Mid-Hudson Chemist



Spring 2021

Upcoming Events

eCybermission- a web-based STEM competition

for grade levels 6-9. Apply to be a virtual judge by

March 3-see page 4 for details.

ACS talk : “*Combatting the cytotoxicity of misfolded protein oligomers in a neurodegenerative disease”*

Speaker: Ryan Kreiser

Date: Tuesday, March 23

Place: Zoom event

Time: 7:00 -8:30 pm (see pp.5-6 for details)

**62nd Annual Dutchess County Regional Science Fair**

Date: Saturday, March 27

Place: Google Meet

Time: 9:30 am – 12:30 pm (see page 7 for details)

**ACS Earth Day Hike**

Date: Saturday, April 24 (rain date May 1)

Place: Starting point is at Mt Taurus parking lot just north of Cold Spring on 9D.

Meeting Time: 10:00 am

Please see details on pages 8-9.

**22nd Annual Mid-Hudson ACS Undergraduate Research Symposium**

Date: Tuesday, April 27

Place: Zoom

Guest Speaker: TBA

Please see announcements on pages 11-14. More details about the speaker will be posted soon on our website: <https://www.midhudsonacs.org/>

**ACS Northeast Regional Meeting (NERM 2021)**

Date: October 8-11

Deadline for symposia proposal submission is April 7, 2021. Registration to attend the meeting will begin in Summer 2021.

See page 10 for details.

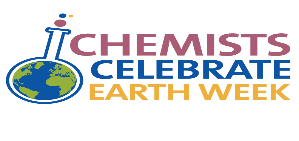
SAVE THE DATE

The upcoming virtual URS takes place

*on Tuesday, April 27*.

Please see details about this event on pages

11-14.



Position

Celebrate CCEW 2021 **April 18–24** with the theme:

“**Reducing Our Footprint with Chemistry: Reduce**

**and Reuse”**

***See our 50 yr., 60 yr., and 70 yr. ACS members who are being***

***honored at our URS for their years of dedication and service on***

***page 15.***

Position needed!

**Hudson Valley Science Café**

A Science Café is a monthly gathering in a café, pub or restaurant, open to the public, with a short presentation of a topic followed by discussion. The essence of a Science Café is informality, with groups seated around tables with food and drink to encourage conversation.

Since we cannot meet together at this time, science cafes will be held virtually.

**Hudson Valley Science Cafe will be taking its usual winter break from December to March.**

**Meetings to be announced starting in April!**

**Website:** [www.cafescientifique.org/index.php?option=com\_content&view=article&id=196:hudson-valley&catid=78:cafe-pages](http://www.cafescientifique.org/index.php?option=com_content&view=article&id=196:hudson-valley&catid=78:cafe-pages)

Hudson Valley Science Café has received start-up funds from WGBH-NOVA and the American Chemical Society. For information, or to suggest a speaker (yourself included), please contact Dr. Toby Rossman ([tobyrossman@yahoo.com](mailto:tobyrossman@yahoo.com)).

Hudson Valley Science Café is on Facebook: [www.facebook.com/hudsonvalleysciencecafe](http://www.facebook.com/hudsonvalleysciencecafe)



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**Oct. 17-23, 2021**

**“Fast or Slow…Chemistry Makes It Go!”**

**For this year’s theme, our Mid-Hudson section is seeking a NCW committee chairperson for assisting our local colleges with resources they need to run various events for this program. If you are interested in assisting with these activities, please contact:** [**Lori.Wojciechowicz@sunydutchess.edu**](mailto:Lori.Wojciechowicz@sunydutchess.edu)**. We welcome your interest in helping our colleagues with this fun, annual event on chemical reactions!**

**Chair:** Lori Wojciechowicz; **Chair-Elect:** Chi Nguyen; **Past Chair:** John Edwards; **Treasurer:** Joan Skinner; **Secretary:** Ken McDonald; **Councilor:** Lynn Robinson; **Alternate Councilor:** Maryellen Sinclair; **Members–at–Large:** Ines E. Augie, Dawn Riegner, and Joseph Tanski; **NCW Co-Chairs:** TBD (see ad below); **Publicity:** Maryellen Sinclair; **Awards Chair:** Patti Cusatis and Lynn Maelia; **WCC Chair:** Lynn Robinson; **YCC Chair**: William Maelia; **SCC Chair:** Glenn Roy;

