Chair Comments

Brian Eklov

I want to begin my time as chair of the Kalamazoo Section by thanking everyone who volunteered at and attended our events over the last year. As a testament to the hard work that goes into the events that we host, we were rewarded with two ChemLuminary awards this year, one for our innovative Chemistry and Culture series, and the second for our Recycle-a-Poster event that is fast becoming a yearly tradition (Please see the September 2014 Newsletter for more detail). We couldn’t have achieved these honors without your efforts and dedication.

This year is looking to be just as busy for the Kalamazoo Section. Our first large event will be the Joint Great Lakes / Central Regional ACS Meeting that we are co-hosting with the West Michigan Section this May 27-30 at DeVos Place in Grand Rapids. Dr. Scott Denmark (University of Illinois at Urbana-Champaign) will kick off the meeting as the opening plenary speaker, and Dr. Joan Brennecke (University of Notre Dame) and Dr. Dustin Mergott (Eli Lilly) will continue the high-level technical proceedings on Wednesday and Thursday afternoon.

(Continued on Page 2)
Abstract submission and registration are both open. See http://jglcrm2015.com for more information. I am looking forward to seeing you in Grand Rapids.

Our annual awards gathering is coming up this spring, followed by a meeting we are planning with the Detroit and Huron Valley Sections in Ann Arbor this September. Chemistry Day at the Kalamazoo Valley Museum, a favorite event for both our section and me, will be in October, and planning for this year's Recycle-a-Poster event is already underway for November.

I would enjoy hearing from you about what events you’ve enjoyed in the past, and what events you’d like to see in the future, and I look forward to working with you this year.
JGLCRM – Grand Rapids

By Lydia Hines

Be Part of the Joint Great Lakes-Central Regional Meeting in Grand Rapids! It is now less than 4 months away…

Mark your calendar for this ACS Meeting to be held at the Amway Grand Hotel/DeVos Place in downtown Grand Rapids from Wednesday through Saturday, May 27-30, 2015. Registration is now open, so please plan to register and participate along with about 1000-1400 other chemists to bring a professionally rich program to our area.

As we get closer to the meeting date we seek your assistance in the following ways:

- In encouraging vendors with whom you have interactions to agree to exhibit at the Meeting and to sponsor one or more of our symposia or a social event (go to www.jglcrm2015.com, and click “Expo”).
- We could use at least 2 volunteers in the Layout of our Program Book after abstracts have been submitted - abstract submission opened on January 5, 2015.
- We will need help with the on-site physical registration process as well; as subsequent Section newsletters are sent your way keep your eyes open for more opportunities to lend a hand.

Lydia E. M. Hines (lemhwgh@gmail.com), who is co-General chair of the Meeting, looks forward to hearing of your offers to assist.

In addition to our plenary and keynote speakers (see above), Dr. Tom Lane (Past-President, ACS) will be giving the address at the Awards banquet on Friday evening and Dr. Diane Grob Schmidt, current ACS President, will be the featured speaker at the Women Chemists Committee luncheon. The Younger Chemists Committee is sponsoring a morning fun run and other activities as well as a luncheon. There will be professional enrichment workshops, a full-day safety workshop, and an undergraduate program. ACS Board representatives will also be on hand to interact with the members - an Ice Cream Social has been planned for that purpose on Friday afternoon from 2-3 p.m. Saturday morning we will be hosting several workshops for teachers, so encourage teacher acquaintances to register.

Continue to visit the meeting website to see how many of our colleagues are already involved in the planning, and for updates on the program and other news.
Dear ACS Members --

The Awards Program for the upcoming Joint Great Lakes/Central ACS Regional Meeting has been updated!

The nomination deadline for all awards has been extended to March 1, 2015! We also have the privilege to present a NEW award from the ACS -- the Partners for Progress and Prosperity (P3) Award! The P3 Award category has been created by the ACS to recognize successful partnerships between industry, government, academia, small businesses, and other organizations, including ACS local sections.

To be eligible for a P3 Award, the partnerships being nominated must have achieved an impactful outcome in one or more of the following ways:

- Improving public perception and appreciation of chemistry
- Promoting career advancement opportunities and/or encouraging entrepreneurship in the chemistry enterprise
- Advancing advocacy efforts with government or other thought leaders
- Supporting STEM education and research

At the Regional Meeting level the P3 Award will consist of a Partners for Progress and Prosperity medallion and framed certificate of recognition for each partner representing an entity or organization, as well as a $1,000 grant split equally between all partners to advance the activities for which the award was presented.

See [http://www.acs.org/content/acs/en/funding-and-awards/awards/regional.html](http://www.acs.org/content/acs/en/funding-and-awards/awards/regional.html) for more information about the NEW P3 Award, as well as the other Regional Awards! (the E. Ann Nalley Volunteer Service Award, the Excellence in High School Teaching Award, and the Stanley C. Israel Award for Advancing Diversity)

Go to [jglcrm2015.com](http://jglcrm2015.com) to see information about the upcoming meeting and to nominate an individual or organization for one of the four regional awards by March 1, 2015!

We hope to see you at the **Regional Meeting, May 27-30, 2015 in Grand Rapids, MI.**
Artificial Sweeteners

By John Engelmann

Americans love sweets. Not only do we consume large quantities of sugar, mostly derived from sugar cane and sugar beets, we consume large amounts of artificial sweeteners. The oldest artificial sweetener is saccharin which was discovered in 1878 by Constantin Fahlberg at Johns Hopkins University. At first its use in food was banned. Later, its use in foods was allowed although it suffered repeated bans in response to rat studies which seemed to suggest that it might be a carcinogen. These rat studies were controversial because they provided doses far in excess of actual human use of the product.

Sugar shortages in WWI and WWII helped promote the use of saccharin. In 1958, sodium cyclamate was introduced to the market. It was marketed as a mixture of 10 parts cyclamate and 1 part saccharin. Cyclamate also proved controversial because the ever popular rat studies indicated a possible link to cancer. Eventually other artificial sweeteners such as Aspartame, Neotame, Acesulfame potassium, and Advantame were developed. No artificial sweetener is perfect and it seems likely that the development of new non-caloric sweeteners will continue for the foreseeable future.

