SPECIAL POINTS OF INTEREST:

Cincinnati

ACS Local Section

- Local Section
 Election
 Underway!
 November 1-14
- <u>Registration</u> for Nov 17 Organic Discussion Group (p 7)
- 2021 National Chemistry Week Photos and Report (pp. 9-10)

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CINTACS

Newsletter of the Cincinnati Section of the American Chemical Society

NOVEMBER 2021

November 2021 Elections

Election of Officers will be conducted November 1-14, 2021

Electronically

The Cincinnati Local Section of the American Chemical Society will conduct its annual elections electronically November 1-14, 2021, for positions that take effect on January 1, 2022.

The 2021 Chair-elect, Dr. Peter Koenig, will become the Section Chair. The positions to be filled by ballot are 2022 Chair-elect, Second Vice-chair, Secretary, Treasurer, Auditor, Councilor, and Alternate Councilor.



Slate for Voting:

(One person to be elected for each position)		
2022 Chair-elect:	Leslie Waits	
Second Vice-chair:	Donna Hindman Glaser	
Secretary:	Brant Center	
Treasurer:	Kendra Denlinger	
Auditor:	Obed Dodo	
Councilor (alphabetically): John Glaser, Rick Mullins	
Alternate Councilor:	Lynn Hogue	

Ballots and voting instructions will be distributed soon, if not already.

(Cont'd on pages 3 and 4.)



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Guest Editor: Susan Marine

A permanent editor is needed. In the meantime, send submissions to Susan Marine (mariness@miamioh.edu).



2021 ACS Cincinnati Section Officers

<u>Chair:</u> Susan Marine mariness@miamioh.edu

<u>Ist Vice Chair & Chair-Elect:</u> Peter Koenig koenig@fastmail.net

<u>2nd Vice Chair:</u> Brant Center brant.center@thermofisher.com

<u>Secretary:</u> Allison Edwards allison.edwards@protonmail.com

<u>Treasurer:</u> Sam Glover sam.e.glover@icloud.com

From the Chair:

November has several important events scheduled: the local section elections November 1-14; the Virtual Strategic Planning Retreat on November 11, 13-14; and the Organic Discussion Group meeting on November 17 to discuss asymmetric organocatalysis. After that we have a break for Thanksgiving.

I want to thank the many members who helped identify candidates for the open positions. I urge all members to vote since there are two candidates for the Councilor position: John Glaser, our 2020 section chair, and Rick Mullins, our current councilor whose term expires on Dec 31.

I thank Hong Zhang, the Cincinnati NCW local Coordinator, and her large team who practiced demonstrations for the NCW theme "Fast or Slow: Chemistry Makes It Go." They enthusiastically conducted what outreach was possible this year. Thank you, Ed von Bargen, for making 6 videos for the Cincinnati Public Library system when the library decided to forego our traditional outreach activities due to COVID-19. At the Cincinnati Museum Center's new STEM Lab, the interactive NCW experiments for youth were revamped as demonstrations due to COVID Gloria restrictions. Thank you, Story, Susan Hershberger, Hong Zhang, Sue Buerscher, Ed von Bargen, and Michele Mangels for conducting 9 different experiments for 10 hours over two days with Jacob Carson (CMC staff) . (As you recall, Gloria and Susan shared 5 of those demos with us at our September picnic at Germania Park.)

I thank Rick Mullins for organizing another Organic Discussion Group meeting this year and for providing a reading list of 7 manuscripts as background.

This is the last chance to get involved in the Virtual Strategic Planning Retreat. It's not too late to join the effort to define the future of the Cincinnati Local Section! Let me know (mariness@miamioh.edu) if you are interested. I want wide and varied representation from the section!

Lastly, I thank you for reading this CINTACS Newsletter and ask that you participate in some way in our Section activities, even something as simple as answering surveys or voting in our election.

Susan Marine

Simple Survey:

Do you want to attend the December meeting in-person or via Zoom? Email me your preference!