**Webmaster**: Patti Cusatis; **Membership Chair:** Lori Wojciechowicz; ***Mid-Hudson Chemist* Editor/Publisher:** Lori Wojciechowicz and Maryellen Sinclair

**~Join the Mid-Hudson ACS WCC Discussion List~**

The following website may be used to subscribe, unsubscribe, or view the archive:

[**lists.msmc.edu/mailman/listinfo/wcc-mh**](http://lists.msmc.edu/mailman/listinfo/wcc-mh)

**To post a message to all the list members, send email to**

[**wcc-mh@lists.msmc.edu**](mailto:wcc-mh@lists.msmc.edu)**.**

**Mid-Hudson ACS Website:** [www.midhudsonacs.org](http://www.midhudsonacs.org/)

Please visit our site and contact our Webmasters ([William.Maelia@gmail.com](mailto:William.Maelia@gmail.com) , [patti.cusatis@basf.com](mailto:patti.cusatis@basf.com)) with your comments or additional items to be posted.

Like us on Facebook: [www.facebook.com/MidHudsonACS](http://www.facebook.com/MidHudsonACS)

**~Join the Mid-Hudson ACS Discussion List~**

The following website may be used to subscribe, unsubscribe, or view the archive:

[lists.msmc.edu/mailman/listinfo/acs-mh](http://lists.msmc.edu/mailman/listinfo/acs-mh)

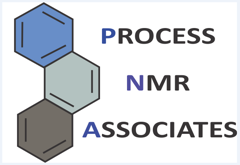
To post a message to all the list members, send email to [acs-mh@lists.msmc.edu](mailto:acs-mh@lists.msmc.edu).

**2021 Executive Committee**

**Mid-Hudson ACS events and activities are sponsored by:**

**North Street Rehabilitation**

**for New York and Connecticut**



Welcome to eCybermission!

"eCYBERMISSION is a web-based science, technology, engineering, and mathematics (STEM) competition for students in **grades 6-9** that promotes self-discovery and enables all students to recognize the real-life applications of STEM. Teams of three or four students (NOTE: due to COVID-19 teams of two students will be considered complete for the 2020-21 competition year) are instructed to ask questions (for science) or define problems (for engineering), and then construct explanations (for science) or design solutions (for engineering) based on identified problems in their community. Students compete for State, Regional, and National Awards. The U.S. Army Educational Outreach Program is committed to answering the Nation’s need for increased national STEM literacy and to expanding STEM education opportunities across the country to open doors to new career paths for American students that lead to a brighter tomorrow."

Registration for volunteers to serve as virtual judges is open now and ends on **March 3, 2021.** Visit  <https://www.ecybermission.com/> to register.

**Judging dates are from** **March 16-31, 2021.** There are two categories of judges - "student" and regular judges. Registering as a "student judge" limits the number of projects that students are assigned to judge.



*Topic: “Combatting the cytotoxicity of misfolded protein oligomers in a neurodegenerative disease”*

**Presenter:** Ryan P. Kreiser**, Department of Chemistry and Life Science, United States Military Academy, West Point, NY 10996, USA**

**Date:** Tuesday, March 23, 2021 at 7:00-8:30 pm EST **(U.S. and Canada)**

**Join Zoom Meeting:**

[***https://american-chemical-society.zoom.com/j/8684045369?pwd=amo3QTlrSi9ZNVdubjJUdnA2UjNZdz09***](https://american-chemical-society.zoom.com/j/8684045369?pwd=amo3QTlrSi9ZNVdubjJUdnA2UjNZdz09)

**Meeting ID: 868 404 5369**

**Password: STP224y**

**One tap mobile**

**+16465588656, 8684045369# US (New York)**

If you have never attended a Zoom meeting, please allow for extra time to download the Zoom free app. Your microphones will be muted during the presentation so you can ask questions using the Chat box. Your questions will be answered, and you will be welcomed to use your microphones at the end of the presentation.

We look forward to you joining us for this very interesting presentation!