One of the newer sugar substitutes is sucralose. It was approved for US use in 1998 and recently has become quite popular. It is a chlorinated sucrose (1,6-Dichloro-1,6-dideoxy-β-D-fructofuranosyl-4-chloro-4-deoxy-α-D-galactopyranoside). Sucralose is heat stable and may be used in baking. Since the bulking agents mixed with the sucralose do not have the same bulking characteristics as sucrose, the texture of the baked goods produced with sucralose may be different from those produced with sugar. However, food manufacturers value sucralose because it is the most heat stable artificial sweetener.

The latest sweetener, Advantame, was approved this spring. It is 20,000 times as sweet as sucrose. It is chemically similar to aspartame and is stable at higher temperatures.

Considering Americans’ love for sweets, and their desire to avoid calories, continuing development of artificial sweeteners seems inevitable.
The ACS invites you to join us at the
2015 Joint Great Lakes Central Regional Meeting
May 27 - 30, 2015
Grand Rapids, Michigan

The 2015 Joint Great Lakes Central Regional Meeting will be held May 27th-30th at the DeVos Place in Grand Rapids, Michigan. Visit the JGLCRM website for up-to-date program information.

Now Open
Online Registration and Abstract Submissions

Need a hotel room? A special rate of $134 is being offered at the Amway Grand Plaza Hotel, located next to the DeVos Place, until April 19th. Reservations can be made online or by calling the hotel at 800-253-3590.
Chair Comments

Brian Eklov

Things are really starting to warm up now that spring is finally here. In this installment of our newsletter we are highlighting a few upcoming events. First, we will have one outreach event for Chemists Celebrate Earth Day at the Oshtemo branch of the Kalamazoo Public Library on April 25th from 1-3 pm.

Our annual awards gathering will be on May 11th at 6 pm. Please join us to honor our competitive exam winners, outstanding high school and college chemistry students, our high school teacher of the year, and 50- and 60-year ACS members (RSVP details below).

To top off the spring schedule, we have the Joint Great Lakes / Central Regional Meeting May 27-30 in Grand Rapids. Please plan on joining us for this special event - more details are below, but I’d like to draw attention to the request from the national ACS office. ACS is asking for feedback from industrial chemists during our regional meeting. I’d like them to hear from members in our region, and especially from our section. See below for more details about how to make your voice heard, and help shape the direction of our Society and the services it provides.

KACS website: http://kalamazooacs.org/

Do you have questions, comments, or would like to contribute to this newsletter? Send an email to: ACSkzoo@gmail.com
Industry Member Input Sought at 2015 ACS Regional Meetings

By Lydia Hines

Immediate Past President Tom Barton is interested in hosting a session at the 2015 ACS Regional Meetings to hear from industrial chemists on how the ACS could better serve their needs. Topics for discussion might include specific changes in education, safety training, understanding industrial goals and restrictions, publications, providing functions and facilities after graduation, etc.

Those interested in attending and participating in one of these sessions should notify Tom Barton at president@acs.org. Needed information is: 1) that you definitely plan to attend a session at the Joint Great Lakes Central Regional Meeting; 2) on what areas you would like to see ACS direct its focus.

If enough interest exists, ACS staff will provide meeting attendees with advance notice of the day, time, and location for the session.

The Joint Great Lakes-Central Regional Meeting will be held in Grand Rapids on May 27-30 so if you, as an industrial chemist, are interested in attending a session as indicated above please respond soon to the contact address given.

Visit our website www.kalamazooacs.org
Be Part of the Joint Great Lakes-Central Regional Meeting in Grand Rapids! It is now less than 5 weeks away.....

Mark your calendar for this ACS Meeting to be held at the Amway Grand Hotel/DeVos Place in downtown Grand Rapids from Wednesday through Saturday, May 27-30, 2015. Registration is now open, and the lesser fees are in place only until April 26 so please plan to register soon and then participate along with other chemists in our two regions in the professionally rich program being planned. Discounted rates for rooms at the Amway Grand will also be available until April 26.

We would love to hear of your offer of assistance during the meeting time as well as before, in several ways:

1) Encourage vendors with whom you have interactions to agree to exhibit at the Meeting and to sponsor one or more of our symposia or a social event (go to www.jglcrm2015.com “Expo”).

2) Help with the layout of our Program Book - abstract submission closed on March 30.

3) Help during the on-site registration process.

4) Recommend to your or your friends’ children’s/grandchildren’s teachers that they register (form at our website) to participate in our Teachers’ program on Saturday, May 30, starting with breakfast at 7:30 am followed by workshops and other hands-on learning opportunities until 12:30 pm.

Lydia E. M. Hines (lemhwgh@gmail.com), who is co-General chair of the Meeting, looks forward to hearing of your offers to assist.

Dr. Scott Denmark (University of Illinois at Urbana–Champaign), Dr. Joan Brennecke (University of Notre Dame) and Dr. Dustin Mergott (Eli Lilly) will be our keynote speakers. Dr. Tom Lane (Past-President, ACS) will be giving the address at the Awards banquet on Friday evening, Dr. Diane Grob Schmidt, current ACS President, will be the featured speaker at the Women Chemists Committee luncheon and Dr. Bill Carroll (Past-President, ACS) will be speaking at the Younger Chemists Committee luncheon. Other ACS Board representatives will also be on hand to interact with the members - an Ice Cream Social has been planned for that purpose on Friday afternoon from 2-3 p.m.

Also, please respond to the invitation (see a related paragraph in this newsletter) from Tom Barton, Immediate past-chair of the ACS, regarding ACS’ interest in having special focus group sessions with chemists who work in industry.

Continue to visit the meeting website to see how many of our colleagues are already involved in the planning, and for updates on the program and other news…
Education Committee News

Fifteen High Schools in our Allegan-Kalamazoo-Van Buren county Local Section area accepted our invitation to give their students the annual Competitive Chemistry examination, the first exam of two which we use to determine winners for our Section scholarship awardees each year. That exam was given on March 17; the students who had the top 10 scores overall, along with those who received the three top scores in their school’s cohort, were invited to a take a second examination on the WMU campus on April 25.

The awardees are identified based on the results from the second examination; they, along with their parents are invited to an Awards Gathering, which is to be held once again at 6 pm in the atrium of the Chemistry Building on the WMU campus on Monday, May 11, 2015.

Section members are invited to join the award winners and their families at that event – we want to encourage these young people as they proceed in their studies. At that time we also recognize outstanding High School Chemistry students as identified by their respective chemistry teachers, an outstanding HS Teacher, outstanding College Chemistry Students from our 2 local 4-year post-secondary chemistry departments, as well as 50-year members.

