The Accelerator Indiana Section of the American Chemical Society ACCELERATION CHEMICAL SOCIETY ACCELERAT

OCTOBER 2018



hemluminary

Chair's Corner by Lisa Buchholz

ChemLuminary Awards are awarded annually to recognize local sections, technical divisions, regional meetings, and international chemical sciences chapters for their passion and commitment in promoting chemistry during the previous calendar year. As previously announced, the Indiana Local Section was nominated in 5 categories:

Local Section Partnership Award

Chemical

Outstanding Performance Awards-Medium Large Size Category

Outstanding Leadership Development Program

Best Ongoing Senior Activity in a Local Section that Benefits the Community, Local Schools, or Legislative Government

Outstanding Local Section Industry Event

The winners were announced at the 20th Annual ChemLuminary Awards celebration, held August 21st during the 256th ACS National Meeting and Exposition in Boston, MA. It is my honor to announce that the ACS Indiana Local Section was awarded the ChemLuminary in the following categories:

Outstanding Leadership Development Award for the 2023 ACS National Meeting brainstorming session.

Local Section Partnership Award for Music and Chemistry in Perfect Harmony

Outstanding Performance by a Local Section-Medium Large Size for promoting chemistry through a wide

range of community outreach events.

<u>Congratulations</u> to everyone who coordinated, planned and participated in these events!!! These honors reflect the creativity, leadership, and passion of the Indiana Local Section membership.

So as we celebrate the 2018 ChemLuminary Awards and move into fall, let us continue to demonstrate that same creativity, leadership, and passion throughout the remainder of 2018 and into 2019!

Peter Dorhout, current ACS president



Below (L-R): Jason Ritchie, chair of LSAC Committee; Robert Sammelson; Beth Lorsbach; Brian Mathes; Frederique Diess; Bob Pribush; and Bonnie Charpentier, 2019 ACS president elect



The Executive Committee meets the second Tuesday of each month at 6:00 pm at The Center (6320 Intech Way, Indianapolis, IN 46278). All Local Section members are encouraged to come and join us to learn about the programs and events our section sponsors. Meetings usually last for 2 hours. Dinner is provided before the meeting. Please let us know if you plan to attend so we have a headcount. You can contact our 2018 Chair, Lisa Buchholz, at lmbuchholz@dow.com.

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7018	EXECU	TIVE	Comm	uttee

Earth Day, and Celebrate Science

Chair	Lisa Buccholtz	Corteva AgriScience™	
Past Chair	Tom Xiao	Eli Lilly & Company	
Chair-Elect	Tamiko Porter	IUPUI	
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Councilor	Robert Pribush	Butler University	
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Alternate Councilor	Erin Dotlich	Eli Lilly & Company	
Alternate Councilor	Tony Trullinger	Corteva AgriScience™	
Alternate Councilor	Linda Osborn	Heritage Research Group	
At Large Member	Mark Pobanz	Corteva AgriScience™	
At Large Member	Maria Alvim-Gaston	Eli Lilly & Company	
At Large Member	Ann Wilson	Butler University	
2018 Committee Chairs			
Chemistry Olympiad	Jianping Huang	Eli Lilly & Company	
Education	Robert Pribush	Butler University	
Awards	Katherine Stickney	University of Indianapolis	
National Chemistry Week	Belgin Canturk	Corteva AgriScience™	
Membership Affairs	Rebekah Dickerson	Heritage Research Group	
Project SEED	Elmer Sanders	Southport High School	
Social Media and K-12 Outreach	Erica Posthuma-Adams	University High School	
Webmaster	Abraham Hentz	AIT	
Women Chemists	Carmin Burrell	Ivy Tech	
Impress for Success	Linda Osborn	Heritage Research Group	
Co-Chair Celebrate Science			
Grants	Ann Cutler	University of Indianapolis	
Kids & Chemistry	Brian Mathes	Eli Lilly & Company	
2023 NMLT Strategic Planning	Frederique Deiss	IUPUI	
Public Relations Chair	Quanbo Xiong		
Public Relations Assistant	Norman Sesi	Eli Lilly and Company	
Election Chair	Matt Gardlik	Woodard, E,M,M,H	
IUPUI Poster Session	Tamiko Porter	IUPUI	
Assistant Newsletter	Andrea Moberly	Heritage Research Group	
Newsletter – Editor and Design,	Julie Austin	Heritage Research Group	
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International USNCO Winners feat. Park Tudor's Andrew Wu

By Robert Pribush

The U.S. National Chemistry Olympiad program proudly announced the extraordinary performance of the Alpha Lambda Team at the 50th International Chemistry Olympiad competition, which concluded July 29, 2018, in Prague, Czech Republic.



