



American Chemical Society Susquehanna Valley Section

SEPTEMBER 2012 NEWSLETTER

The four hundred and fourth meeting of the American Chemical Society Susquehanna Valley Section will be held on Wednesday, September 12, 2012 in Room 116 of the Rooke Science building on the Bucknell University campus. The meeting will begin at 7:30 PM and will be preceded by a reception at 5:00 PM in the faculty lounge of the Langone Center and dinner at 6:00 PM in the Langone Center (room will be next to faculty lounge). The speaker will be Dr. Kevin J. Edgar from Virginia Tech University.

"Polysaccharides: Incredibly Complex Natural Materials Enabling Uses from Medicine to Wide-screen TVs!"

Kevin J. Edgar
Professor of Biomaterials
Virginia Tech University

Polysaccharides are ubiquitous in nature, renewable, sustainable, non-toxic, and remarkably varied in both structure and function. So it is no surprise that in today's world of demanding applications and diminishing fossil fuel resources, the science of polysaccharides occupies an ever more prominent position. The challenge of elucidating and controlling structure-property relationships can be appreciated if one considers that a polysaccharide of a given length can be estimated to be more than a million times more complex and variable than a protein of equal length; and we all understand the great functional diversity of proteins.

In this presentation we will discuss our work in controlling this structural and functional diversity through regioselective modification of polysaccharides, reducing and controlling this complexity. We will also discuss the design of new polysaccharide derivatives for demanding applications, as diverse as tissue engineering and cellular delivery for the treatment of serious ailments like diabetes, cancer and cystic fibrosis, to the design of superior flat screen displays for your laptops and your living room.

Dr. Edgar is a professor in the Sustainable Biomaterials Department at Virginia Tech. He directs the Bio-based Materials Center, and is Associate Director for Research of the Macromolecules and Interfaces Institute, with its internationally renowned Macromolecular Science and Engineering interdisciplinary graduate program. Edgar is an associate editor of the journal Carbohydrate Polymers, and is also an associate editor of the journal Cellulose. His interests include the synthesis of novel polysaccharide derivatives, unraveling their structure property relationships, and taking advantage of their useful properties, especially in the creation of effective drug delivery systems to meet critical patient needs. He also has interest in the synthesis, analysis, and utilization of polysaccharides and derivatives with controlled nanostructure. He has been named to the inaugural class of Fellows of the American Chemical Society (2009), and has been named a Fellow of the ACS Division of Cellulose and Renewable Materials (2010). He spent the first 27 years of his scientific career at Eastman Chemical Company, focusing on polysaccharide synthesis and properties, and drug delivery. Edgar received his BS in Chemistry from Bucknell University, and his Ph.D. in Organic Chemistry from Duke University

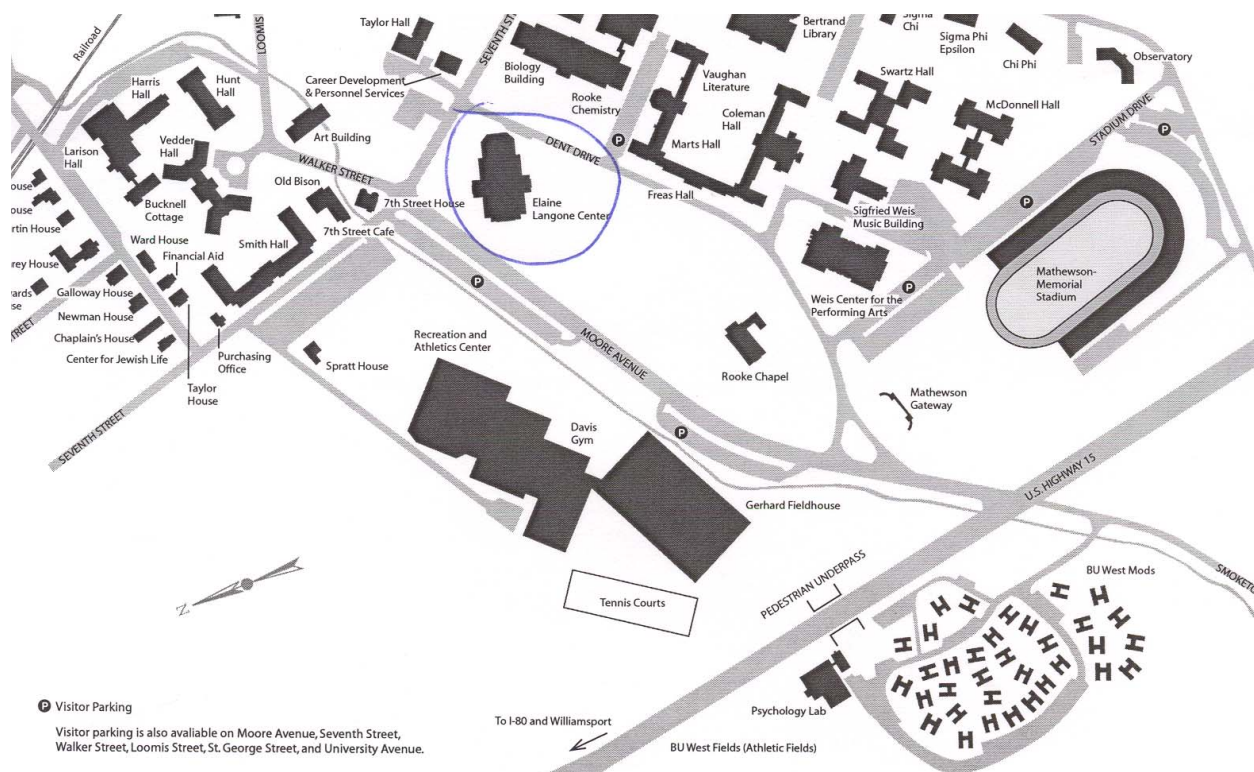
DINNER:

Dinner entrees will be a buffet dinner including a vegetarian option and dessert. The cost will be \$15.00 per person. Please RSVP Suellen Beck by email sb047@bucknell.edu or phone (570) 577-3258 by Tuesday, September 11.

DIRECTIONS TO BUCKNELL UNIVERSITY:

East of Lewisburg:	West of Lewisburg:
1. Interstate 80 West to Exit 210A	1. Interstate 80 East to Exit 210A
2. Route 15 South	2. Route 15 South
3. At 11th traffic light, turn left. (Look for the Bucknell Athletic Stadium on the left.)	3. At 11th traffic light, turn left. (Look for the Bucknell Athletic Stadium on the left.)
South of Lewisburg:	North of Lewisburg:
1. Take Routes 11&15 North	1. Take Route 15 south
2. When Routes 11 & 15 split, stay on Route 15 (Tedd's Landing is on your right; KMart on your left)	2. Once past Interstate 80, turn left at the 11th traffic light. (Look for the Bucknell Athletic Stadium on the left.)
3. Approx. 7 miles after Selingsgrove / Shamokin Dam, you'll come to a stop light. Bucknell is on your right. (Look for the Bucknell Athletic Stadium on right.)	

Once on campus: Follow the campus map to the visitor parking designated with a “P”.



2012 - 2013 Local Section Meeting Schedule:

- 12-Sept-2012:** Bucknell University
- 18-Oct-2012:** Wilkes University
- 7-Nov-2012:** Lycoming College
- Jan 2013:** Executive Board Meeting

- Feb-2013:** Merck (Danville, PA)
- March-2013:** Kings College
- April-2013:** Susquehanna University
- May-2013:** Bloomsburg University (Awards Banquet)

Section Web Page: <http://departments.kings.edu/SusquehannaValleyACS>