These events would not be possible without the able and diligent assistance of Mrs. Robin Lenkart, and Drs. James Kiddle, Sherine Obare and Andre Venter, all of WMU’s Chemistry Department. To ascertain that we have enough refreshments available, we request that you let us know by May 4 whether or not you will be present at this gathering [you may call Mrs. Lenkart at 387-2922 or e-mail her robin.k.lenkart@wmich.edu]

CCED (Chemists Celebrate Earth Day) 2015

The theme for Chemists Celebrate Earth Day (CCED) this year is “Climate Science: More Than Just a Weather Report”. We have scheduled 2 outreach events in April, the first was at the Kalamazoo Nature Center on April 18 (10 am – 4 pm) during their Earth Day celebration (with free admission) where age-appropriate information and hands-on activities were offered to the patrons. Maren Zanotti (maren.c.zanotti@wmich.edu) continues as our KACS coordinator this year.

Our second outreach will be at the Oshtemo branch of the Kalamazoo Public Library on West Main Street during their outdoor Earth Day event on April 25 from 1-3 pm. Brian Eklov and Lydia Hines have offered to interact with the young people and their parents at that location, but your offers of help will not be turned away! You may contact Lydia Hines (lemhwgh@gmail.com) if you would like to join the fun. Due to the limited interest in past years in the Illustrated Poem contest we will not be pursuing that opportunity this year.
The ACS invites you to join us at the
2015 Joint Great Lakes Central Regional Meeting
May 27 - 30, 2015
Grand Rapids, Michigan

The 2015 Joint Great Lakes Central Regional Meeting will be held May 27th-30th at the DeVos Place in Grand Rapids, Michigan. Visit the JGLCRM website for up-to-date program information.

Now Open
Online Registration

Need a hotel room? A special rate of $134 is being offered at the Amway Grand Plaza Hotel, located next to the DeVos Place, until April 26th. Reservations can be made online or by calling the hotel at 800-253-3590.
Chair’s Comments
Brian Eklov

The spring was very busy for our section. Our annual awards gathering was held May 11 at Western (full report next month). The third climate change workshop was held on May 16 at KRESA, completing the grant we received from National ACS. As our grand finale, we co-hosted the Joint Great Lakes / Central Regional Meeting in Grand Rapids at the end of May, where over 700 attendees were able to choose from 398 papers across 23 symposia and two large poster sessions. It was rewarding to see the meeting take off with a life of its own after so much planning! A special thank you to those of you who attended the Industrial Member Focus Session with the national leadership. It was great to see so many members of the local section participating in what turned out to be a fruitful discussion.

We are already looking forward to the fall. Planning is already underway for what I expect to be a very enjoyable Chemistry Day at the Kalamazoo Valley Museum in October. We are working on planning a fall Science Cafe, and let’s not forget our annual November gathering. As always, don’t hesitate to let us know if you have anything else you’d like to see us do.

KACS website: http://kalamazooacs.org/

Do you have questions, comments, or would like to contribute to this newsletter? Send an email to: ACSkzoo@gmail.com
John Miller

Dear Friends, Colleagues, and fellow-Members of ACS:

National Chemistry Week (NCW) is coming up soon! Please join the FUN!

NCW will be celebrated this year during the week of October 18-24, and its theme this year is "Chemistry Colors Our World!" exploring the chemistry of dyes, pigments, and light. The Kalamazoo Section's largest and most extensive annual outreach to the community is our Chemistry Day at the Kalamazoo Valley Museum (KVM) on October 17, from 12 noon to 4 p.m. During the Chemistry Day event, our members and friends spend 4 hours on a Saturday afternoon presenting chemistry-related hands-on activities to many young people and their families who come to visit the museum and to learn about the joys and impacts of chemistry and its usefulness. Many visitors will receive materials to take home and read, do and share with their parents, teachers and friends. Annette Hoppenworth and her staff at the KVM work hard to assure the success of this outreach event, and their commitment is critical to the event's success.

Dr. Lydia M. Hines has stepped down, after 27 (!) years of tireless service, as our local coordinator for NCW. Dr. John B. Miller will be taking over the reins. Please contact him to let him know what activity you would like to present at 269-387-2871 or john.b.miller@wmich.edu. There is a modest budget for the event, so if you will need assistance with purchase of materials inform John of the need and the approximate expense when you contact him.

Thank you for helping youth get excited about Chemistry!
Lydia Hines, General Co-Chair

Wednesday – Saturday, May 27-30, were days filled with exercise as 700+ registrants traveled between and within the Amway Grand Hotel and DeVos Halls in downtown Grand Rapids to take in all that was offered at this Regional Meeting.

Thanks are due to many of our local section members – seasoned chemists and students - who contributed to the success of this meeting through sponsorship of technical/social/networking events, exhibiting in our extensive exposition, organizing symposia (there were 24 unique symposia), giving technical presentations either orally or in our 2 large and highly popular poster sessions, all organized to accommodate the 397 abstracts submitted from the US and abroad. In addition to the symposia there were a plenary speaker and two keynote speakers.

Six ACS Governance representatives were in attendance the whole time, interacting with attendees, participating in technical sessions and social events (one took in the Fun Run as well); present and busily contributing to the smooth execution of the event were staff from the Washington office (often unsung heroes at ACS meetings of any size). AND, the newly-appointed ACS Executive Director, for whom this was the FIRST Regional Meeting of his tenure, was enthused by what he saw and heard at the JGLCRM2015.

A KACS area teacher received special recognition at the Awards Banquet: Mr. Brad Portis, chemistry teacher at Gull Lake High School, received the ACS’s Division of Chemical Education Great Lakes Region Award for Excellence in High School Chemistry Teaching and as such is eligible to be considered for the national James Bryant Conant Award!

Informal conversations with samples of individuals in attendance – from students to experienced professional chemists – netted comments that the meeting was a very profitable experience professionally and interpersonally.

