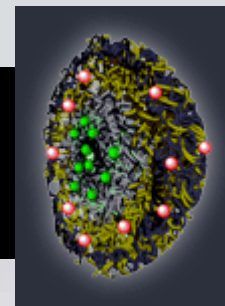


# Program of Excellence in Nanotechnology



## Third Annual Intra-PEN Meeting

**The National Heart Lung and Blood Institute  
(NHLBI) of the National Institutes of Health (NIH)**

***Washington University in Saint Louis  
Saint Louis, Missouri  
July 6-7, 2007***

***Organized by:***

***Eileen A. Cler  
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Washington University in Saint Louis  
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**Participants:**

**National Institute of Allergy and Infectious Diseases (NIAID)  
National Institutes of Health (NIH)  
National Heart Lung and Blood Institute (NHLBI)  
University of California, Berkeley  
University of California, Santa Barbara  
Washington University in Saint Louis**

# Third Annual Intra-PEN Meeting Program

**Friday, July 6, 2007**

**5:00 p.m. – 6:30 p.m.**

Welcome Reception

Rettner Gallery

Arts and Sciences, Laboratory Sciences Building

Washington University in Saint Louis

**7:00 p.m.**

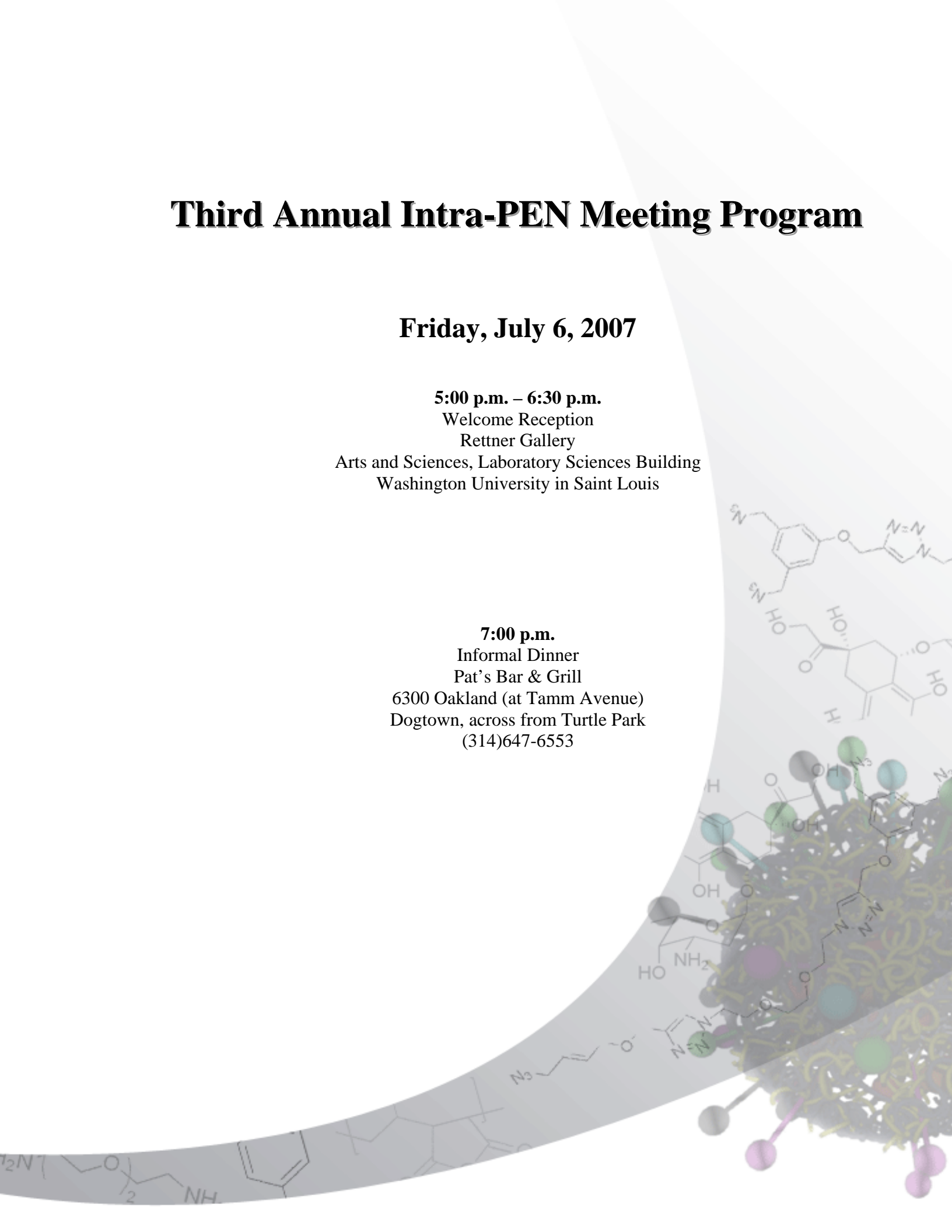
Informal Dinner

Pat's Bar & Grill

6300 Oakland (at Tamm Avenue)

