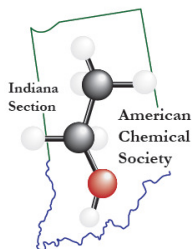


The

Accelerator

INDIANA SECTION OF THE AMERICAN CHEMICAL SOCIETY



DECEMBER, 2014

Chair's Last Corner BY ERIN DOTLICH



Greetings! I hope you have each had an excellent 2014! As outgoing Chair, this will serve as my final Chair's Corner. I'd like to recap on our recent successes. We've grown from a Mid-Sized section to a Large section; however, our numbers to retain our Large section status are currently near the Mid-Sized border. We held a strategic planning retreat and developed the section's first strategic plan which was aimed to more resourcefully engage our members. The Indiana section, which only had one named ACS Fellow, increased to having 5 members recognized with this distinguished title (**Dr. Christina Bodurow**, **Dr. David Mitchell**, **Dr. Dawn Brooks**, and **Dr.**

Ken Racke)! We held a first ever "*Impress for Success*" event in collaboration with NOBCCHE. **Erica Posthuma-Adams**, our High School Committee Chair won the Regional Award for Excellence in Teaching. Christina Bodurow was named Volunteer of the Year. One of our SEED students was named "Ms. Science Indiana" and the Indiana ACS is sending 2 students to the National Chemistry Olympiads for a chance to compete at World. I'm excited to transition into 2015 where **Dr. Matt Gardlik** will serve as your new Chair. He is introduced in this edition and holds some amazing credentials! Thank you all for allowing me to serve as your Chair in 2014-it was an amazing and fulfilling experience that I will never forget! Happy New Year!

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Member Appreciation and Networking Event

BY LINDA V. OSBORN

Although only ~20 people showed up, all had a good time at the Ram on December 16th as we celebrated our ACS Indiana local section 2014 members. Erin Dotlich organized the event with delicious appetizers and drinks. She awarded “Salutes to Excellence” plaques to three special volunteers: **Tamiko Porter** and **Lisa Brouwer** for their excellent contributions to the Impress for Success Workshop and to **Paul Ridenour** for his four years of service as Treasurer of

2015 Executive Committee

Chair- *Matthew Gardlik*

Past Chair- *Erin Dotlich*

Chair Elect- *Linda Osborn*

Secretary- *Tamiko Porter*

Treasurer- *Paul Ridenour*

Councilors- *Robert Pribush, Dawn Brooks, Brian Mathes*

Alternate Councilors- *Sibel Selcuk, Amy*

Debaillie, Robert Sammelson

Members at Large-, *Ling Shi (Tom) Xiao,*

Shamus Driver, Maria Alvim-Gaston

2015 Committee Chair

Education- *Bob Pribush*

Events- *Sibel Selcuk, Amy Debaillie, Robert Sammelson*

Fundraising Committee- *David Mitchell*

Public Relations- *Andrea Lindsay Frederick*

National Chemistry Week- *Viola Kimbowa*

Awards- *Kathy Stickney*

Science Day- *Jason Dunham*

Women Chemists- *Amy Debaillie*

Grants- *Amy Debaillie, LuAnne McNulty*

Accelerator Editor- *Julie Holland*

Project Seed- *Elmer Sanders, Josh Taylor*

Young Chemists- *Whitney Kellett*

High School- *Erica Posthuma-Adams*

Webmaster- *Matthew Gardlik*

our local section. **Gina Londino** won the race car door prize! We were also honored to have a special guest, Paul Ardayfio, drop by for the event. On a personal note, I would like to thank **Erin** for her service as Chair and to her years of service prior that led to that position. She had a difficult act to follow after **Sibel Selcuk's** leadership during the National Meeting, but rose to the occasion to lead us through another great year. Her legacy includes recognizing others for their contributions. We look forward to her continued service as past Chair and beyond.

FIRST Robotics Program

BY RENEE BECKER-BLAU



Learn more about the FIRST Robotics Program!

The FIRST Robotics Competition Kickoff marks the beginning of the design & build season for the IndianaFIRST high school robotics teams. In the FRC program, students have six weeks to design and build a fully functional, 5ft tall, 120 lb robot for competition. The students develop a strategy, CAD parts, learn machining skills, assemble manipulators, and program the robot for competitions in March.

