

The Accelerator

INDIANA SECTION OF THE AMERICAN CHEMICAL SOCIETY



Q4 2019: OCTOBER - DECEMBER

Last Words from Our 2019 Chair, Tamiko Porter

Thank you to everyone who attended our general membership meeting in October. We had about fifty people attend to hear about our current activities and how to get involved. Elections were held this last quarter as well. Congratulations and welcome to the incoming executive board members.

As my time as chair ends, I'd like to express gratitude to everyone in the section for their participation and passion for our mission. At the meeting in October, I was asked what I like most about being involved with the ACS. My answer was the people. It is so much fun and rewarding to network with the membership, but to also interact with folks in the community at our outreach events.

In the coming year, Debra Feakes will be the section's Chair. She will shepherd us through an what should be an exciting 2020. One happening that I am particularly looking forward to is the Indiana University Bicentennial celebration in April. We hope to see you at our annual "Think Like a Molecule" poster session which we will run in conjunction with the bicentennial.

Happy New Year!
Tamiko

2020 Election Results

Please welcome the newly elected members of our 2020 Executive Committee:

Debra Feakes, 2020 Chair; Abdallah Diagne, Chair-Elect for 2021; Mark Pobanz, Alternate Councilor; and Carmin Burrell, Larry Sernyk and Lisa Spurlock-Brouwer as our Members at Large.

In addition, Robert Pribush will continue as a Councilor, Arvind Jaganathan will continue as our Treasurer and Christine Skaggs will continue as our Secretary.

2020 Executive Committee

Chair	Debra Feakes
Past Chair	Tamiko Porter
Chair-Elect	Abdallah Diagne
Treasurer	Arvind Jaganathan
Secretary	Christine Skaggs
Councilors	Rob Sammelson, Robert Pribush, Beth Lorsbach, Brian Mathes
Alternate Councilors	Tom Xiao, Erin Dotlich, Mark Pobanz, Linda Osborn
At Large Member	Carmin Burrell, Larry Sernyk and Lisa Spurlock-Brouwer

2020 Committee Chairs

2023 NMLT Strategic Planning	John Rohanna and Tony Trullinger
Assistant Newsletter	Andrea Moberly
Awards Chair	Position Open
Celebrate Science Indiana	Julie Austin
Chemistry + Humanities	Greg Smith/Anne Wilson
Chemistry Olympiad	Jianping Huang
Education and Olympiad Chair	Robert Pribush – looking for successor in training
Election Chair	Matt Gardlik
Grants Chair	Ann Cutler
Think Like a Molecule Poster Session	Meghan McLeod
K-12 Outreach Chair	Erica Posthuma-Adams
Kids & Chemistry Chair	Brian Mathes
Membership Affairs Chair	Jordan Knotts
National Chemistry Week Co-Chair	Melissa Lee, Dan Klosowski
Newsletter – Editor and Design	Julie Austin
Project SEED Chair	Elmer Sanders, Josh Taylor
Public Relations Chair	Norman Sesi
Science Day at Ball State	Ryan Jeske
Social Media Co-Chair	Larry Sernyk/Erica Posthuma-Adams
Honorary Trustees	Anne Hunt, Dawn Brooks, Sibel Selcuk
Webmaster	Abraham Hentz
Women Chemists Chair	Carmin Burrell
Younger Chemists Committee Chair	Tejas Shaw



In Other Election News: Christina C. Bodurow, Vice President of Global Regulatory Affairs at IQVIA, was re-elected as director of District II of the National American Chemical Society.

Thank you to all who ran for the various positions and to all our volunteers. We look forward to great things to come for 2020 and beyond!

If you are interested in volunteering with our Local Section, please contact Debra Feakes at feakesd@uindy.edu.

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This year will bring a lot of exciting events. Indiana University celebrates its bicentennial beginning January 2020 (<https://200.iu.edu/events/index.html>). The Local Section ACS will be supporting the Beyond Boundaries Symposium on April 3-4 which will incorporate our annual Think Like a Molecule Poster Session.

ACS members will be involved with a number of kids outreach events designed around STEM – Celebrate Science Indiana (October), National Chemistry Day (November), Science Day at Ball State (April), You Be the Chemist and Passport to High-Tech (March). In addition, we plan to bring additional member and community events to you.

Stay tuned to our website and social media for more information on upcoming events!

Calendar of Events for Q1 2020

2023 Brainstorming	January TBD	TBD
USNCO Registration Deadline	Sunday, March 1, 2020	Email form
Passport to High Tech	Tuesday, March 24, 2020	Conner Prairie
USNCO Exams	Saturday, March 28, 2020	Brebeuf
32nd Annual Hoosier Science and Engineering Fair	Saturday, March 28, 2020	The Center
Indiana University Academics Symposium	Friday, April 3, 2020	Indiana Convention Center
Indiana University Academics Symposium	Saturday, April 4, 2020	Indiana Convention Center
Ball State Science Day	Saturday, April 4, 2020	Ball Gym @ Ball State



Thank you to our 2019 corporate sponsors!



2023 National Meeting in Indianapolis: Crossroads of Chemistry

The 2023 ACS National Meeting Planning Committee chaired for the past three years by Frederique Deiss is glad to report that **our proposed theme for the 2023 ACS NM “Crossroads of Chemistry”** was selected and approved by the Multidisciplinary Program Planning Group!

The Local Indiana ACS Section is happy to announce that Tony Trullinger will be joining the 2023 ACS National Meeting Planning Committee acting as co-chair. Tony will be partnering with co-chair John Rohanna and the ACS National Meeting Vision Leader, Frederique Deiss, to deliver a robust scientific public outreach event. Tony is excited to continue to serve the Indiana local ACS section. His background as a former chair of the Local Section along with his active participation over many years will enable the current team to continue to excel.

Tony received his BA in Chemistry from Simpson College in 1998. He then attended the University of Nebraska-Lincoln earning his Ph.D. in synthetic organic chemistry in 2002 while conducting research in methodology development and natural product total synthesis. Next Tony went to the University of Michigan for postdoctoral research focusing on natural product total synthesis. Tony then joined Dow AgroSciences (now Corteva™) in 2005. Subsequently he worked on insecticide research amongst other areas. He took on responsibility in project leadership and later people leadership. In 2017 Tony took a role leading a team in Regulatory Sciences. More recently he became the Process Development Chemistry team leader within the Product Design and Process (PDP) Function of R&D at Corteva™.

