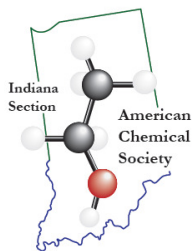


The

Accelerator

INDIANA SECTION OF THE AMERICAN CHEMICAL SOCIETY



SEPTEMBER, 2014

Chair's Corner BY ERIN DOTLICH



We did it Indiana Section! We've hit historical milestones in our section's history and we couldn't have done it without you!

In April, we nominated several section members for ACS Fellows.

We held onto hope that at least one would get selected. In July, C&EN News informed us that Indiana had 4 individuals named as recipients. This brings Indiana's historical total to 5 Fellows. How amazing that in just this year, Indiana increased from 1 Fellow to 5?

Indiana was also nominated for 7 national ChemLuminary Awards. In August, we secured 2 wins. Our section won:

"Best Program Stimulating Member Involvement"
and

"Outstanding Performance by a Large Section"

I'd like to highlight a word in that latter award -- 'Large.' Making the category 'Large' is a new accomplishment for our section. This time last year, Indiana was categorized as a 'Mid-sized' section. An increase in membership has allowed us to achieve this distinction. To top it off, our section won the Outstanding Performance Award!

Our YCC Chair has also been accepted as a finalist for the European Chemical Congress Young Chemist

Award which is an internationally recognized award. We have a few other existing member nominations, so keep your fingers crossed and read our next edition for those updates.

As part of the 'member recognition and spotlight' goal in our strategic plan, we are working diligently to identify members whose contributions (volunteer, technical, specific) in the sciences match criteria with open awards. Please contact a member of our committee if you would like to be nominated for an award or know of a deserving individual. Also, we are planning to host a networking, member appreciation event by the end of 2014 to thank you for being a part of our section's history. Your attendance would be highly appreciated.

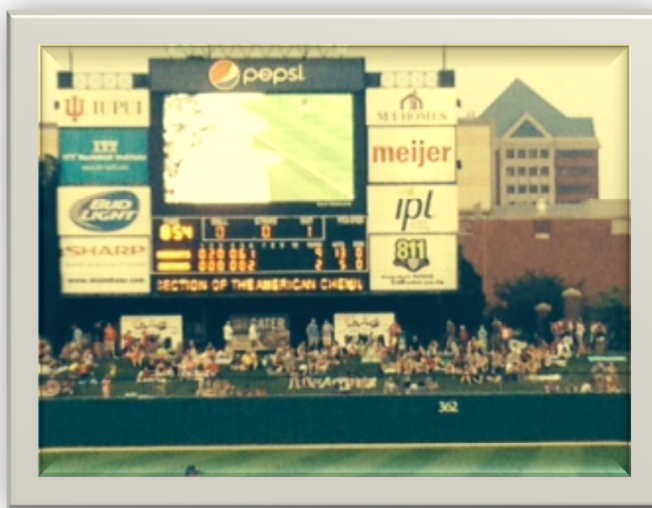
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Baseball Night BY BRIAN MATHES

The Indiana Section of the ACS descended on Victory Field for the 14th Annual Baseball Night. A total of 32 excited chemists and friends showed up to cheer the Indianapolis Indians to victory over the visiting Charlotte Knights. This was a special night for the Section as we encouraged YCC member to come out with an enticement of \$5 tickets. As usual, Chemistry and baseball trivia were enjoyed by the party as well as the surrounding section. The organizers were surprised and encouraged that two of the questions about the periodic table were answered by the general public faster than our own chemists!

Unfortunately for the Indians, the Knights ended up rolling over them 9 to 3. However, the chemists had a great night of weather and social fun and are already looking forward to next year, the big 15th Anniversary!



Victory Field for the 14th Annual Baseball Night

Biomedical Symposium

BY BRIAN MATHES

On June 2nd, the Indiana Section of the American Chemical Society hosted the Inaugural Biomedical Symposium at Eli Lilly and Company. This symposium was designed to take advantage of the scientific and technical knowledge of biomedical researchers within our own section. This symposium was an opportunity for these scientists to present



Dr. Sage Arbor (at podium) and Brian Mathis (right) after introducing Dr. Arbor

their own research while allowing discussion and cross-fertilization of ideas.