At Kickoff, students have the opportunity to meet with other teams at "local" Kickoffs to compare notes, get ideas, make friends, find mentoring teams, learn the game, pick up the

Kit of Parts, and get geared up for the new competition season!

The event will take place on January 3rd, 2015 from 9:00am - 11:30am at:

IUPUI Campus
Campus Center CE 450
420 University Blvd
Indianapolis, IN 46202

Does this sound interesting? Check out a video about the program by **Morgan Freeman**- [Click Here](#).

If you would like to learn more about the program, mentor a team, or attend Kick Off please contact Renee Becker-Blau at rbeckerblau@indianafirst.org.

Project Seed on NPR

BY ELMER SANDERS

After much endeavor, Project SEED was featured on the NPR - National Public Radio program Sound Medicine, hosted by Barbara Lewis, locally on WFYI 90.1HD-1.

The segment was done in such a way for it to be meaningful to a national audience. Although numerous other people give audio input, the story was limited to 8 minutes and shows a small, yet meaningful, sliver of the internship program.

The segment was recorded at the July 24 poster session and features interns **Sonali Mali** and **Seth Reasoner**, Seth's mentor **Mike Kobierski** from Eli Lilly, **Dr. Jim McAteer** from the School

of Medicine and **Dr. Simon Rhodes**, Dean of the IUPUI School of Science.

The following link contains the content from the NPR program:

<http://soundmedicine.org/post/through-project-seed-program-bright-students-test-field-chemistry>

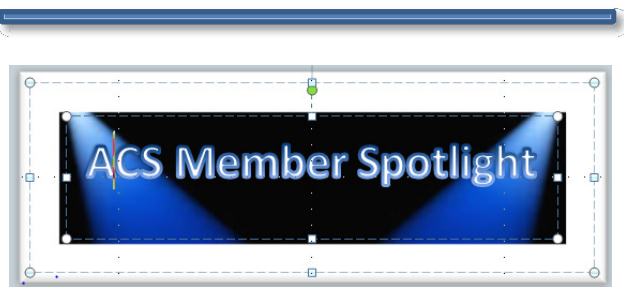
Science in Art

BY JULIE HOLLAND

Many of you attended Dr. Greg Smith's presentation "Vanishing Van Gogh" at the IMA earlier in the year. Or perhaps you saw his booth at Celebrate Science Indiana. Dr. Smith was recently interviewed by Ira Flatow on NPR's Science Friday as part of Notre Dame's 150 year celebration of its School of Science. As a museum scientist at the IMA, the focus of the interview was on the role science plays in cultural heritage. He discusses a number of past projects that highlight the way they work with the museum's collection.



The interview is available from the NPR website as a podcast and also a full video of the live recording in front of an audience at Notre Dame. The video can be streamed at <http://www.sciencefriday.com/blogs/10/17/2014/live-from-south-bend-indiana.html> with Dr. Smith's segment starting at 1 hr, 42 min. The shorter podcast of portions of the interview is available at <http://www.sciencefriday.com/segment/10/17/2014/is-your-priceless-painting-a-fake-better-ask-a-scientist.html>



BY LINDA V. OSBORN

Matt Gardlik is an associate at Woodard, Emhardt, Moriarty, McNett & Henry LLP in Indianapolis, Indiana. His practice includes the preparation and prosecution of patent applications as well as assisting in the firm's litigation cases. As your next ACS Chair, we thought we'd introduce you.



Born in 1980, Matt grew up on the northwest side of Cincinnati and attended Finneytown High School. When asked who his favorite teacher was, Matt replied: "Dr. White,

Finneytown High School. He taught AP Biology. Some of the experiments we performed during that class were difficult and demanding; this left a huge impact on me even before I started college."

The oldest of three children, Matt and his brother and sister were raised by their stay-at-home Mom who enjoys cooking and crafting and their father, John M. Gardlik, a chemist for The Procter & Gamble Company in Cincinnati who works on hair colorant technology and holds a number of patents. Intelligent and competitive, Matt is an avid technologist whose

interests range from computer programming to organic synthesis. As an undergraduate, Matt received Wittenberg University's Division of Analytical Chemistry Award for construction and programming of a computer-controlled automatic titrator.

