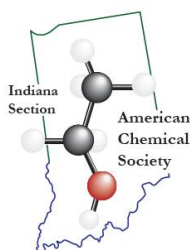


The

# Accelerator

INDIANA SECTION OF THE AMERICAN CHEMICAL SOCIETY



APRIL 2014

## Chair's Corner BY ERIN DOTLICH



Greetings! I am very excited to serve as 2014 Chair of the Indiana Section of the American Chemical Society. Last year was a very exciting year as Indianapolis hosted our first ACS national meeting. The meeting was a huge success with rave reviews thanks to a dedicated leadership committee, ACS volunteers and industry support. As a result, **Indianapolis has been chosen to host the 2023 ACS Spring National Meeting!** While I know this may seem in the distant future, if 2013 taught us anything, it's that time flies and hosting a national meeting takes much preparation! Also noted, our section has enjoyed an upswing in membership thanks to the 2013 meeting. Therefore, this year is about YOU. Our section wants to keep our members happy and engaged. We ask that you reach out to anyone on our committee with ideas to connect our members, increase engagement, improve our section and even provide feedback on what activities you enjoy most. Please take our short survey that will be emailed to you soon so we can continue to improve. This year, we will have a few new activities including an "Impress for Success" workshop, planned alongside our friends at NOBBChE. We also will have a few giveaways at some of our events. Please see our current

schedule of events included in this edition of The Accelerator and keep your eyes open for event announcements. Thank you for your membership and commitment to the ACS mission. I'd now like to introduce this year's Board members:

*Chair-Erin Dotlich*  
*Past Chair-Sibel Selcuk*  
*Chair Elect-Matthew Gardlik*  
*Secretary-Linda Osborn*  
*Treasurer-Paul Ridenour*  
*Councilors-Robert Pribush, Dawn Brooks,*  
*David Mitchell*  
*Alternate Councilors-Robert Sammelson, Amy*  
*Debaillie, Brian Mathes*  
*Members at Large-Patricia Maldonado, Ling*  
*Shi (Tom) Xiao, Kit Peregrine*  
*Education-Bob Pribush*  
*Fundraising Committee-David Mitchell*  
*Public Relations-Andrea Lindsay Frederick*  
*National Chemistry Week-Viola Kimbowa*  
*Awards-Kathy Stickney*  
*Science Day-Jason Ribblett*  
*WCC-Amy Debaillie*  
*Grants-Amy Debaillie, LuAnne McNulty*  
*Accelerator-Julie Holland*  
*Project Seed-Elmer Sanders, Josh Taylor*  
*YCC-Erin Dotlich - seeking new*  
*High School -Erica Posthuma-Adams*

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## 2014 Indiana Section ACS Scholarship and USNCO Exam

BY ROBERT PRIBUSH

On Saturday, March 1, 2014, 171 students (out of 227 nominated) participated in the 2014 Indiana Section ACS Scholarship and USNCO Exam held at Carmel High School:

- 80 (of 108 nominated) participated in the first year exam with an average score of 26/60
- 50 (of 60 nominated) participated in the advanced exam with an average score 36/60
- 41 (of 59 nominated) took the exam solely to compete for a spot on the United States National Chemistry Olympiad team scoring an average of 38/60

Students who scored high on the exam were contacted and invited to participate in the second phase of the USNCO competition which is a written exam plus a practical laboratory exam. This second part of the competition will be held at Butler University on Saturday, April 26, 2014. Teachers, please encourage your students to accept the offer if called. The end goal is to get Hoosier students to qualify for the three-week USNCO camp at the United States Air Force Academy from which the USNCO team will be chosen. The Indiana Section ACS UNSCO will work with students to enhance their chances for success.

An Award Banquet will be held at 5:30 p.m. on Tuesday, May 6, 2014 in the Krannert Room of Clowes Hall on the campus of Butler University. The guest speaker at the Awards Banquet is David Liang of Carmel High School. David was a member of the 2013 United States Chemistry Olympiad Team and won a gold-medal in the International Chemistry Olympiad competition in Moscow, Russia.