The researchers presented a 15 to 20 minute summary of their research on these topics:

Dr. Sage Arbor

Marian University

Invivo Therapeutics: Cyclic Peptides and Split Inteins as Cell Built Drugs and Nanomachines

Dr. Zhong-Yin Zhang

Indiana University School of Medicine

Drugging the Undruggable: Therapeutic Potential of Protein Tyrosine Phosphatases

Dr. Chien-Chi Lin

Purdue School of Engineering and Technology

Life in a 3D World: Cell Fate Redefined

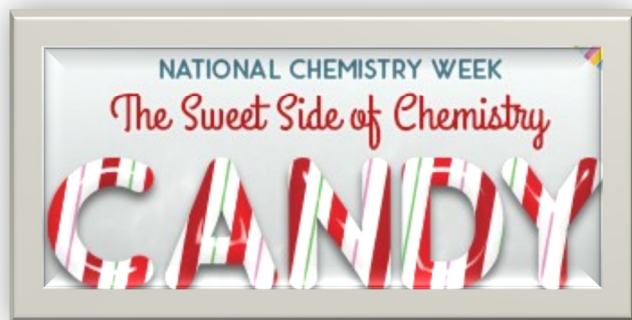
Dr. Ann Kimble Hill*Indiana School of Medicine*

The Role of Angiotensin II Receptor
Signaling

Dr. Nathan Alves*Indiana University School of Medicine*

Endowing Antibodies with Designer Functions
through Site-Specific Conjugation to the Conserved
Nucleotide Binding Sites (NBS)

The Indiana Section would like to thank these speakers for making this event a success and looks forward to presenting further opportunities for our local talent to present.



BY VIOLA KIMBOWA-RADLOVIC

ACS VOLUNTEERS NEEDED!!

The ACS Indiana Section will once again celebrate the annual National Chemistry Week at the Children's Museum of Indianapolis on Saturday, November 1st 2014! This year's theme showcases the chemistry involved in candy and confections!

Local companies, Universities and professional organizations are invited to set up booths at the museum on the day of the event. Booths should provide interactive, fun science experiments for the museum guests to enjoy as they learn about science. If you are interested in inquiring about a free booth for your organization, please contact Michelle Sjostrom (sjostrom_michelle_f@lilly.com).

We will also hold a high school theme based video competition where we invite local high school teams to submit 5 – 15 minute videos displaying innovative, hands-on science activities based on this year's theme, "The Sweet Side of Chemistry". Local elementary schools will also be invited to submit hand drawn designs based on our theme to determine what this year's NCW t-shirt designs will be! The winning schools and designs will be honored at an award ceremony on the morning of the event. If you are interested in having your local high school and elementary school students involved in these competitions, please contact Viola Kimbowa-Radlovic (kimbowavi@lilly.com).

We will have many volunteer opportunities for our Indiana Section members to get involved with the 2014 NCW event for as little as 1-2 hours of your time. Each volunteer will receive a free NCW t-shirt and free museum admission on the day of the event. Volunteer slots are limited, so to volunteer on Saturday, November 1st 2014, please contact Patrick Pollock (pollock_patrick_m@lilly.com).

We look forward to your involvement in this year's National Chemistry Week celebration!!



NCW 2014 Planning Committee -Viola Kimbowa-Radlovic, Michelle Sjostrom, Patrick Pollock and Lavonne Carson

Call for Nominations

BY AMY DeBaillie AND ERIN DOTLICH

The Indiana Section is calling for nominations to serve as officers for 2015.



