

American Chemical Society – Kalamazoo Local Section Newsletter

February 14, 2016

Vol. 6 - Issue 1



2015 KACS Executive Officers

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chair@kalamazooacs.org

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jengelma@hotmail.com

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angelamwillson@gmail.com

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andre.venter@wmich.edu

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lemhwgh@gmail.com

Alternate Councilor

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

Chair's Comments



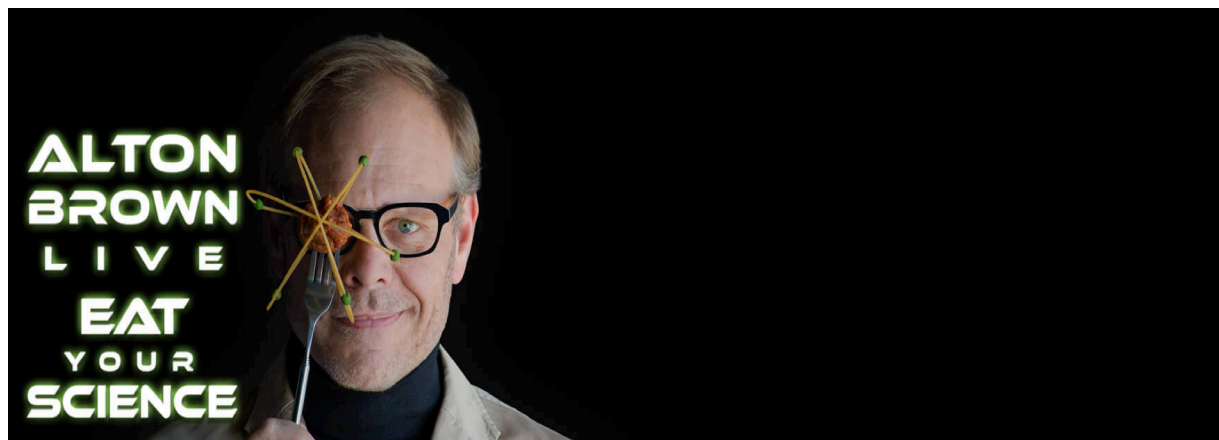
While I am sure we still have some cold weather ahead of us this year, the lengthening daylight is already making me look forward to spring.

Brian Eklov, Ph.D.
KACS Chair

The KACS Executive Committee has been hard at work lining up our event schedule for the year; I, for one, am looking forward to them! Perennial favorites will return – Chemists Celebrate Earth Day will happen on April 23 (**Volunteers still needed!** Send me an email if you are interested) followed by our Annual Awards gathering which will take place on May 9, after we have completed giving the competitive high school exam and evaluating this year's nominees for Outstanding High School Teacher. We will be hosting our **30th Annual Chemistry Day at the Kalamazoo Valley Museum** on October 8, and we will be meeting again in November at Bell's for our annual Recycle-A-Poster event. We are also working on a series of new events to add to this year's schedule – see the Alton Brown announcement below, and watch future newsletters for announcements!

Alton Brown Live: Eat Your Science at Miller

Alton Brown Live: Eat Your Science
Miller Auditorium
Thursday May 5, 2016
7:30 pm
AltonBrownTour.com



KACS has reserved a block of tickets for members who are interested in attending the Alton Brown Live show on Thursday, May 5th at 7:30 PM. The well-known television personality and author has a knack for explaining kitchen science in an engaging and entertaining manner. Don't worry, though, our tickets are out of the "splash zone". The KACS seating will be near the back of the orchestra level, and tickets are \$35 each (after our KACS subsidy).

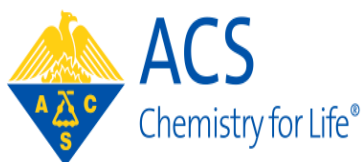
Please contact Brian Eklov at chair@kalamazooacs.org to reserve your seats.

Visit our website
www.kalamazooacs.org

Report on ACS Leadership Institute

by Brian Eklov

Each January, ACS hosts the ACS Leadership Institute in Dallas, TX. This event provides vital training on how to lead with great success. Participants gain an understanding of the essential elements of effective leadership and an opportunity to interact with other local section and technical division officers and ACS governance. [Leadership development courses](#) help participants develop core skills important in ACS leadership roles as well as in the workplace.



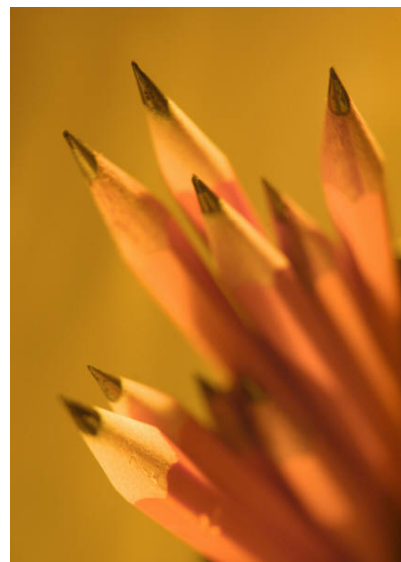
This year was my second opportunity to attend the ACS Leadership Institute. As always, the weekend was packed to the gills with sessions covering a wide array of topics related to the ACS's local sections, and I was able to attend sessions that complemented my previous experience at the conference. Due to the networking prompted by this event, we are currently working on joint events with the St. Joseph Valley and Milwaukee Local Sections, so watch our newsletter and Facebook page for announcements!

If you would like to hear more about the ACS Leadership Event and learn how you can attend or otherwise participate, please contact me at chair@kalamazooacs.org .