Dogtown, across from Turtle Park

(314)647-6553



**Saturday, July 7, 2006**

**Arts and Sciences, Laboratory Sciences Building  
Room 300**

Washington University in Saint Louis

**8:30 a.m. – 9:00 a.m.**

Breakfast/Coffee

**9:00 a.m. – 9:15 a.m.**

Welcome and IOC Meeting Feedback

Karen L. Wooley

Washington University in Saint Louis

**9:15 a.m. – 10:45 a.m.**

Acute Lung Injury (ALI)

Dan Schuster – subgroup leader

**9:15 a.m. – 9:20 a.m.**

Introduction – Part I

Dan Schuster

Washington University in Saint Louis

**9:20 a.m. – 9:40 a.m.**

Immunotargeting the lung endothelium with anti-ICAM coated NPs

Raffaella Rossin – Welch group

Washington University in Saint Louis

**9:40 a.m. – 9:45 a.m.**

Antibody conjugation of SCKs

Andreas Nyström – Wooley group

Washington University in Saint Louis

**9:45 a.m. – 9:55 a.m.**

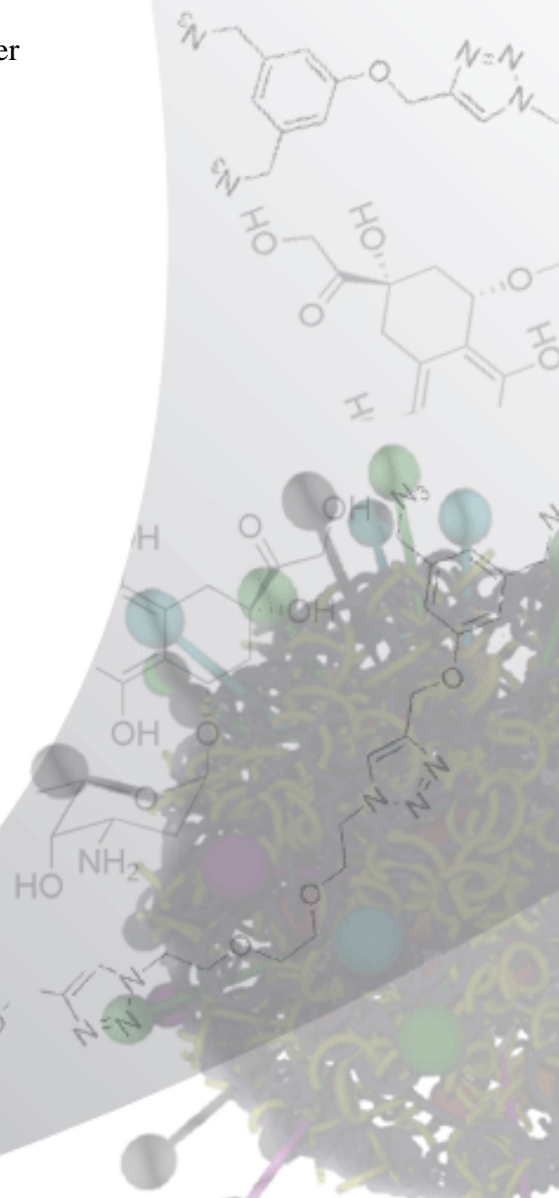
Discussion

**9:55 a.m. – 10:05 a.m.**

Introduction – Part II

Dan Schuster

Washington University in Saint Louis



**10:05 a.m. – 10:25 a.m.**

Targeting the lung epithelium with CPP-conjugated NPs  
Jessica Cohen - Fréchet group  
University of California - Berkeley