Special thanks are due to those of our Section who worked tirelessly on the planning and execution of this professionally-enriching meeting:  James J. Kiddle (WMU) and Brian M. Eklov (Kalexsyn), Program co-chairs; Elke Schoffers (WMU), Publicity chair and Exposition chair; Sherine Obare (WMU), Awards co-chair; and Mark Wolf (Kalsec and now U of I – Chicago), the webmaster.
The 2015 JGLCRM in Pictures

Photos by Elke Schoffers
Outreach Events

Chemists Celebrate Earth Day
Lydia Hines

Maren Zanotti again spearheaded the Section’s participation at the Kalamazoo Nature Center, which coincided with the Center’s Earth Day celebration on Saturday, April 18. From 8:30 a.m. to 4 pm Students from WMU and Kalamazoo College chemistry clubs worked in tandem to distribute copies of an activity-packed theme-related publication, Celebrating Chemistry, titled “Climate Science: More than just a Weather Report” and developed by the American Chemical Society, and to help youngsters make chromatography butterflies. As always, families were most appreciative of the science-related information and hands-on project.

The following Saturday, April 25, was a cold, overcast day, so the “outdoor” program planned by the Oshtemo Branch of the Kalamazoo Public Library was moved indoors – The library staff arranged for us to have a table in the entrance hallway, and as in previous years it gave us a great opportunity to interact with the families that were there for the planned Music event. Brian Eklov and Lydia Hines were able to draw in about 50 children with demos of ”Magic Sand”, color-changing beads, and “indicator” demonstrations. Parents happily followed their children to our table and copies of Celebrating Chemistry were gratefully received; the first patron at our table was a 4th grade science teacher and she was so excited to hear about our KACS offerings through the year!

Report on the 3rd (and Last) Climate Science Toolkit Event
Steve Bertman

This last event, in the series of three we arranged to hold based on the Climate Science grant received from National ACS under Bassam Shakhashiri’s leadership, went extremely well. We had our largest class and we were better at managing our time/technology so that there was less rushing and more time for questions. We had 14 participants. The workshop consisted of 4 sections - 1. the scientific basis of climate change, 2. the ecological consequences of climate change, 3. the economic consequences of climate change, 4. the potential technological, social, and personal actions. Each section had a content portion and a classroom-ready activity using online resources including the ACS Climate Toolkit. We distributed to each participant a flash drive with copies of resources and an editable version of the activities to make adoption of the activities in their own classrooms easier. Many of the participants also took copies of the ACS Earth Day activity booklets for their classrooms. The day appeared to be very well received. One veteran teacher said that it was the best Professional Development event she has been to!
Community Events

“Chemistry on Stamps”, a lecture by Dr. Daniel Rabinovich
Lydia Hines

Dr. Rabinovich was in Kalamazoo on April 17, 2015, to visit the WMU Chemistry Department as a repeat of a weather-aborted visit planned for 2011; that also happened to be the day that the Chemistry Department had a presentation of research posters showing work being accomplished by students in the department and also made its end-of-year awards to outstanding students. At the completion of the awards ceremony there was a very appreciative audience to hear Dr. Rabinovich’s presentation on a portion of his extensive collection of stamps from around the world, stamps which commemorate a variety of events, elements, inventors, concepts, and some misconceptions, connected with our profession. He described how he uses these stamps to engage his beginning chemistry students in the understanding the evolution of the practice of chemistry over the years - starting with alchemy, showing the importance of safety, and bringing to life the idea that chemistry is universal and is appreciated worldwide.

A “pat on our back” for our Competitive Exam Awards
Lydia Hines

Once in a while, several years after his/her child has received an award from the KACS, I hear from parents that they joyfully remember the ceremony at which we have awarded that child, and they go on to give me a story about the recipient’s educational achievements since that time.

On May 21 of this year, 2015, I heard a great interview on WMUK, which again gives us reason to be pleased that as a Section we continue to make a small difference by rewarding our local High School students: the first-place winner of our 2012 Competitive Exam, Stephen John (Portage Central & KAMSC), matriculated at WMU in the Lee Honors College and this year is graduating with a Bachelors degree in Biomedical Sciences and Mechanical Engineering; he is on his way to the University of Michigan Medical School and recently was named a co-recipient (with fellow WMU student Joseph Barnett) of the MIT-Lemelson Collegiate Student Prize for the development of a respiratory device for use in premature infants in underdeveloped countries (read the article which describes these young men’s story in the Spring 2015 issue of The Western Michigan University Magazine, pp12-13 and 29; wmich.edu/magazine) and/or listen to their interview aired on May 21 at the following link http://wmuk.org/topic/westsouthwest. Congratulations, Stephen and Joshua!
Community News

Kalamazoo College DowBQ
Mara Birndorff

In order to foster community and networking among and between the biology and chemistry students and faculty at Kalamazoo College, the ACS student chapter held the yearly DOWBQ (DOW barbecue) event on May 21, 2015. Members of the Kalamazoo College ACS student group, and other students and faculty in the Dow Science Center made the event possible. Professors and other staff brought chips and dessert, and students helped set up, grill and run the event. Throughout the event, the biology and chemistry students were able to talk about their Senior Individualized Projects (SIPS), classes, and other summer plans. This event fostered conversation between students of different years and majors, as well as with their professors, in a more casual, personal environment. This event, always a major highlight of the year, was made possible by the financial support from KACS. Attendance of 180 surpassed expectations by 80!

Our Councilor's (Lydia Hines’) report from the Spring ACS Meeting in Denver can be found on the KACS website

See: http://kalamazooacs.org/about/councilor-reports.html
Chair’s Comments

Another summer has flown by, and hints of fall abound. That can only mean one thing: Election season is upon us! Be on the lookout for ballot information from the National ACS office for the national elections. More locally, watch your email for your KACS voting instructions.

The KACS is in need of volunteers. We are currently looking to identify a new communications chair, as our longtime communications guru, David Bolliet, steps back from producing our newsletter and sending and fielding member email. We are also looking to identify our next Chair-elect. If you have interest in either position, please reach out to the executive committee (details to the left).

I also wanted to point out one of our two new logos (top right), designed for us by local graphic artist Carolyn Fink. I am also very fond of Carolyn’s sculpture work. You can find her at: http://www.carolynfink.com. Thank you, Carolyn!