KACS Supports High School Chemical Education

Student Competition

For the thirty-fifth consecutive year, the KACS is sponsoring a chemistry examination competition for all high school students in Allegan, Kalamazoo, and Van Buren counties. The competition consists of a preliminary and final examination. This year the preliminary examination will take place on Tuesday, March 22, 2016 at all high schools that register. High scorers will be invited to the final examination on April 23, 2016 at Western Michigan University where they will compete for twenty scholarships. If you would like more information, contact a high school chemistry teacher or email the KACS test coordinator: James Kiddle (james.kiddle@wmich.edu)



Wanted: Outstanding High School Chemistry Teachers!

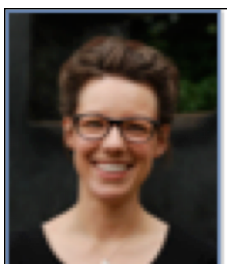
At its annual spring award reception the Kalamazoo Section of the American Chemical Society honors an Outstanding High School Chemistry Teacher from one of the three counties (Allegan, Kalamazoo, Van Buren) in our Local Section. This year we are asking for your cooperation in identifying qualified candidates. The applicant for Outstanding High School Chemistry Teacher should be able to impart to students a strong understanding of basic chemical principles while inspiring students to choose a career in chemistry. The ideal applicant would use innovative teaching methods and be active in keeping current with the field of chemistry.

To nominate a candidate contact Andre Venter: andre.venter@wmich.edu

Sci-Mix Poster Session at Bell's Eccentric Café With Keynote Speaker Karson S. Putt

Purdue University – Center for Drug Discovery

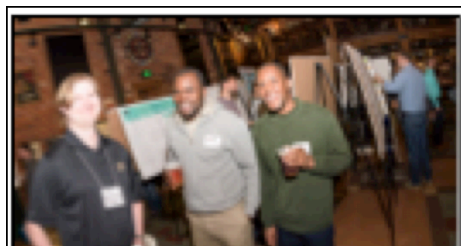
By Elke Schoffers with Photos by Denis Billen



Kristina Kesely from Purdue had to leave for a malaria field trip to Vietnam.

KACS hosted its annual poster session titled "Sustainable Science - Recycle a Poster" at Bell's Eccentric Café in downtown Kalamazoo on Nov. 10, 2015. This event is now in its fifth year and was made possible through a generous grant from Zoetis. It not only features research posters but typically also hosts a keynote speaker during this very social gathering. Poster setup, registration and mingling began at 5 PM. Over 70 people enjoyed the atmosphere of this public event; 51% of the attendees were ACS members.

The audience was excited to learn about the latest efforts to control and cure malaria from the keynote speaker. At 7 PM Dr. Karson S. Putt began his seminar, which was titled "Inhibition of an erythrocyte tyrosine kinase prevents *Plasmodium falciparum* egress and terminates parasitemia". In his role as Managing Director, Putt oversees over 110 faculty members and over 600 students at the Purdue University Center for Drug Discovery. During the presentation he explained how inhibition of a specific enzyme can arrest malaria. This is a breakthrough finding. According to the World Health Organization, one child dies from malaria every minute, and half of the world's population remains at risk of infection. Because this threat is expected to rise as drug resistance continues to eliminate established treatment options, the search for novel anti-malarial therapies has intensified. There are over 200 million infections of malaria every year, which is endemic in Africa, South and Central America, and South East Asia.



Karson S. Putt (left) from Purdue U. gave the keynote speech. Here shown with two WMU graduate students Harry Chanzu and Javan Kisaka.

Sci-Mix Poster Session continued...

The original speaker for this event was Kristina Kesely. However, just 9 days before her visit to Kalamazoo she received word that human trial studies in Vietnam were approved by the Vietnamese Ministry of Health and Purdue IRB. Within less than a week's notice Kesely and her team had to prepare for a month-long visit to South East Asia to gather data for their novel therapy. This was an exciting development but it also meant that someone else needed to fill in for her. Organizers were happy to learn that Putt could step in on short notice.

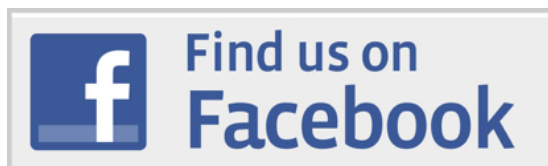
Event visitors had a chance to enjoy hot appetizers and beer from 5 to 9 PM while listening to the keynote speech and reviewing the posters that were given by scientists from Kalamazoo College, Michigan State University, Western Michigan University, and Zoetis. There were 21 new or "recycled" (from a previous conference) posters, including a total of 15 student presenters. This year, there were also three cash prizes drawn from poster presenters who submitted their abstracts by November 4. The winners were Basil Ahmed, Wisam A. Alisawi and Harry Chanzu.



Sci-Mix Poster Session continued...



Like KACS on Facebook and Win!



Have you liked us on Facebook?

If so, then you already know that our Facebook page is where you are first made aware of local section events, interesting science-related current events, and national ACS news!

If you have not yet liked our page, then here is your chance to remedy that deficiency and be entered in a drawing to win a copy of "[Mauve](#)" by [Simon Garfield](#). The subtitle of this book, "how one man invented a color that changed the world" is not an exaggeration. This fascinating read explains how William Perkin's 1856 experimental mishap revolutionized organic chemistry, while also forever changing the fashion, perfume, flavorings, and bleaching industries.

To be eligible to win the book you must be a KACS member living in the continental United States. Prior to the drawing on Tuesday, March 1st, you must do the following:

1. Like the KACS Facebook page (if you already have, then skip to step 2!)
2. Comment on the "Mauve" post
3. Share a Chemistry-related KACS post (not the "Mauve" post, as the competition is only available to KACS members)

Thank you for liking our Facebook page, and Good Luck!