Matt earned his Ph.D. at The Ohio State University where his dissertation involved organic synthesis and supramolecular chemistry. He developed an optimized synthetic route to a key intermediate in the synthesis of a new class of supramolecular hosts. This enabled the scale-up and preparation of several hosts that was critical for studying their encapsulation properties. He also studied the coordination, solution, and solid-state encapsulation chemistry of three new related supramolecular hosts by various methods that included 1-D and 2-D variable temperature NMR, isothermal titration calorimetry, and X-RAY crystal diffraction.

Then in May of 2012, Dr. Gardlik received a J.D. from Capital University Law School in Columbus, Ohio.

What drew him to Chemistry? *"Making something new at the atomic level, especially in organic chemistry, is exciting."* What drew him to Law? *"I've always had an appreciation for the significant contributions that inventions can have to businesses, and patent law is one way to protect those contributions".*

"Making something new at the atomic level, especially in organic chemistry, is exciting."

Matt Gardlik

The Gardlik File

Education

May 2012 J.D., Capital University
Law School, Columbus, OH

June 2009 Ph.D., Organic
Chemistry, The Ohio State
University, Columbus, OH

May 2002 B.S., Chemistry,
Wittenberg University, Springfield,
OH

Memberships

Indianapolis Symphony Orchestra,
FORTE Leadership Committee

Indiana Section of the American
Chemical Society, 2015 Chair

American Bar Association

Indiana State Bar Association

Indianapolis Bar Association

American Intellectual Property Law
Association

Speak Easy Indianapolis

Awards

2012 Catalyst Award, Cincinnati
Section of the ACS

2011, CALI Excellence for the Future
Award® in Patent Law

2011, CALI Excellence for the Future
Award® in Copyright Law

2001, Analytical Chemistry Award
for construction and programming
of a computer controlled automatic
titrator

Miscellaneous

4 peer-reviewed publications

2014, Featured in article in The
Indiana Lawyer regarding law firm
Apps

Gardlik Enterprises, LLC. Sole
member and manager

acoolsystemforvoting.org, online
elections and surveys

<https://www.acoolsystemforvoting.org>

MMG Audio, Sound Engineering

<http://www.mmgaudio.com>

Matt's passions extend beyond chemistry and the law; he is also active with the Indianapolis Symphony Orchestra. Having played the violin since the second grade, Matt has a great appreciation for the Symphony's performances, education, and outreach. Matt is a member of the FORTE Leadership Committee, the Symphony's young professional group. He's athletically gifted, too. In 2003, he ran the Columbus marathon in 3:39:45.

An ACS member since 2001, and active in the Cincinnati local section for 5 years, Matt was awarded the 2012 Catalyst Award by the Cincinnati Section of the ACS. He started getting involved with the Indiana local section shortly after he moved to Indianapolis in 2012. Our section has greatly benefitted from his tech-savvy talents. For example, he started the first electronic voting of our local section, saving our section money to send out ballots in the mail. In November 2013, Matt was elected Chair of the Indiana Section of the ACS. This three year commitment to the Executive Committee includes roles as Chair-Elect, Chair, and Past Chair. With Matt at the helm, our Indiana Local Section is bound to have another great year and we look forward to his orchestration. Matt is prepared to communicate his 2015 goals for the Indiana Section in the next Accelerator in his first "Chair's Corner."

**THE AMERICAN ASSOCIATION OF CHEMISTRY
TEACHERS (AAPT)**

Serving K–12 teachers of chemistry everywhere, AAPT will offer specialized chemistry teaching resources, a periodical about teaching chemistry in the K–12 classroom, an online community for sharing strategies, and more! Please visit

<http://www.acs.org/content/acs/en/education/educators/aact.html>

Technical Corner

Ayanna Jackson received IBJ's 40 under 40 Award in 2014!

BY LINDA V. OSBORN



IBJ Photo/Aaron P. Bernstein

At the young age of 30, Ayanna Jackson already has a distinguished resume. With the likes of Andrew Luck, Ayanna deservedly received IBJ's

2014 40 Under 40 Award. Equipped with her Ph.D. in Analytical Chemistry from Purdue University, Ayanna is a senior chemist at Dow AgroSciences who spends her days solving analytical problems developing products for improving crop productivity using mass spectrometry. "Typically," Jackson said, "I'm going into the lab and running a series of samples to help identify an active compound and metabolites that have been generated." Her data will be part of a larger report submitted to various government regulatory agencies for review and feedback. "In the end, we hope for approval and commercial release of products that help protect crops in the field."