2015 KACS Executive Officers

Chairperson
Dr. Brian Eklov, Kalexsyn
brian@eklov.org

Past-Chairperson
Dr. John H. Engelmann, Miller Canfield
jengelma@hotmail.com

Chairperson-Elect
Vacant

Secretary
Angela Willson, WMU, Mallinson Institute
angelamwillson@gmail.com

Treasurer
Dr. Andre Venter, WMU – Chemistry
andre.venter@wmich.edu

Councilor
Dr. Lydia E. M. Hines, WMU – Chemistry
lemhwgh@gmail.com

Alternate Councilor
Dr. Doug Williams, Kalsec, Inc.
dwilliams@kalsec.com

KACS website: http://kalamazooacs.org/

Do you have questions, comments, or would like to contribute to this newsletter?
Send an email to: ACSkzoo@gmail.com
John Miller and Brian Eklov

We need your help!
National Chemistry Week is coming up soon!
Please join the FUN!

National Chemistry Week 2015 will be celebrated during the week of October 18-24, and this year’s theme is "Chemistry Colors Our World!" exploring the chemistry of dyes, pigments, and light. The Kalamazoo Section's largest and most extensive annual outreach to the community is our Chemistry Day at the Kalamazoo Valley Museum on October 17, from 12 noon to 4 p.m. During the Chemistry Day event, our members and friends present chemistry-related hands-on activities to hundreds of young people and their families who come to visit the museum and to learn about the joys and impacts of chemistry and its usefulness.

If you have an experiment or demonstration in mind, or you would like to volunteer to help with the many activities we already have ready to go, please join us in showing Kalamazoo why chemistry has been, and continues to be, so important to this community and to share some of your excitement about science!

Please contact: Brian Eklov at brian@eklov.org

Visit our website www.kalamazooacs.org

Find us on Facebook
Introducing our new Education Chair

Brian Eklov
I want to introduce our new Education Committee Chair, Mike Walsh. Mike has a varied and interesting background, earning his BS in Chemistry at Rose-Hulman Institute of Technology. After a stint as an Army Medical Officer, Mike earned his Masters Degree from Mississippi State in 1992. Since then, Mike has served as a substitute teacher and tutor in Saginaw County, and as a Wastewater Analyst and Analytical Chemist in a number of places across the state. Mike landed in Kalamazoo in 2000 with KAR Labs, and has been the Director of Chemical Laboratories at K College since 2010. We are excited to have Mike on board, and you can read his report of our annual Awards Gathering below. Education in all forms is a pillar of our Section. Welcome, Mike!

KACS Annual Awards Gathering

Mike Walsh
The Kalamazoo section of the American Chemical Society held its forty-second annual awards program on Monday, May 11, 2015 at Western Michigan University. Awardees gathered along with family members, educators, and KACS members at 6 pm for a reception in the Chemistry Building Atrium with light hors d’oeuvres.

The ceremony followed at 6:45pm when KACS Chair Brian Eklov formally assembled all in attendance in the large lecture hall. Award presentations began with ACS 50+ members. First up was 50-year member Dr. Malcolm W. Moon who shared with the audience his career and love of organic chemistry.

Not to be outdone, Dr. Thomas Houser received an award as a 60-year member. He explained how he was transformed from factory worker to physical chemist to educator while injecting a couple of “propellant experiments gone awry” anecdotes.

Next up, Western Michigan University Chemistry Department honored Nicholas Kapolka as their outstanding college chemistry student while Thanh Thanh Phan was honored with the same distinction from the Kalamazoo College Department of Chemistry.
Awards Gathering Pictures

50-year ACS Member
Dr. Malcolm W. Moon

Charlene Dailey accepting Outstanding High School Chemistry Teacher award from KACS chair Brian Eklov

60-year ACS Member
Dr. Thomas Houser

2015 Outstanding High School Students

K-College Outstanding Chemistry Student
Thanh Thanh Phan

2015 Competitive Scholarship Awardees
KACS Annual Awards Gathering

Names of deserving teachers are solicited from the principals of our section’s high schools. After a thoughtful and rigorous evaluation of all nominees, Charlene Dailey of Comstock High School was this year’s Outstanding High School Chemistry Teacher.

High school teachers are asked to nominate an outstanding senior chemistry student. This year thirteen students were recognized. Each Outstanding High School Chemistry Student received a $25 Amazon gift card. A list of recipients and the student’s high school appears below.

**Outstanding High School Chemistry Students**

Andrew Bingham – Plainwell High School  
Paige Blinkiewicz – Loy Norrix High School  
Sam Brouwer – Kalamazoo Christian High School  
Robin DeClercq – Hackett Catholic Prep  
Jed Forster – Portage Central High School  
Amy Hartfield – Lawton High School  
Mikayla Hostetler – Gull Lake High School  
Dan Lyons – Paw Paw High School  
Ranae Mroczek – Mattawan High School  
Jorge Ochoa – KAMSC  
Sonia Parikh – Portage Northern High School  
Jeff Torano – Kalamazoo Central High School  
Kathryn Way – Comstock High School

On April 25, 2015, Sixty-seven students sat for the ACS Competitive Scholarship Final Exam. The top twenty students were awarded checks and certificates for their accomplishments. The names of these students and their schools are listed below.

**2015 Competitive Scholarship Winners**

1<sup>st</sup> Place – Daniel Whitcomb – Kalamazoo Central  
2<sup>nd</sup> Place – Aheer Alvi – Portage Central/KAMSC  
3<sup>rd</sup> Place – Josiah Turpin – Gull Lake  
4<sup>th</sup> Place (tie) – Andrew Bingham – Plainwell  
4<sup>th</sup> Place (tie) – Ranae Mroczek – Mattawan  
6<sup>th</sup> Place – Kathryn Way – Comstock  
7<sup>th</sup> Place – Anne Heidelberg – Hackett  
8<sup>th</sup> Place – Hannah McQueen – Gull Lake  
9<sup>th</sup> Place – Christopher Vennard – Gull Lake  
10<sup>th</sup> Place – Benjamin Mayoras – Portage Central
**2015 Competitive Scholarship Winners**

**Honorable Mention**

Emma Hettinger – Kalamazoo Christian  
Cheyenne Horn – Gull Lake  
Mikayla Hostetler – Gull Lake  
River Leversee – Portage Northern  
Ashley Pepple – Plainwell  
Becca Radomsky – Hackett  
Sam Ratliff – Loy Norrix/KAMSC  
Jason Taft – Portage Northern/KAMSC  
Jeff Torano – Kalamazoo Central  
Michael Wheeler – Portage Central

I would like to thank James Kiddle, Sherine Obare, Andre Venter, Robin Lenkart, Lydia Hines and Brian Eklov for organizing a wonderful reception and awards ceremony.

