

# MISSOURI NANOTECHNOLOGY ALLIANCE

THE SECOND ANNUAL MEETING  
**NOVEMBER 11–12, 2005**

*Sponsored by: The Research Alliance of Missouri (RAM)*

*Hosted by: The UMKC School of Dentistry*

Friday: 1:00 – 5:00 p.m.

Saturday: 8:00 a.m. – 5:30 p.m.

Room 202, UMKC School of Dentistry

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## NANOTECHNOLOGY AT THE INTERFACE WITH LIFE SCIENCES RESEARCH OVERVIEW

The second Annual Meeting of the Missouri Nanotechnology Alliance will be held in Kansas City on November 11 and 12, 2005. The theme for this Conference is “Nanotechnology at the Interface with Life Sciences Research” and it promises to be an exciting opportunity to hear about the latest initiatives and research in this area. This Conference is supported by the Research Alliance of Missouri.

This Conference provides an ideal venue for interaction between scientists, engineers, and clinical investigators conducting research relevant to nanotechnology and the life sciences. The Conference should be especially attractive to investigators and students who want to learn about the latest funding opportunities relevant to nanoscience and nanotechnology.

Research officers representing federal and state agencies will discuss initiatives relevant to nanoscience and nanotechnology. Researchers from Colleges throughout Missouri and Kansas will be presenting their work in areas such as nanomedicine, pharmaceutical sciences, nanoeducation, and materials science. Conference participants will have the opportunity to interact with scientists and innovators from regional industries investing in Nanotechnology at the Interface with Life Sciences Research. We look forward to you joining us in Kansas City for this Conference on November 11 and 12, 2005.



An equal opportunity/affirmative action institution.

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## WHO SHOULD ATTEND

Pharmaceutical scientists, life scientists, tissue engineers, engineers & scientists with research interests and efforts in understanding structure, property and function at multi-scale resolutions ranging from the nano- to system-level, students, educators, administrators, and industry leaders.

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## SCHEDULE

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### FRIDAY, NOVEMBER 11

*Scientific program begins at 1 p.m., Room 202, UMKC School of Dentistry, 650 E. 25th Street, Kansas City, MO (see parking maps: pages 6-7).*

- Welcome
- Opening remarks:
  - Dr. Joe Driskell, Executive Director, Missouri Technology Corporation
  - Dr. Lehmkuhle, Interim Chancellor
  - Dr. Bubacz, Interim Provost
  - Dr. Reed, Dean of the UMKC School of Dentistry
- NIH Program Officers: TBA
- NSF Program Officer: TBA
- DOD Program Officer: TBA
- Kansas City Area Life Sciences Institute: Dr. Bill Duncan
- *Local Business:* Honeywell, NanoScale Materials, Inc.

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### COCKTAIL RECEPTION: 5:30 P.M.

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### SATURDAY, NOVEMBER 12

- Continental breakfast: 8 a.m.
- **Poster Set-Up**
- Scientific session begins: 8:30 a.m.

***PRESENTATIONS WILL BE DIVIDED INTO THE FOLLOWING BROAD AREAS:***

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#### **Nanotechnology, Pharmaceutical Sciences & Nanoeducation**

**Ashim Mitra** (UMKC)

Title of presentation: "Nanotechnology in Drug Delivery"

**Elizabeth Topp** (KU)

Title of presentation: TBA

**Phil Fraundorf** (UMSL)

Title of presentation: TBA

**Jimmy Liu** (Monsanto)

Title of presentation: "Nanobiotechnology: The Fusion of Disciplines"

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## **Nanotechnology as It Interfaces with Material Science and Imaging**

**Shurba Gangopadhyay** (MU-Columbia)

Title of presentation: "Nanoscale Self-Assembly and its Applications in Material Science"

**Yong Wang** (UMKC)

Title of presentation: "Structure, Property and Functional Imaging from Nano- to Micro-Scales"

**Anil Misra** (UMKC)

Title of presentation: "Nano and Micro-Scale Mathematical Models"

**Kartik Ghosh** (Missouri State University)

Title of presentation: "Magnetic Nanostructures for Spintronic Devices"

**Jee-Ching Wang** (UMR)

Title of presentation: "Applications of Atomistic Computer Simulations in Nanoscience and Bioseparation"

**Steve Buckner** (SLU)

Title of presentation: "Chemical Sensing Applications Using Nanostructures"

**Mehmet Bilgen** (University of Kansas Medical Center, Hoglund Brain Imaging Center)

Title of presentation: High Field Magnetic Resonance Imaging Facility: Resource for Regional Nanoscientists