### First Year Exam

1st place - \$1000 scholarship + book award	Zachery Shue	Brebeuf
2nd place - \$800 scholarship plus book award	Angela Li	Park Tudor
3rd place - \$600 scholarship plus book award	Maggie Johnston	Park Tudor
4th place - \$400 scholarship plus book award	Margaret Kosten	Park Tudor
5 <sup>th</sup> place - \$200 scholarship plus book award	Mark Rook	Park Tudor
Honorable mention - book award	Isabel Detherage	Brebeuf
	Catherine Meador	Carmel
	Jarod Throckmorton	Carmel
	Katharina Fransen	Fishers
	Gabriel Patee-Huff	Fishers
	Daniel Vance	Fishers
	Alex Seifert	International School
	Amanda Li	Park Tudor
	Joe Lybik	Park Tudor
	Christina Duffield	University
	Paul Szewczyk	University
	Emily White	Zionsville

### Team Award - \$100 plus plaque or certificate

1 <sup>st</sup> place	Park Tudor
2 <sup>nd</sup> place	Brebeuf
3 <sup>rd</sup> place	Fishers
4 <sup>th</sup> place	Carmel
5 <sup>th</sup> place (tie)	Zionsville
5 <sup>th</sup> place (tie)	University

### Advanced Exam

1 <sup>st</sup> place - \$1000 scholarship plus book award	Asina Dhungana	Carmel
2 <sup>nd</sup> place - \$800 scholarship plus book award	Julia Wang	University
3 <sup>rd</sup> place - \$600 scholarship plus book award	Brendan Yap	Carmel
Honorable mention - book award	Miles Dai	Carmel
	Kevin Fei	Carmel
	Ryan Jou	Carmel
	Aaron Shi	Carmel
	Michael Wang	Carmel
	Nathan Mytelka	Park Tudor
	Qinmao Zhang	Richmond

### Indiana Section Chemistry Olympiad

Jianping Huang, Eli Lilly, Robert A. Pribush,  
Butler University Local Section Olympiad  
Coordinators

### Students Who Qualified for the National USNCO Exam

Adit Chandra	Carmel
Angela Li	Park Tudor
Leon Lin	Indiana Academy
Nathan Mytelka	Park Tudor
Alex Nunan	Madison Consolidated
Teresa Ortyl	Zionsville
Robert Shroat	Zionsville
Zachery Shue	Brebeuf
George Theodorgkis	Fishers
Julia Wang	University
Josh Woodward	Fishers
Willie Zhu	Carmel

## Letter from the Editor

BY JULIE HOLLAND

Greetings Indiana Colleagues,

In addition to the new Chair, you have a new Editor for this newsletter for the next two years.

I wanted to take just a moment to introduce myself. My name is Julie Holland and I've been working in the chemical industry for the past two decades in central Indiana. Although I've been a member of the ACS for a long time, I haven't been involved with it other than paying my yearly dues and reading C&EN News.

When I found out that Indianapolis was going to host the ACS National Meeting last year, I started thinking about the fact that throughout this amazing career I've had, the only other chemists whom I had met were the ones who worked with me. In today's ever evolving, fast paced market, we often hear how networking is so important for our professional development (in any industry), but when you work in a small lab and you mainly deal with internal customers, how do you network with fellow colleagues? The local ACS can help you do that. It's easy. You join and get involved by

participating in the activities this organization plans. Or you can volunteer your time to help with some of those activities.

Unfortunately, I wasn't able to attend the National Meeting. Fortunately, I saw a notification shortly after that looking for the next volunteer for this newsletter. I quickly realized not only would it be a good way to network, but I could also make a contribution back to the organization.

I'm still in the learning stages of what the local section does, but I can tell you that it supports a lot of really good programs. In addition to forums such as the recently held Sustainability and the Vanishing Van Gough seminars, it works to support an ACS Scholarship, Project Seed, Ball State Science Day, Career Day, National Chemistry Week, the Young Chemists Committee, the Women Chemists Committee, and NOBCChE to name a few.

As Erin said in the Chair's Corner, this year it's about YOU. With that in mind, I would like to open up the Accelerator as a forum where you, our fellow ACS colleagues, can submit articles that you believe would interest or benefit other members, stories about your experiences in the world of chemistry, jokes, puns, or anything else you feel might be of interest. Please send your submissions to:

[ACSaccelerator@gmail.com](mailto:ACSaccelerator@gmail.com).

I hope to hear from you!