***Presents:***

***Abstract*:** The onset and progression of Alzheimer’s disease is characterized by the aggregation of the 42-residue form of the amyloid-b peptide (Aβ42). Significant evidence indicates that Aβ42 induces cell death through the interaction of its toxic oligomeric species with cell membranes, which disrupts membrane integrity and ion homeostasis within the cell. Due to the transient and heterogeneous nature of these elusive aggregates, the development of therapeutics that can effectively target them has been fraught with challenges. Here, we focus on our efforts to reduce the toxicity of protein misfolded oligomers, including by modulating the populations or lifetimes of oligomers, altering their physicochemical properties, attenuating their interactions with cell membranes, and reducing oligomer toxicity by potentiating the protein homeostasis system. Moreover, we investigated the influence of cell membrane composition on the ability of protein misfolded oligomers and folded toxins to interact with the cellular membrane. Collectively, our results illustrate the importance of cell membrane composition on mediating the cytotoxicity of Aβ42 oligomers and other toxins and suggest possible therapeutic strategies to combat protein misfolded oligomers in Alzheimer’s disease and other neurodegenerative disorders.

***Speaker Bio***: Cadet Ryan Kreiser is a Junior at the United States Military Academy at West Point. He is a Chemistry major in the Department of Chemistry and Life Science and a member of Company G2, where he is the Platoon Sergeant of 4th Platoon. He has been doing research in the Department since November 2019 with Dr. Limbocker studying molecular countermeasures against protein misfolding diseases. Ryan’s current research investigates the relationship between the lipid composition of cellular membranes and toxicity, with the aim of ameliorating the toxicity of misfolded protein oligomers and folded toxins. Ryan’s work has been published three times in his undergraduate career thus far, including one first author review publication. Additionally, he won the 2020 ACS Mid-Hudson Undergraduate Research Symposium paper competition and was recently awarded the Stamps Scholarship. In the future, Ryan plans to earn his Ph.D. in Biochemistry and serve in the Army as a logistics officer before transitioning to a role conducting research for the Army at a National Laboratory, hopefully returning to West Point as a military faculty member sometime during his career.

**2021 Dutchess County Regional**

**SCIENCE FAIR!**

**A Virtual Event on March 27**

**Call for Judges**

**Virtual 2021**DutchessCountyRegionalScienceFair

                                           Date: **Saturday, March 27, 2021**

           Place: GOOGLE MEET

           Time:  **9:30 am to 12:30pm**

Dear ACS Mid-Hudson Section Members,

The Dutchess County Regional Science Fair is hosting a virtual Science Fair this year with Google Meet on March 27th, 2021.  They are only expecting a fraction of the students they have had in previous years since it will be virtual.  The Mid-Hudson ACS is planning to take part in the special judging of chemistry-related projects.

I am seeking volunteers to represent ACS Mid-Hudson as a Judge at the virtual fair.  There is no prior experience necessary with Google Meet to be a judge at the virtual science fair. There is a training session scheduled for March 24th at 7 pm, and possibly others if needed.

In addition, the organizers of the Dutchess County Regional Science Fair are looking for volunteers that are Google Meet experts that can help with the planning of the virtual science fair. They are looking for volunteers to help set up the judging sessions, manage multiple 'rooms', and address common technical difficulties for attendees and presenters, etc.

If you are willing to volunteer as either an ACS special judge for the virtual science fair, or as a Google meet expert for the science fair, please email me at [Nicoline.Kiwiet@marist.edu](mailto:Nicoline.Kiwiet@marist.edu).

Thanks for volunteering.

Nicoline

Nicoline Kiwiet, Ph.D.

Visiting Lecturer

Marist College

Poughkeepsie, NY

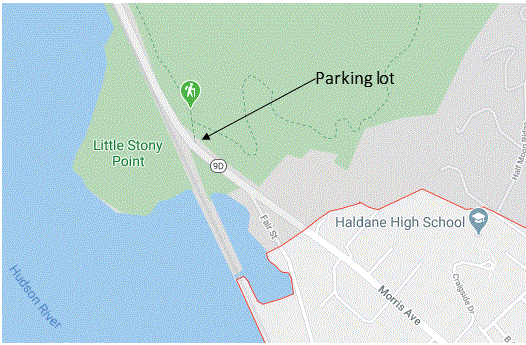
Ph: 845-223-8220

email: [Nicoline.Kiwiet@marist.edu](mailto:Nicoline.Kiwiet@marist.edu)