**Sanju Gupta** (Missouri State University)

Title of presentation: "Self-assembled Conducting Polymer Micro/Nanostructures for Biological Applications"

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## **Nanotechnology, Nanomedicine and Life Sciences**

**Kattesh Katti** (MU-Columbia)

Title of presentation: "Design and Development of Biocompatible Gold Nanoparticles for Imaging and Therapy"

**Kevin Gillis** (MU-Columbia)

Title of presentation: "Microchip devices to measure hormone and neurotransmitter release: building a neuro-machine synapse"

**Ken Klabunde** (K-State)

Title of presentation: "Reactive nanoparticles: Unusual chemical and biological properties"

**Sheila Grant** (MU-Columbia)

Title of presentation: "The role of nanotechnology in biosensor development"

**Delbert Day** (UM-Rolla)

Title of presentation: "Medical applications for nanocrystalline hydroxapatite"

**Gabor Forgacs** (University of MO-Columbia)

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**BOXED LUNCHES PROVIDED FOR ALL CONFERENCE PARTICIPANTS.**

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## **SATURDAY AFTERNOON SESSION**

*The afternoon session will be devoted to a panel discussion on building and maintaining interdisciplinary research collaborations: what works and what doesn't; techniques to build effective collaborations; and promoting collaboration among scientists at geographically separate institutions.*

*Dr. Keith Gary, Kansas City Area Life Sciences Institute, will serve as Chair and Moderator for the Panel.*

**PANEL PARTICIPANTS** include investigators and research officers.

Investigators: David Eick (UMKC), Lynda Bonewald (UMKC), Phil Fraundorf (UMSL), Ron Dougherty (KU), Alan Glaros (Kansas City University of Medicine and Biosciences)

## **RESEARCH OFFICERS AND ADMINISTRATORS**

John Baumann (UMKC), Glen Marotz (KU), James Coleman (UMC), Nassar Arshadi (UMSL), Keith Roberts (Kansas City University of Medicine and Biosciences), William Caskey (Children's Mercy Hospital)

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## **ABBREVIATIONS FOR PARTICIPATING INSTITUTIONS**

University of Missouri-Kansas City (UMKC), University of Missouri-Columbia (MU-Columbia), University of Missouri-St. Louis (UMSL), University of Missouri-Rolla (UM-Rolla), University of Kansas (KU), Kansas State University (K-State), Saint Louis University (SLU)

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## **PARKING**

**SEE PAGES 6-7.**

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## **REGISTRATION**

**CALL 816-235-2142 OR RETURN THE FORM ON PAGE 5.**

The registration fee of \$25 includes the program as well as a Friday night reception, Saturday continental breakfast and boxed lunch. The registration fee is waived for all presenters, panel participants and moderators. The registration fee is also waived for students, but they must call to register.

# NANOTECHNOLOGY CONFERENCE

November 11-12, 2005

*Sponsored by the  
Research Alliance of Missouri (RAM)  
and hosted by the  
UMKC School of Dentistry*

## TO ENROLL BY PHONE (with a credit card)

Call (816) 235-2142 or (800) 643-9671. CDE staff will need to know your credit card number and its expiration date. People with speech or hearing impairments can contact the University by using Relay Missouri, (800) 735-2966 (TT) or (800) 735-2466 (voice).

## TO ENROLL BY MAIL (with a check or credit card)

Complete this enrollment form and send it with your payment (enrollment is not complete without payment) to **UMKC Continuing Dental Education, 650 E. 25th St., Kansas City, MO 64108-2784**. Please use one form per person — photocopy form as needed.

Name \_\_\_\_\_

Address \_\_\_\_\_  
Street City State ZIP

Day phone (\_\_\_\_\_) \_\_\_\_\_ Evening phone (\_\_\_\_\_) \_\_\_\_\_

Fax # (\_\_\_\_\_) \_\_\_\_\_ E-mail \_\_\_\_\_

### REGISTRATION FEE: \$25

Check Enclosed (Payable to UMKC Continuing Dental Education)