## Membership Snapshot

BY LINDA OSBORN

You are a member of a flourishing Indiana Local Section of the ACS, stronger and more united than ever. Our section had 332 new members in 2013 with a record number of 1700 total members at the end of the year. It is apparent that the national ACS meeting in Indianapolis influenced this increase. The February 2014 roster indicates that we currently have 1655 members; the difference may be due to delays in membership renewal. Nevertheless, we are still larger in size than ever before. Individual breakdowns for the November 2013 roster

versus the February 2014 roster are shown in the TABLE below.

Indianapolis Section	Local	13-Nov	14-Feb
Emeritus Member		90	97
Regular Member		1264	1,224
Regular Student		105	98
Retired Member		67	61
Society Affiliate		6	7
Student Member		168	168
<b>Total</b>		<b>1700</b>	<b>1655</b>

Latest demographics are shown in FIGURE 1.

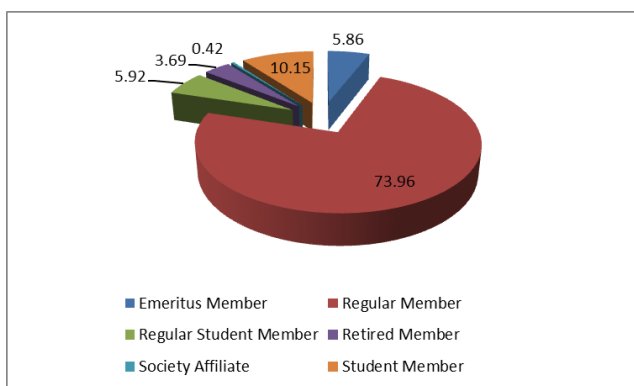


FIGURE 1. Current Membership Demographics

Where are local members from? It is not surprising that 48.8% are from Indianapolis. It was surprising to learn, however, that there is another ACS member that lives in Bargersville where I live! FIGURE 2 shows the breakdown of cities other than Indianapolis with >10 members. The “Miscellaneous” category includes cities with less than 10 members including 91 small towns in Indiana.

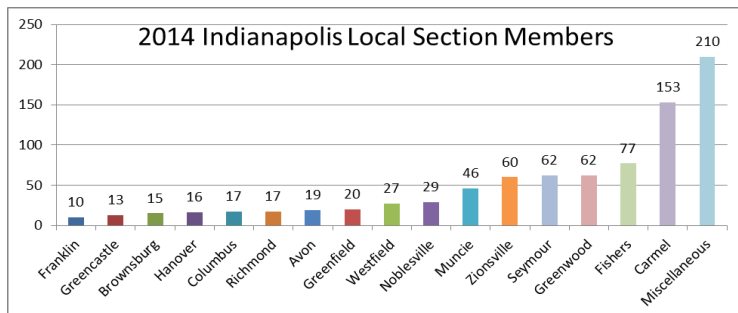


FIGURE 2. Current local section members home town locations, not including Indianapolis, which constitutes 48.4% of our membership.

We have two emeritus members that have been ACS members for 68 years! Ironically, we have 68 members that have been ACS members for 50 years or more! Thank you for your loyalty! FIGURE 3 shows the number of members for a range of years that people originally joined ACS.

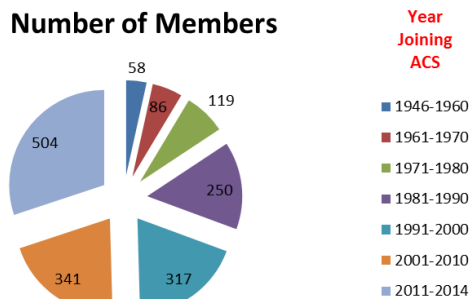


FIGURE 3. The year that members joined the ACS is shown in the legend; the number of members per group is shown in the pie chart. The largest percentage has joined in the past 3 years.

The fruits of your support of our local section are evident in the success that we had at our national meeting activities. We hope to keep you active and look forward to hearing any suggestions that you might have. Collectively we have made a difference. I have enjoyed meeting many of you during our many activities and encourage you to be an active Life Member! Thank you to ALL for your membership and for the many dedicated volunteer hours that you have contributed to our section.

Please mark your calendar for **Oct 4<sup>th</sup>** for the 5<sup>th</sup> annual Celebrate Science Indiana fair!





## Forward, Onward

BY ELMER SANDERS



In my efforts to stimulate the creativity of very talented Project SEED students, I suggested to the interns that we start a newsletter this summer. If it went well, students in future summers might be thus in-spired and create a tradition. Erin Zhao volunteered to be the editor-in-chief and collated the article entries of the students. She left this page open and asked me to write a Fore-word.