Indiana has had an exciting couple of years and is now classified as a LARGE section! Indiana just won the ChemLuminary award for Outstanding Large Section. There's never been a better time to get connected and involved in

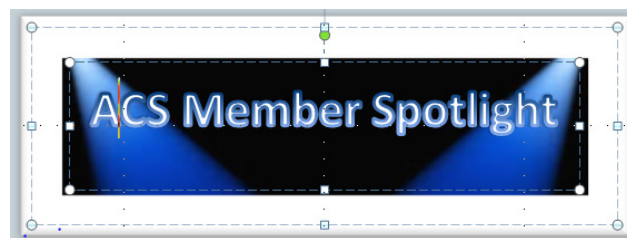
our section. We are also looking forward to hosting another National Meeting - in 2023.

The Indiana Section is always in need of people willing to work to bring chemistry and chemical education to central Indiana. Every October a new slate of officers is elected by the membership to serve on the executive committee. We are currently seeking nominations for the following officers: a Chair-Elect (who will serve as Chair the following year), a Treasurer, a Secretary, one Councilor, one Alternate Councilor, and 3 Members-at-Large. The Chair-Elect, Councilor, and Alternate Councilor serve for three years; and the Treasurer, Secretary, and Members-at-Large serve for one year, with all terms beginning January 1, 2015.

If you feel called to serve or know someone who may be willing, **please send your nominations to Section Chair, Erin Dotlich at DotlichEM@Lilly.com**. Additionally, if you have any questions about the roles and responsibilities, please email Erin with questions.

Please let Erin Dotlich know by September 25th. We will begin preparing for elections after that date. Elections will once again be done electronically.

Thank you in advance for your consideration for these important roles.



Local ACS Member Received Honorary Doctorate in Science at Marian University

BY LINDA OSBORN

Anthony (Tony) J. Kriech was honored for his distinguished contributions to science at the 2014 commencement at Marian University where he received an Honorary Doctorate in Science. Tony has been an ACS member for 38 years. As the Director of Research for The Heritage Group, he has had an outstanding career as a chemist with revolutionary contributions to scientific research and discovery. In addition to receiving this honorary degree, Tony was awarded the honor of Chemistry Chair. This Chair which was funded in his name by The Heritage Group will be used to grow the chemistry department at Marian University. This is especially significant with the new College of Osteopathic Medicine.



As a 1975 graduate of Marian, Sister Mary Rose Stockton was an important mentor in Tony's career. She pushed all of her students to engage in creative thinking which has helped him understand how to use science to solve problems in the world. Setting very high standards for himself, he has become a great mentor to others, expecting significant contributions and creative thinking from all lives that he touches.

Tony is the author of numerous peer reviewed publications and holds many patents. Some of the areas of his expertise include chemistry of asphalt and asphalt emissions, colloid chemistry of asphalt emulsions, recycling of metal wastes into metal salt products, stabilization of metals from hazardous waste, reclaiming waste oil into useable products, reclaiming steel slags into asphalt pavements to improve wet friction, recycling of roofing shingles, pavement design and mercury removal from coal fired power plants.

In 2011, Tony was selected by the International Agency for Research on Cancer Volume as an industry observer for Monograph 103: Bitumen and Bitumen Fumes, and Some N- and S-Heterocyclic Polycyclic Aromatic Hydrocarbons. He is commonly requested at keynote speaking engagements. Last year at the ACS National meeting in Indianapolis, he was an invited speaker for the popular session “Chemistry of Racing.”

In his spare time, Tony enjoys spending time with his wife Andrea, their children Matt, Jessie, and Doug and 4 grandchildren.

Four Section Members Named ACS Fellows!

BY ERIN DOTLICH

The American Chemical Society inducted four section members into the 2014 class of ACS Fellows: Dr. Christina Bodurow (Sr. Director Eli Lilly), Dr. Dawn Brooks (Sr. Advisor, Eli Lilly), Dr. David Mitchell (Research Advisor, Eli Lilly), and Dr. Kenneth Racke (Global R&D Leader, Dow AgroSciences).

ACS Fellows are nominated by their peers and selected for their outstanding achievements and contributions to the sciences and for their volunteer service to ACS. Bodurow, Brooks, Mitchell and Racke were honored at the ACS National Meeting in San Francisco earlier this month. Only 5 chemists have received the title “ACS Fellow” in the Indiana Section to date. Last year, Dr. Bob Pribush (Butler University) was the first ACS Fellow from the Indiana Section.

