



# American Chemical Society Susquehanna Valley Section

## APRIL 2022 NEWSLETTER

The four hundred and sixty second meeting of the Susquehanna Valley Section of the American Chemical Society will be held on Wednesday, April 20<sup>th</sup>, 2022 (which is the THIRD Wednesday in April) in the Mulligan Physical Science Center, Room 213, on the campus of King's College in Wilkes-Barre, PA. The meeting will begin at 7:00 PM will be preceded by a 5:30 PM dinner at Rodano's Restaurant and Bar. The speaker will be Dr. Mary Beth Browning Monroe of Syracuse University.

---

### *Local advocacy, helium shortage*

There are multiple global events impacting the helium supply (see this [podcast transcript](#) in C&E News). Contact your government representatives to let them know if the shortage is affecting you and to lobby for changes to make helium more accessible. It is also a good idea to stay in touch with your vendors, place orders sooner, and reduce other areas of use as much as possible.

---

## **“Shape Memory Polymers for Hemorrhage Control in Traumatic Wounds”**

Dr. Mary Beth Browning Monroe  
Assistant Professor of Biomedical Engineering  
Department of Biomedical and Chemical Engineering  
Syracuse University  
Syracuse, NY

Uncontrolled bleeding is the primary cause of preventable death on the battlefield. To meet this urgent clinical need, porous polyurethane shape memory polymer (SMP) foams were synthesized with (1) degradable linkages and (2) antimicrobial agents (phenolic acids, PAs). Foam structural, thermal, shape memory, and biological properties were characterized to ensure tunable, clinically-relevant scaffolds. Degradation profiles were obtained *in vitro* and *in vivo*, and antimicrobial efficacy and antioxidant properties were quantified. Hemorrhage control efficacy was characterized in a grade V porcine liver injury. SMP foams with tunable degradation rates (~30-90 days) have been synthesized, and PA-containing foams demonstrate antimicrobial efficacy against a range of common wound bacteria. SMP foams promoted increased clotting (6-8 min faster than clinical controls), reduced blood loss (145 ml less than clinical controls), and improved survival (50% vs. 12.5% for clinical controls) in the porcine model. Overall, this work demonstrates that SMP foams provide a platform technology with promise for use in traumatic wound healing.

## BIOGRAPHY OF DR. BROWNING MONROE:

Dr. Mary Beth Browning Monroe is an assistant professor in Biomedical and Chemical Engineering at Syracuse University. Mary Beth obtained her PhD in Biomedical Engineering at Texas A&M University, where she focused on synthesizing vascular grafts. Her dissertation work was recognized by a number of honors, including the NSF Graduate Research Fellowship. She did postdoctoral research at the Texas A&M Health Science Center Institute for Bioscience and Technology. This work on engineering proteins for wound healing was supported by the NIH National Research Service Award postdoctoral fellowship. After her postdoc, Mary Beth joined Dr. Duncan Maitland's lab at Texas A&M University as a Research Scientist, where she began building expertise on shape memory polymer (SMP)-based medical devices. Mary Beth transitioned into her current role as an Assistant Professor of Biomedical and Chemical Engineering in Fall 2018, where she integrates her background in medical devices, synthetic polymers, and regenerative medicine to design new SMP formulations for healing. Her work at Syracuse has been supported by grants from the US Air Force and the Crohn's and Colitis Foundation.