The next 2023 ACS National Meeting will be held in 1Q 2020. An announcement with the precise date will be made in January.

Your ACS local section is getting ready for:



Beyond Boundaries

INDIANA ACADEMIES SYMPOSIUM

April 3-4, 2020

Indiana Convention Center • Indianapolis

Bringing together Indiana's broad intellectual capital to share and promote cross-disciplinary research, discussion, and collaboration. **Questions?** Contact Symposium Chair **Dr. Surekha Rao** at skrao@iun.edu

Visit our website: go.iu.edu/2abh

our partners in
**THINKING BEYOND
BOUNDARIES**

- American Society for Microbiology, Indiana Chapter
- Association of Euro Studies
- Greater Indiana Society for Neuroscience
- Indiana Academy of Nutrition and Dietetics
- Indiana Academy of Science
- Indiana Academy of Social Sciences
- Indiana Association of Historians
- Indiana Chapter of the American Society for Public Administration
- Indiana College English Association
- Indiana Foreign Language Teachers Association
- Indiana Local Section of the American Chemical Society
- Indiana Philosophical Association
- Indiana Political Science Association
- Indiana Public Health Association
- Indiana Section of the Mathematical Association of America
- Sigma Theta Tau International Honor Society for Nursing

In addition to the common program, ACS Indiana will propose special symposia and network events on Friday and host our annual Think Like a Molecule Poster session on Saturday. ACS Indiana contact: Frédérique Deiss, fdeiss@iupui.edu



200 YEARS

INDIANA UNIVERSITY
BICENTENNIAL



A PROGRAM OF THE SCIENCE EDUCATION FOUNDATION OF INDIANA, INC.

SUPPORT STRONG SCIENCE. BE A JUDGE FOR THE NEXT GENERATION OF INDIANA SCIENCE LEADERS!

On March 28, 2020 more than 200 students representing 10 regions around Indiana will be in Indianapolis at **The Center (The Heritage Group)** to compete at the **32nd Annual Hoosier Science and Engineering Fair (HSEF)** for awards, scholarships, prizes and for some the opportunity to represent Indiana at the 2020 Regeneron International Science and Engineering Fair in Anaheim, CA May 10-15, 2020. These high school students will compete against the top winners of regional, state and national science fairs from around the United States and the world in the world's largest international pre-college science competition.



High School Winners that attended the Intel International in Phoenix in 2019.



Junior/Elementary Division: (grades 4-8) 2019 SEFI Winners

According to Wikipedia, ISEF alumni include Nobel Prize winner Paul Modrich (1964), and National Medal of Science winners Richard Zare (1957), Susan Solomon (1972), and James Gunn (2008). Other alumni include inventor Alex Deans (2013),[9] SUNY Chancellor Kristina M. Johnson (1975), microbiologist Dianne Newman (1987), CRISPR researcher Feng Zhang (2000), and Congresswoman Alexandria Ocasio-Cortez (2007).

https://en.wikipedia.org/wiki/International_Science_and_Engineering_Fair

Perhaps you can judge a future science star!

Commit Early! Judges & Sponsors Needed!

Please save the March 28th date to invest your time and talent.

<https://sefireg.org/hsefjudge.php>



The Science Education Foundation of Indiana (SEFI) is the non-profit agency that conducts this event, and sets the following criteria for becoming a judge:

High School Division: (grades 9-12)

"Judges must have a B.A., B.S. or a master's degree with a minimum of three years related professional experience OR a Ph.D., M.D., or equivalent. Judges may include university faculty, corporate scientists and engineers, representatives of private, state and federal research centers and agencies, and medical researchers. Affiliated science fair directors, Affiliate Regional Fair official party members, individuals

traveling to the HSEF with an official party, parents or relatives of a student competitor, chaperones, mentors or elementary or secondary teachers may not be eligible to judge."

Junior/Elementary Division: (grades 4-8)

"Judges must at a minimum be enrolled in an accredited university or college or have a B.A., B.S. or a master's degree, OR a Ph.D., M.D., or equivalent. Judges may include high school science teachers, university faculty, corporate scientists and engineers, representatives of private, state and federal research centers and agencies, and medical researchers. Affiliated science fair directors, Affiliate Regional Fair official party members, individuals traveling to the HSEF with an official party, parents or relatives of a student competitor, chaperones, mentors or elementary teachers may not be eligible to judge."

Special Awards Judge

Choose this if you will be representing a special awards organization or if you are volunteering to work with the special awards selection committee. Please note: Judges are expected to be available from 8:30 am through 4:00 pm to complete their judging assignments.

To sign up to serve as a judge, please visit: <https://sefireg.org/hsefjudge.php>

Special Awards

Only a small percentage of participants end up moving on to the International Science and Engineering Fair. Therefore, SEFI offers an opportunity for companies and organizations to sponsor student awards/scholarships. For example, the American Chemical Society, the American Statistical Association Central Indiana Chapter, National Organization for Black Chemists and Chemical Engineers (NOBCChE) and Society for Tribologists and Lubrication Engineers (STLE) and others provide awards to recognize science and engineering success.

Please visit <https://sefi.org/hsef/SAO> for more information about signing up for special awards. If you know of other companies or organizations that might be interested, we would appreciate if you would forward this information. This is a great way to offer encouragement to a greater number of these very bright students.

General Volunteers

If you don't really want to be a judge but would like to help out as a general volunteer, please contact Linda Osborn at linda.osborn@hrglab.com or call with questions (317-390-3188).

Sponsors

If you would like to help sponsor this event, please consider donating to:

<https://www.sefi.org/sponsor.html>.