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**Be a Science Coach and Help a Local Teacher**

ACS is looking to send 250 chemists back to the classroom—as *ACS Science Coaches*. Will you consider being one of them? You can choose the teacher/grade you want to work with, the school will get $500 to enhance science education, and you get the satisfaction of making a difference. Coaches help teachers by answering tough chemistry questions, advising students on careers in chemistry, assisting during science labs, or giving chemical safety tips. The requirements: Commit to six, 1-hour teacher visits over the course of a year; be a current or retired professional chemist, graduate student, or postdoctoral scholar; and have a passion for inspiring future generations of chemists. Enrollment for 2015-16 school year is now open. Applications are accepted on a rolling basis until October 30, 2015.

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**Our Councilor’s (Lydia Hines’) report from the Fall ACS Meeting in Boston can be found on the KACS website**

See: [http://kalamazooacs.org/about/councilor-reports.html](http://kalamazooacs.org/about/councilor-reports.html)
In 2015, the KACS, through our coordinator Dr. Donald Schreiber, identified two eligible students, both from Comstock High School, who expressed an interest in science as a career; they availed themselves of this summer research opportunity in the labs of Drs. Ramakrishna Guda and Blair Szymczyna at Western Michigan University.

The students, Kathryn Way, here for her second summer with Dr. Guda (i.e., a Summer II student) and Jacob Wasyliw, a Summer I student with Dr. Szymczyna presented posters describing their research in the Haenicke Hall Atrium on the WMU campus on Wednesday, August 5, between the hours of 10 AM and 12 noon. They, along with presenters preparing to become science educators, welcomed a small but interested group of visitors, which included some KACS members. The pictures shown below were shared with us by Robin Lenkart of WMU.

Kathryn Way – SEED II student with Dr. Guda

Jacob Wasyliw - SEED I student with Dr. Szymczyna

The following is what Dr. Guda has to say about Kathryn: Kathryn Way (2014, 2015 Project SEED student) has been working on a project to sense blood glucose with novel macromolecule/nanostructure composites. She has been working on DNA/gold nanoparticles, porphyrin aggregates/graphene oxide composites to build colorimetric and luminescence-based glucose sensors. A senior at Comstock High School, she recently was named a recipient of Excellence In Education recognition. She has been awarded a full scholarship at Yale University where she plans to begin her undergraduate study in chemical engineering in the Fall of 2015.

Jacob plans to attend Michigan State University to study Business.

Drs. Ramakrishna Guda (WMU), a KACS member who has served a mentor to SEED students for the last 4 years is happy to share another comment about a former Project SEED mentee: Mikayla Markus (2012, 2013 Project SEED student) worked on novel spectroscopic techniques to monitor protein unfolding and aggregation; she demonstrated that two-photon spectroscopy can be a potential imaging technique for early diagnosis of Alzheimer’s disease. With the support of ACS Project SEED, she was motivated to pursue an undergraduate degree and is currently a sophomore at Western Michigan University pursuing her degree in Nursing.
On May 22, the Chemistry Graduate Student Association (CGSA) of Western Michigan University hosted its 5th annual spring picnic for local chemists at Oshtemo Township Park. First and foremost, CGSA would like to thank KACS and Western’s Graduate Student Advisory Committee for the generous financial support. The event was successful. We had more than 60 attendees, including faculty, staff, undergraduate and graduate students from WMU, and KACS members from around Kalamazoo. Many participated in activities such as volleyball and soccer. We are glad to see this event remaining a popular local tradition.
Chair Comments

Brian Eklov

As I was driving in to the Kalamazoo Valley Museum to set-up for our annual Chemistry Day event, it struck me that we had the perfect day for this year’s theme: Chemistry Colors Our World.

The trees lining the streets sure were putting on a show, and the deep green of the chlorophylls, the yellows of the carotenes, and the reds and purples of the anthocyanins, all against a deep blue sky - it was striking.

A big thank you to all of those who chose to spend a Saturday afternoon sharing some chemistry with the community. As you can read below, we had a great turn out, a great response from the attendees, and a great time sharing some fun experiments with some very eager young minds. I am already looking forward to our 30th annual Chemistry Day next year.

Looking forward, mark the evening of November 10th on your calendars. This is when we will gather at Bells for our annual SciMix gathering.

(Continued on Page 2)
Dust off an old poster, bring a new one, or just bring yourself. I’m looking forward to seeing what everyone has been up to over the last year.

I have two reminders for you: 1. ACS elections are going on now, both for KACS and national. Please take a moment and add your voice to our choices in governance, and 2. The KACS is still looking for volunteers. We are actively looking for a Communications Chair, and we have an open position on the executive committee. If you have any interest in either, please let us know. Time commitments are small, but the impact on our programs is not.
National ACS intensifies outreach to Industrial Chemists

(Excerpted from the Fall Councilor Bulletin sent by ACS)

Early in 2015, the Committee on Corporation Associates (CA) developed a strategic plan for the next two years to address the needs of industry scientists and the companies that employ them. The CA mission is to influence ACS programs, products and services to meet the needs of chemistry-based enterprises, while providing a business and corporate voice to the ACS membership and Board of Directors. Our aspiration is that these changes will catalyze innovation through a thriving partnership between industry and ACS. One of the CA focus items is to better communicate challenges facing chemistry-based companies. CA will analyze and share data collected on companies and their employees, identify unmet needs, and communicate findings to governance units throughout the Society. In addition to these drivers, CA committed to contribute to Society efforts in public policy, and to provide strategic funding to programs throughout the Society to aid industry members.

During the CA meeting in the Spring of 2015, the outcomes of recent studies and surveys of industry members were discussed. The items most important to industry members were topics that are relevant to their current job, topics and training that provide members with new information and increased productivity, networking/collaboration, and ways of improving company processes. The survey also indicated that industry attendance at national meetings is low because industry members are unable to find what they need to take back to their companies and show that they connected to make business decisions.

To address these concerns, we are working with ACS staff to improve services to industry members. Examples of these improvements include the creation of a new website for industry at www.acs.org/industry. The latest version, which was rolled out in the summer of 2015, has sections devoted to networking, innovation, research reports, professional training, meetings & conferences, webinars, and a directory of service providers & consultants.