**10:25 a.m. – 10:35 a.m.**

Labeling spherical particles with PTD peptides  
Ke Zhang – Wooley group  
Washington University in Saint Louis

**10:35 a.m. – 10:45 a.m.**

Future Plans  
Dan Schuster  
Washington University in Saint Louis

**10:45 a.m. – 11:00 a.m.**

Coffee Break

**11:00 a.m. – 2:30 p.m.**

Acute Vascular Injury (AVI)  
Mike Welch – subgroup leader

**11:00 a.m. – 11:10 a.m.**

Introduction  
Raffaella Rossin – Welch group  
Washington University in Saint Louis

**11:10 a.m. – 11:20 a.m.**

New comb and star particles for vascular targeting  
Eric Pressly - Hawker group  
University of California - Santa Barbara

**11:20 a.m. – 11:40 a.m.**

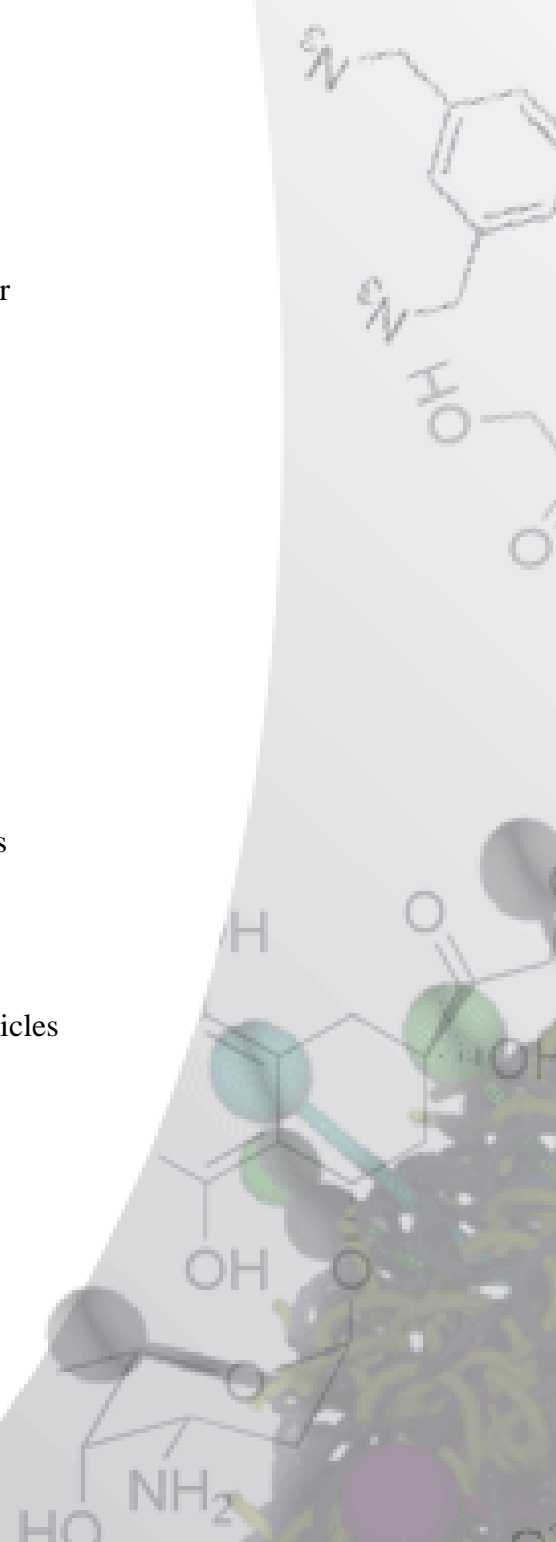
Pharmacokinetic of nanocarriers for imaging and drug delivery:  
*in vivo* evaluation of  $^{64}\text{Cu}$ - and  $^{76}\text{Br}$ - labeled PEGylated nanoparticles  
Aviv Hagooley - Welch group  
Washington University in Saint Louis