MEET THE CANDIDATES!

Chair-elect Candidate: Dr. Leslie Waits

I am Leslie Waits, and I am running for Chair-Elect of the Cincinnati Local Section of the American Chemical Society because I want to give back to the professional Society that helped shape me.

I received my Ph.D. in Physical Chemistry from the University Cincinnati. My main focus was on the Photodissociation Dynamics of Unimolecular Reactions. I completed a Post Doc at Iowa State University in Analytical developing Capillary Electrophoresis / Mass Spectrometry instrumentation.

In 1994 I joined Procter & Gamble Analytical and retired in 2017. I have worked on a wide range of analytical projects, spanning from developing methods to elucidate the plasma protein binding of antimicrobials to the use of thermal analysis and X-ray diffraction to understand the chemistry of agglomerated powdered detergent.

I then worked several years as a formulator for automatic dishwashing products, developed new to market Cascade Rinse Aid with Bleach, formulated Cascade powders, and developed a bleach stable dispersant for gels.

I returned to Analytical as the technical leader for physical properties of substrates and fabrics and developed methods and models to predict performance and consumer preference.

Currently I am an Adjunct Professor at the University of Cincinnati Blue Ash College and at Miami University Hamilton Regional Campus. I am passionate about teaching the next generation. I want to give students the vocabulary, "tools" and confidence to explain the chemistry that they are already aware of. And, I want to help them learn that they have a voice in societal issues involving chemistry.

Second Vice-chair Candidate: Dr. Donna Hindman Glaser

Donna Hindman Glaser has been a member of the American Chemical Society for more than 50 years. She has served in the Cincinnati Section of ACS as Auditor, Secretary, a member of the Membership Committee, and as Social Program Co-Chair for Regional CMACS2000. She has held various teaching positions at Northern Kentucky University, Xavier University, and UC Clermont College and was employed at BASF for eleven years as a Senior Chemist. She is a graduate of Winthrop University, has a Ph.D. in Chemistry from Clemson University, and MBA from Xavier University. She did postdoctoral work at the University of Georgia with N. L. Allinger in Conformational Analysis.



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Meet the Candidates! (Continued)

Secretary Candidate: Brant Center

Greetings, humans! My name is Brant Center, and I have been involved with ACS since 2012 when I joined the Miami University Student Affiliate Chapter of ACS. I quickly obtained a leadership position and served as VP and then President of the MU-ACS chapter where I increased membership, raised a lot of money, and increased community outreach. I have a B.S. in Chemistry and a M.S. in Pharmaceutical Product Development. I am an Analytical Project Representative at Thermo Fisher Scientific – Cincinnati where I have risen through the ranks of entry level chemist, senior analytical chemist, and now I manage the technical development of a portfolio of novel



pharmaceutical development projects (I matrix-manage the business-y side of laboratory work). Feel free to reach out if you have any questions about working in 'big pharma', Thermo Fisher, Miami, U.C., analytical chemistry, or pharmaceutical chemistry!

Treasurer Candidate: Dr. Kendra Denlinger

Hi, my name is Kendra Denlinger, and I'm running for Treasurer of our Cincinnati ACS local section! I am finishing up my term as Auditor, so have served on the executive committee already for several years. I've also been working with our current Treasurer, Dr. Sam Glover, over the past several months to learn the ropes! I've been involved with ACS at the national level for several years as well, serving as an associate member of the Committee on Chemical Safety. I was also elected as a Member-at-Large on the executive committee of the Division of Chemical Health and Safety this past year. I am a Teaching Professor in the chemistry department at Xavier University, where I've taught organic chemistry lecture and lab for three years. I'm excited to serve our local ACS section as Treasurer and continue to help plan our great local chemistry events!



