Aidong Lu
- A potpourri of Basic Science, Clinical Outcomes and Health Services Research at the OrthoCarolina Research Institute Dr. Susan Odum
- Additive Manufactured Piezoelectric Sensors Dr. Joshua Tarbutton
- Human motion tracking with wearable sensors and clinical applications. Dr. Nigel Zheng

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