**11:40 a.m. – 12:00 p.m.**

Recent Integrin Binding Results: *In Vitro* Evaluation of the Nanoparticles  
Monica Shokeen - Anderson group  
Washington University in Saint Louis

**12:00 p.m. – 12:30 p.m.**

Lunch



**12:30 p.m. – 1:00 p.m.**

Animal models  
Dana Abendschein group  
Washington University in Saint Louis

**1:00 p.m. – 1:20 p.m.**

Imaging of hindlimb ischemia and tumor models with  $^{64}\text{Cu}$ - and  $^{76}\text{Br}$ - labeled nanoparticles  
Raffaella Rossin – Welch group  
Washington University in Saint Louis

**1:20 p.m. – 1:35 p.m.**

Background on natriuretic peptides  
Geoffrey Woodard, External Consultant  
National Institute of Allergy and Infectious Diseases  
National Institutes of Health

**1:35 p.m. – 1:50 p.m.**

Results of the study with  $^{64}\text{Cu}$ -C-ANF peptide in rabbit model  
Pam Woodard and/or Jie Zheng – Woodard group  
Washington University in Saint Louis

**1:50 p.m. – 2:00 p.m.**

High relaxivity biocompatible dendrimer  
Derek van der Poll – Fréchet group  
University of California – Berkeley

**2:00 p.m. – 2:20 p.m.**

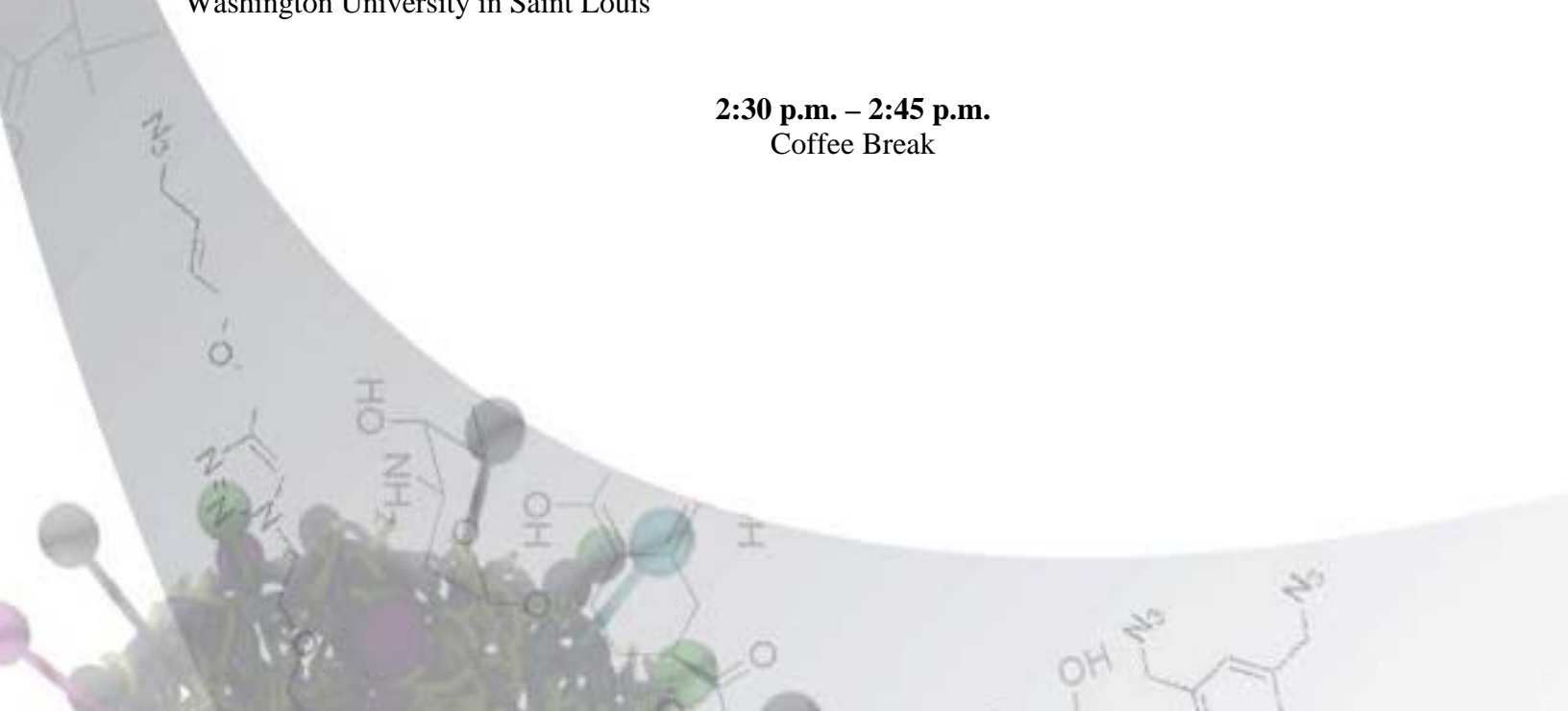
Novel pH activatable nanoprobe optical imaging  
Adah Almutairi – Fréchet group  
University of California – Berkeley