Jeffrey Shi of Marcellus High School, NY won the fourth highest-ranking gold medal; **Andrew Wu** from Park Tudor School, IN, **Michelle Lu** of Pomperaug High School, CT, and **Yutong Dai** of Princeton International School, NY also earned gold medals placing 12th, 10th and 13th respectively. The USA Team competed against 296 students from 76 countries.

Congratulations Team USA for this great achievement! This is the second year in a row for the U.S. team winning gold medals and the third gold medal for an Indiana Section ACS student in the past 10 years.

Very special congratulations to **Andrew Wu** –we are all very proud of your achievement!

https://cen.acs.org/acs-news/US-team-wins-4-golds/96/web/2018/07



Left to right: Michelle Lu, Jeffrey Shi, Andrew Wu, Yutong Dai

Music and Chemistry Featured Article in C&EN News

Following the three events the Local Section hosted focused around music and chemistry, our own District II Director, Christina Bodurow, was recently featured in the September 9th edition of C&EN News with the article *Music and Chemistry, What's the Connection*? Click the following link to read her article!

http://cen.acs.org/acs-news/comment/Music-chemistrys-connection/96/i36

"Many chemical concepts are deeply rooted in patterns, such as the periodic table of the elements."



Are You an Analytical Chemist?

If so, please plan to attend the 67th Midwestern Universities Analytical Chemistry Conference (MUACC) hosted by the Institute for Quantitative Health Science & Engineering and the Department of Chemistry (Organizer: Prof. Dana Spence) at Michigan State University.

MUACC 2018 will be held on November 15-17, 2018.

Registration and info: https://sites.google.com/site/muacc2018/home



OCTOBER 6, 2018 CELEBRATE SCIENCE INDIANA

Science Festival!

Fun, free, family event for Indiana with an interactive focus on Science, Technology, Engineering and Math (STEM)

www.celebrates cience in diana.org





Indiana State
Fairgrounds – Blue
Ribbon Pavilion

9:30 am - 5 pm

FREE ADMISSION!

Parking at fairgrounds \$5

Over 50 booths with hands on fun for everyone!

Special Sessions

Allison Campbell,
National ACS immediate
past-President will
attend

RAFFLE for K-12 TEACHERS

Over \$3,000 worth of prizes!

DISCOVER & EXPLORE

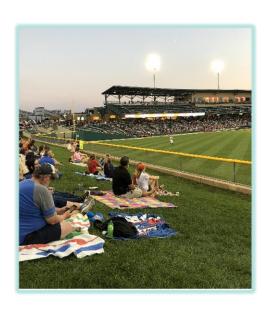
COOL EXPERIMENTS

The ACS and Baseball Night 2018

By Brian Mathes

It was a great night for baseball when the Indiana Section of the ACS invaded Victory Field to watch the hometown Indians take on the visiting Rochester Red Wings. There were 39 chemists in attendance for the annual event and the theme was "Young Chemist Networking". Everyone under the age of 35 only paid \$5!

This was a great chance to meet some new people and chemists. The Trivia theme for the evening was "The Elements of Bats!"



While it was a great night for chemists, the Indians fell 2-0. Thanks for all who attended this event! We look forward to next year!

Kids in Chemistry at the Children's Museum

By Brian Mathes

This year the Indiana Section of the ACS and the Children's Museum of Indianapolis tried a new route to bring chemistry education to the Indianapolis community. We were invited to run afternoons of open Jiggle Jelly sessions at the Museum instead of just field trips as in previous years. Both the section leadership and the Museum thought that our impact could be greater if we ran both the open sessions and field trips. That instinct proved to be true as our section members gave 9 jiggle jelly classes with the average attendance of 34 folks! It was a great opportunity to reach over 300 Indianapolis parents and children! We are looking forward to continuing this into the fall break period in October.

If you are interested in helping run a Jiggle Jelly program we can use all the help we can get. Please send a note to Brian Mathes at mathes@lilly.com for more details. It is a fun and low time commitment to make a real impact on science education.





Using Analytical Techniques at Newfields to Determine the Origin of Indian Yellow Pigment

By Julie Austin

Dr. Gregg Smith has co-authored an article published in the journal, Dyes and Pigments, and was recently featured in the September 9th edition of C&EN News for using pyrolysis GC/MS, LC/MS, FTIR, Ramen Spectroscopy, fluorescence and polarized light spectroscopy to identify the metabolite, hippuric acid, in Indian Yellow Pigment.