The Indianapolis Project SEED has now become a very substantial community and the newsletter is not intended to be an official chronicle of events, but an opportunity for the students to share their ideas and experiences with other members of the SEED community.

I thus invite anyone reading this inaugural edition to be a future contributor!

My older brother is an engineer who loves literature also.

Upon my college graduation, as I contemplated medical school, he introduced me to the writings of Robert Coles, a physician, Pulitzer Prize winning author, and Harvard professor that lectured both at the business medical schools along with undergrad lit courses. A psychiatrist by training, Coles wrote a series on the moral life of children. It was my fascination with Coles' writings that lead me to Harvard to listen to his lectures.

Like Coles, or William Carlos Williams, John Percy and other literary minded physicians, I have noticed many SEED interns demonstrate remarkable talent as writers.

I hope this publication grows over the years, and after the students publish scientific findings in peer reviewed journals, they will find time to return to their love of writing on topics dear to their heart.

Although intended as informal publication to foster student creativity, I do want to make use of this space to thank everyone who makes Project SEED possible.

I was generously welcomed by committee members 13 years ago and I have met extraordinary public servants over the years.

I dedicate this newsletter to SEED's mentors, committee members and financial sponsors. The 1968 founding members from the American Chemical Society who started Project SEED deserve great honor, and everyone who supports it over the years.

SEED has become a significant asset to the youth of Indianapolis and the future of science. The torch of mentorship and public service welcomes all who will undertake this journey with us. On behalf of the students we serve, I look forward to the many honorable and generous citizen scientists, humanitarians and philanthropists who will continue the legacy another 40 years.

To read the remainder of the latest Project Seed Newsletter, please click on the link below.

<http://www.indyprojectseed.com/newsletter.pdf>

## Volunteer Spotlight

BY ERIN DOTLICH

Sherry Anderson once said, “Volunteers do not get paid, not because they're worthless, but because they're priceless.” For many who dedicate time and effort to the mission of the ACS or other activities, knowing a difference was made can often be the biggest reward. It is not always easy to recognize the accomplishments of others.

As a section, we are committed to identifying and crediting deserving individuals and teams. Last year, we successfully nominated Dr. Robert (Bob) Pribush as an ACS Fellow. He was the first section leader to receive this national level of recognition!

The purpose of the ACS Fellows Program, one component of the broader ACS Awards Program, is to recognize and honor members of the American Chemical Society for their outstanding achievements in and contributions to science and their profession and for their equally exemplary service to the Society (<https://www.nominatefellow.acs.org>). This year, our section has nominated 3 deserving candidates for this honor: Dr. Christina Bodurow, Dr. Dawn Brooks and Dr. David Mitchell.

It is also with great honor to announce that this year's Indiana Section Volunteer of the Year has been awarded to Dr. Christina Bodurow for her dedication to the 2013 Fall National Meeting.



Dr. Christina Bodurow



Dr. Dawn Brooks



Dr. David Mitchell

## Impress for Success Workshop

BY CHLOE NERISSA POSTON

We are pleased to announce that the Indiana Local Section of the ACS and the National Organization for the Professional Advancement of Black Chemists and Chemical Engineers (NOBCChE), Indianapolis section, will join forces to encourage local area college students to succeed in STEM related careers.

The workshop, entitled Impress for Success is a winner of a National ACS Innovative Project Grant and will be held in Indianapolis, IN **September 6, 2014**. While we are focusing on students from under-represented minority groups, any local Indiana College or University student can register to attend. Volunteers from the Indiana Local Sections of both NOBCChE and the ACS are requested to assist with planning and implementing the day-long workshop. We are very excited about this opportunity to give back to local undergraduate students and will need volunteers for speakers, panelists, and to assist with general logistics.

The goal of this workshop is to 1.) Help empower Indiana students to maximize their opportunities in the STEM profession 2.) Help to provide tools that would cultivate success 3.) Educate students as to the benefits of becoming members of ACS and NOBCChE and 4.) Assist with networking opportunities and resource awareness that empower them to succeed.

We are planning an excellent roster of speakers, targeting a variety of topics to help

bring success to students in attendance. We hope this workshop will lead to an increase in the number of under-represented students that are engaged in the STEM professions. We are looking forward to engaging with students at surrounding colleges and universities including (but not limited to): Ball State University, Indiana State University, Purdue University, University of Evansville, University of Southern Indiana, and Valparaiso University.