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- Advanced Drug Discovery for Biopharma & Biotherapeutics: Technologies for Structural Analysis and Spectroscopic Cell Imaging
- Innovative Screening Strategies for the Directed Evolution of Enzymes
- Analytical Chemistry of Beer and Brewing
- Biochemical Tomography and NanoMedicine
- Analytical Tools Enabling a Molecular-Level Studies of Environmental Multi-Phase Air-Water-Soil Systems

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- Practical Pyrolysis-GC/MS for Polymer and Material Characterization
- Introduction to Raman Spectroscopy and Imaging with Applications
- Practical NMR Spectroscopy
- Cannabis Testing
- An Introduction to Mass Spectrometry including Biomolecule Applications
- Essentials of LC-MS
- Sampling and Sample Preparation for Chromatography
- GC/MS Fundamentals for Operators

Visit www.pittcon.org for more information

McCormick Place | Chicago, IL | March 1-5, 2020



Open Meeting for Members

By Linda Osborn

On Thursday, October 17th, forty-four ACS members and a few prospective members gathered at The Center to network, learn about the Indiana local section and meet their leaders. Tamiko Porter, the Indiana section chair, introduced next year's chair Dr. Debra Feakes, and the other officers and event chairs and welcomed all attendees. Other speakers included Christina Bodurow (District II Director) complimented the quality of our section's engagement, Frederique Deiss, discussing the 2023 National Meeting and Julie Austin, sharing her insights on being involved in our section and discussing the Accelerator Newsletter. While enjoying heavy hors d'oeuvres, beer, soft-drinks, or water, each attendee introduced themselves.

The event cost \$5, just to encourage those that signed up to show up, which was effective with 98% attendance! Everyone received an ACS t-shirt and feedback was extremely positive.

Congratulations to our new members Mark Miller, Inga Van Meter, Juan Rosales, Marlon Lutz, Addyson Airman, and Emily Speidel. As per our survey, 100% of attendees enjoyed the event. Comments included that "Dr. Tamiko Porter was an excellent leader in this meeting", "Great turnout with eager attitudes toward engagement". And that "we should do it every year"! According to Norm Sesi, our Public Relations Chair, individuals were impressed with the number and types of programs and expressed that we need to use Twitter and Facebook more often.

Julie Austin prepared slides for the booths set up to communicate Children's Outreach, Member Events, Community events, and Public Relations. Also, information about our 2023 National Meeting in Indianapolis was available. Booth Representatives included Julie Austin, Norm Sesi, Chris Bodurow, Christine Skaggs, Alyssa Heffren, Rebekah Dickerson, Greg Smith, and Carmen Burrell. Thanks to all who attended, and we hope to see even more attend in 2020!

Those who signed up through existing members received a periodic table blanket courtesy of the ACS member-get-a-member program!

member-get-a-member

Invite a friend or colleague to become an ACS member and receive a Periodic Table of the Elements blanket!



A special thanks to Larry Sernyk for taking the photos shown below.





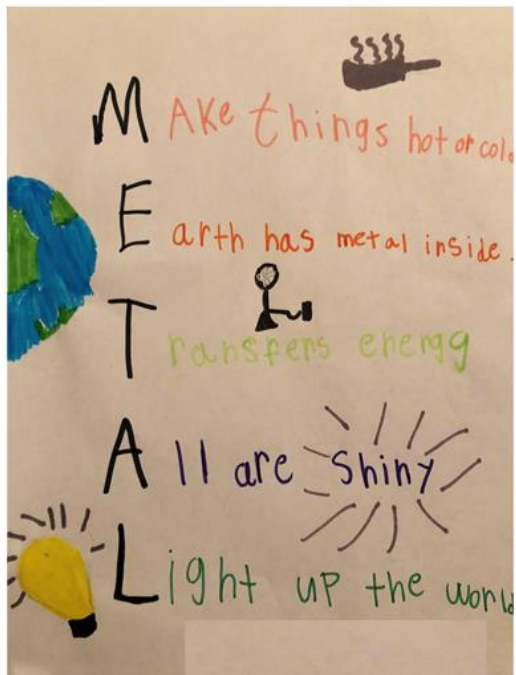
NCW 2019 ACS Illustrated Poem Contest Features Marvelous Metals

By Linda Osborn

As part of NCW 2019, local area students from grades K-12 were invited to share their interpretation of this year's theme, "Marvelous Metals!", in the form of illustrated poems. We received 52 poems from student at Jeremiah Gray, Garden City, CFI 70, St. Richard's Episcopal, Lynhurst, Brebeuf, Park Tudor, Fishers, and homeschooled students. The ACS member judges did an amazing job once again: a special thanks to Ben Woodworth, Alex Griebeling, Rob Sammelson, Kathy Stickney, Rebekah Dickerson, Andrea Moberly, Sibel Selcuk, and Frederique Deiss. All winners are listed below. First place winning illustrated poems are included for your enjoyment!

	First	Last	Award	School	Teacher
K-2	Olivia	Pepelea	1st	Jeremiah Gray	Mrs. Edwards
	Benson	Earley	2nd		Ms. Rohlif
3-5	Ezekiel	Smith	1st	CFI 70	Mrs. Powell
	Sophia	Pepelea	2nd	Jeremiah Gray	Ms. Chamberlin
	Savannah	Earley	3rd	Jeremiah Gray	Ms. Chamberlin
	Issac	Smith	HM	Garden City	Ms. Donovan
	Ismael	Nieves	HM	Garden City	Ms. Donovan
6-8	Macy	Cline	1st	Homeschool	Michele Cline
	Lily	Gin	2nd	St. Richard's Epis.	Ms. Papachronis
	Audrey	Bockstahler	3rd	St. Richard's Epis.	Ms. Papachronis
	Sophia	Coury	HM	St. Richard's Epis.	Ms. Papachronis
9-12	Vanessa	Xiao	1st	Park Tudor	Laura Reysz
	Cara	Harvey	2nd	Fishers	Dr. Kuhn
	Beatrice	Smith	3rd	Brebeuf	Mr. Weinstein

First Place (K-2)



Olivia Pepelea ♦ Mrs. Edwards ♦ Jeremiah Gray
Kindergarten Academy

K-2

First Place (3-5)

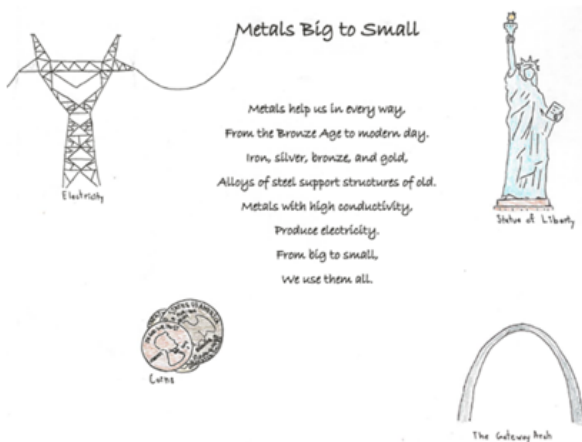
Precious metals, they're worth a million k.
If you love video games, Palladium's for you.
If you love cars, you'll love Rhodium, too.
We love these metals 'cause their value is so great
There are 21 uses for precious metals.