---

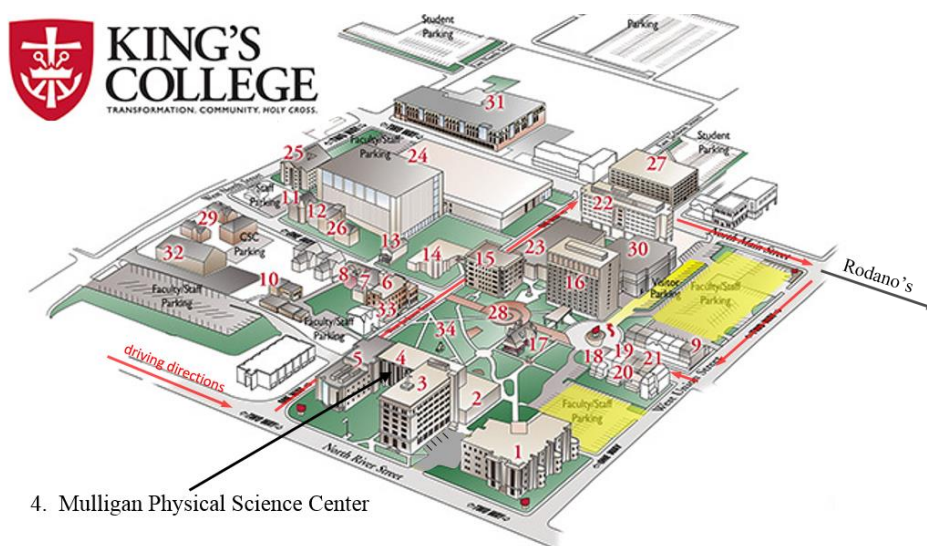
**DINNER:** 5:30 PM at [Rodano's Restaurant and Bar](#) on Public Square in Wilkes-Barre. Dinner will be ordered from the menu. Please call or email Ron Supkowski ([ronaldsupkowski@kings.edu](mailto:ronaldsupkowski@kings.edu) or 570-208-5900 x5733) by Tuesday, April 19 to indicate if you will be attending.

---

## DIRECTIONS TO KING'S COLLEGE:

Address: 133 N River St. Wilkes-Barre PA 18711

- From Route I-81, take Exit 170B which will put you on Route 309 North.
- Follow Route 309 and take exit 3 (Wilkes-Barre/Plains).
- Turn left off the exit ramp onto North River Street. Proceed about 1.5 miles, and you will see the Luzerne County Courthouse on your right. Continue through the light at the courthouse.
- Turn left at the next street, West Jackson Street. There is no traffic light at West Jackson Street, so do not go as far as the next light.
- Go through the stop sign, and at the first traffic light turn right onto North Main Street.
- Turn right at the next light onto West Union Street.
- Proceed to the next light and turn right onto North Franklin Street.
- The Visitors Lot is located to your right off the cul-de-sac.
- The lots colored yellow also have limited parking available.



For additional directions, visit <http://www.kings.edu/aboutkings/resources/directions>

## DIRECTIONS TO RODANO'S RESTAURANT AND BAR:

Address: 53 Public Square, Wilkes-Barre, PA 18701

- From Route I-81, take Exit 170B which will put you on Route 309 North.
- Follow Route 309 and take exit 3 (Wilkes-Barre/Plains).
- Turn left off the exit ramp onto North River Street. Proceed about 1.5 miles, and you will see the Luzerne County Courthouse on your right. Continue through the light at the courthouse.
- Turn left at the next street, West Jackson Street. There is no traffic light at West Jackson Street, so do not go as far as the next light.
- Go through the stop sign, and at the first traffic light turn right onto North Main Street.
- Continue down North Main Street until you come to Public Square.
- Rodano's will be on your left as you travel around and get to the opposite side of Public Square. They have street parking.

---

## SECTION NEWS:

### 2022 SVS AWARDS BANQUET:



The Susquehanna Valley Section of the American Chemical Society will be having their awards banquet this year. It is scheduled for 5:30 PM Monday, May 2 at the [Pine Barn Inn](#) in Danville, PA. Dinner is a buffet featuring Tuscan grilled chicken. All SVS members are invited to attend. Dinner will be \$10 per person, paid by cash or check at the event; awardees' dinner will be paid for by the section. To RSVP, indicate dietary restrictions, or request more information about awardees and their guest, contact Dr. Allison Saunders at 570-321-4404 or [saundersa@lycoming.edu](mailto:saundersa@lycoming.edu). Please RSVP by Friday, April 22. More information about the banquet will be forthcoming in the May newsletter.