Impress for Success will be a smaller workshop which will allow for extensive networking and meaningful interactions. If you know a STEM undergraduate who may be interested in attending, please reach out to Linda Osborn, the Indy ACS representative on the planning committee, at [Linda.Osborn@hrglab.com](mailto:Linda.Osborn@hrglab.com), to learn more information. The planning committee is looking forward to working with members to show local undergraduates how to *Impress for Success* to further their careers in STEM.

## ACS Science Coaches

BY PAUL RIDENOUR

Recently, I discovered an ACS program that I had never heard of before. The program is called ACS Science Coaches. I have begun building a relationship with an interested teacher, and hope to start the program very soon. I thought that I would share some information about this program in case anyone else might be interested.

ACS Science Coaches are chemistry professionals who share their expertise and enthusiasm for science with an elementary, middle, or high school teacher over the course of one school year.

As volunteers, Science Coaches visit a school to assist one teacher a minimum of 6 times during one school year. Some coaches work behind the scenes while others prefer to interact with students. They may help the teacher plan and/or assist during labs, present lessons, or mentor small groups of students. Each partnership is a little different with each

chemist and teacher deciding together how they will combine their expertise and interests to improve the science education experiences of students.

The above synopsis was obtained from the ACS program homepage. If you want further details on the program, they can be found at: [www.acs.org/content/acs/en/education/outreach/science-coaches.html](http://www.acs.org/content/acs/en/education/outreach/science-coaches.html)



## Chem Bowl and Bowling

BY KEITH ANLIKER

The Chemistry Club at IUPUI, a student affiliate organization of ACS, is hosting a Chem Bowl for ACS-affiliated high school and university student groups in the Indianapolis area. This event, which is made possible by an inter-chapter Relations Grant from ACS, is being held on the IUPUI campus on April 12, 2014.

The Chem Bowl will include questions about general and organic chemistry, but it will also include a variety of chemical trivia questions and questions taken from material available from the ACS and C&EN websites: ByteSize Science, Science Podcasts, C&EN Reel Science, Molecule of the Week, in Chemistry Magazine and This Week in Chemical History.

Would you like to be involved in this event? If so, consider submitting a few questions or participating as a judge for the event. The role of the judges will be to assist with scoring decisions during the Chem Bowl. Participation

in a roundtable discussion with any parents and teachers that attend is another possibility.

### Agenda

1:00 pm - 1:30 pm	Registration, Introductions
1:30 pm - 2:30 pm	Chemistry Bowl Part A
2:30 pm - 3:00 pm	Break with snacks
3:00 pm - 4:00 pm	Chemistry Bowl Part B
4:00 pm - 4:15 pm	Break with snacks
4:15 pm - 5:00 pm	Keynote Speaker (Dr. Christina Bodurow)
5:00 pm - 5:30 pm	Awards Ceremony
6:00 pm - 8:00 pm	Duckpin Bowling/Club Posters

Contact: Keith Anliker (faculty advisor) [ksanlike@iupui.edu](mailto:ksanlike@iupui.edu) to submit questions, to volunteer as a judge, or if you have any questions about the event. (IUPUI Science Building LD 010 402 N. Blackford Street)



## Van Gogh Seminar

BY BRIAN MATHES

In January, the Indiana Section of the ACS hosted Dr. Greg Smith for a terrific and informational presentation entitled “Vanishing Van Gogh”. This presentation married what are generally thought as the almost diametrically opposed areas of art and science. In addition to giving the participants an overview of art conservation and the science involved, Dr. Smith presented his analysis and work on a Van Gogh painting entitled “Undergrowth with 2 Figures”. His work studied the fading of colors in the picture over time using all sorts of chemical analysis tools as well as letters from the artist himself describing what he originally painted. He not only detailed the history of Van Gogh and the painting, he gave a considerable overview of pigments and their chemical constitution as well as durability. The final analysis showed that there was considerable fading of some of the pigments in the painting including flowers that were originally pink and red which now appear

white. It was amazing to realize that what we are viewing now is not exactly what the artist had in mind years before.

The audience was the largest ever for an Indiana Section Seminar with over 100 folks in attendance. Those who were able to get there early enough were treated to a tour of the art conservation laboratory which is decorated in a rich arts and crafts style. It is a stunning combination of craftsmanship and functionality.