Ezekiel Z. Smith ♦ Mrs. Powell ♦ CFI 70 (IPS)

3-5

First Place (6-8)

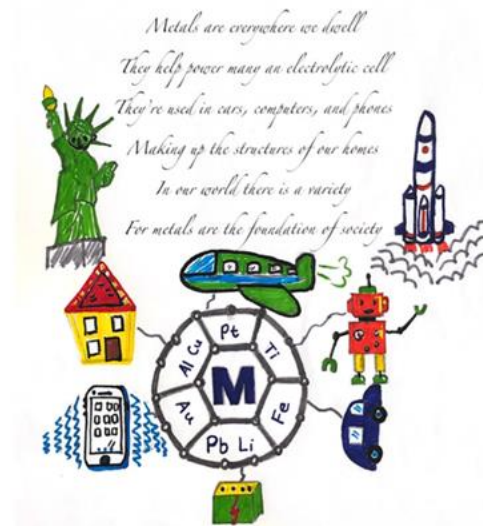


Macy Cline ♦ Michele Cline ♦ Homeschool

6-8

First Place (9-12)

Marvelous Metals

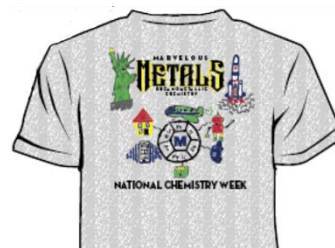


Vanessa Xiao ♦ Laura Reysz ♦ Park Tudor School

9-12

All 52 poems were displayed at Celebrate Science Indiana on October 5th in the entry way at the Indiana State Fairgrounds Blue Ribbon Pavilion.

In addition to this recognition, we had a special awards ceremony on stage for all the winners at Chemistry Day at the Children's Museum Indianapolis. All who attended read their poems using a microphone showed the audience an enlarged copy of their artwork which they got to keep. Recognized were 1st, 2nd, 3rd, and honorable mentions in addition to one honorary reading by Cara Harvey. A special thanks to Garden City Teacher Stephanie Donovan, for her assistance with the awards ceremony.



of
and

In addition to ranking these illustrated poems, the judges were asked to select one of the poems that would be used for our NCW volunteer t-shirts! Vanessa Xiao's design was selected for the t-shirts for a second year! Congratulations to Vanessa for this recognition. Each winner enjoyed receiving the cash prizes of \$100 (1st), \$50 (2nd), \$25 (3rd), and \$10 (honorable mention).

It was clear by reading the poems that this participation really gets these students thinking about the chemistry in the world around them. It was also clear that many teachers do an amazing job of getting their pupils excited about chemistry. Kudos to all these teachers and to the National ACS for encouraging this program.

I leave you with Cara Harvey's honorary poem to renew your excitement of chemistry (next page)

National Chemistry Week Community Outreach Program Celebrates Marvelous Metals

By Daniel Klosowski and Melissa Lee

National Chemistry Week (NCW) is a community-based outreach program dedicated to promoting positive messages about chemistry to primarily elementary and secondary school children. The local ACS Indiana Section has been participating in this event for the past 27 years thanks to the great partnership with the Children's Museum of Indianapolis.



This year, the local ACS section held its NCW "Chemistry Day" event at the Children's Museum of Indianapolis on Saturday, November 2nd from 10:00 AM–3:00 PM. This event was led by co-chairs Melissa Lee (CortevaTM) and Daniel Klosowski (CortevaTM). This year's NCW theme was "Marvelous Metals" which covered the interesting properties of metals and their importance in everyday life. A total of 10 booths and 100 volunteers participated in the event. The volunteers received a free t-shirt designed by local high school student, Vanessa Xiao, who was also the winner of the 2019 NCW Illustrated Poem contest (9-12th grade category). At the ACS booth, children used vinegar to clean old pennies that they used to create "spinner" toys. Samples of different metals were on display and were used to teach children fun information about the periodic table. (Continued Page X)

Chemistry poem

Cara Harvey



Planets, stars, meteors and so much more
So many exciting things to explore.



Telescopes and microscopes to zoom in,
Life in space? Science is rubbing its chin.
galaxies, planets, and stars, plus black holes,
finding the edge of space, one of their goals.
energy, heat, and light released from stars.

Can we sustain life on the planet Mars?
Why is Earth the only known life planet?



How long to Uranus is the transit?
Gravity and pull, eclipses to show.

What causes the stars to so brightly glow?

Excited electrons and colored light.

Science is willing to put up a fight,
Discover the truth, knowledge to be gained.

To know the world beyond, the brain is strained.

Color spectrum breaking up the light beam.

Knowing the exact quantum is the dream.



The blue moon, harvest moon, and the blood moon,

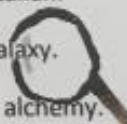
People on Venus is hoped to be soon.

The first picture of a black hole taken.

Space is huge, don't be mistaken.

Zoom into the milky way galaxy.

It should not be confused with alchemy.



Eratosthenes said Earth wasn't flat

Different ideas, Hubble had to combat.

His knowledge was not lost even after

Stephen Hawking lost his speech and laughter.