Auditor Candidate: Obed Dodo

In 2017, I received my B.S. Chemistry degree from Kaduna State University in Nigeria. Afterwards, I worked for one year as a Graduate/Research Assistant at Covenant University, also in Nigeria, before joining the Konkolewicz research group at Miami University in 2018. I am currently a 4th year Ph.D. candidate in the Department of Chemistry and Biochemistry under the supervision of Dr. Dominik Konkolewicz. My research interest is primarily "structure-property relationships in dynamic polymer materials enhanced with carbon nanotubes." After obtaining my Ph.D., I intend to pursue a research career in Industry.



(continued on Page 5)

Meet the Candidates! (Continued)

Councilor Candidates: Presented in alphabetical order. Vote for only one candidate!

Dr. John Glaser

John currently serves as a research scientist of the U.S. Environmental Protection Agency in the Center for Environmental Solutions and Emergency Response. He has held the positions of section chair, auditor and leader of the Environmental Discussion Group for the Cincinnati ACS Section. He is a 40+ year member of the Cincinnati Section, a 50+ year member of the American Chemical Society, and a 25+ year member of the Environmental Chemistry Division of the ACS.

Councilors of the Cincinnati ACS Section are expected to be communicators of information gleaned from the ACS National Meetings where the councilors are in attendance. I believe that this is a missing opportunity for the understanding of developments and opportunities at the national level that are not communicated for use by the Cincinnati Section. If elected, I will provide written accounts of

meeting details pertinent to the Cincinnati Section and will provide a communication conduit of section concerns to national programs.

Dr. Richard J. Mullins

Richard J. Mullins earned his B.S., Chemistry, from Centre College in 1998 and his Ph.D. from Indiana University in 2004, specializing in organic chemistry. While in graduate school, Rick served as Secretary and Chair of the Southern Indiana Section of the ACS. Since earning a Ph.D., he has taught at Xavier University, being promoted in 2017 to Professor, where he continues to be heavily involved in the local ACS section. He has previously served the Cincinnati section of the ACS as Auditor, Secretary, Chair, Trustee, and is in his second term as Councilor. As Councilor, he has become involved in National ACS governance, serving for the past four years on the Committee on Economic and Professional Affairs, a committee that monitors the needs of the chemical workforce and oversees the implementation of programs to enhance the professional status of chemical professionals. (Rick wrote the article "What Do ACS Councilors Do?" on page 9 of the October CINTACS.—Editor)





(continued from page 5)

Meet the Candidates! (Continued)

Alternate Councilor Candidate: Dr. Lynn Hogue

Lynn Hogue has more than 40 years of experience in chemistry education. Lynn was a high school chemistry teacher before joining Miami University's Center for Chemistry Education where she was the Associate Director and the Director of Teacher and Student programs for more than 50 funded NSF, NIH, and Ohio Board of Regents programs. Lynn is the coauthor of 14 teacher resource books and is a widely traveled guest lecturer

and workshop presenter at the national and international levels.

Lynn's service to the Cincinnati Local Section includes one term as an Alternate Councilor, serving on the Awards Committee, and being an outreach volunteer. At the national level, Lynn was a member of the



Committee for Community Activities (CCA) and was its Chair from 2009-2012. She currently serves on the Undergraduate Program Advisory Board (UPAB), the Committee on Public Relations and Communication (CPRC), and the Hach Board of Directors. Lynn is a Fellow of the ACS.



Summary of the Slate

One person will be elected for each position; positions commence Jan 1, 2022

Office (1-year term unless specified)

- •First Vice-Chair / Chair-elect
- Second Vice-Chair
- Secretary
- Treasurer
- •Auditor (term to end Dec. 2024)
- •Councilor (term to end Dec. 2024)

Candidates

Dr. Leslie Waits Dr. Donna Hindman Glaser Brant Center Dr. Kendra Denlinger Obed Dodo Dr. John Glaser Dr. Richard Mullins

•Alternate Councilor (term to end Dec. 2024) Dr. Lynn Hogue

Organic Chemistry Discussion Group Announcement

For the second Organic Chemistry Discussion Group meeting this year, come learn about asymmetric organocatalysis, the topic for which Benjamin List and David W.C. McMillan received this year's Nobel Prize in Chemistry. A suggested reading list is provided below for background prior to the discussion. Reading the papers is, of course, not mandatory, but it will make for a better discussion. The Advanced Organic Chemistry students at Xavier University will each give a 3-5 minute presentation on one application of this chemistry.

