

# American Chemical Society Susquehanna Valley Section

# SEPTEMBER 2025 NEWSLETTER

# **MONTHLY DINNER MEETING:**

The four hundred and eightieth meeting of the Susquehanna Valley Section of the American Chemical Society will be held on Thursday, September 18<sup>th</sup>, 2025, at 7:00pm at Academic West 214 on the campus of Bucknell University. The speaker will be Professor Sarah Smith of the Chemistry Department at Bucknell University in Lewisburg. The presentation will be preceded by a buffet dinner at 6:00pm at Academic West 111. Please RSVP to Charlie Guttendorf (cg029@bucknell.edu) by 4:00pm September 10th, who can provide additional information.

# Understanding the Role of Sequence and Structure in the Function and Design of Antimicrobial Peptides

Professor Sarah Smith Bucknell University

ABSTRACT: As antibiotic-resistant bacteria spread worldwide, the need to develop novel antimicrobial agents is urgent. We hope to take inspiration from antimicrobial peptides (AMPs), which are small protein fragments produced by organisms throughout nature, and that have broadspectrum antimicrobial activity. However, there are limitations to the development of therapeutics based on AMPs, including their expense and instability in biological systems. We are working to better understand the relationships between the amino acid sequence, biophysical properties, antimicrobial activity, and specificity of native AMPs. I will discuss our work in identifying the impact of a single amino acid change on the antibacterial properties of a class of AMPs, Cecropins, produced by Drosophila melanogaster. I will then describe our successes in designing shorter AMPs based on these Cecropins, and our ongoing work to elucidate the mechanism of action of both the full-length and truncated peptides.



**BIOGRAPHY:** Prof Smith graduated from MIT with degrees in chemistry and biology, performing undergraduate research in the lab of Prof Stephen Lippard. She completed her PhD in 2016 at the University of California, San Diego in bioinorganic chemistry in the lab of Prof Akif Tezcan. She moved to the University of Toronto as a postdoctoral fellow to work with Prof Shana Kelley, using synthetic biology to design electrochemical-based devices for disease detection. She started her independent career at Bucknell University in 2018.

#### **DINNER:**

Dinner will be at 6:00pm on campus at Academic West 111. Please RSVP to Charlie Guttendorf (cg029@bucknell.edu) by 4:00pm September 10<sup>th</sup>.

#### **DIRECTIONS TO BUCKNELL UNIVERSITY:**

Address of the Academic West Building: 616 Coleman Hall Dr, Lewisburg, PA 17837

East of Lewisburg:	West of Lewisburg:
Interstate 80 West to Exit 210A	1. Interstate 80 East to Exit 210A
2. Route 15 South	2. Route 15 South
<ol><li>At 11th traffic light (the first light after crossing</li></ol>	<ol><li>At 11th traffic light (the first light after crossing</li></ol>
Route 45 (Market Street)), turn left onto Moore	Route 45 (Market Street)), turn left onto Moore
Avenue. (Look for the Bucknell Athletic Stadium on	Avenue. (Look for the Bucknell Athletic Stadium on
the left.)	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	2. Once past Interstate 80, turn left on Moore Avenue
<ol><li>Approx. 7 miles after Selinsgrove / Shamokin Dam,</li></ol>	at the 11th traffic light (the first light after crossing
you'll come to a stop light. Bucknell is on your right.	Route 45 (Market Street)). (Look for the Bucknell
(Look for the Bucknell Athletic Stadium on right.)	Athletic Stadium on the left.)

Online campus maps can be found at: <a href="https://www.bucknell.edu/admissions-aid/plan-visit/maps-directions-parking">https://www.bucknell.edu/admissions-aid/plan-visit/maps-directions-parking</a>

#### **LOCAL STEM COMPETITIONS:**



A list of all STEM competitions for high school students is posted on our <u>website</u>. If you have any questions about the contests or have suggestions for others, please contact the person indicated on the site. Questions may also be directed to the <u>Local Section Councilor</u>.

#### **2025 UPCOMING LOCAL SECTION MEETINGS:**

September 18<sup>th</sup>, 2025 @ Bucknell University October 2025 @ Wilkes University November 12<sup>th</sup>, 2025 @ Lycoming College

#### LOCAL SECTION AWARD RECIPIENTS 2024-2025

#### **ACS Longevity Awards**

DR. FREDERICK SAULS (50-year member) DR. BRUCE WILCOX (50-year member)