Staff was also asked to retune the Industry Insights newsletter (example issue: May 13, 2015), and to create an Industry Voices blog to meet industry member needs for timely information and stories related to life in industry. The newsletter now has over 33,000 subscribers and readership of the blog is growing steadily. An online registration form was created for the newsletter to facilitate subscriptions.

In the Fall of 2015 at the Boston meeting CA cosponsored an industry-related ACS Presidential Symposium entitled “Transforming University-Industry Partnerships for an Innovative Future”. This symposium highlighted the role of better university-industry partnerships in driving more innovation which will lead to a more competitive nation. Speakers challenged the existing framework for partnerships with perspectives on how to better enable, execute, and energize collaboration. In addition, the impact on individuals was explored, including graduate student perspectives on benefits and challenges from industrial collaborations.

Stay tuned as we continue to improve ACS for industry!
The KALAMAZOO Section presents

“Sustainable Science - Recycle a Poster”

Call For Abstracts

Poster presenters who submit their abstract (150-200 words) by Nov. 4 can win a cash prize!

Win $50!

Bell’s Eccentric Café
355 E. Kalamazoo Ave
Complimentary hors d’oeuvres*
Free and open to the public

Undergraduate and graduate students are encouraged to participate.

Sci-Mix Poster Session on Tuesday, Nov 10th, 2015 (5-9pm)

5-7 pm Poster Setup, Registration, Reception
7-8 pm Keynote Speaker (Kristina Kesely, Purdue)
8-9 pm Poster Session, Network with Scientists and Speaker
8 pm Prize Announcement (Winners must be present)

The Kalamazoo area has historically been rich with exciting chemistry. Please join us and share the area’s wealth of exciting chemistry by bringing a poster of your chemistry accomplishments. Your poster can either be newly prepared or a “recycled” poster. This Mixer invites local academic and industrial chemists from all areas of chemistry: Analytical, Biochemistry, Inorganic, Organic, and Physical, in addition to, Food and Medicinal Chemistry are invited to this mixer.

Celebrate Kalamazoo Chemistry
Stay in touch with KACS at http://KalamazooACS.org/

Presenters should email the following information to Elke.Schoffers@wmich.edu by Wed., Nov. 4: (a) poster title, (b) author list with * for the presenter, (c) institution information, and (d) an abstract to enter the prize drawing. Non-prize presentations will still be accepted until Mon., Nov. 9 to reserve an easel. *Please note that each attendee who is (1) a current ACS member, or (2) a poster presenter or (3) a Zoetis employee will receive two complimentary drink tickets.

Funding provided through a generous grant by Zoetis
Special Presentation

Frontiers in Chemistry Lectureship

Prof. Robert Maleczka
Michigan State University

“C–H Borylations: Green Chemistry That Inspired Green Ambitions”

4:00 PM, November 3, 2015,
1260 Chem. Bldg., WMU; Reception at 3:30 PM

Ir-catalyzed C–H borylations can eliminate the need for halogens, alkylolithiums, and/or cryogenic conditions for the syntheses of cross-coupling partners. Moreover, their chemoselectivity and atom economy allows for the combination of catalytic borylations with subsequent chemical events. Given the prominent role cross-couplings play in the preparation of pharmaceuticals, agrochemicals, and organic electronic materials, industry has shown considerable interest in such C–H activation processes. Indeed, the Pharmaceutical Roundtable of the American Chemical Society’s Green Chemistry Institute deemed cross-couplings that avoid haloaromatics as one of their top aspirational reactions.

Sponsored by:

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Contact: Dr. James Kiddle, James.Kiddle@wmich.edu, (269) 387-5440
KACS’ 29th National Chemistry Week (NCW) outreach

By Lydia E. M. Hines

Once again, cold weather arrived early in Kalamazoo, Michigan, just in time for our much-anticipated National Chemistry Week (NCW) hands-on-chemistry outreach to our community! It was a good opportunity to stay indoors, so 1000 patrons – children and families - visited our chemistry-themed activities in our area’s two-storey museum and the Volcano demonstration outside the building, on Saturday, October 17, 2015, from noon to 4 pm. Our long-time partner, the Kalamazoo Valley Museum, diligently added extensive publicity in the print media (5 venues), in 2 TV shows, and on several FM and AM radio programs to our online flyers sent to schools, libraries and other targeted audience groups.

Among our visitors were one family from Grand Rapids who heard the ad on TV :), two large Girl Scout groups and several area teachers who eagerly took ACS’s American Association of Chemistry Teachers (AACT) information, as well as home-schooling families, who were delighted with all the age-appropriate information we had available for them - Celebrating Chemistry and ChemMatters.

As in other years, enthusiasm among both KACS members and other volunteers continued to build as the event neared, and our accommodating colleague at the Museum, Mrs. Annette Hoppenworth, expertly fit in 80 volunteers presenting 25 activities. “Worker bees” for the duration of the event included many High School students, undergraduates and graduate students, local industry representatives, college and university faculty and others who just enjoy seeing the excitement registered on visitors’ faces each year.

Sincere appreciation is extended to each one who made this event another HUGE success.

NOTE: What follows is a story about how our Section’s programs work hand in hand to continue “giving”: Readers should be aware of our Local section’s 33-year history of administering a Competitive Exam followed by an Awards Program; well, as I was looking over the names of the High School young people who, over the past several years, have been given awards by our Section for their exemplary performance on our Competitive Examination, I came across four names that sounded very familiar because they appeared on the list of volunteers at our 2015 Chemistry Day – one was that of Sarah Glass, a 2013 awardee, a graduate of Wayland (MI) High School, and the other 3 were Hannah McQueen, Josiah Turpin, and Chris Vennard, 2015 awardees. Sarah is now studying chemistry at Kalamazoo College and is one of the leaders of the Chemistry club on that campus; as such she has been instrumental in organizing and enlisting a group of her fellow students to present activities at our Chemistry Day at the Museum both this year and last. The other three are 2015 awardees and continue as students at Gull Lake High School. It is exciting to see these young people enthusiastically participating in an activity that shares the importance and fun of chemistry with the younger generation.

(Event photos, taken by Elena Hines, follow on the next page)
2015 Chemistry Day in pictures

Elephant Toothpaste

Chemiluminescence

UV-sensitive polish on my nails, collecting my goodies

Green slime

Photo by Elena Hines
Chair’s Comments

Brian Eklov

This was a busy year for our Kalamazoo Local Section. We started off the spring with our annual High School Competitive Exam and subsequent Awards Gathering. We honored our 50- and 60-year members, and gave awards to Outstanding Students from local High Schools and from WMU and K College.

