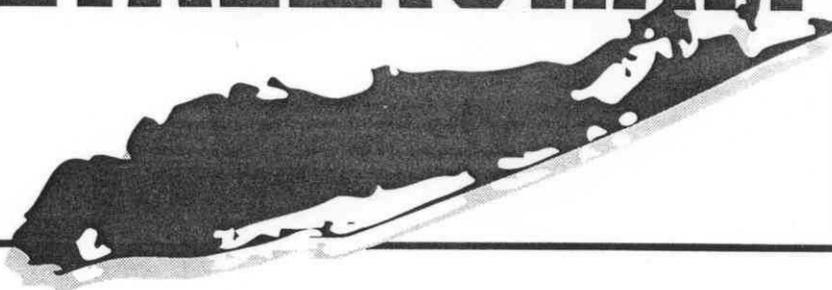




# METALLAGRAM



LONG ISLAND CHAPTER

Volume 52 Issue 2

Chapter website: <http://www.matscieng.sunysb.edu/asm/>

**Next Meeting . . . . . Wednesday, October 20, 2010**

**Where . . . . . Mauricio's Orlando's II, St. James, NY**

**Topic: Biomaterials**

**Speaker: Dr. Yizhi Meng, Stony Brook University**

*Social hour ... 6:00 pm Dinner ... 7:00 pm Meeting ... 8:00 pm.*

*Members ... \$22 Guests ... \$25 ASM 25 years ... \$20 Students ... \$12*

*(New and recently transferred-in members free!)*

**Reservations appreciated - call Peter Indrigo (631-730-2606)**

## DIRECTIONS TO MAURICIO'S ORLANDO'S II

Take the LIE to the Sagtikos/SunkenMeadow Parkway (Exit 53) and proceed north. At the first interchange, go onto the Northern State Parkway (NSP) East, towards Hauppauge. The NSP ends in two miles and you enter Rte 347/454. Travel past the government buildings for two miles. At the split in the highways, bear left onto Rte 347 (Nesconset Hwy). After three miles, there are three intersections: Terry Rd, Southern Blvd, and Lake Ave. Take Lake Ave north (left). At Rte 25 (Jericho Tpk/Middle Country Road), go left. The restaurant is immediately there, next to the Volvo dealership. The street address of the restaurant is 645 Middle Country Road (Rt. 25); their phone number is (631) 265-9228.

## OUR SPEAKER

Yizhi Meng received her Ph.D. in June 2003 from Cornell University, where she studied the rheological properties of semisolid biopolymers. As a postdoctoral student at the Cornell Nanobiotechnology Center (NBTC), she developed a microfluidic device for examining biofilm-forming plant bacterium, *Xylella fastidiosa*. In 2005, she became a postdoctoral fellow in the Biomedical Engineering department of Stony Brook University and in January 2009 joined the department of Materials Science and Engineering at SBU as an assistant professor. Currently she teaches Chemical Engineering Fluid Mechanics (CME 318) and Reaction Engineering and Chemical Kinetics (CME 323), as well as a graduate level special topics course on Tissue Engineering (ESM 696). She is an active user at the National Synchrotron Light Source (NSLS) and the Center for Functional Nanomaterials (CFN), and has served on the User Executive Committee as well as the User Proposal Review Panel.

## HER TOPIC

One in three women and one in five men over the age of 50 will experience an osteoporotic fracture in their lifetime. In 2006, more than 450,000 artificial knee replacements and nearly 180,000 artificial hip replacements were performed, according to the National Center for Health Statistics. Present-day artificial knee and hip implants have several flaws, causing them to only last for an average of 15 years. This is primarily due to rejection by the body's tissues and mechanical failure. As the elderly population increases, there is a growing demand for better therapeutic strategies to treat orthopaedic fractures. The Meng laboratory seeks to study new approaches for the engineering of nature-inspired bioactive biomedical materials. Both micro- and nanofabrication methods (e.g. photolithography, e-beam lithography) are used to build and modify tissue constructs via a bottoms-up approach, and to probe the cell-substrate interactions. By examining cellular mechanics, adhesion, motility, proliferation and differentiation, we hope to gain a better understanding of how cellular functions can be modulated by the materials properties of the substrate.