Chemistry can be found in all places,

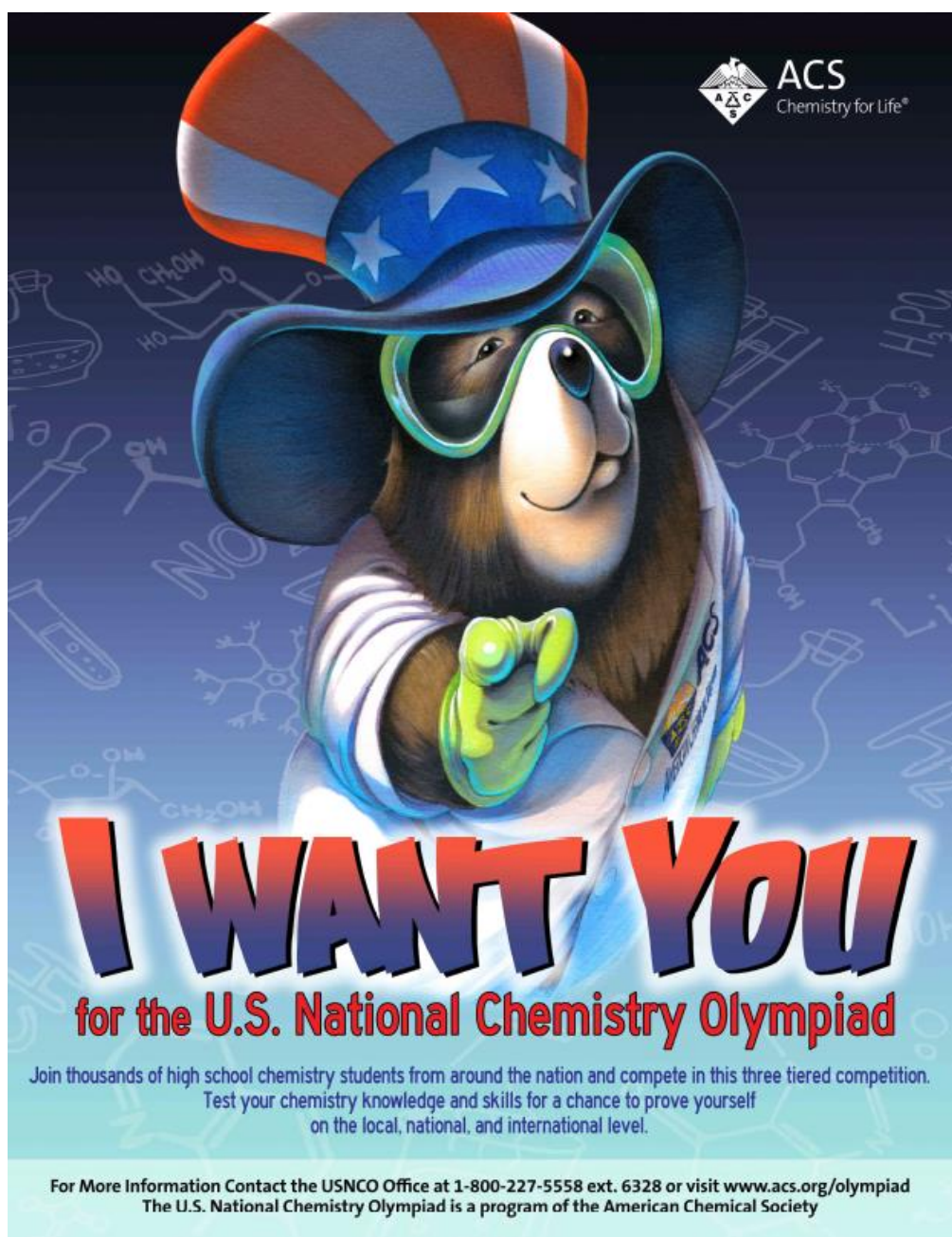
Joy of learning is seen on all faces.



In addition to the demonstration booth, ACS gave out chemistry themed raffle prizes and displayed all the winning illustrated poems from the poetry contest.

We are grateful to our local organizations, industries, and universities for their continued support and participation in this outreach event including the Children's Museum of Indianapolis, Corteva™, AIChE, Ball State University, Purdue University, Indiana University, IUPUI, Butler University, and University of Indianapolis.

On behalf of the local ACS section, we are thankful for all the volunteers who helped for this incredible outreach community event. We are looking forward to participating in next year's NCW event!



ACS
Chemistry for Life®

I WANT YOU

for the U.S. National Chemistry Olympiad

Join thousands of high school chemistry students from around the nation and compete in this three tiered competition.
Test your chemistry knowledge and skills for a chance to prove yourself
on the local, national, and international level.

For More Information Contact the USNCO Office at 1-800-227-5558 ext. 6328 or visit www.acs.org/olympiad
The U.S. National Chemistry Olympiad is a program of the American Chemical Society



U.S. National Chemistry Olympiad

**AMERICAN CHEMICAL SOCIETY
2020 INDIANA SECTION
UNITED STATES NATIONAL CHEMISTRY OLYMPIAD EXAMINATION
March 28, 2020**

Dear Chemistry Colleagues:

Honor your best chemistry students by providing them with an opportunity to participate in the United States National Chemistry Olympiad (USNCO) competition sponsored by the Indiana Section of the American Chemical Society (ACS). The Local Section USNCO examination will be held at 8:30 on Saturday, March 28, 2020 at Brebeuf Jesuit Preparatory School. The exam serves two purposes: 1) to recognize the best high school chemistry students and high schools in the Indiana Section and 2) to select ten students to take the national USNCO exam in April.

Indiana Section ACS recognition awards will be based on student performance on the 110-minute multiple-choice Local Section Chemistry Olympiad Examination written by a national USNCO committee. Copies of Local Section Chemistry Olympiad Exams from previous years can be downloaded from the website:

<https://www.acs.org/content/acs/en/education/students/highschool/olympiad.html>

Click on the Exams link to access local section and national exams.

Indiana Section ACS Awards

Indiana Section ACS awards are given in two categories: 1) First-Year Exam (students who have taken one year or less of a high school chemistry course and 2) Advanced Exam (students who are enrolled in a second or higher high school chemistry course). The top three students in each category will receive a recognition plaque and a \$100 cash award. Students who finish in the top 10% in each category will also receive recognition plaques. Additionally, the top scoring student from every school represented by a minimum of three students will have their name inscribed on a perpetual plaque displayed in that school.