We also gave awards to the High School students who placed in our annual competitive exam. I was surprised by the number of sophomore and junior students who have the opportunity to compete again in 2016.

In May, we co-hosted the 2015 Joint Great Lakes / Central Regional Meeting in Grand Rapids. Over seven hundred attendees were on hand for the four hundred papers that were presented in 23 organized symposia. Additionally, a number of workshops, great social activities, and a wonderful panel on climate change were offered. Six members of the local section were on the organizing committee, and the meeting was very well received.

(Continued on Page 2)
Chair’s Comments

(Continued from Page 1)

Pictures from 2015 Joint Great Lakes / Central Regional Meeting

(Continued on Page 3)
Chair’s Comments

(Continued from Page 2)

Pictures from High School Competitive Exam and Awards Gathering

(Continued on Page 4)

Visit our website
www.kalamazooacs.org

Find us on Facebook
In October, our 29th annual Chemistry Day at the Kalamazoo Valley Museum was a great success. Eighty volunteers presented over twenty activities and experiments to 1,000 attendees! Stay tuned for news about our 30th annual Chemistry Day in October 2016.

We ended the year at Bell’s in November for our Recycle-A-Poster event. It was great to see the breadth of science occurring in the local community, and Karson Putt’s presentation on inhibiting the progression of malaria was very well received.

In addition to these events, our section also sponsored two Project SEED students this year, we completed our third Climate Science Event for local teachers, we had events at two venues for Chemists Celebrate Earth Day, we co-sponsored Dr. Daniel Rabinovich’s Chemistry on Stamps talk at WMU, and we supported both the WMU CGSA Spring Picnic and the Kalamazoo College DowBQ.

Stay tuned, as the first announcements from our 2016 event schedule should be coming your way after the holidays.

Pictures from Chemistry Day at the Kalamazoo Valley Museum
(photos by Elena Hines)
KACS Election Results

By Angela Willson

23 Members voted in our online election for Alternate Councilor and Secretary. Dr. Doug Williams was elected to continue as our Alternate Councilor and Angela Willson was elected to continue as Secretary. Congratulations to our officers and thank you for your continued service to our local section.

Halloween at Haverhill

By Angela Willson

Haverhill Elementary School in Portage celebrated their second annual Halloween Science Day on October 30th. They invited Angela Willson to return to kick off the day with a full school assembly. The 450 elementary students experienced “spooky” science firsthand with many “spooky” science demonstrations. The focus of our discussion this year was on physical and chemical changes.

The students saw physical changes like dry ice bubbles and pop rocks in soda to see how this is only a physical change as no new carbon dioxide is produced. Doing this demonstration allowed us to break the myth that eating pop rocks and drinking soda will make your stomach explode! The students also got to see chemical reactions like baking soda and vinegar to see how carbon dioxide can be produced through a chemical reaction. The crowd favorite was the “Oozing Pumpkin”.

Haverhill Elementary School was excited to invite Angela back for another Halloween Science demonstration for next year.
Thanksgiving Potluck Report

By Sarut Jianrattanasawat

On November 18, 2015 the Chemistry Graduate Student Association (CGSA) hosted a Thanksgiving Potluck for the Chemistry undergraduate and graduate students, faculty, and staff of the Dept of Chemistry at Western Michigan University. The event was an opportunity for international students and their families to celebrate the American Thanksgiving tradition.

The event was successful and well attended. Thank you to KACS for financial support and helping us make this a great event.

Thank you to Kelly Current and Don Kidd for making the turkey for the Thanksgiving potluck.
“Welcome” Ice-Cream Social Report

By Sarut Jianrattanasawat

On September 25, 2015 the Chemistry Graduate Student Association (CGSA) hosted an ice cream social for the undergraduate and graduate students, faculty, and staff of the Department of Chemistry. The aim of this event was to introduce the new students to the existing student body. With more than 60 people attending, students were able to make new connections, get to know the student organizations as well as catch up with old friends. Thank you KACS for helping us make this a successful event.

Welcome to Chris Pruis, KACS New Communications Chair

Hello Kalamazoo-area chemists! I am excited to be the next local section Communications Chair. While I know it will be nearly impossible to fill David Bollet's empty seat, I will do my best to keep you informed about community events and news. However, before I get to work, I thought you might like to know a little about me. While I was born and raised right here in Kalamazoo, it was only recently that I was again able to call this place home after nearly twenty years away. So, here is my story...

I attended Valparaiso University where I graduated in 1999 with honors in Chemistry. During two of my undergrad summer vacations I completed internships right here in Kalamazoo at Pharmacia & Upjohn (1998) and Pharmacia (1999) before heading off to graduate school. I completed my doctoral work in Richard Silverman's lab at Northwestern University were I studied MOA-B inactivators (2004). At this point I left the shores of Lake Michigan to live in the desert of Arizona. For ten years I was a full-time teaching faculty at Arizona State University where I oversaw the undergraduate organic chemistry teaching labs (~ 1200 students) and taught ground and online organic chemistry lectures (~ 400 students). While at ASU my scholarly interests focused on the use of media in chemical education and on improving ways to mentor developing chemistry educators. In the spring of 2011 I was awarded the College of Liberal Arts and Science's Outstanding Lecturer Award. My involvement with ACS local sections began in Arizona, and for two years (2006 & 2007) I was the Central Arizona local section chair.

Despite my positive experiences in Arizona, in the spring of 2014 I left my Senior Lecturer position at ASU to pursue a new challenge as the Chemistry Subject Matter Expert at W. W. Norton and Co, an employee-owned publishing company based out of Manhattan. I work out of my home assisting our online homework faculty users with their courses and developing new chemistry multi-media learning tools with the Norton product team and editorial staff. This new position gave our family the freedom to move back to this much colder climate. (I personally did not like the 120 degree summers!) When not working, I enjoy spending time with my husband Tim, my two children (8 and 6 years old), and my two dogs. Some of my hobbies include reading, rug weaving, home re-modeling (Tim and I flipped three homes in AZ), hiking, bargain-shopping, and meeting new people!

That being said... I look forward to meeting you at an upcoming local section event!