### MARM 2022:



Save The Date:

The 50<sup>th</sup> Mid Atlantic Regional Meeting (MARM) will be held June 1-4, 2022. The meeting is hosted by the Trenton Local Section of the American Chemical Society. Check their website, [marm2022.tcnj.edu](http://marm2022.tcnj.edu), for more information.

### LOCAL STEM COMPETITIONS:



A list of all STEM competitions for high school students is posted on our [website](#). If you have any questions about the contests or have suggestions for others, please contact either the person indicated on the site or the section webmaster, Ron Supkowski at [ronaldsupkowski@kings.edu](mailto:ronaldsupkowski@kings.edu) or 570-208-5900 x5733

## OPEN POSITIONS IN THE LOCAL SECTION:

Do you want to use your talents to help other chemists in the Susquehanna Valley section? Listed below are examples of positions that need to be filled by willing individuals along with websites that give organizing ideas: Current committee chairs can be seen at the local section [website](#).

- WCC ([Woman Chemists Committee](#)) Chair  
*Help attract, retain, develop, promote, and advocate for women to positively impact diversity, equity and inclusion in the Society and the profession*
- Project SEED ([Summer Experiences for the Economically Disadvantaged](#)) Coordinator  
*Coordinators are responsible for establishing programs, identifying mentors, recruiting students, fundraising, and organizing activities such as field trips*
- CH&S ([Chemical Health and Safety](#)) Committee Chair  
*Help provide authoritative technical resources and mentorship in chemical health and safety for all*
- SCC ([Senior Chemists Committee](#)) Chair  
*Help improve communication among senior chemists, increase the number of senior chemists' groups and the level of their engagement within local sections, and encourage the involvement of senior chemists in programs focused on K-12 education, undergraduate networking, and mentoring*
- CCEW ([Chemists Celebrate Earth Week](#)) Coordinator  
*Help promote the positive role that chemistry plays in the protecting our planet (recyclable plastics, cleaner-burning fuels, phosphate-free detergents, environmental monitoring, and green chemistry initiatives).*

If you are interested, contact the section Chair (Allison Saunders, [asaunders@lycoming.edu](mailto:asaunders@lycoming.edu)), Secretary (Ronald Supkowski, [ronaldsupkowski@kings.edu](mailto:ronaldsupkowski@kings.edu)) or any member of the Susquehanna Valley Section leadership team ([executive committee](#), [committee chairs](#), [liaisons](#)).

---

## NATIONAL ACS NEWS:

### COVID-19

ACS is committed to helping combat the global COVID-19 pandemic with initiatives and free resources. Learn More at their website [acs.org/content/acs/en/covid-19](https://acs.org/content/acs/en/covid-19)

### ACS LEGISLATIVE ACTION NETWORK:

Legislation that may impact the chemical enterprise comes before Congress on a regular basis, and the ACS is committed to keeping its members informed and encouraging them to weigh in on high-priority issues. To see the position of the ACS on many legislative issues visit the ACS LAN website: [www.acs.org/content/acs/en/policy.html](https://www.acs.org/content/acs/en/policy.html)

To find out how to become more active in ACS advocacy activities, see the website: [www.acs.org/content/acs/en/policy/memberadvocacy/advocacy-tools.html](https://www.acs.org/content/acs/en/policy/memberadvocacy/advocacy-tools.html)

To join ACS' grassroots legislative advocacy network, ACT4CHEMISTRY, which will allow you to stay up to date on policy issues and contact legislators on behalf of chemistry and chemists, go to their website, follow the Act4Chemistry Twitter account, or email [advocacy@acs.org](mailto:advocacy@acs.org).