The five top scoring schools in each category will receive a team plaque and a one-year membership for one teacher in the American Association of Chemistry Teachers (AACT). Teachers receiving the membership may opt to apply the award as partial payment for membership in the American Chemical Society.

National USNCO Participant Selection

Those students who wish to compete for an opportunity to take the USNCO national screening exam at Butler University in April 2019 will also take an additional 45-minute open-ended exam written by the Indiana Section USNCO committee. Twelve Indiana Section students with no more than two students from a single high school may take the USNCO national screening exam to attempt to qualify to participate in the Air Force Academy workshop at which the USNCO team is selected. The twelve students will be selected based on their composite performance on the USNCO Local Section Exam plus the additional open-ended questions written by the USNCO chairs.

Of over 10,000 students who take the USNCO exams annually, each of the past ten years the Indiana Section ACS has had between one and five students finish in the top 20 and thus participate in the USNCO training camp with several other Indiana Section students finishing in the top 150. Last year the Indiana Section ACS had four students in the top 20, one of whom was an alternate on the U.S. team. In the last dozen years, we have had three students make the U.S. team and win gold medals in the international competition.

Please share with your students the excitement of competing for individual awards, school awards and the possibility of becoming a member of the United States National Chemistry Olympic team. Challenge your best students to participate in this year's Indiana Section High School Examination. Registration forms will be sent to all teachers who wish to honor their top-performing chemistry students. **Note that there is no limit to the number of students from a given school allowed to take the exams.** Rules and registration forms are attached.

Sincerely,

Robert A. Pribush
Chair, Indiana Section USNCO
317-989-6799
rpribush@butler.edu

Jianping Huang
Co-chair, Indiana Section USNCO
317-433-1675
Huang_jianping@lilly.com

USNCO 2020 FIRST YEAR EXAMINATION RULES

1. The Education Committee of the Indiana Section of the American Chemical Society will conduct the examination and judge the results. Their decisions will be final.

Eligibility and Selection

2. Any student that has taken one year or less of a formal high school chemistry course is eligible. Students who have completed one year of high school chemistry and are enrolled in a second high school course must take the Advanced Examination. Students in the 9th, 10th, 11th, and 12th grades are eligible, although students in lower grades may participate with permission of the examination directors. All registered students have agreed to the rules and conditions of this competition.

Conduct of Examination

3. Any participating student must take the examination at the announced time and place.
4. **Only nonprogrammable scientific calculators will be allowed.** No graphing calculators, smart phones, or calculators with stored programs, constants, or inter-calculator communication features will be permitted. All cell phones and pagers must be powered “off” during the examination period.
5. No periodic tables or supplementary material may be used during the examination other than those provided.
6. Any student who cheats, uses inappropriate materials, or plagiarizes work will be disqualified from the competition. In addition, no school with disqualified students will be eligible for team awards.

Award Structure

7. Placement awards of \$100 and a plaque will be awarded to students with the top three examination scores. Ties will not be broken. If two students tie for first place, no second-place award will be given; if two students tie for second place, no third-place award will be given, etc.
8. A plaque will be awarded to those students scoring in the top 10% of those students who sat for the exam.
9. A Certificate of Participation will be given to all students completing the examination.
10. School Awards will go to the top five schools based on the total of the 3 best scores. Each of the top five schools will receive one membership in the American Association of Chemistry Teachers or the equivalent toward membership in the American Chemical Society and a plaque.
11. The top scoring student in each school that has at least three students sit for the exam will be given a recognition nameplate that will be mounted on a school plaque that will be given to the school the first year in which that school competes in the exam.
12. Any student participants and/or award recipients and participating teachers agree that their name and institutional affiliation may be used in press releases or other relevant publications on media or available through the Internet.

The registration form on the next page **must be received by March 1, 2020.** Email this form as a Word document to Dr. Robert A. Pribush at rpribush@butler.edu. Phone: 317-989-6799.

Registration limits: There is no limit to the number of students that can take the USNCO Local Section Exam. All students are eligible for placement and honorable mention awards and an invitation to compete for the USNCO team. The top three scores of these students comprise the school team score. If more than 25 students wish to take the exam, attach additional copies of this form with the names of those students.

United States National Chemistry Olympiad
Local Section Exam
Indiana Section of the American Chemical Society

First Year Examination Registration Form
March 28, 2020 Competition

High school:
Address:
City, Zip:

Teacher Names (Information will be sent only to the first teacher listed.)

1.	E-mail:
2.	Phone #:
3.	Fax:
4.	
5.	

Student Names and Contact Information

	Last Name	First Name	Telephone Number	Graduation Year	Birth Date	U.S. Citizen?
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2.						
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2020 ADVANCED EXAMINATION RULES

1. The Education Committee of the Indiana Section of the American Chemical Society will conduct the examination and judge the results. Their decisions will be final.

Eligibility and Selection

2. Any student that has taken more than one year of high school chemistry is eligible for the Advanced Examination. Previous First Year Exam award and honorable mention winners can also take the Advanced Exam. Students in the 9th, 10th, 11th, and 12th grades are eligible. All registered students have agreed to the rules and conditions of this competition.

Conduct of Examination

3. Any participating student must take the examination at the announced time and place.
4. **Only nonprogrammable scientific calculators will be allowed.** No graphing calculators, smart phones, or calculators with stored programs, constants, or inter-calculator communication features will be permitted. All cell phones and pagers must be powered "off" during the examination period.
5. No periodic tables or supplementary material may be used during the examination other than those provided.
6. Any student who cheats, uses inappropriate materials, or plagiarizes work will be disqualified from the competition. In addition, no school with disqualified students will be eligible for team awards.

Award Structure

7. Placement awards of \$100 and a plaque will be awarded to students with the top three examination scores. Ties will not be broken. If two students tie for first place, no second-place award will be given; if two students tie for second place, no third-place award will be given, etc.
8. A plaque will be awarded to those students scoring in the top 10% of those students who sat for the exam.
9. A Certificate of Participation will be given to all students completing the examination.
10. School Awards will go to the top five schools based on the total of the 3 best scores. Each of the top five schools will receive one membership in the American Association of Chemistry Teachers or the equivalent toward membership in the American Chemical Society and a plaque.
11. The top scoring student in each school that has at least three students sit for the exam will be given a recognition nameplate that will be mounted on a school plaque that will be given to the school the first year in which that school competes in the exam.
12. Any student participants and/or award recipients and participating teachers agree that their name and institutional affiliation may be used in press releases or other relevant publications on media or available through the Internet.