#### Joseph Priestly Service Award

DR. DONALD MENCER Wilkes University

#### Ron Blatchley High School Chemistry Teacher of the Year Award

MS. DONNA BARRETT Scranton Preparatory School

## **National Chemistry Week Awards**

**6-8 Category** SOPHIA REINER Upper Dauphin Area School District

Teacher - Ms. Madison Renn

**9-12 Category** KATHERINE LEGG Honesdale Area School District

Teacher - Ms. Michelle Tonkin

#### David H. Frederick Memorial Awards in High School Chemistry

#### **EXAM A WINNERS**

GAVIN MAUST Mid-West High School

Teacher - Ms. Jenna Mowery

JAMES KUPETZ Old Forge Jr./Sr. High School

Teacher - Ms. Adrianna Rupprecht

JONAH CAHN Abington Heights High School

Teacher - Ms. Carolyn Siwak

JACE THOMAS Hanover Area Jr./Sr. High School

Teacher - Dr. Jocelyn Holodick-Reed

BLAKE BLASICK Danville Area High School

Teacher - Mr. Paul Dennehy

#### **EXAM A RUNNERS-UP**

SOPHIA WHITCOMB Line Mountain High School

Teacher - Dr. Shelley Herb-Fausey

JACK PETERS Selinsgrove High School

Teacher- Mr. Alex Hunter

TRINITY BILBAY Jersey Shore Area Senior High School

Teacher - Mr. Alex Hunter

MCKENZIE CAWLEY Central Columbia High School

Teacher - Ms. Leah Kubasek

#### **EXAM B WINNERS**

RAYMOND CHEN Mid Valley Secondary Center

Teacher - Dr. Jacob Bank

MATTHEW BEDFORD Scranton Preparatory School

Teacher - Ms. Donna Barrett

**EXAM B RUNNERS-UP** 

KRISTEN KUHNS Mifflinburg Area High School

Teacher - Mr. Matthew Wells

LILY HEAD Honesdale High School

Teacher - Michelle Tonkin

KENDALL MATASH Berwick High School

Teacher - Ms. Christine Readler

#### **College Award Winners**

EMILY BIRCHARD Commonwealth University - Bloomsburg

JULIA REYNOLDS
HEATHER M. KEMPER
JUAN MARTINEZ
JESSICA SUSKI
GRACE MCDONALD
CHRISTINA VO
SAMANTHA ANDES

Bucknell University
King's College
Lycoming College
Misericordia University
University of Scranton
Susquehanna University

#### **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:

- Susquehanna Valley Local Section Chair-Elect

  This three-year position is the usual office taken on by local chemists who want to begin to become more involved in the local section.
- WCC (<u>Woman Chemists Committee</u>) Chair Help attract, retain, develop, promote, and advocate for women to positively impact diversity, equity and inclusion in the Society and the profession.
- CMA (<u>Committee on Minority Affairs</u>) Chair Help increase the number & participation of racially & ethnically underrepresented scientists in the Society and its governance.
- Project SEED (<u>Summer Experiences for the Economically Disadvantaged</u>) Coordinator Coordinators are responsible for establishing programs, identifying mentors, recruiting students, fundraising, and organizing activities such as field trips.
- 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.
- CCEW (<u>Chemists Celebrate Earth Week</u>) Coordinator Help promote the positive role that chemistry plays in the protecting our planet.

If you are interested in learning more about these volunteer activities, please contact the section Councilor (Donald Mencer, donald.mencer@wilkes.edu).

# **REGIONAL ACS MEETINGS:**



# ACS Middle Atlantic Regional Meeting

The 54<sup>th</sup> Middle Atlantic Regional Meeting (MARM 2026) - "Molecular Milestone: Crafting a Sweet Future Through Chemistry" will be held in Hershey, PA 17 – 19 May 2026.

MARM 2026 will be an in-person event.

### **NATIONAL ACS MEETINGS:**



# Spring 2026 ACS National Meeting

The Spring 2026 national meeting will be a hybrid event. The meeting will be held 22 – 26 March 2026, and the inperson event will take place in Atlanta, Georgia.

Abstract submission ends September 29, 2025! See the website for more information.

#### **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: <a href="https://www.acs.org/membership.html">https://www.acs.org/membership.html</a>

#### **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: <a href="https://www.acs.org/content/acs/en/policy.html">https://www.acs.org/content/acs/en/policy.html</a> To find out how to become more active in ACS advocacy activities, see the <a href="advocacy website">advocacy website</a>.

Joining the ACS' grassroots legislative advocacy network, ACT4CHEMISTRY 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 X account, or email advocacy@acs.org.

Act4Chemistry Advocacy Issues. To take action go to the website <a href="https://www.acs.org/policy/memberadvocacy.html">https://www.acs.org/policy/memberadvocacy.html</a>

Susquehanna Valley Section Web Page: <a href="mailto:svs-acs.org">svs-acs.org</a>. Please send any comments about the monthly newsletter to your Local Section Secretary, Sydney Bachman, <a href="mailto:sydney.bachman@stellantsystems.com">sydney.bachman@stellantsystems.com</a>