This is an important discovery since it verifies the much disputed 1883 account of Trailokya Nath Makharji who claimed that this dye was made by drying urine from cows that were only fed mango leaves and water.

The following links contain the journal article and C&EN News article. Congratulations to Dr. Smith and his co-authors!

Hippuric Acid

https://www.sciencedirect.com/science/article/pii/S0143720818314177

https://cen.acs.org/analytical-chemistry/art-artifacts/Chemical-clue-suggests-spurned-account/96/i36

(FYI – if you have trouble opening any of the C&EN links, try cutting and pasting into your browser or try opening with a browser other than Internet Explorer.)

Ignite Your Superpower: A STEM Event for Middle School Girls

By Carmin Burrell and Maria Alvim-Gaston

The 2nd Annual Ignite Your Superpower! (IYS) STEM Event for middle-school girls took place at IUPUI's Hine Hall on September 10, 2018. This event brought approximately 600 6th-8th grade girls from Indian Creek Middle School, Stonybrook Intermediate Academy, Raymond Park Intermediate Academy, and Creston Intermediate Academy to participate in hands-on demonstrations and presentations from a variety of STEM fields. IYS was presented by Indy Women in Tech through a partnership with Women & Hi Tech and Conner Prairie.

The Indiana Local Section of the American Chemical Society hosted a booth. The theme was "Dress like a Chemist, Feel like a Chemist". Students were asked to wear a lab coat before we walked them through building a model of aspirin. It was heartwarming to hear the girls say: "Look at me! I'm a scientist!", "Oh wow! I can be a scientist?", and "I look like a doctor!".

Students were given some information about aspirin, including a skeletal structure and a model kit. To prime the students we discussed the uses of aspirin, the role of companies like Lilly in the development of drugs, and the role of educators in training future scientists. We would then walk the students through building the model.

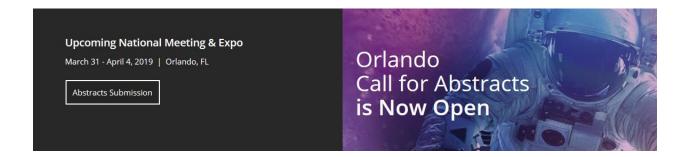
The girls quickly picked up on the activity; most stayed until their model was complete even when distracted by friends, Celebrate Science Indiana's strawberry DNA demo, or Lilly's fake snow activity. Their faces would light up when told that their model was complete and that they were holding aspirin. In all, it was a fantastic event!



Above: The activity that the students used



Above: Maria helping the students



Don't forget to check out our website for back issues of the Accelerator, minutes from the Executive Committee meetings, and a new calendar of events!

http://www.acsindiana.org/acs/







Your ACS local section is getting ready for:

265th ACS National Meeting & Exposition

March 26-30, 2023 - Indianapolis, IN



INDIANAPOLIS 2023

Participate into the brainstorming and preparation to welcome on our grounds this important event in 5 years! If you are interested, please contact Frederique Deiss: fdeiss@iupui.edu



CHEMISTRY DAY – for National Chemistry Week

When: Nov. 3rd, 2018 10 am until 3 pm

What: 14 hands-on interactive chemistry booths

Where: Children's Museum of Indianapolis

Theme: Chemistry is Out of This World

NCW 2018 focuses on chemistry of and in outer space.



Chemistry is Radical! Central Indiana Science Day

By Julie Austin

As part of our Local Section's outreach events, on Friday, August 30, Linda Osborn, Larry Sernyk and I spent the day at Plainfield Central Elementary, performing fun chemistry demos in front of almost 500 students split into 12 – 30-minute sessions!

In the morning sessions, Linda and I began the day with the concepts of air pressure and vacuum by pulling balloons into an Erlenmeyer flask and with marshmallows in a vacuum. We then demonstrated Bernoulli bags by having volunteers come up to hold the bag while I demonstrated straight breathing into bag (1/3 full bag in 3 breaths) while Linda used the Bernoulli Effect to blow up the entire bag with one breath (below, right)!

We saved the biggest WOW factor for last...plasma balls. Not only did we have 1 plasma ball, we had two on hand. We chose a volunteer to act as an electrical conduit between Linda and me by lighting up 3" fluorescent bulbs by holding the end of each bulb (below, left). We then let the children come and play with the plasma balls, which most of them really enjoyed.



For the afternoon demos, Larry performed the fun and colorful DNA extraction on strawberries!

We also gave the children rainbow peepholes which bend light and separate it into the colors of the rainbow as a take home souvenir for the day.