“Chemistry has been a passion since I was about 14 years old,” explains **Dr. Christina Bodurow**.

“My high school chemistry teacher saw a kernel of aptitude, which led to a life-long love of chemistry. I’ve always been very committed to

chemistry as a scientific discipline because it unlocks the key to many aspects of our lives.” Dr. Bodurow has been an ACS member for 35 years. Early in her Lilly career, she became involved in Indiana and National ACS committees, including establishing the Eli Lilly-Women Chemists Committee Travel Awards program in 1989. ACS honored Dr. Bodurow previously for encouraging women to pursue chemistry as a career. She was awarded as the 2014 Indiana Section Volunteer of the Year for her leadership efforts during the 2013 National Meeting and Celebrate Science event.

Dr. Dawn Brooks was a recipient of an ACS travel award to present her thesis research which lead to an opportunity with Lilly. She has worked in discovery research, process chemistry and was involved with a diabetes molecule that made it to Phase III studies. *“After that, I moved into LRL management and have been broadening my understanding of drug development and the cross-functional complexity of bringing medicines to patients,”* says Dr. Brooks. She has worked in a Six Sigma Black Belt role. *“Now I’m providing leadership for early-phase diabetes drug candidates.”* Dr. Brooks is currently a Section Counselor and has served on numerous National

ACS committees. She has been instrumental in organizing the annual organic symposium.

'It is truly an honor to be recognized as an ACS Fellow since this brings together outstanding achievements in and contributions to science, the profession, and the Society. I have been active with the ACS since my student affiliate days in college and have received much benefit in my own development as a result of volunteering. Many heartfelt thanks to those that supported my nomination from the Indiana Section, ACS Women Chemists Committee and Lilly.' — Dawn Brooks

Dr. David Mitchell describes ACS a “network of chemists who share the same passion and drive.” He’s been an ACS member since undergraduate school. Even at that young age, he knew he would always give back to the profession through

ACS. “What I like most is looking at a hypothesis or theory on paper and seeing it mushroom into a

life of its own, whether it is a Lilly target or a molecule we are trying to develop,” Dr. Mitchell says. “We do the research, collect data, and then our work takes on a life of its own.” Dr. Mitchell is currently a Section Counselor and serves on multiple National ACS committees. Dr. Bodurow was Dr. Mitchell’s mentor when he came to Lilly. Eventually, he succeeded Dr. Bodurow as chair of the Indiana Section of the ACS, a role Dr. Brooks assumed after Dr. Mitchell.

Dr. Kenneth Racke joined Dow in 1988 and has served in a variety of roles in research and regulatory. As Regulatory Leader at Dow, Kenneth was recognized with two Presidential Green Chemistry Awards. His interest in the management of pesticide residues led him to establish Dow’s “Global MRL Initiative” and he has promoted globally harmonized residue standards through Codex. He has organized nine AGRO symposia, four of which have resulted in ACS Symposia Series Books. In addition, Dr. Racke has served the AGRO division in multiple roles including Chair, and he has directed a number of IUPAC projects supporting capacity development in scientifically emerging regions. “Supporting expansion of harmonized approaches to regulation of crop protection chemistry on a worldwide basis is a passion for me,” says Dr. Racke.



ACS Fellows: Dr. Christina Bodurow, Dr. Dawn Brooks, Dr. David Mitchell, Dr. Kenneth Racke

Technical Corner

Congratulations Erica! In addition to this recent publication in J. Chem. Educ. we just learned of her receiving the **“Excellence in High School Teaching Award”** through the ACS Central Regional Meeting.

The September edition of the Journal of Chemical Education will contain a special issue specifically for the High School Advanced Placement (A.P.) Community. The recent changes to the A.P. Chemistry curriculum have educators focusing more on reasoning, inquiry, and critical thinking and less on the memorization of facts. The issue will include an article by Indiana section member Erica Posthuma-Adams of University High School. The article discusses how using a constructivist approach to science education, such as Modeling Instruction, can help students engage in the Seven Science Practices outlined by the College Board.