Do you have questions, comments, or would like to contribute to this newsletter?
Send an email to Christine Pruis, Communication Chair at ACSkzoo@gmail.com

Newsletter for the Kalamazoo Local Section of the American Chemical Society

March 30, 2016

Vol. 6 - Issue 2



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Chair's Comments

We have been hard at work lining up a busy spring schedule for the KACS members!

Mark your calendars for:

April 8th

Tom Higgins (NSF) will be speaking at K College and WMU

April 23rd:

Chemists Celebrate Earth Day Events at KNC and at Celery Flats

May 5th:

Alton Brown Live at Miller Auditorium

May 9th:

Annual Awards Gathering

May 14th:

Science Café Field Trip to Journeyman Distillery with the St. Joseph Valley Local Section

Make sure to read this newsletter cover-to-cover for all the details!



Brian Eklov, Ph.D.
KACS Chair

Visit our website www.kalamazooacs.org

Speaker: Tomas B. Higgins, PhD

"How undergraduate research can change students' lives"

**Thomas Higgins, Ph.D.
Harold Washington College
Program Director, Division of Undergraduate Education, NSF**

**Kalamazoo College
Dow Science Center, Room 226
1135 W. Main Street, Kalamazoo, MI
Friday April 8, 2016
4:00 pm**



Undergraduate research is a powerful teaching method that can have a profound impact on students, their perceptions of themselves, and their visions of their future. It can be especially powerful when working with students from underrepresented groups and non-traditional students. With generous funding from the National Science Foundation and the Undergraduate Research Collaborative (URC) program, almost 300 students from 10 Chicago-area community colleges did authentic, faculty-mentored undergraduate research as part of the STEM-ENGINES URC. This paper will present data from the Survey of Undergraduate Research Experiences assessment and case studies that illustrate how undergraduate research supports student transfer and eases the shock of institutional transfer beyond the community college. Overall, these experiences promoted students' academic achievement, built their critical workforce skills, and increased their confidence regarding further study in chemistry. Over half of these students transferred to a four-year college. Students from underrepresented groups and first-generation college students were strongly impacted.

Chemists Celebrate Earth Day!

Chemists Celebrate Earth Day
The Great Indoors – Your Home's Ecosystem
Saturday, April 23, 2016
Kalamazoo Nature Center (10 am – 4 pm)
Celery Flats (11 am – 3pm)



KACS will continue its 5-year tradition of participation at the **Kalamazoo Nature Center** during its Earth Day event (entry to the KNC is **free to the public on that day!**). During the hours of 10am and 4pm KNC patrons will be treated to hands-on projects and theme-relevant materials; the response from those who have attended in prior years has been very enthusiastic. Thank-you very much to the WMU Chem Club for volunteering to staff this event!

Since the Kalamazoo and Portage libraries will not be having Earth Day events this year we have applied to participate in the **City of Portage Green-a-thon event, also on Saturday, April 23, at Celery Flats, from 11am to 3pm.** Those of us who volunteer will be prepared to do hands-on activities with patrons as well as hand out theme-related materials which can be used off-site for further learning. Lydia Hines will provide the safety-tested printed materials that ACS prepares for us. **We need at least 3 volunteers for the Celery Flats event.** If you want to enjoy the outdoors while positively representing chemists to the public, then **please contact Lydia E. M. Hines very soon!**

Volunteers needed to make CCED a success!

Contact Lydia E. M. Hines

Call [269-375-7349](tel:269-375-7349) e-mail lemhwgh@gmail.com

Alton Brown Live: Eat Your Science

Alton Brown Live: Eat Your Science
Miller Auditorium
Thursday May 5, 2016
7:30 pm
AltonBrownTour.com



KACS has reserved a block of tickets for members who are interested in attending the Alton Brown Live show on Thursday, May 5th at 7:30 PM. The well-known television personality and author has a knack for explaining kitchen science in an engaging and entertaining manner. Don't worry, though, our tickets are out of the "splash zone". The KACS seating will be near the back of the orchestra level, and tickets are \$35 each (after our KACS subsidy).

Reserve your seats for Alton Brown today!
Contact Brian Eklov chair@kalamazooacs.org

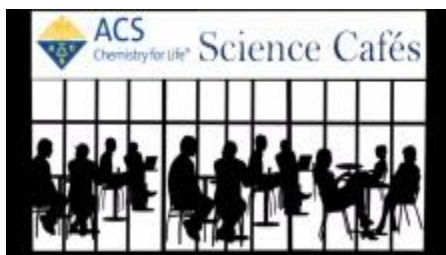
Science Café Field Trip to Journeyman Distillery

**Journeyman Distillery
Historic Featherbone Factory
109 Generations Drive
Three Oaks, MI 49128
Saturday May 14th
3:00 pm**

www.JourneymanDistillery.com



It's time for a field trip! We will be meeting up with the St. Joseph Valley Section at Journeyman Distillery in Three Oaks, MI for tours of the distillery and tasting of their distillates at 3 pm on May 14th. We are expecting our twenty spaces to fill quickly, so please RSVP ASAP! **Tour tickets are \$10**, and also please indicate if you would be interested in a group transportation option (Additional cost may apply). You can find out more about Journeyman Distillery by visiting their website.



Science Cafés promote scientific literacy by encouraging informal discussions between nonscientists and scientists. So feel free to invite your over-21 non-chemist friends or family to this open event!

Claim your spot for the Journeyman Distillery tour!
Contact Brian Eklov chair@kalamazooacs.org

Annual KACS Awards Program

Western Michigan University's Chemistry Building
Monday May 9, 2016
6:00 pm Refreshments
6:45 pm Presentation of Awards



The annual Awards Program of the KACS will be held Monday, May 9th, 2016 in the lobby of the Chemistry Building at Western Michigan University (WMU). We will gather at 6pm for light refreshments and conversation among members, students, teachers, and parents. The presentation of awards will begin at 6:45pm.