**2:20 p.m. – 2:30 p.m.**

Fluorescence lifetime imaging  
Mikhail Y. Berezin – Achilefu group  
Washington University in Saint Louis

**2:30 p.m. – 2:45 p.m.**

Coffee Break



**2:45 p.m. – 4:00 p.m.**

Fundamental work that could fit within either or both ALI and AVI (FUND)

Craig Hawker – subgroup leader

**2:45 p.m. – 3:05 p.m.**

Particles for delivery of actives: size control and degradability

Jean Fréchet

University of California – Berkeley

**3:05 p.m. – 3:30 p.m.**

**Wooley group**

Washington University in Saint Louis

Development of attachment chemistry

Guorong Sun

Controlled particle degradation

Yali Li and Andreas Nyström

Fluorinated, degradable, reactive polymer systems

Eric Du

Fundamental MRImaging

Zicheng Li

Expansion of assembly and labeling strategies

Nam Lee

**3:30 p.m. – 3:40 p.m.**

Novel chelators

Riccardo Ferdani – Anderson group

Washington University in Saint Louis

**3:40 p.m. – 4:00 p.m.**

**Hawker group**

University of California – Santa Barbara

Alternative linker chemistry

Jasmine Hunt

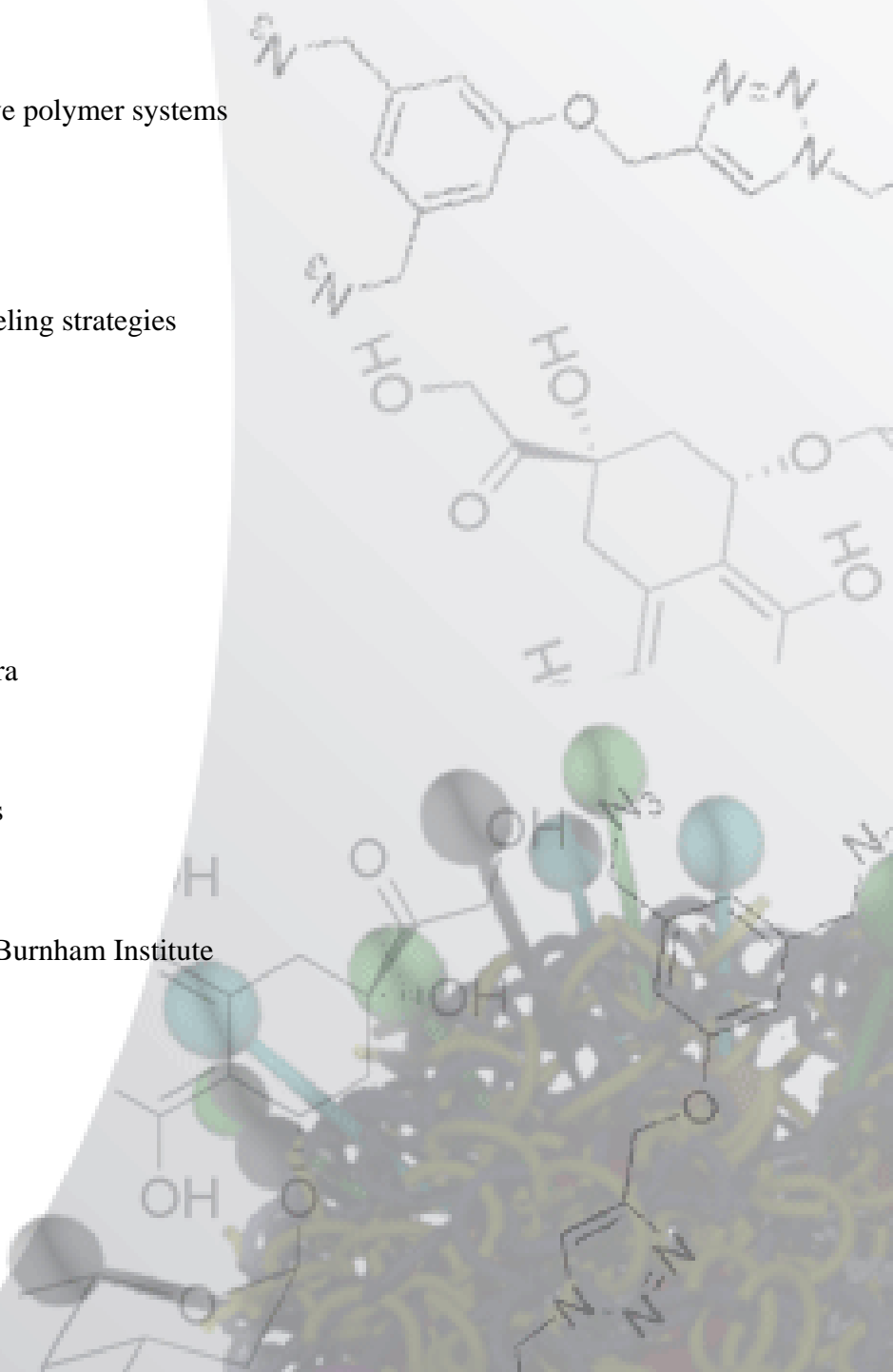
Backbone degradable structures

Jos Paulusse

Linear diblocks

Collaboration with Jeff Smith, Burnham Institute

Ashley Mynar