“Impress for Success” Workshop

BY LINDA OSBORN

On September 6, 2014 the halls of IUPUI’s library auditorium foyer filled with students, speakers, volunteers and mentors arriving for the inaugural “Impress for Success” workshop jointly sponsored by the ACS – Indiana Section and the National Organization for Black Chemists and Chemical Engineers (NOBCChE). The lineup of speakers, orchestrated by Ayanna Jackson, was incredible. The morning began with Dr. Simon Rhodes, the Dean of the School of Science at IUPUI, delivering a motivational speech to the students.



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J. Chem. Educ., **2014**, 91 (9), pp 1284–1290

DOI: 10.1021/ed400911a

Publication Date (Web): July 18, 2014

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<http://pubs.acs.org/doi/ipdf/10.1021/ed40091>



Paul Ardayfio speaks to the students about
NOBCChE and the goals of the workshop



Dean Rhodes delivers an
encouraging message to
the Impress for Success
students on stage at the
IUPUI library auditorium.
A special thanks to IUPUI
for providing the location
for the event.

A highly dynamic and popular speaker, Sherman L. Whitfield, retired director of Eli Lilly, stimulated the students to go from “barely wake-up on a Saturday morning” to a highly excited state really getting the students to believe in themselves and the possibilities that their future can bring.



To help the students get to know each other, Kim Steward and the Master of Ceremony,

Jeremy Coleman, initiated the ice-breaker “Thumb Wars”!



Joanie Smiley, VP of the Heritage Group, talked about the importance of personal branding and career navigation in today's market. She encouraged the students to craft their very own personal brand statement by interviewing others and by looking within at their unique values and key attributes.

Another very popular presentation was the Mock Interviews organized by Lisa Brouwer. A team of Lilly dignitaries that included Lou Cory, Viola



Kimbowa, Keith Brown, Kari Riggs, Sally Dotterer, Gene Inman and Tom Wysocki cleverly dramatized many aspects of the interview process. The students enjoyed seeing a live interview and hearing potential real-life interview questions. Being able to analyze the differences between being a good and a bad interviewee, the extreme cases of interviewees and the consensus session were all appreciated by the students.

During lunch, there was a distinguished panel of speakers: Dr. Theresa Wright, Dr. NaShara Mitchell, Dr. Pamella Shaw, Dr. José Cintrón, and Michael Medler. Not only did they share personal testimonies about their distinguished and often challenging career paths, they also answered questions from the students in the audience.

Next up were two simultaneous sessions, where half of the students went to hear Bettye Ellison talk about smart goals and Eric Anderson address social media. Many good questions were answered.



Next, the volunteer mentors were introduced by Jeremy Coleman to their respective students and spent time getting to know each other.



An important component of this workshop, each student was paired with a mentor.

There were a total of 43 mentors that volunteered for this program and will continue to reach out to these under-represented minority students to help them succeed in their STEM-related careers.

The afternoon keynote speaker was NaShara Mitchell who really resonated with the students, some calling her amazing! They learned the difference between WILL and CAN and that they are “one in a million!” They learned that they are better than they think they are and that failure is not the end.



Although somewhat worn out at the end of the day, the student feedback was extremely positive with high ratings for all of the speakers and events. Hopefully this made a huge difference to the 21 students that attended this workshop and to the additional 22 students who will be mentored despite not being able to attend.

On behalf of the organizing committee, I would like to thank all of the wonderful people who helped make this day great. My experience with the organizing committee was humbling, as they are all so intelligent and talented including in alphabetical order: Paul Ardayfio, Lisa Brouwer, Jonathan Clark, Ayanna

Jackson, Gina Londino, Tamiko Porter, Kimberly Steward, and Justin Shearer. There are rumors that we may do it again, so if you are interested in participating, please let us know!