Among the over 50 awards to be given that evening will be:

- Outstanding College Chemistry Student from WMU
- Outstanding College Chemistry Student from Kalamazoo College
- Outstanding High School Chemistry Teacher
- Outstanding High School Chemistry Students
- Competitive Exam Scholarship Awards

In order that we may provide adequate refreshments, do be kind enough to send a quick note to either James Kiddle, KACS Competitive Exam Committee Chair or Mike Walsh, KACS Education Chair indicating the number of attendees in your party. Parking, in the Miller Auditorium Ramp, will be no cost to attendees

RSVP for Awards Program
James Kiddle james.kiddle@wmich.edu
Mike Walsh mwalsh@kzoo.edu

Project SEED Opportunities



Project SEED opportunity: Project SEED was established by the American Chemical Society (ACS) in 1968 to provide economically disadvantaged high school students the opportunity to conduct hands-on research for 8 to 10 weeks in the summer. Selected students receive a fellowship award and will be eligible to apply for a SEED college scholarship.

In the summer of 2015, two students were awarded Project SEED opportunities. Jacob Wasylliw worked with Dr. Szymczyna at Western Michigan University (WMU) on a project titled "Bioinformatics of Tanapox Virus Proteome". Kathryn Way worked with Dr. Guda at WMU on a project titled "Optical Spectroscopy to Monitor Ligand-DNA Binding Interactions".

This year the Kalamazoo ACS (KACS) is looking to fill two Project SEED positions. One will be with Dr. Szymczyna and one will be with Dr. Guda. To qualify the student must have completed his or her sophomore year in good academic standing, have taken at least one course in chemistry, and be recommended by their chemistry teacher or other school official. Students are selected based on their qualifications and letters of recommendation. High school chemistry teachers should have received a letter detailing the project and nominating process. If you have not received the letter or need more information please contact Don Schreiber, Project SEED Coordinator or Mike Walsh, KACS Education Chair.

Do you need Project SEED information?
Don Schreiber donald.schreiber@wmich.edu
Mike Walsh mwalsh@kzoo.edu

Wrap-up of Older Items

Annual Competitive Chemistry Exam:

On March 22nd, 2016, fifteen high schools in the Kalamazoo American Chemical Society (KACS) local section administered the annual preliminary Competitive Chemistry Exam. The top three scoring students from each school and all students who score in the top 10% on this exam will be invited to sit for the final exam scheduled for April 23rd, 2016 at Western Michigan University. The top 20 scorers on the final exam will receive cash awards at the Annual KACS Awards Program (see previous announcement).



The “Like KACS on Facebook winner” is.... **Andrew Franks!**

Andrew, a scientist at Pfizer, only needed to do three simple things to win – he liked KACS on Facebook, shared a post, and commented on a post. For those actions he gets a copy of of ["Mauve" by Simon Garfield](#). Congrats Andrew! However, we all are lucky as Andrew has promised to post a short book review on the Facebook page!

Do you have questions, comments, or would like to contribute to this newsletter?
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Newsletter for the Kalamazoo Local Section of the American Chemical Society

May 1, 2016

Vol. 6 - Issue 3



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dwilliams@kalsec.com

Chair's Comments

By Brian Eklov, PhD

May is shaping up to be a busy month for the KACS. We have:

May 3rd: 2016 Tourtellotte Lecture, Dr. Geri Richmond at K College

May 5th: Alton Brown Live at Miller
(Sold-Out!)

May 9th: Annual Awards Gathering at WMU

May 14th: Science Café Field Trip to Journeyman Distilling, with the St. Joseph Valley Local Section

May 20th: 4 PM CGSA Spring Picnic at Oshtemo Township Park

More information on each of the available events is included below. Please come and join us for some science and fun!

Visit our website www.kalamazooacs.org

**THANKS FOR THE INTEREST!
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SOLD OUT!**

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**KACS seats are SOLD OUT!
Look for a report in our next newsletter!**

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RSVP for Awards Program
James Kiddle james.kiddle@wmich.edu
Mike Walsh mwalsh@kzoo.edu

FAMILY FUN CGSA Spring Picnic!

**Friday May 20th
4:00 pm**

**Oshtemo Township Park
7275 West Main Street
Kalamazoo MI 49009**



KACS is again sponsoring the annual WMU Chemistry Graduate Student Association (CGSA) spring picnic. The purpose of this event is to introduce chemistry graduate and undergraduate students to the KACS community outside of the university. In previous years, this event has been a successful opportunity to gather professors, students, and local ACS members. This is a family-friendly event with many activities and yummy food!

Bring the Entire Family to this fun event!

DON'T MISS OUT!

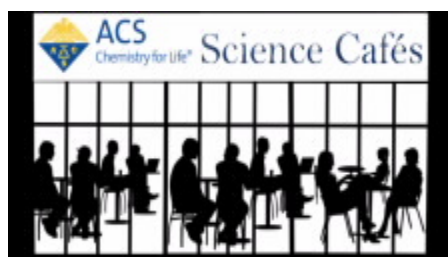
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Do you need Project SEED information?
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Mike Walsh mwalsh@kzoo.edu

REPORT

April 8th Thomas B. Higgins, PhD seminar and visit

By Jeffrey Bartz, PhD



Dr. Tom Higgins, a 1992 graduate of Kalamazoo College, addressed the KACS on "How Undergraduate Research can Change Student' Lives" on Friday, April 8. Dr. Higgins worked to develop an undergraduate research program in the community colleges in Chicago. Longitudinal studies show that students who participated in research persisted in science to a higher degree than similar students who did not do research and had a higher rate of transferring to four-year institutions. Dr. Higgins is a professor at Harold Washington College and is currently a Program Director at the National Science Foundation. During his visit to Kalamazoo, Tom also had an opportunity to meet with and talk to faculty and students from WMU, KVCC, and Kalamazoo College.