**4:00 p.m. – 5:00 p.m.**  
Skills Development (SKILLS)  
Carolyn Anderson – subgroup leader

**4:00 p.m. – 4:10 p.m.**  
Introduction  
Nanotechnology & the Life Sciences Symposium  
SCCNE-PEN Seminar Series  
Carolyn Anderson  
Washington University in Saint Louis

**4:10 p.m. – 4:30 p.m.**  
PEN-Hoech Challenge: Extending the PEN to the greater Saint Louis community  
Kenya Powell – Anderson and Wooley groups  
Washington University in Saint Louis

**4:30 p.m. – 4:50 p.m.**  
New Interdisciplinary Courses for Training the Future Generation of Nanomedicine and Imaging Scientists  
Monica Shokeen – Anderson group  
Washington University in Saint Louis

**4:50 p.m. – 5:00 p.m.**  
Discussion

**5:00 p.m. – 6:30 p.m.**  
Happy Hour  
Rettner Gallery

**5:30 p.m. – 6:30 p.m.**  
Executive Session  
All Senior Investigators  
Arts and Sciences  
Laboratory Sciences Building, Room 260

**6:30 p.m. – 7:30 p.m.**  
Wrap Up Session  
Karen L. Wooley

**8:00 p.m.**  
Riddles Penultimate Café and Wine Bar  
6307 Delmar Blvd.  
University City, in “The Loop”  
Dinner/Social Event  
(314)725-6985

**Event organized by:**  
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Washington University in Saint Louis  
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