Impress for Success 2014

Organizing Committee

Paul Ardayfio, Lisa Brouwer, Jonathan Clark, Ayanna Jackson, Gina Londino, Tamiko Porter, Kimberly Steward, and Justin Shearer

ACS President-Elect Diane Grob Schmidt to speak at Celebrate Science Indiana

BY LINDA OSBORN

Come meet the new head of the world's largest scientific organization at Celebrate Science Indiana 2014! The ACS President-Elect, Diane Grob Schmidt is flying in from Washington DC to attend Celebrate Science Indiana 2014 at the Indiana State Fairgrounds on October 4th and we'd love for you to meet her. Gates open at 10 a.m. and activities last until 5 p.m. Diane will be giving a speech at 11 a.m. for the crowd and will be visiting booths, meeting and greeting the



crowd and enjoying the science activities of this popular event. Celebrate Science Indiana is all about engaging kids with science and is a free event that has hands-on, interactive activities for kids of all ages.

Peter Cutts Photography



“Impress for Success” photographs were taken by ACS member Andrea Moberly (Ardea Photo) www.ardeaphoto.com. Thank you Andrea!

Project SEED Scholarship Recipient Appreciates Mentors BY SETH REASONER

During the summers of 2013 and 2014, I was fortunate enough to participate in the Indianapolis Project SEED program. Both summers, I worked at Eli Lilly under the guidance of wonderful mentors.

In 2013, I worked with Mark LaPack on a physical chemistry project. I presented a poster of the summer's research at the ACS National Meeting in Indianapolis in September 2013. That first summer in Project SEED convinced me to study chemistry in college. In 2014, I worked with Mike Kobierski and Andrea Frederick on an organic chemistry project. Throughout both summers, I grew tremendously as a scientist thanks to my mentors' patient instruction. They continually challenged me to work independently and learn as a part of their research framework.

This past summer, to appreciate all the program's mentors in a tangible way, about thirty of the Project SEED students, their parents, and their mentors gathered for a mentor appreciation banquet at Café Soleil at the new Eskenazi Hospital on July 15th. The next night, the other half of the Project SEED students attended an identical event. These events served as a small token of our appreciation for the mentors' willingness to host us in their labs.

At the dinners, tables were arranged with a mix of students, parents, mentors, and Project SEED

committee members. Seated at my table, along with my mentors and parents, was Rosie Bonjouklian, a retired medicinal chemist from Eli Lilly and longtime Project SEED Committee member. Coincidentally, my main mentor from the summer of 2014, Mike Kobierski, had worked with Rosie Bonjouklian on a project at Eli Lilly over a decade ago. This chance seating arrangement led to a great conversation over dinner as they reminisced about their time working together.

During the dinners, guests were entertained with short speeches given by students, parents, and Project SEED supporters. Both evenings also included lively conversations over dinner and were enjoyed by all.

Without the support and guidance of dedicated mentors, my wonderful Project SEED experience simply never would have happened. The same is true for the dozens of students who participate in Project SEED each summer. We deeply appreciate the mentors' commitment to fostering the growth of young scientists.

I have just now started my freshman year at Berea College in Kentucky, majoring in chemistry. In addition to receiving stipend support from the ACS for both summer experiences with Project SEED, I am also a Scholarship recipient from the ACS National Committee on Project SEED.

Thank you!

Posts from the Editor

BY JULIE HOLLAND

Although it is a Verizon commercial, this link provides a really important message regarding young girls and STEM. I was both saddened that this happens all too often, yet heartened that Verizon chose to address it this way.

http://www.huffingtonpost.com/2014/06/24/verizon-ad-tells-parents-to-encourage-girls_n_5526236.html?utm_hp_ref=tw

Manure-to-Methane SAE International Invites SJV-ACS Members to Tour Fair Oaks Farm

The local section of the St. Joseph Valley ACS has been asked to join the SAE International in November for a tour of the Fair Oaks Farm. The date has not been finalized but will be either November 1st or 8th. If you wish to be added to a contact list, please contact Dan Brown at 574-256-7754 or Daniel.Brown@bayer.com.



Photo taken by Julie Holland at the Red Key Tavern at 5170 North College Ave

SEPTEMBER 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.