Also a 2010 MG Mellon Award recipient, the faculty at Purdue described Ayanna as pleasant, intelligent, energetic, and proactive. The

Brandywine, Maryland native balanced her own studies with leadership roles within the analytical division and as a campus-wide mentor. "Ayanna is not only an excellent scientist and researcher, but she was the go-to person in my large lab," says Professor R. Graham Cooks. Her research was focused on the analysis of a variety of materials using non-conventional mass spectrometry ionization techniques in applications such as rapid detection of chemicals in foodstuffs.

From an early age, she enjoyed science experiments and counts herself lucky to have had teachers who encourage that interest. While an undergraduate at Xavier University, she focused on forensics with hopes of getting a position with the FBI. An interest in chemistry led to graduate studies at Purdue University. "My mother is a nurse/midwife. One of my sisters is a dentist. Schooling was always important to my family."

Jackson is active with the National Organization for the Professional Advancement of Black Chemists and Chemical Engineers (NOBCChE) and advocates for science, technology, engineering and math education through the Science Ambassadors program at Dow. "Science isn't your popular career avenue for most students," she said. "Students want to be doctors or nurses, but they don't really understand that the core fundamental piece is the sciences." Ayanna understands and excels at science.

Ayanna is a born leader, destined to make a difference. She enjoys project management and hopes to do some adjunct teaching with the goal of influencing students. It is while influencing students that I had the good fortune of getting to know Ayanna, as she was a team leader for the "Impress for Success" workshop jointly

sponsored by NOBCChE and the ACS in September for under-represented college students. Ayanna recruited famous speakers for the event that were well-received by the students. Dr. Jackson also serves on the board of Celebrate Science Indiana.

Congratulations, Ayanna. Your ACS family wishes you well.

Information for this article obtained from:

Morris, G. (2014, February 3). IBJ unveils Forty Under 40 honorees. Section B.

<http://www.ibj.com/forty-under-40-2014>

Inuit Art

BY LOU JUNGHEIM



This article was written by Lou Jungheim, a retired research fellow, long time member of the ACS Indiana Local Section, and the Divisions of Medicinal Chemistry and Organic Chemistry. He is also the

current President of the Inuit Art Society. It is another in our series of articles about the amazingly varied activities of retired senior chemists.

As a Research Fellow at Eli Lilly and Company in Indianapolis, and about to retire after more than 31 years at Lilly doing medicinal chemistry/drug discovery research, a lot of friends and colleagues were wondering what I would do to fill my days. That was a couple of years ago now, and I must say that being President of the Inuit Art Society (IAS, www.inuitartsociety.org) was certainly not on my radar screen. My wife, Dr. Thalia Nicas, and I had been members of the IAS for several years, but when I retired I was asked to join their board of directors and within a year found myself elected to lead the organization.

You may ask, what is Inuit Art? As the Canadian Inuit people, previously referred to as Eskimos, began settling into communities they were

encouraged by their government to expand their skills in stone sculpture into an income-generating venture. Since the 1960s, the market for Inuit sculpture, prints, drawings and tapestry has flourished. The IAS is a group of art collectors, artists, galleries and museums dedicated to improving member's understanding, appreciation and enjoyment of the arts of the Arctic and the Inuit culture.

My interest in Inuit art was kindled in 1983 while attending a chemistry conference in Waterloo, Ontario. The university there had a small gallery and I fell in love with a whale sculpture on display. Later that week the plenary lecturers at the conference presented Professor Victor Snieckus, the meeting organizer, with this whale sculpture so I know it has a good home!

In 1991 I married Thalia, a Canadian citizen, thus my trips to Canada became frequent and my exposure to Inuit art much broader. I learned many Canadians own Inuit soapstone carvings, as a bit of "Canadiana". We started small but after a couple of years another whale sculpture "spoke to me" and over the years our Inuit collection has grown to more than seventy sculptures, most of which are large, and several prints. These are accompanied by a somewhat smaller collection of Northwest Coast Indian art, and an eclectic collection of oil paintings as

well as motorsports images (another passion) that include two Inuit racecar carvings.