REPORT

April 23rd Chemists Celebrate Earth Day Events

by Lydia M. Hines, PhD



Celery Flats in Portage

Spring arrived on and off in April and the forecast was for a sunny day on the 23rd; but the temperature was still in the 60s so our first experience at the **Portage Green-a-thon** was a pretty “cool” one. The event was very well organized by the Portage Youth Advisory committee and their liaison from the City Clerk’s office. It was our first attempt at cooperation with them and we were very pleased to have made that contact. Lydia Hines, along with the expert help of Carl Stachew (well known to many in KACS, and others in the education circles, for his passion for science outreach to young people), and the enthusiasm of 4 Kalamazoo College Students, Ian Bunker, John Bailey, Sarah Glass and Joyce Nguyen saw 6 hours pass with “never a dull moment” as youngsters and their parents stopped by our table to make UV-sensitive-bead bracelets and to learn about carbon dioxide, its varied sources and uses, and to “make chalk”, as well as to get copies of Celebrating Chemistry to take home to continue “doing science experiments”. A great experience overall, which I hope some of the readers of this newsletter will want to enjoy as we celebrate Earth Day in April of 2017!

Kalamazoo Nature Center

This was our 6th year of participation with the Kalamazoo Nature Center during their Earth Day Celebration; Taylor Grace, Emily Hanner, Greg Johnson and Casey Wright from the WMU Chem Club were present at the opening of the event in the morning and were busy making chromatography flowers with youngsters and their parents who came by the KACS table. The steady flow of visitors continued through the afternoon when visitors could also avail themselves of our Celebrating Chemistry publication for their continued science enjoyment at home. K College students Myles Truss, Sangtawun Miller and Andrew Kaylor along with KACS chair Brian Eklov “held down the fort” during the afternoon hours.

Many thanks are due to all who volunteered at this annual event!

REPORT

April 12th The Science Behind Crafting Beer

By Andre Venter, PhD



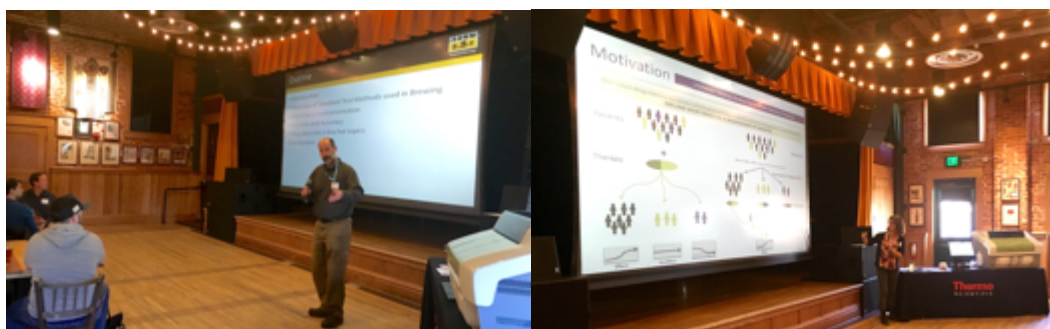
On April 12 KACS' topical group "The Kalamazoo Area Mass Spectrometry Discussion Group" and Thermo Fisher Scientific hosted a seminar on mass spectrometry and the science behind crafting beer. This event at Bells Brewery Eccentric Café brought 91 attendees together. The crowd represented a wholesome mix of those working in mass spectrometry or in the brewing industry and included professionals, students and other interested members of the public. Two presentations were presented providing a mixed taste of beer quality control and beer flavor innovation.

The first presentation was delivered by Dr. Barbara Dunn from the Department of Genetics at Stanford University and was entitled the "Systematic Integration of "Omics" Data to Improve Innovation in Beer Crafting". Dr. Dunn described how systems biology is used to study, for example, the differences between popular yeast strains used in the production of California Ale and Hefeweizen beer styles.

Dr. Luke Chadwick, Senior Scientist at Bells Brewery, presented on how the challenge to make a delicious beer consistently can be addressed by picking it apart at the molecular level. Dr. Chadwick presented an overview of the instrumentation used in a brewing laboratory and on the role of data in the quest for ever-increasing beer quality. He dazzled us with numerous rabbit holes of yet to be explored challenges faced by those who take a scientific approach to crafting quality beer.

Thermo Fisher Scientific demonstrated the use of the Gallery™ Plus Beermaster. This photometric analyzer provides automated efficiency in quality control measurements to help reduce costs and improve productivity in breweries. For more information on ThermoScientific Mass Spectrometry Products, please contact giovanni.pallante@thermofisher.com

If you would like to be notified of future events by the Kalamazoo Area Mass Spectrometry Discussion Group, please send an email to andre.venter@wmich.edu.



Do you have questions, comments, or would like to contribute to this newsletter? Send an email to Christine Pruis, Communication Chair at ACSkzoo@gmail.com

Newsletter for the Kalamazoo Local Section of the American Chemical Society

June 1, 2016

Vol. 6 - Issue 4



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Councilor

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Alternate Councilor

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Chair's Comments

By Brian Eklov

May was another very busy month for the KACS. A group of members went to Miller Auditorium to see Alton Brown's Eat Your Science Tour on May 5th. Our annual awards gathering was on May 9th, where we honored 50-and 60-year ACS members, awarded students and a teacher of the year, and gave awards to our competitive exam winners. Then, on the 14th, we held a Science Café Field Trip to the Journeyman Distillery in Three Oaks, where we learned a little about the art of distilling from their production staff, and marveled at their analytical chemistry tools! Reports on all of these happenings, as well as reports from the national meeting, and more are below, so read on!