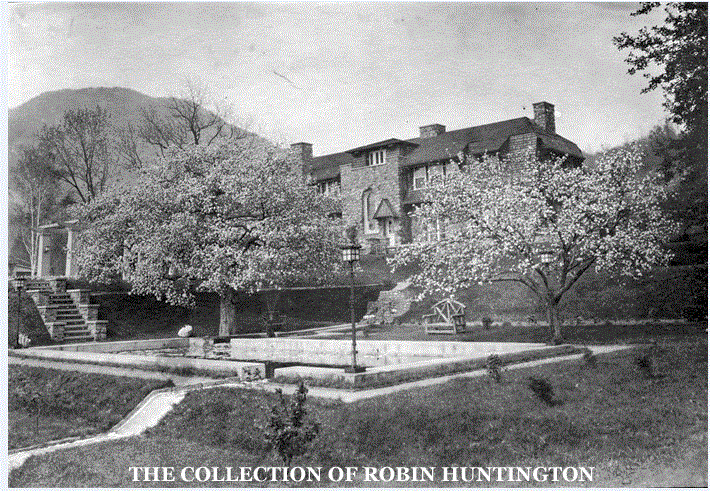
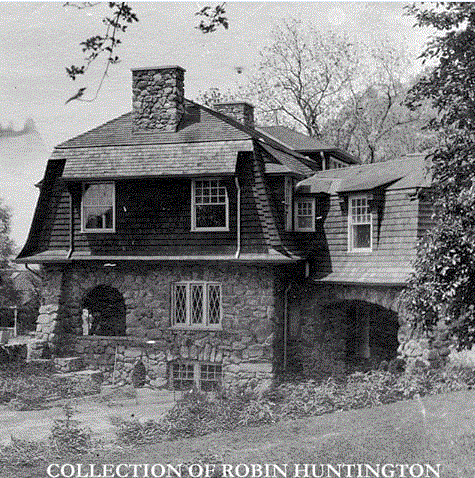
**Rivers, Mountains and Ruins:   
The Fourth Annual**

**Mid-Hudson ACS Earth Day Hike  
​  
Date:  Saturday, April 24, 2021  
Rain Date: Saturday, May 1, 2021  
  
  
Meeting Time:  10:00am**



**We will start at the Mt Taurus parking lot just north of Cold Spring on 9D.  We will cross the street and do a small loop around little Stony Point. We will see stunning views of the Hudson and Storm King Mountain from river level.**​

**For those who want to continue for a longer, more strenuous hike, we will cross the street and proceed up to the summit of Mt Taurus.  Along the way, we will stop to see the remains of what used to be a granite quarry. It is a direct hike to the top of Mt. Taurus where we can look "down" on Break Neck Ridge.  We will descend Mt Taurus from the other side and after a hike end up at the remains of the Cornish Estate.  There is plenty to do and explore in these stunning remains of what was once a flourishing estate including Dairy Barns, an Ice House and a Mansion.  Tomas Cole, the famous landscape painter of the Hudson River painted several views of Storm King Mountain from this area.  
  
Then back to the parking lot with lots of Hudson River views.  The loop is a little over 6 miles.  
For more details, please contact Butch Dery at** [***Butch.dery@aol.com  
​***](mailto:Butch.dery@aol.com)  
**See attached photos, showing the Thomas Cole painting, the estate today and the estate in its prime.**

[](https://www.midhudsonacs.org/uploads/4/5/3/3/4533608/acs-hike-apr2020_orig.gif)[](https://www.midhudsonacs.org/uploads/4/5/3/3/4533608/acs-hike-apr2020-4_orig.gif)[](https://www.midhudsonacs.org/uploads/4/5/3/3/4533608/acs-hike-apr2020-1_orig.gif)[](https://www.midhudsonacs.org/uploads/4/5/3/3/4533608/acs-hike-apr2020-2_orig.gif)

**Welcome to NERM: The Northeast Regional Meeting for ACS**

**October 8-11, 2021 in Boston, MA**

The next ACS Northeast Regional Meeting (NERM 2021) organized by the Northeastern Section of the American Chemical Society at Northeastern University in Boston, MA, has been moved from its original date of June 16-19, 2021 to **October 8-11, 2021**.  This event is being planned as an in-person conference (public health conditions permitting).

The theme of NERM2021 is ***Chemistry at the Hub****.* The conference will cover many aspects of the chemical sciences and engineering. A number of social and networking events are planned that include: awards banquets and symposia, sessions on networking with chemical professionals, small businesses workshop, chemistry and the law workshops, a graduate school fair, an undergraduate program, and a program for high school chemistry teachers.  In addition, the meeting will include plenary lectures, undergraduate symposia, and poster sessions.