The section would like to thank Dr. Smith and the IMA for providing space for this talk and we look forward to hearing more from Greg and the IMA laboratory in the future.

## Sustainability Seminar

BY BRIAN MATHES

In February, the Section hosted Ken Miller from SABIC to talk about Sustainability and Chemistry. In a well-attended seminar, Ken presented the current world status in terms of resources, pollution/greenhouse emissions and what we need to do to sustain our future. Ken's presentation thoroughly explained our current situation, how that affects these key parameters and where we will be if we stay on this path. Ken offered some insight into possible solutions, many of which are driven by innovative chemistry developments. Ken's



presentation elicited a very lively question and answer session where the pros and cons of the approaches were discussed as well as an approach regarding how to help public and governmental agencies understand these concepts. The section extends its thanks to Ken for his presentation as well a Heritage for allowing us to use their great meeting facilities



## Travel Award

BY BRIAN MATHES

The Indiana Section of the American Chemical Society would like to let you know about a travel opportunity that is available to the students within our Section. The Annual Indiana Section Undergraduate Travel Award committee is now accepting applications for monies to support travel to present their undergraduate research at a national meeting. The Section has given out over \$20K in support since the inception of the program. The following is a guideline for those students who may be eligible for participation:

1. Applicants must be undergraduates that are presenting their research at a national meeting. They will also be required to be Student Affiliate Members of the ACS.
2. Applicants must apply to Brian Mathes at [mathes@lilly.com](mailto:mathes@lilly.com) by June 1st. Winners will be announced on June 5th.
3. Applicants are expected to apply with a short abstract and trip description via email. Further, a letter of support via email from their sponsoring professor will be expected as well.
4. Applicants will also supply a short budget explanation describing their meeting visit.
5. After the trip, applicants will be expected to request reimbursement within 6 months of the trip to receive their monies and send in a short trip report to be published in the section newsletter.
6. Again, submission of the application by June 5th to Brian Mathes at [mathes@lilly.com](mailto:mathes@lilly.com).

April 2014

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The Indiana Section of the American Chemical Society 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.

**TEAMWORK**  
coming together is a beginning  
keeping together is progress  
working together is success

- Henry Ford

## Indiana Section Calendar for 2014

Date	Event	Location	Time	Description
April 12	Science Day at the Delaware Co. Fairgrounds	Muncie, IN		Great day for families to get out and see how chemistry and science affect peoples' lives. A fun family friendly experience.
April 12	Chem Bowl and Bowling	IUPUI Science Building LD 010 402 N. Blackford Street	1-8 P.M.	Contact <a href="mailto:ksanlike@iupui.edu">ksanlike@iupui.edu</a> for inquiries. Participants will answer chemistry questions from various resources in two sessions. An awards ceremony will follow along with Duckpin Bowling. See this Newsletter for more details.
May 6	David Liang "USA Chemistry Olympiad Team" Awards Night	Butler University	5:30-7:30 P.M.	A night to honor the future chemists through awards from the High School Chemistry Exam as well as honor those 50 and 60 year ACS chemists and their careers. David, a recent US Chemistry Olympiad team member, will be the keynote speaker and he will talk about his experiences as a team member and gold medal winner.
June 2	Biomedical Research Symposium	Eli Lilly Building 98 auditorium	6:30 P.M.	Invited speakers from surrounding universities will talk about their biomedical research, such as Dr. Nathan Alves talking about Endowing Antibodies with Designer Functions through Site-Specific Conjugation to the Conserved Nucleotide Binding Sites (NBS).
July 22	Baseball Night at Victory Field: Indians vs. Charlotte Knights	Victory Field	7 P.M.	<a href="mailto:mathes@lilly.com">RSVP to mathes@lilly.com</a> ; Come out for our 14th year of this event. Everyone is encouraged to attend for a night of baseball, baseball/chemistry trivia and networking.
July 24	Project SEED poster Session	IU School of Medicine Atrium	4 P.M.	<a href="mailto:elmer.sanders@yahoo.com">RSVP to elmer.sanders@yahoo.com</a> ; Come out and see the future chemist's summer research. A terrific way to connect with current research and future chemists.
October	ACS Poster Session			Get your research ready for presentation. More info to come on dates, location and abstract submission.
Nov. 1	National Chemistry Week Celebration	Children's Museum of Indianapolis		The best family event of the year. See the chemistry exhibits as well as an award winning museum.