Visit our website

www.kalamazooacs.org



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PLAN AHEAD! 2017 Great Lakes Regional Meeting

The next **Great Lakes Regional Meeting** will be held in Fargo, North Dakota. The Kalamazoo Local Section is part of the Great Lakes Region of the ACS.

Theme: Sustainability and Energy

Location: Holiday Inn, Fargo ND

Date: June 27 – 30, 2017



REPORT

Science Café Field Trip to Journeyman Distillery

By Brian Eklov



Our Science Café Field Trip to Journeyman Distilling in Three Oaks, MI took place on May 14, and was attended by fourteen members and guests of the KACS and nine members of the St. Joseph Valley Local Section. We started with a discussion of the history of the facility, which started out as a featherbone corset and buggy whip factory, and then stood empty for decades before a major restoration effort turned it into a distillery. We then toured their production space, which currently includes a 1000 gallon still which they run for two twelve hour runs each day to collect about 25 gallons of spirit a day! We had a great discussion about the heads, hearts, and tails of the distillation run, and many of us were both amazed and disappointed to find out that all of their analytical chemistry in analyzing their cuts is done by taste! We ended our visit by tasting many of their fourteen bottled spirits, learning a little about proper tasting along the way.



Photos courtesy of Andre Venter and Tom Runge

REPORT

ACS San Diego Meeting

By Gabe Kornis

Dr. Gabe Kornis, a 50-year member of ACS, attended the recent San Diego ACS Meeting. Below is a summary of a few presentations he found of interest. While in California, Dr. Kornis, a Pfizer/Upjohn retiree, attended predominantly the Organic and Medicinal Chemistry sessions at the meeting.

C-H activation and selective derivatizations were topics of many discussions and presentations. A few examples were:

- Highly enantioselective copper catalyzed methods for the hydroamination of olefins whether exocyclic, endocyclic, terminal, or adjacent.
- In olefin metathesis the discovery of new ligand complexes based on molybdenum, tungsten and ruthenium resulted in selectivity for Z-olefins, both in cross and in ring closing metathesis.
- Triple bond metathesis addition reactions to internal alkynes via Au or Pt catalysis.
- A simple new reaction consisting of an activated ester, dialkylzinc, and a pyridine ligand to attach two carbons that each has three other single bonds.

In a memorable lecture, Scott Miller (Yale) discussed catalytic site-selective alterations of complex glycopeptide antibiotics. Vancomycin, the antibiotic of last resort has been associated with multiple drug resistant bacteria. It has nine hydroxyl groups each of which individually were catalytically removed or replaced by other groups. Promising antibacterial analogues were thus made in one or two steps. After many years of traditional research, antimicrobial resistance is causing large numbers of deaths, especially from hospital infections. Drug development in antibacterial compounds suffers a much lower success rate than in most other areas partially due to the lack of novel mechanisms of action. The dose of antibacterials is very high per day due to the lack of rapid diagnostic procedures, the ability of bacterial biomass to grow rapidly hitting several targets, the bacterial membrane which acts as a barrier to the entrance of antibacterials, and the cells ability to flush out whatever drug has gained entrance. To combat the problem two approaches were presented:

1. Penicillins, cephalosporins and carbapenems are targets for beta lactamase leading to loss of activity. A number of compounds are in clinical trial with the aim of replacing clavulanic acid, a known beta lactamase inhibitor.
2. The total synthesis of tetracycline analogues via tandem annulation of precursor ring AB with precursor ring D leading to a large number of compounds some of which show activity against Gram negative bacteria. This is in contrast to semi-synthetic efforts, which provide very few biologically active molecules.

REPORT

43rd Annual Awards Program

By Michael T. Walsh



The Kalamazoo section of the American Chemical Society held its forty-third annual awards program on Monday, May 9, 2016 in the chemistry building atrium on the campus of Western Michigan University. Awardees gathered along with family members, educators, and KACS members at 6pm for a reception with light hors d'oeuvres. The ceremony began at 6:45pm when KACS Chair Brian Eklov formally assembled all in attendance. Award presentations began with ACS 50+ members **Al Blum, Herman W. Smith, and Roger G. Williams** (pictures below). All three spoke briefly of their careers and love of chemistry. Additional 50-year members recognized but unable to attend were **William E. Heyd, Gabe I. Kornis, Thomas L. Miller, and Ekkehard Sinn.**



Next up were the 60-year members! This year we recognized two chemists who have achieved this milestone. Both **David G. Martin** and **Howard A. Whaley** were present and briefly spoke of their professional experiences in the chemistry field (photographs below).



Western Michigan University Chemistry Department honored **Casey Wright** as their outstanding college chemistry student while **Mara Birndorf** was honored with the same distinction from the Kalamazoo College Department of Chemistry (picture below). This year's Outstanding High School Chemistry Teacher Award went to Chris Orlaske of Lawrence Junior-Senior High School.



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



Meredith Adams – Portage Central High School
Garrett W. Amstutz – Paw Paw High School
Jawad Aqeel – Kalamazoo Area Math and Science Center (KAMSC)
Olivia Harlow – Plainwell High School
August Jarzambek – Portage Northern High School
John McKenney – Lawton High School
Hannah McQueen – Gull Lake High School
Bryant Neal – Hackett Catholic Prep
Alex Pease – Kalamazoo Christian High School
Austin Salome – Comstock High School

On April 23, 2016, Sixty-eight students sat for the 2015 **ACS Competitive Scholarship Final Exam**. The top twenty students (this year 22 due to ties) received certificates for their accomplishments and cash prizes! The names of the scholarships award winners and the honorable mention students are listed below.