VISA  MasterCard  Discover Expiration date \_\_\_\_\_

Card number \_\_\_\_\_

Cardholder's Name \_\_\_\_\_

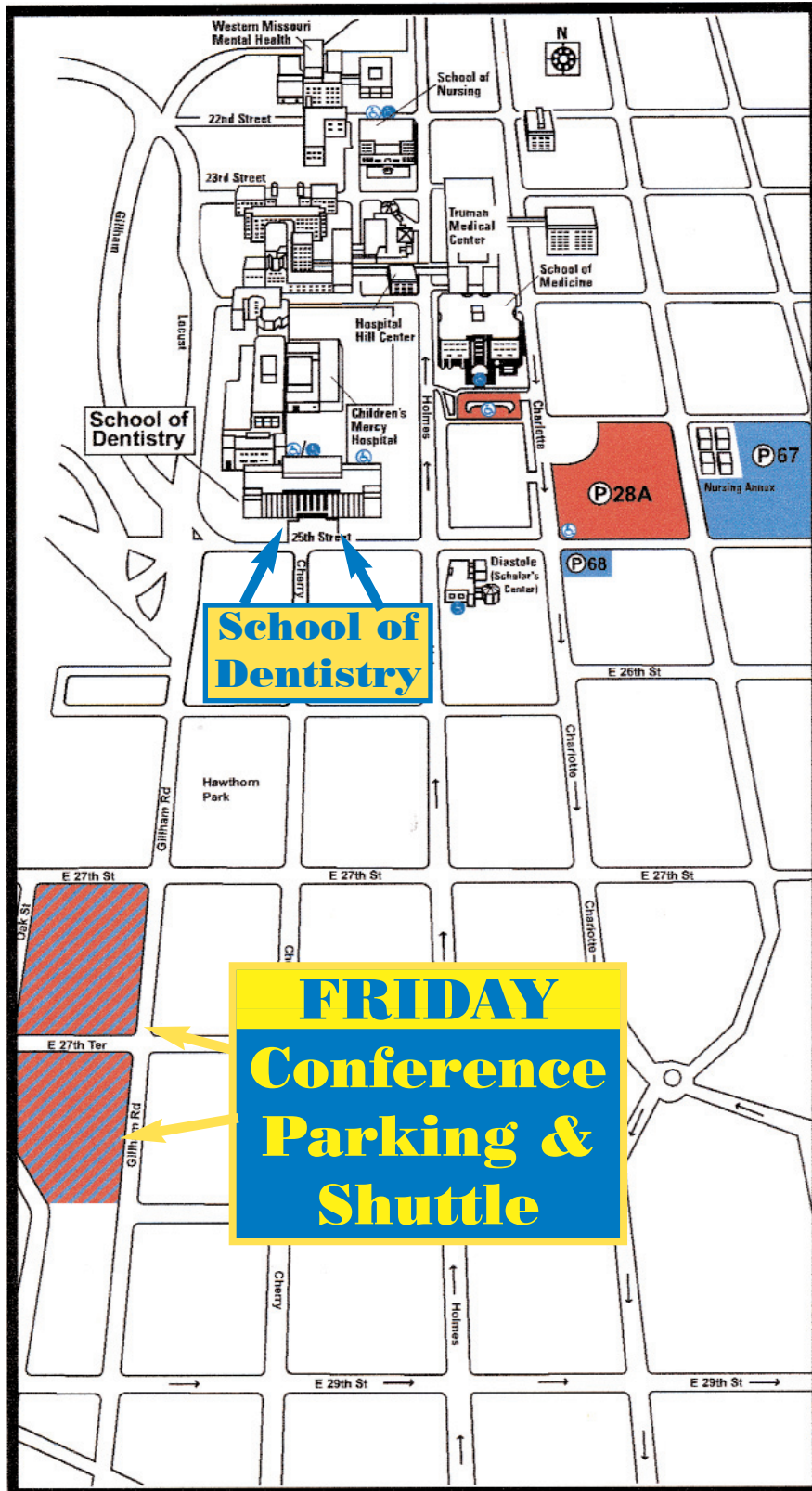
Signature \_\_\_\_\_

### CONTACT PERSON(S)

Dr. Paulette Spencer  
Curators' Professor  
Director, UMKC Center for Research  
On Interfacial Structure & Properties  
UMKC School of Dentistry  
Phone: (816) 235-2071  
Email [spencerp@umkc.edu](mailto:spencerp@umkc.edu)

Dr. Joe Driskill, Executive Director  
Missouri Technology Corporation  
Research Alliance of Missouri  
119 East Atchison Street  
P.O. Box 2137  
[Joe.Driskill@missouritechnology.com](mailto:Joe.Driskill@missouritechnology.com)

## PARKING



### FRIDAY

Attendees should park in the lots indicated in the map to the left at 27th St. and 27th Terr. & Gillham Rd. A shuttle bus will transport you to and from the lot and the School of Dentistry.

### SATURDAY

Attendees can park in the School of Dentistry's PATIENT PARKING LOT located on the north side of the school.

SEE MAP NEXT PAGE.

## SATURDAY PARKING

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