You are invited to submit a symposium proposal via our [**online**](https://www.2021.nermconference.org/) submission portal. You will receive a confirmation of its receipt and further follow-up via e-mail. Kindly share this message with your fellow scientists and encourage them to participate.

Please note that the deadline for symposia proposal submission is **April 7, 2021**. Registration to attend the meeting will begin in Summer 2021.

Any correspondences should be sent to the NERM Chair:

Hicham Fenniri, PhD

Professor of Chemical Engineering, Bioengineering, Chemistry & Chemical Biology

**General Chair, NERM 2021**

Northeastern University

Boston, MA 02115

[h.fenniri@northeastern.edu](mailto:h.fenniri@northeastern.edu)

617-373-7690 (office)

857-313-9354 (cell)



The Mid-Hudson Section of the American Chemical Society and Mount Saint Mary College Present the

**21st Annual Undergraduate Research Symposium**

**Tuesday, April 27, 2021**

**Mount Saint Mary College**

**Newburgh, NY 12550**

The Mid-Hudson Section of the American Chemical Society and Mount Saint Mary College Present the

**21st Annual Undergraduate Research Symposium**

**Tuesday, April 27, 2021**

This year’s virtual symposium provides an opportunity for undergraduates from mid-Hudson colleges to present their research in the chemical sciences. All areas of chemistry, environmental science, molecular biology, and related fields are welcome. A poster session will allow students to share their work, followed by an award ceremony and an invited lecture. Registration is required.

**Symposium Program**

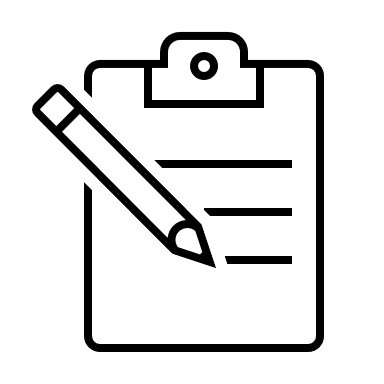
3:30–4:00 PM: Participant Check-In

4:00–4:45 PM: Poster session A

4:45-5:30 PM: Poster session B

5:30–6:00 PM: Awards and Announcements

6:00 PM: Invited Lecture TBA

[](https://msmc.zoom.us/meeting/register/tJMrcOuoqzwjGNPsEWfNE8R6a0DMdB9w-1vF)

Register here here

**Call for Poster Abstracts**: To present a poster, please submit an abstract of 200 words or less. Please make every effort to adhere to the specific formatting guidelines, as follows:

1. Submit each abstract as a separate Microsoft Word file. **The filename should include: the first author’s last name, the institution name, and the faculty advisor’s last name.**

2. Use 16 point Times New Roman font with one inch margins all around.

3. Do not include references.

4. Include an abstract header with each of the following items centered, on separate lines, and formatted as follows:

· Title: in bold and all caps

· List of authors: in bold and separated by commas. The faculty advisor’s name should be followed by an asterisk (\*).

· Institution Name: in bold

· Institution Address: in bold (e.g., 330 Powell Avenue, Newburgh, NY 12550)

· Faculty Advisor’s Email Address: in bold and lower case

**Poster Information**: You will share your e-poster electronically in your own break-out room. It should be easily readable in one frame so that attendees can view it independently and you can discuss it with those who come into your room.

**Abstract submission**: Please submit your abstract as an email attachment on or before Friday, April 3 to: [acs@msmc.edu](acs@msmc.edu%20) . If you are unable to meet this deadline, please contact Dr. Lynn Maelia (<lynn.maelia@msmc.edu>) to make arrangements. There is a $10 conference fee per poster up to $150 maximum per school. In addition to sending your abstract by email, please register by clicking the link below.

Registration: You must register in advance for this meeting, even if you are giving a poster.

<https://msmc.zoom.us/meeting/register/tJMrcOuoqzwjGNPsEWfNE8R6a0DMdB9w-1vF>

After registering, you will receive a confirmation email containing information about joining the meeting.

We look forward to seeing you all at the 21st annual Mid-Hudson ACS Undergraduate Research Symposium. Please check the event website for further details and updates:

<https://www.midhudsonacs.org/undergraduate-research-symposium.html>





**Call for Applications for**

**2021 Undergraduate Student Research Awards**

**Submissions due Monday April 19, 2021**

The Mid-Hudson Section of the American Chemical Society invites applications for the 2021 Mid-Hudson Valley ACS Undergraduate Student Research Awards from student researchers who plan to present their work at the 2021 symposium. **Outstanding submissions will be selected to each receive a monetary award.** This is a separate application and is not required of all students presenting posters. Only those students who wish to be considered for this very prestigious award need apply.