It seemed like the kids really enjoyed our morning sessions and many were quite impressed. I hope we inspired a few of them to really pay attention in their science classes!

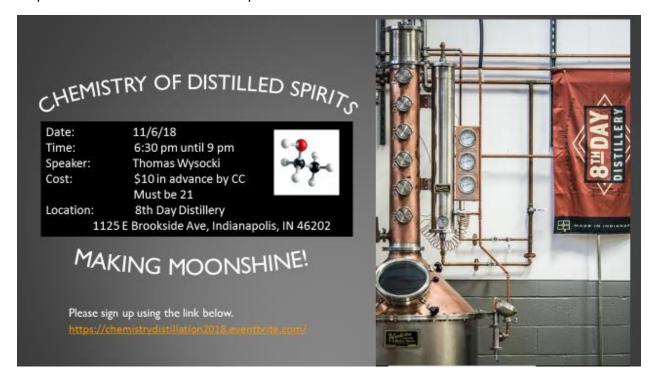




Linda and I demonstrating the Bernoulli Effect

It's a little blurry, but I think you get the idea!

Join us at 8th Day Distillery for light snacks, tasting and a cocktail at "The Chemistry of Distilled Spirits." Stay tuned for more information from your Local Section ACS!





ABRCMS Conference in Indy this Year and ACS Local Section gets Involved! By Linda V. Osborn

Registration is open for the 2018 Annual Biomedical Research Conference for Minority Students (ABRCMS) to be held at the Indiana Convention Center in Downtown Indy. Now in its 18th year,

ABRCMS is one of the largest, professional conferences for underrepresented minority students, military veterans, and persons with disabilities to pursue advanced training in STEM.

This four-day conference from November 14-17 will allow underrepresented minorities in STEM to present their research, development professional skills, explore graduate schools, and network. It is the networking phase that our ACS local section will engage.

Our involvement was recommended by IU School of Medicine Professor Ann Kimble-Hill, who recognized this as quite a unique opportunity while conversing with Christina Bodurow, District II Director, at a National meeting. After Chris brought this to our attention at a local section meeting, two things occurred:

First, to obtain funding, Ann Cutler submitted an Innovative Project Grant entitled: *Chemistry for Life at the ABRCMS!* Ann described in the proposal that the Indiana Local Section of the ACS will hold a networking section and awards ceremony for those participants engaged in chemistry-related endeavors. Awards will be presented to the outstanding poster presentations related to chemistry. Goals outlined included:

- 1. Raise awareness and expand the membership community
- 2. Support professional development
- 3. Support excellence in research via the support of a poster session and all the students (and their faculty advisors) who participate

On September 5th, we received notice that we were awarded \$3250 for this event from the LSAC Subcommittee on Grants & Awards.

Secondly and simultaneously, we had to submit a session proposal to ABRCMS organizers. This part was accomplished by Ann Kimble-Hill and Tamiko Porter, with assistance from other members of the planning team. On August 20th, Ann received a letter saying:

Thank you for submitting a session proposal for the 2018 Annual Biomedical Research Conference for Minority Students (ABRCMS), held in Indianapolis, IN on November 14 – 17. The ABRCMS Session Review Committee received 102 session proposals (20 scientific and 82 professional development) and was impressed with the high-quality proposals received for this year's conference. I am pleased to inform you that your session, Indiana Section American Chemical Society Networking Reception, was accepted into the conference. The submitted session proposal indicated that you all will collaborate in administering this session. Please know that your session will be held on Friday, November

16, 2018 from (8:00 pm - 9:00 pm). Date and time are subjected to change. http://www.abrcms.org/

Speakers at our networking event will include Ann Kimble-Hill, Christina Bodurow, Tamiko Porter and Lisa Buchholz. Tamiko Porter, event chair, will be organizing a planning session soon to align our team and coordinate efforts to make this a successful session for the ABRCMS participants.

Summary of Councilor's Meeting: ACS in the #MeToo Era

Beth Lorsbach

The following summary is provided to help Councilors report to their Local Sections and Divisions on key actions of the <u>ACS Council meeting</u> held August 22, 2018, and the Board of Directors meetings held August 17-19, 2018, at the <u>2018 ACS fall national meeting</u> in Boston, Massachusetts. Bob Pribush, Brian Mathes, Rob Sammelson and I were in attendance representing the Indiana Local Section.