***Act4Chemistry Advocacy Issues. To take action go to the website***  
[acs.org/content/acs/en/policy/memberadvocacy/issues.html#/takeaction](https://acs.org/content/acs/en/policy/memberadvocacy/issues.html#/takeaction)

***Ask the Senate to confirm science nominees for key positions & consider a chemist for the Chemical Safety Board***

In 2021, the Biden Administration nominated three chemists to three important parts of government. Dr. Geri Richmond has been nominated as the Department of Energy's (DOE's) Under Secretary for Science and Energy. Dr. Asmeret Berhe has been nominated as the Director of the DOE Office of Science. Additionally, Dr. Laurie Locascio has been nominated to lead the Department of Commerce's National Institutes of Standards and Technology (NIST). ACS asks the Senate to vote on their nominations. ACS is also asking Congress to encourage the nomination of someone with experience and a background in chemistry for the remaining vacancy on the U.S. Chemical Safety and Hazard Investigation Board

***Ask Congress to include ACS's priorities in wider U.S. innovation legislation package***

ACS is encouraging the inclusion of dedicated support for sustainable chemistry and authorization of new helium conservation measures into the wider Science and Innovation package Congress is aiming to pass. Language supporting sustainable chemistry and the conservation of the critical material helium has passed the House. Inclusion in the final package that could become law will depend on action by scientists like you to ensure Members are aware of the importance of supporting sustainable chemistry and conserving nonrenewable helium.

***Ask Congress to support the Research Investment to Spark the Economy (RISE) Act***

We encourage you to ask that your members of Congress cosponsor and support the Research Investment to Spark the Economy (RISE) Act, H.R. 869 and S. 289. These bipartisan bills would authorize supplemental funding for a variety of research agencies.

***Support the Chemical Safety Board***

The CSB is an independent federal agency that saves companies, universities, and local communities billions of dollars and countless lives by helping them prevent catastrophic incidents. Despite its great value, the administration has called for \$9.4 million for FY 2019 to be allocated to CSB, specifically for its elimination. Join us in asking appropriators and other members of Congress for their continued support of the CSB and its mission to protect workers and the public.

***Keep Science Funding Strong***

Congress and the White House are working to complete the appropriations process for fiscal year 2021. Join us in asking appropriators for a strong and predictable boost in federal funding for scientific research.

***Congressional Chemistry Caucus***

The Caucus' mission is to educate Members of Congress, their staff, and the public on the benefits of chemistry in today's society and its economic impact on our country. If you do not see your Representative or Senators represented in the Chemistry Caucus ask them to join.

## JOIN THE ACS:

If you know of anyone who would benefit from being a member of the American Chemical Society, please direct them to the membership website:

[www.acs.org/content/acs/en/membership.html](http://www.acs.org/content/acs/en/membership.html)

## NATIONAL MEETINGS:



### ***Fall 2022 ACS National Meeting***

The fall 2022 national meeting, “Sustainability in a Changing World” will be a hybrid event. The meeting will be held August 21-25, and the in-person event will take place in Chicago, IL. Abstracts are now being accepted; submission deadline is March 14. See the [website](#) for more information.

### ***2022 Green Chemistry & Engineering Conference***

The 26<sup>th</sup> annual Green Chemistry & Engineering Conference will be held June 6-8, 2022 at the Hyatt Regency in Reston, VA. The 2022 theme will be *Thinking in Systems: Designing for Sustainable Use*. Hosted by the American Chemical Society’s Green Chemistry Institute (ACS GCI), the GC&E Conference is the longest-running global conference dedicated to green chemistry and engineering. A virtual component will be available to connect the local event with the global community of scientists, students, educators and leaders interested in advancing science and solutions to global sustainability challenges. For more information on submissions and registration, please see the [website](#).

### ***BCCE 2022***

The 27<sup>th</sup> Biennial Conference on Chemical Education will be held at Purdue University in West Lafayette, Indiana from July 31 – August 4. See the [website](#) for more details.

---

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

Please send any comments about the monthly newsletter to Ron Supkowski, Section Secretary  
King’s College 131 N River St Wilkes-Barre PA 18711 [ronaldsupkowski@kings.edu](mailto:ronaldsupkowski@kings.edu)

---