2015 Competitive Scholarship Winners (pictured above)

- 1st Place - Siddhant Pagariya – KAMSC/Portage Northern - \$600
- 2nd Place - Praneeth Medepalle – KAMSC/Portage Central - \$500
- 3rd Place (Tie) - Meredith Adams – Portage Central - \$400
- 3rd Place (Tie) - Helen Foldenauer – Gull Lake - \$400
- 3rd Place (Tie) - Aheer Alvi – KAMSC/Portage Central - \$400
- 6th Place - Emma Hettinger – Kalamazoo Christian - \$100
- 7th Place - Josiah Turpin – Gull Lake - \$100
- 8th Place (Tie) - Owen Langejans – KAMSC/Portage Northern - \$100
- 8th Place (Tie) - Hannah McQueen – Gull Lake - \$100
- 8th Place (Tie) - Anthony Reo – Paw Paw - \$100



2015 Honorable Mention (11th – 20th place) (pictured above)

The honorable mention students each received a \$50 gift card

Josie Crane – Mattawan	Christopher deGraca Lobo – Portage Northern
Joseph Flanagan – Portage Northern	Skyler Flietstra – KAMSC/Gull Lake
Harvey Flynn – KAMSC/Gull Lake	Austen Ford – Portage Central
Jason Higdon – Mattawan	Rebecca Radomsky – Hackett
Austin Salome – Comstock	Latharia Smith – Loy Norrix
Christopher Vennard – Gull Lake	Cassandra Ward – Loy Norrix

The program ended just before 8pm with two ACS Service awards. Angela Willson, KACS secretary, received the 2016 ACS Committee on Community Activities Local Section Volunteer of the Year Award. James Kiddle, KACS Competitive Exam Chair, received the KACS Local Section Volunteer Award for 2016. Congratulations to both and thank you for everything you do for ACS.



Thanks go to James Kiddle, Lydia Hines, and Brian Eklov for a wonderful awards ceremony

REPORT

Alton Brown Live: Eat Your Science

By Brian Eklov

Our Miller Auditorium outing was to see Alton Brown on May 5th. Twenty members and their guests came out to see Alton Brown talk, sing, and rant. Many of you may know him from his show Good Eats on the Food Network, where he described not only the hows of cooking, but the science whys as well. All said, the three-hour show was entertaining, the music was good, the commentary was sharp, and it isn't every day that you get to watch someone pop popcorn on a searchlight.

REPORT

CGSA and DowBQ Picnics

By Michael T. Walsh and Christine Pruis

In May KACS continued its traditions of sponsoring end-of-school-year picnics for two local chemistry student groups. On Friday May 20th, the annual WMU Chemistry Graduate Student Association (CGSA) spring picnic occurred at the Oshtemo Township park on West Main. It was well attended by graduate and undergraduate students, WMU faculty, KACS members, as well as many family members. The weather was perfect for grilling, socializing, and just playing in the park! The Kalamazoo College ACS chapter hosted the annual DowBQ on May 24, 2016, for all of the science community at Kalamazoo College. This end of the year event allows students and faculty from the Biology and Chemistry departments to eat delicious food, mingle, and get to know each other in a casual atmosphere. First years and sophomores had the chance to ask upperclassmen about their Senior Individual Projects (SIPs), classes, and plans for after graduation. Over 180 students and professors attended the event and took time to celebrate the end of the year together.

Do you have questions, comments, or would like to contribute to this newsletter?
Send an email to Christine Pruis, Communication Chair at ACSkzoo@gmail.com

Newsletter for the Kalamazoo Local Section of the American Chemical Society

Sep 12, 2016

Vol. 6 - Issue 5

Chair's Comments

By Brian Eklov

We are entering a busy stretch for KACS.



While it may seem a ways off, planning is well underway for National Chemistry Week held on October 8th. This is our 30th Annual Chemistry Day at the Kalamazoo Valley Museum, and it just may be the crown jewel of the KACS calendar!

We are looking for volunteers to run demonstrations and activities, and I would like to encourage you all to come out and help share some of your enthusiasm for science with our attendees. Last year we had over 1000 attendees participate in over 25 activities, and it was a blast!

Planning is also underway for our annual SciMix gathering later in the year. Stay tuned for details.

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Alternate Councilor

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

Chairperson-Elect

Vacant – Looking for nominees

2016 National Chemistry Week

It is our 30th Chemistry Day at the Kalamazoo Valley Museum!

Theme: Solving Mysteries through Chemistry

Date: Saturday October 8, 2016

Time: 12 noon – 4 pm

Come join us for our 2016 National Chemistry Week (NCW) celebration, our 30th such outreach event at the Kalamazoo Valley Museum! Our much-anticipated annual outreach event at the Kalamazoo Valley Museum will be on Saturday October 8 from noon to 4 p.m. This year's theme is "Solving Mysteries through Chemistry" with a focus on the chemistry of fibers and forensics.

Our hard-working collaborator at the Museum, Annette Hoppenworth, is once again looking forward to our participation and successful execution of this immensely popular program. Parents, grandparents, teachers, scout leaders and children are always rewarded with fun hands-on activities, and with safety-tested written materials which they may take to their homes and their schools for encouragement in their science learning – we have all heard of STEM education; this informal science learning experience is a big part of it, at an age when children are scientists in the making – inquisitive and truly curious.

We have a need for volunteers of various skills and ages! Don't worry, if you are at loss for an activity, we have pre-planned forensics science activities and lists of other activities! We can also train you in an activity of your choosing. ***With your help, we are going to make this a fantastic gift to our community!***

Volunteer Now!

Forensics Science Activities:

Doug Williams (dwilliams@kalsec.com)

Other activities & training:

Lydia E. M. Hines (lemhwgh@gmail.com)

Brian M. Eklov (chair@kalamazooacs.org).

