## Westchester Chemical Society New York Section of the American Chemical Society

### **SPECIAL SEMINAR – FREE AND OPEN TO THE PUBLIC**

# WEDNESDAY, NOVEMBER 11, 2015

Refreshments 5:30 p.m. Lecture 6:00 p.m.

# Hydrogen Bonding in Redox and Nanoparticle Construction

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Early nanoparticles for MRI angiography were constructed of silver or gold nanoparticles that supported active functional groups on their surface. Today nanoparticles for MRI and diverse biomedical applications and materials are constructed largely of non-metallic inorganic matrices, organic polymers, and gels. This talk will describe the formation and characterization of nanocapsules and gels in reverse micelles that form with the use of hydrogen bonding cationic surfactants that are paired with anionic monomers. The monomers are polymerized to form hyperbranched nanopolymers within the reverse micelle compartment. The resulting hyperbranched structures are uniform and stable under ambient conditions. They are cost effective to produce and suitable for numerous applications where the aim is the transport, slow release, or protection of molecules in the capsule or gel interior. This class of nanoparticle is synthetically accessible to non-specialists and can therefore serve to expand nanoscience in unique new directions.

Marc A. Walters is a graduate of City College (City University of New York). He earned his Ph.D. in Chemistry from Princeton University and followed this with an NIH Postdoctoral Fellowship at the Massachusetts Institute of Technology. Since then he has been a professor in the Chemistry Department of New York University. He also did a one-year stint as an associate professor at the Université de Toulouse. He has been chair of the NY Section of ACS and currently chairs its Government Affairs Committee.

> Westchester Community College 75 Grasslands Road, Valhalla, NY 10595 Gateway Building Room 110 Directions attached

> > For more information, contact

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#### **Inclement Weather: Cancellation Due to Inclement Weather**

Should Westchester Community College's Valhalla campus close due to inclement weather (or has delayed opening or closes early) the meeting will be cancelled. Decisions about delay/closure are made around 6am for day courses and 3pm for evening courses. The college will communicate delays, closings or early dismissals on their website (<a href="http://www.sunywcc.edu">www.sunywcc.edu</a>), Facebook, Twitter, and the 914-606-6900 phone line.

#### **Directions To WCC Campus**

#### From the Bronx River Parkway.

Take Virginia Road, Exit 26. Southbound, turn right; Northbound, turn left. At end of Virginia Road, turn right onto Route 100. Westchester Community College entrance is approx. 1/4 mile on left.

#### From Cross-Westchester Expressway (Route 287).

Take Hartsdale Exit 4. Eastbound, turn left; westbound, turn right. North on Knollwood Road (Route 100A). Right at Route 100. Approx. 1-1 1/2 miles to Westchester Community College entrance on right.

#### From the Sprain Parkway.

Take Eastview Exit. Northbound, turn right; Southbound, turn left. At the light, continue straight onto Route 100. Westchester Community College entrance is approx. 1-1 1/2 miles on right.

#### From the Saw Mill River Parkway.

Take Eastview Exit. Northbound, turn right; Southbound, turn left onto Saw Mill River Road. After passing under a building that has a passage over the road, bear left onto Route 100C. After passing the Sprain Parkway interchange, continue straight at the next light (becomes Route 100). Westchester Community College entrance is approx. 1-1/2 miles on right.

#### By Bus or Train.

Bee-Line buses No. 1-C, 15, 40 & 41 come onto the campus. For a bus schedule, call 914-813-7777. Harlem Line train should be taken to White Plains, where you can take the 40, 41 or 15 bus or a taxi. For a train schedule, call 1-800-638-7646.

#### Parking for Disabled Persons.

For information, call the Student Health Office at 914-606-6610.

#### Area Map:



### Area Map:



**On Campus Directions Next Page** 

### **On Campus Directions:**

Gateway Building Room 110 This is the new building on campus with the big glass windows Parking lot #1: Visitor Parking or else if there is space. Space is limited, please car pool and come early **Campus Map:** 