There were the typical elections to committees and bylaw change discussion but in addition to these standing topics there was a special discuss that President Dorhout introduced and led on what role ACS should play in preventing sexual harassment in the sciences. He highlighted several recent articles, workshops and studies that have called attention to the issue, notably a symposium, "Science of Sexual Harassment" organized during the ACS National Meeting in New Orleans (Spring 2018) by the Women Chemists Committee and Chemical & Engineering News; and a National Academies of Sciences, Engineering, and Medicine consensus study report: "Sexual Harassment of Women: Climate, Culture, and Consequences in Academic Sciences, Engineering, and Medicine" (2018). He directed Council's attention to existing ACS codes and initiatives to address sexual harassment, and offered items for discussion and possible action:

- More signs/information at National Meetings regarding our policies and supporting information
- Trained volunteers at national meetings for reporting sexual harassment
- A webinar on preventing sexual harassment for local sections or divisions

To further inform the discussion and Councilor input, a brief survey was conducted using the audience electronic response system. The results of the survey are listed below. The ACS Volunteer/National Meeting Attendee Conduct Policy was in the Council Agenda, and can be found online at:

http://www.acs.org/content/acs/en/about/governance/councilors.html]

A summary of the discussion and additional information will be sent to Councilors at a later time.

Have you ever witnessed or experienced sexual harassment at an ACS meeting or ACS event? (413 responses)

Yes 23% (94) No 77% (319)

Have you ever witnessed or experienced sexual harassment at an ACS meeting or ACS event, or in your professional workplace or learning environment? (182 women / 223 men responded)

 Women
 Men

 Yes
 77% (141)
 57% (127)

 No
 23% (41)
 43% (96)

How familiar are you with the ACS Codes and initiatives for professional conduct? (417 responses)

Very Familiar 38% (157) Vaguely Familiar 46% (192) Not Familiar 16% (68)

Has your local section or division instituted a sexual harassment policy of its own? (419 responses)

Yes 3% (12) No 73% (309) Don't Know 23% (98)

Upon return from the national meeting, we discussed this topic at our executive meeting. We recognized that the Indiana Local Section does not have a formal sexual harassment policy of its own and we agreed that we should adopt and implement the policy of the national ACS.

Project SEED 50th Anniversary: 10,000 + Students Served

By Elmer Sanders

It was a great honor for Project SEED students from the ACS Indiana Section to travel to Boston to join in celebrating the 50th anniversary. Over 10,000 students have been served through the program.

The celebration featured multiple events, including an interactive presentation with Nobel Laureate Sir Fraser Stoddard, Testimonial Speeches by SEED alums from over the years and participation at the Sci-Mix Poster Session.

Sir Fraser Stoddard shared the 2016 Prize in Chemistry for his work on the design and synthesis of molecular machines. He teaches at Northwestern University and has become a Champion for the Project SEED program. In addition to being down an inspiring role model, he related very well to the 100 or more students present.

The Testimonial Speeches from past SEED alums explored a full range of programs around the country and different years past from students that participated in the 70's to a student from the 2016 program. Although speeches were funny at times, most were inspiriting and heartwarming. The past participants are now in various levels of leadership in different fields.

Indianapolis Project SEEED alumna Richa Sharma MS, MD from the 2002 and 2003 program was selected to be one of the speakers and represent the Indiana Section. She was a student at Warren High School who had come from a village in India four years prior. She has since graduated from the IU School of Medicine with a Masters and MD degree. After finishing her residency in pediatrics at Riley, she is now doing a fellowship in Pediatric Oncology at St Jude's Children's Hospital.

The group of Indianapolis students who attended was really impressed at the high caliber of presenters and the organization and planning that went into the annual meeting. They made new friends and look forward to next 50 years of the program and attending the 100th anniversary.



Nobel Laureate Sir Fraser Stoddard with SEED students from across the nation

ACS Calendar of Events 2018

Celebrate Science Indiana:	Saturday,	Indiana State Fairgrounds
jaustin@hrglab.com	October 6	
Executive Committee Meeting	Tuesday,	The Center
Imbuchholz@dow.com	October 9	6320 Intech Way
Workshop with Allison Campbell – Advocacy in a Box	Sunday, October	Location? (the Center?)
Linda.osborn@hrglab.com	6	
National Chemistry Week:	Saturday,	Indiana Children's Museum
bcanturk@dow.com	November 3	
The Chemistry of Distillation	Tuesday,	8 th Day Distillery at 6:30
	November 6	p.m. – more details pending
Executive Committee Meeting	Tuesday,	The Center
Imbuchholz@dow.com	November 13	6320 Intech Way
Annual Biomedical Research Conference for Minority	November 14-	Convention Center
Students (ABRCMS) Reception: http://www.abrcms.org/	17	
End of Year Celebration (No executive committee	Tuesday,	TBD
meeting)	December 11	

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