The Organic Discussion Group will meet on Wednesday November 17 from 7 to 8 PM via Zoom to discuss asymmetric organocatalysis. All are welcome. Please feel free to invite students and colleagues, even if not ACS members, to attend.

Register <u>here</u> to receive the Zoom meeting link:

https://american-chemical-society.zoom.com/meeting/register/tZAkcqsrj8sGNLf17FgqNajSR_NDh7cuU4_

Recommended (not required) reading prior to the November 17 Organic Discussion Group meeting:

- "Activation of Carboxylic Acids in Asymmetric Organocatalysis" by Monaco, Mattia Riccardo; Poladura, Belén; Diaz de Los Bernardos, Miriam; Leutzsch, Markus; Goddard, Richard; List, Benjamin. *Angewandte Chemie International Edition.* Jul2014, Vol. 53 Issue 27, p7063-7067.
 5p. DOI: 10.1002/anie.201400169.
- "The Organocatalytic Asymmetric Prins Cyclization" by Tsui, Gavin Chit; Liu, Luping; List, Benjamin. *Angewandte Chemie International Edition*. Jun2015, Vol. 54 Issue 26, p7703-7706.
 4p. DOI: 10.1002/anie.201500219
- "The Organocatalytic Three-step Total Synthesis of (+)-Frondosin B" by Reiter, Maud; Torssell, Staffan; Sandra Lee; MacMillan, David W. C.. *Chemical Science*, Jul2010, Issue 1, p37 -42, 6p. DOI: 10.1039/c0sc00204f
- 4. "Proline-Catalyzed Direct Asymmetric Aldol Reactions" by Benjamin List, Richard A. Lerner, Carlos Barbos III. *Journal of the American Chemical Society*, 2000, Vol. 122, 10, p2395-2396.
- "Oxy-Allyl Cation Catalysis: an Enantioselective Electrophilic Activation Mode" by Chun Liu; Oblak, E. Zachary; Vander Wal, Mark N.; Dilger, Andrew K.; Almstead, Danielle K.; MacMillan, David W. C. *Journal of the American Chemical Society*. 2/24/2016, Vol. 138 Issue 7, p2134-2137. 4p. DOI: 10.1021/jacs.5b13041.
- 6. "Enantioselective Organocatalytc Intramolecular Diels-Alder Reactions. The Asymmetric Synthesis of Solanapyrone D" by Wilson, Rebecca M.; Jen, Wendy S.; MacMillan, David W. C. *Journal of the American Chemical Society*. 8/24/2005, Vol. 127 Issue 33, p11616-11617.
 2p. DOI: 10.1021/ja054008q
- "Trienamines in Asymmetric Organocatalysis: Diels-Alder and Tandem Reactions" by Zhi-Jun Jia; Hao Jiang; Jun-Long Li; Gschwend, Böjrn; Qing-Zhu Li; Xiang Yin; Grouleff, Julie; Ying-Chun Chen; Jørgensen, Karl Anker. *Journal of the American Chemical Society*. 4/6/2011, Vol. 133 Issue 13, p5053-5061. DOI: 10.1021/ja1112194.

ACS Dues in 2022

The Premium Package

Continue to enjoy the full range of benefits from ACS. This package offers identical benefits to what you enjoy today with realigned pricing:

Regular Member	, \$1	60
Society Affiliate	\$I	60
Graduate Student	\$	55
Undergraduate Student	\$	25
Retired Member	\$	80
Emeritus	\$	0

The Standard Package

The Standard Package is ideal if you want to remain active in the Society but do not attend many events or need wider access to ACS Publications. As part of this package, you will still be able to tap into many of ACS' most popular benefits. This package is only available to existing members or prospective members who have a degree, certification, or significant work history in the chemical or related STEM sciences, or with a certification as a teacher of a chemical science.