*Rationale*

The Mid-Hudson Section wishes to reward undergraduate students who choose to write a short summary about their research and scholarship activities. The paper is to be written for a general scientific audience who is not familiar with the specifics of the research but who does have a chemical background.

*Criteria*

Research work should be completed by a student currently enrolled (2020-2021 academic year) as an undergraduate at one of colleges in the Mid-Hudson ACS area. Students must also present their work at the 2021 Mid-Hudson ACS Undergraduate Research Poster Symposium organized by Mount Saint Mary College on April 27, 2021.

*Application Format and Procedure:*

*All papers submitted must be primarily chemistry, not biology or physics.*

*Format: The paper must be written in Microsoft Word with a font type of Times New Roman and a font size 12. Margins should be set to the Narrow setting under page layout/margins in Word. The description part of the paper may not be longer than two pages; however, the* Acknowledgments and References *may cause the paper to run longer.* ***Any papers longer than the requested two written pages will not be considered.***

When compiling the report, it is very important to consider that your paper will be critiqued by people who have no background in your specific area of research although they will be professional chemists. Therefore, you need to explain your research to them in terms they can understand without the specific background you have been immersed in while doing the research. This is the most important aspect of the paper for many of the reviewers. If the reviewers do not understand the research paper, they will generally give it a poor review regardless of the validity of the actual research. The paper should be written in normal scientific format and divided into appropriate sections and must have the following order:

1) Title with authors: The title of the paper should be at the top with the authors underneath. The student submitting the paper for the award must be clearly indicated by bolding and underlining that author.

2) Introduction: Keep in mind that the judges for the paper come from a wide variety of chemical backgrounds and will almost assuredly not be familiar with your research or your area of specialization. You need to clearly outline what you are doing and why it is being done.

3) Experimental: Just a brief review of your experimental design and data is needed.

4) Results and Discussion: This is your chance to WOW the judges with your fabulous work. Remember the judges will not be familiar with your work so you must educate them. Now, after years of learning and studying, is your chance to educate us the reviewers. Make sure you include all chemical structures, equations and reactions. Remember, although you have spent many hours intimately involved in this research and thus all the reactions and chemicals are as familiar to you as your best buddies, they will be new to the judges. The better the judges understand exactly what you are doing and what you have accomplished the better your chances at winning the award. Do not be shy about drawing chemical structures and writing out the reactions as these are some of the best ways to help other chemists understand exactly what your research is about.

5) Conclusion: This needs to be consistent with the introduction and should obviously quickly summarize what your research has accomplished and if applicable where this work will be continued or expanded upon in the future.

6) Acknowledgments and References: This part of the paper may exceed the two-page limit and should be as extensive and comprehensive as needed.

7) In Summary: Again, it is important to remember the judges are not experts in your area of research so your job is to educate them on your research. Impress upon them how exciting and interesting your work has become. This does not mean you have to be overly technical in your writing as it needs to be understood by a more general audience. You should include all the relevant chemistry being careful to include all important chemical structures and reactions but make sure the paper is readable and flows well. The judges, who are chemists, volunteer their time to judge this competition and will not spend excessive amounts of time trying to decipher cryptic or non-coherent writing. As a parting note, remember the judges must be able to understand exactly what you have accomplished so a poorly organized and poorly worded paper will not impress the judges. Good luck on your submission and the judges are looking forward to learning about your research.

*Submission procedure:*

Applications should be sent by e-mail as an attached Word Document to Dr. Timothy MacMahon e-mail: aa2mk@aol.com by Monday April 19, 2021. Please indicate in the subject line of the e-mail that you are submitting an application for the URS Student Research Award so it does not accidently get deleted. A confirmation that the submission has been received will be sent back to all who enter a paper.

*Congratulations to our milestone ACS member honorees!*

70-year (joined in 1952):

Dr. Elmer E. Schallenberg

60-year (joined in 1962):

Dr. Joseph W. Epstein

50-year (joined in 1972):

Dr. Joseph S. Engenito

Dr. Joseph L. Hughey

Mr. Alan R. Smilo