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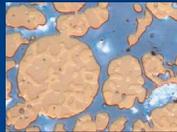
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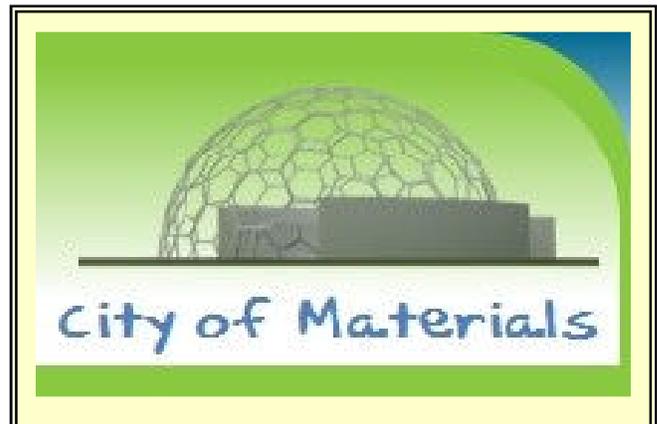
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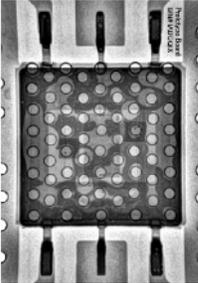
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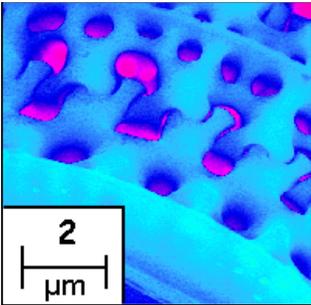
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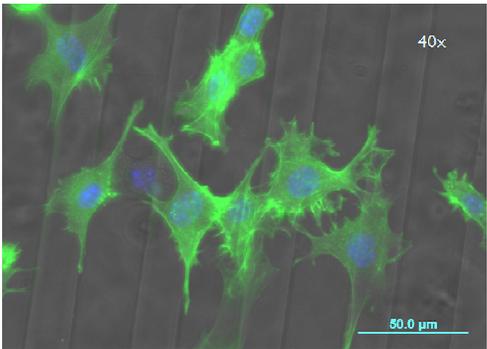
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**WELCOME TO THE CHAPTER!**

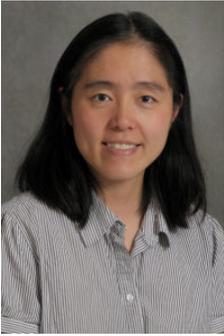
*Kevin Ramlal, Sulzer-Metco*

All new members, including those who have transferred in from another Chapter, are invited to dine free at a regular meeting of their choice. Please take us up on this offer - come along to the meeting and introduce yourself. This is an excellent way to meet with other Chapter members and to establish new business and social relationships in the area.



Osteoblasts sitting on micropatterns

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Dr. Yizhi Meng

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## Long Island Chapter Meeting Schedule

- Nov. 17, 2010** Place: Stony Brook University  
Speakers: Senior Students  
Topic: Design Projects and Feedback
- Dec. 9, 2010** Place: Mauricio's, St. James  
Speaker: Silvia Centeno, MMOA  
Topic: Art and Materials
- Jan. ??, 2011** Joint Meeting with LIANS  
Place: South Shore Restaurant, Patchogue  
Speaker: tba  
Topic: tba

### Metro NY-NJ Chapter

(website <http://www.asm.nynj.org/>)  
(contact: Rich Lynch @ 201-891-8399)

- Oct. 28, 2010** Place: L'Affair, Mountainside, NJ  
Speaker: Edwin Crombie, Johnson  
Matthey Noble Metals

### Long Island Metal Workers Society

(website <http://www.limws.org>)  
(contact: Jamie Swan @ 631-754-1457)

- Oct. 13, 2010** Tour: Fluid Metering Inc., Syosset

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