United States National Chemistry Olympiad
Local Section Exam
Indiana Section of the American Chemical Society

Advanced Examination Registration Form
March 28, 2020 Competition

High school:
Address:
City, Zip:

Teacher Names (Information will be sent only to the first teacher listed.)

1.	E-mail:
2.	Phone #:
3.	Fax:
4.	
5.	

Student Names and Contact Information

	Last Name	First Name	Telephone Number	Graduation Year	Birth Date	U.S. Citizen?
1.						
2.						
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ACS, Indiana Section, Sponsor for “Science Claus is Coming to Town”

On December 7, at 6 pm, science took center stage in a brilliantly choreographed and well-orchestrated science symphony. Rick Crosslin starred in the Third Annual Wayne Township “Science Claus is Coming to Town”. This delightful event featured a cast of scientist teachers including Keith Ramsey from Bridgeport Elementary; Mary Mason from Chapelwood Elementary Justin Abner from Maplewood Elementary; and Allison Kempers from Wayne Township Preschool. Our ACS Indiana section was an event sponsor to help make this magical evening free to the public. Other Foundation Title and Platinum Sponsors included the Indianapolis Airport Authority, IU Health, RX Help Centers, and Cannon IV.

On the main stage at Ben Davis HS, ideas from Michael Faraday, Humphry Davy, Isaac Newton and other famous scientists were featured. So many experiments were orchestrated during this 90-minute show such as calcium carbonate “Knock your socks off”, the pickle light, gasses, the flame test, tornadoes, Hindenburg disaster, beach ball fire bubbles, standing gas wave. Newton’s Laws of Motion were demonstrated with propulsion and spinning fun, featuring Ben Davis Women’s basketball team, ROTC group spinning rifles, and a baton performer, twirling even fire-lit batons. Smoke ring vortex, Woosh bottle, flying toilet paper, elephant toothpaste, and ping-pong ball explosion made for an exciting grand finale.

Faraday said: “To make a fact my own, I need to see it. A fact seen is a fact possessed.” I saw it, and was readily reminded of why I was attracted to science. Perhaps the next generation of scientists were in the audience being inspired by a show that took a significant amount of time, money, and passion. Kuddos to these scientists for their commitment to sparking the minds of young scientists. (See next page for pictures from the event!)





MUACC 2019 Recap

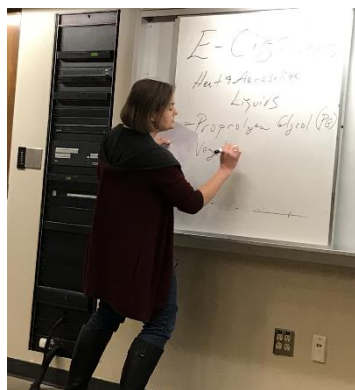
By Frederique Deiss

After a first visit in Indianapolis 16 years ago (2003), the Midwestern Universities Analytical Chemistry Conference or MUACC came back this past November for its **68th edition**, hosted by IUPUI. MUACC 2019 went well with close to 80 attendees

The 68th Midwestern Universities Analytical Chemistry Conference

MUACC 2019

Nov. 7-9, 2019
Indianapolis, IN
IUPUI

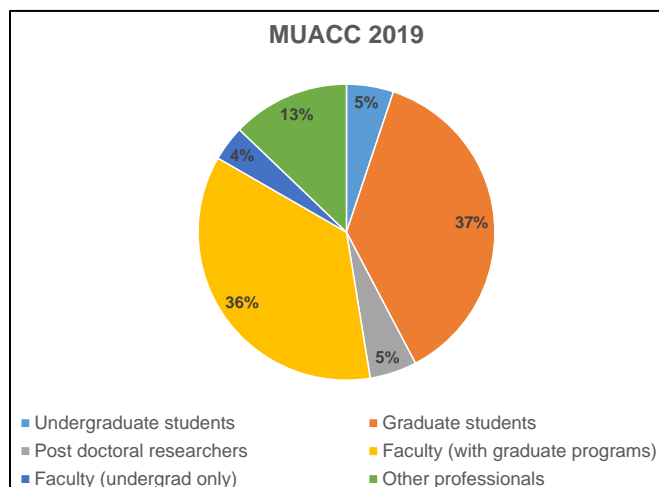


from 21

universities and 6 different companies.

Attendees were from different background of analytical chemistry as shown on the pie chart below. The analytical chemists of the Midwest shared current research and education breakthrough through 25 oral presentations and 34 posters. The presentations are done in “chalk-talk” format, privileging discussion and exchange. MUACC is also a great forum to discuss the state of the analytical chemistry field and its future as it was highlighted during a special group work/discussion facilitated by Dr Rebecca Whelan (University of Notre Dame). Additionally, the attendees participated in a panel

discussion “Meet your Editors” facilitated by one of the sponsors, the Royal Society of Chemistry (RSC). Dr. Greg Smith led a lucky group of visitors behind the scene at Newfields IMA on Saturday morning wrapping up the conference.