The big task for 2014 was organizing the IAS Annual Meeting which was held at the Eiteljorg Museum of Indian and Western Art here in Indianapolis in mid-October. The IAS was born out of a meeting that included Eiteljorg staff and a group of local collectors with inspiration

from the Canadian Consul General's office in 2002. Today we have members in 17 states and 5 Canadian provinces. This year's speakers included art authorities and a guest artist from Baffin Island. Several Inuit galleries brought more than 300 works of art to tempt our wallets. Best of all we renewed friendships with like-minded collectors.

*Attention All HS Teachers or
Parents with HS Students*

USNCO Exam to be held in March

BY ROBERT PRIBUSH

The 2015 Indiana Local Section USNCO Exam will be held on March 28, 2015 at Brebeuf Jesuit Preparatory School in Indianapolis.

For the first time in over 40 years, we are changing the exam from a scholarship exam to a chemistry achievement recognition exam. While we will continue to use the exam to find students to take the national USNCO exam in April and recognize the overall top-scoring students and high schools with plaques and modest cash awards, for the first time ever, we will give every school that sends at least three students to the exam a perpetual plaque (good for 12-24 years!) with the name of the top-performing student from that school. The idea is to create a culture of chemistry performance recognition within as many high schools as possible.

School awards continue to include a plaque but, in addition, a one-year membership to the American Association of Chemistry Teachers or the cash equivalent toward membership in the

American Chemical Society will be awarded to one teacher in each school finishing among the top five schools in the First-Year Exam and the top five schools in the Advanced Exam.

These changes, along with an exam date that gives teachers and students three additional weeks to prepare for the exam, will hopefully result in a significant increase in the number of schools and students participating in the local section exam.

Attached are the 2015 local section USNCO exam announcement letter, the rules and the registrations forms for the First-Year and Advanced Exams. Forms can also be obtained by contacting Robert Pribush at rpribush@butler.edu or Julie Holland at ACSAccelerator@gmail.com.



1stYear_ExamRegistrationForm2015.doc



1stYear_ExamRules2015.doc



Advanced_ExamRegistrationForm2015.doc



Advanced_ExamRules2015.doc



2015_USNCO_Letter_to_High_School_Chem

NCW 2014

BY VIOLA KIMBOWA-RADLOVIC

The American Chemical Society of Indiana sponsored the annual National Chemistry Week celebration at the Children's Museum of Indianapolis on Saturday November 1st 2014. This year's celebration was based on the theme: ***The Sweet Side of Chemistry – Candy!!***



Indiana ACS kicked-off NCW with an award ceremony honoring winners of the annual T-shirt design and high school competition. Nora LaRoache created the winning T-shirt design and won a pizza party for her class, an ACS trophy, and an ACS certificate. Students at the Upper Room Corp Homeschool won 1st place in the high school video contest and students at Irvington Preparatory Academy won 2nd place!

There was also plenty for guests to do. Guy Hanson and *Chemistry is a Blast* which is sponsored by Eli Lilly demonstrated the fun nature of chemistry. Patricia Maldonado and Kids in Chemistry taught kids how to make Jiggle Jelly!!

Several local businesses, universities- and non-profit organizations provided other interactive scientific activities for children. The University



of Indianapolis and Butler University students demonstrated the density of candy. AlCHE gave the kids a non-Newtonian fluid lesson while Ball State University students explained density, solubility and the pH of candy. Lancaster Laboratories and Girl Scouts of Indiana had candy chromatography activities. IUPUI Forensic Science Club demonstrated white powder identification while Heritage Research Group and Monument Chemical used tooth picks and gumdrops to build compounds! The ACS had a marbling experiment and also held a scavenger hunt and gave out prizes.



All the kids (and parents) really enjoyed learning and engaging in all the booth activities. This year's celebration of The Sweet Side of Chemistry was attended by approximately 2800 museum visitors.

The ACS would like to extend a heartfelt **“Thank you!!”** to the ACS volunteers, local organizations, educational institutions, to the Children’s Museum of Indianapolis, and to our event sponsors, Monument Chemical and Heritage Research Group who helped make this event a grand science outreach to the community.



From left to right: Michelle Sjostrom, Viola Kimbowa-Radlovic, and Patrick Pollock

Viola Kimbowa-Radlovic has been the Chair of our National Chemistry Week for five years. We thank you, Viola, for your excellence in leadership and volunteerism for this popular outreach event for our section.

DECEMBER 2014
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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.