Standard Members \$80

ACS Benefits

Do you know "the full range of benefits from ACS"? Ever wonder what is included?

ACS lists all the resources in the <u>ACS member handbook</u> with links to each program for details. The contents can be searched for benefits, services, and the resources that ACS provides. Access to the handbook is available at:

https://www.acs.org/content/dam/acsorg/membership/member-handbook/2021-member-handbook.pdf



Report on 2021 NCW Activities:

At the Cincinnati Libraries

Due to COVID-19 restrictions, the Public Libraries decided against in-person outreach activities at this time. Therefore, Ed von Bargen worked with Lisa Soper of the Cincinnati Library System to record six videos of the chemical demonstrations. You can view them <u>here</u> or at <u>https://www.youtube.com/playlist?list=PLCJp4_DkJvqoot2J2TJ8C3Crxh-NGAmnA</u>. Lisa reported that during National Chemistry Week (Oct 17-23) there was the following

activity on the library social media:

YouTube:	6 posts	358 views	17 likes	
Facebook:	3 posts	942 views	19 likes	13 shares
Twitter:	4 posts		4 likes	4 retweets

Although we did not engage as many people as normal using live, in-person demonstrations at the local public libraries during the official NCW, the Cincinnati Public Library system will keep the videos online, thus extending our engagement beyond NCW. We may end up reaching more youth overall.

At the Museum of Natural History & Science STEM Lab

The Cincinnati Museum Center allowed live, in-person chemical demonstrations (with proper COVID protection) in their STEM lab. The NCW event was held on October 22 and 23. There were 9 demonstrations offered from 10 AM to 3 PM each day; 275 guests enjoyed the demonstrations. Everyone received gift bags containing a UV bead bracelet, a set of 3D glasses, and a 3D images handout. The favorite demos were the barfing pumpkin, soda fountains, and glow stick kinetics.

Demonstrations Performed:

Glow Stick Kinetics	using temperature to alter reaction rate
Barfing Pumpkin	decomposition of H_2O_2 with KI
pH and Dry Ice	observing the rapid formation of carbonic acid
Soda Fountain	observing rapid release of gas by surface area accummulation
Silver Deposition	plating silver onto glass
3D Glasses	unique diffraction grating that orders colored objects in depth
UV Protection	using UV beads to reveal effectiveness of UV protection
Apple Browning	Can you stop or slow an enzymatic reaction?
Drink Mix and Fe	reduction of a dye's azo bonds by metal

(continued on Page 10)

NCW at the Museum Center (continued)



Ed von Barger demonstrated the rapid change in pH of a solution when dry ice was added. The Museum's new STEM Lab is large, clean, and can accommodate social distancing.





Jacob Carson, from the CMC STEM Lab, demonstrated the rapid release of CO_2 from a solution of diet soda as several highsurface area candies were added.

Dr. Susan Hershberger, a professor from Miami University, demonstrated why a popular drink mix has a warning label against storing the drink solution in metal containers. She showed what happens to the red dye using iron-containing materials with different surface areas and compared reaction rates.







Hold the Date: December 13, 2021

December Meeting

The December 2021 ACS meeting will be a joint meeting with NOBCChE held on Monday December 13 at Xavier University. The meeting is planned to be in-person; we are working on offering a virtual Zoom option for those who cannot attend in person. More news and details coming in the December CINTACS Newsletter.

Deadlines and Scheduled Events

Nov 1-14	Cincinnati ACS Elections
Nov 17	Organic Discussion Group Meeting via Zoom
Dec 7	Deadline for December Meeting dinner reservations
Dec 13	December ACS Meeting with NOBCChE at Xavier University