MUACC 2019 would not have been possible without the generosity of Sponsors:

- ACS Indiana Local Section
- GFS Chemicals
- James W. and Carolyn L. Taylor Fund for Analytical Chemistry
- Royal Society of Chemistry (Analyst, Analytical Methods, Lab on a Chip)
- ACS Division of Analytical Chemistry
- ThermoFisher Scientific
- IUPUI (School of Science, Integrated Nanosystems Development Institute, and Department of Chemistry & Chemical Biology)

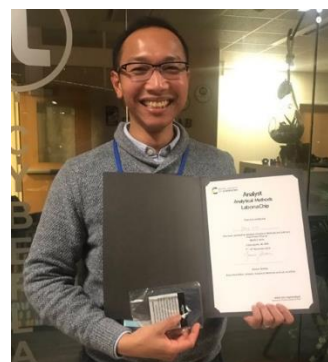
* MUACC 2020 will be October 15-17th, 2020 at the Ohio State University *



Congratulations

to the young analytical chemists recipients of a **MUACC James W. & Carolyn L. Taylor Travel Award** (thanks to the Taylor Fund for Analytical Chemistry, the ACS Division of Analytical Chemistry and the ACS Local Section):

- Dr Hang Ren (Miami University Ohio)
- Dr Zhihai Li (Ball State University)
- Dr Ashley Ross (University of Cincinnati)
- Dr Anthony Stender (Ohio University)
- Dr Yangguang Ou (University of South Carolina) *left*
- Dr Richard Fitch (Indiana State University) *right*



Congratulations

to **MUACC Poster prize awardees** who received a certificate and \$50 gift cards (sponsored by the RSC and Fisher Scientific):

- Gary Lim (University of Cincinnati) *left*
- Nathan Redman (Michigan State University)
- Mark Woollam (IUPUI)
- Brenna Parke (University of South Carolina)
- William Wichert (IUPUI)



Indianapolis Project SEED Students

By Elmer Sands



The year 2019 was a record-breaking year for the Indianapolis Project SEED with 40 students participating in the program. In addition, 5 students from the 2018 program received the \$5000 Scholarship designed to help Project SEED students start out their college years, and 3 students also received the SEED scholarship administered by the IUPUI School of Science.

This special scholarship was endowed by Dr. Rosie Bonjouklian and supports any past Project SEED student for 8 semesters if they keep a 3.2 average or higher and major in any STEM related field. Rosie has served in many capacities over the year as Chair for the ACS Indiana Local Section, and Chair of the Project SEED Committee, Program Coordinator and currently serves as Treasurer for Project Seed.

The students received stipends in the amounts of \$2500 for students participating for the first summer, and \$3000 for students returning for a second summer. This would not have been possible without the generosity of the ACS Indiana Section, ACS national endowment on Project SEED, and other local partners.

The 40-student milestone is significant as it will soon be 50 years since the Indy program first served students in 1973. It is our goal to serve 50 students by the time the National Meeting comes to Indy in 2023 as we will be celebrating 50 years of service.

We are thankful to all the mentors at Eli Lilly and Company and the many faculty at all the IUPUI campus schools – Medicine, Science, Dentistry, Health and Human Services, Engineering and Technology – who generously volunteer to their time to mentor these students.

If you're a professor at any of the many other colleges in the Indiana Section and you are involved in research and would be interested in mentoring students for 8 weeks during the summer, please email elmer.sanders@yahoo.com

Elmer Sanders
Program Coordinator
Project SEED

Erica Posthuma on Science Modeling Talks

Recently, our Local Section's Erica Posthuma sat down to talk in Episode 5 of the podcast series *Science Modeling Talks* brought to you by American Modeling Teachers Association ((AMTA).

From the Science Modeling website, "Erica Posthuma has been a science educator since 2001, teaching in both public and private school settings. She attended her first modeling instruction workshop after ten years of teaching, and it completely changed her way of teaching. Erica serves on the board of AMTA and is very active on social media, supporting and sharing ideas with others from all over. Erica is also an associate editor for the Journal of Chemical Education's ChemEdXchange."

To listen to her podcast talk: <https://sciencemodelingtalks.com/episodes/episode-05-erica-posthuma-students-learn-better-from-teachers-who-care/>

"Students learn better from teachers who care..."



Check out our website
<http://www.acsindiana.org/acs>

Upcoming 2020 ACS Meetings

March 22-26, 2020 Spring National Meeting and Expo in Philadelphia, PA
August 16-20, 2020 Fall National Meeting and Expo in San Francisco, CA

May 27, CERM in Columbus, OH
June 6, GLRM in Minneapolis, MN
June 28, NORM in Bellingham, WA
July 12, MARM in New York, NY
October 18, NERM in Rochester, NY



March 22 - 26, 2020 | Philadelphia, PA

ACS National Meeting & Expo

Macromolecular Chemistry: The Second Century

<https://www.acs.org/content/acs/en/meetings/national-meeting.html>

Feeding Your Scientific Curiosity: Science for Adults in Indy

The **Taste of Science Festival** will be back in Indianapolis on April 21-22. The venues hosting the event and topics of discussion are TBD. Stay tuned to <https://tasteofscience.org/indianapolis> for more information.

Books, Booze and Brains is back in 2020 with monthly talks on popular science books at Upland Brewing in Fountain Square.

Check here <http://quantumleap.indianahumanities.org/books-booze-and-brains/> for the spring schedule beginning on Tuesday, January 28 featuring the book: *And the Band Played on: Politics, People and the AIDS Epidemic* by Randy Shiltz. Dr. Bree A. Weaver, IU School of Medicine will lead the book discussion.



Science on Tap is Spring 2020 hosted by IUPUI <https://science.iupui.edu/about/scienceevents> begins on Wednesday, January 22nd from 5:30-7:30 at Centerpoint Brewing Company. Michael R. Pilla will present “The Mathematics of Voting: How to Upgrade Our Democracy.”

World's Largest Periodic Table

On Mole Day (October 23rd), 5 colleges in Wisconsin came together to assemble the world's largest periodic table using blue tarps. Students from the chemistry clubs at Wayne State, UM-Dearborn, UM-Fint, University of Detroit Mercy and Lawrence Tech gathered on Wayne State's Intramural Athletics field to celebrate the International Year of the Periodic Table.



Tarps were later donated to disaster relief.
(From Fox 2 News, Detroit, MI)

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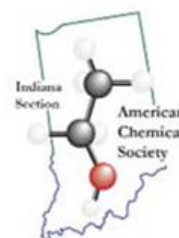
The Indiana Section of the ACS publishes the Accelerator at least three times a year. The Section is not responsible for statements or opinions printed in this publication. The Editor is responsible for all unsigned and staff articles.

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VISION

Our vision is to engage our members and community to advance the broader chemistry enterprise for the benefit of Indiana and beyond.



MISSION

It is the Mission of the Indiana Local Section of the American Chemical Society to improve people's lives through the transforming power of chemistry.