COMMUNITY OUTREACH REPORT

Caffeine Camp 2016

Earlier this year the WMU Stryker School of Medicine secured grants from the Gilmore, Dalton, and Upjohn Foundations to support a program for 10th grade Kalamazoo public school high school students for “Saturday Science Academies” and “Summer Enrichment Programs.” One goal of the program is to increase the number of under-represented students entering the pipeline for careers in science and medicine. The Program Director is Dr. Cheryl Dickson (Associate Professor of Pediatrics and Associate Dean for Health Equity and Community Affairs at WMed). The Saturday Science Academies occur at the WMed campus and most of the “Summer Enrichment Programs” do as well. In addition, a week-long summer science experience is part of the program in collaboration with Kalamazoo College.

In summer 2016, the science experience program was held at Kalamazoo College and directed by Dr. Laura Lowe Furge (Professor of Chemistry and Associate Provost at Kalamazoo College). The program was held July 26-30 at the Dow science building at the College. Since Dr. Furge is a biochemist with interests in pharmaceuticals and drug metabolism, the week centered on learning about proteins, enzymes, cytochrome P450 enzymes, and drug metabolism.

Largely hands-on, the week’s activities included introductions to enzymes using “Biochemistry is Fun” card arrangements, a “toothpickase” activity (with very cold water – students won’t soon forget that temperature affects rate!), and an exploration of the activity of catalase from vegetables and how different conditions affect activity.

In addition, students also did more sophisticated activities with metabolism of caffeine *in vitro* by human cytochrome P450 1A2; products were analyzed by HPLC with UV detection. Students interfaced with the instrumentation at all levels and analyzed peak areas for paraxanthine and caffeine in comparison to a standard curve. Prior to starting the P450 assays, students learned how to use micropipettes with a microtiter plate pipetting design experience and how to make and use a standard curve. To introduce the concept of chromatography and separation of mixtures, students did simple paper chromatography with markers.

Finally, since we live in Kalamazoo – a hotspot for extractions, students also learned about extraction by extracting caffeine from sodas – a highlight of the week. The isolated final product was identified by melting point analysis (and, yes, students did learn about Kalsec and A.M. Todd – right here in their hometown).

In both the P450 assays and the caffeine extractions, the broader topics of “separation” and “identification” techniques were explored. Students also started learning about how to keep a laboratory notebook and prizes were given on the last day for the best notebooks. My favorite mantra (just ask my students) is “I can’t teach you all the chemistry you will need to learn, but I can teach you habits that all chemists follow;” keeping a laboratory notebook is one of those.

During lunch breaks each day, summer students had lunch in small groups with either undergraduate research scientists doing research in Chemistry or Biology at Kalamazoo College this summer (we have over 20 undergraduate research scientists doing research in Dow this summer!) or with STEM faculty from the College. If you’d like to volunteer your lunch break to join us in summer 2017, please let Laura Furge know. We would welcome sharing of your experiences, insights, and career stories.

Many thanks to the students in the spring 2016 Advanced Biochemistry laboratory course at Kalamazoo College for testing activities, drafting protocols, and preparing some slides for use with the program. A very special thank you to Mr. Mike Walsh, Director of Chemistry Laboratories at Kalamazoo College, for preparing laboratory equipment and space for the experiments.



Program highlights at:

<http://www.kzoo.edu/news/health-career-pipeline/>

<http://med.wmich.edu/news-and-events/news/summer-pipeline-program-fosters-high-school-students%E2%80%99-interest-science-medicine>

More Tidbits

The next **Great Lakes Regional Meeting** will be held in Fargo, North Dakota June 27 – 30, 2017 at the Holiday Inn. The Kalamazoo Local Section is part of the Great Lakes Region of the ACS and we encourage you to consider attending or presenting at the meeting. The theme is “Sustainability and Energy.”



If you notice a **Free Little Library** (<https://littlefreelibrary.org/>) in your neighborhood please let our National Chemistry Week coordinator, Lydia Hines, know so that she may supply you with some of this year's Celebrating Chemistry publications to place in the box for the patrons; the topic is forensics, or "Chemists solve mysteries." Please contact Lydia at 269-375-7349 or lemhwgh@gmail.com.

Visit our website www.kalamazooacs.org



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<https://www.facebook.com/ACSKalamazoo/>

Do you have questions, comments, or would like to contribute to this newsletter?
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Newsletter for the Kalamazoo Local Section of the American Chemical Society

Oct 1, 2016

Vol. 6 – Issue 6



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lemhwgh@gmail.com

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Call for Nominations:

KACS 2017 Chair and Chair-Elect

We are actively seeking nominations for two open positions on the KACS Executive Committee, 2017 Chair and 2017 Chair-Elect. The Chair position will be a two-year position (2017 Chair and 2018 Past-Chair), while the Chair-Elect is a three-year rotation (Chair-Elect, Chair, and Past-Chair).

Members interested in serving or willing to nominate another member should contact Brian Eklov at chair@kalamazooacs.org. More information on these positions is available at <http://www.kalamazooacs.org> (under about us and then operations manual). Nominations will be accepted until October 9th.

Visit our website

www.kalamazooacs.org



Find us on
Facebook

Chair's Comments

by Brian Eklov

I love the end of summer here in Kalamazoo. The weather has not yet turned, the gardens and orchards are full of good eats, and Chemistry Day at the Kalamazoo Valley Museum is just around the corner! The Chemistry event is a personal favorite of mine. I really enjoy the opportunity to share some science with the scores of families that come downtown to join us at the Museum for this event. So, please mark your calendars: October 8th, noon to 4 pm. If you have the time, please come volunteer with us – we have plenty of ideas for experiments if you are looking for inspiration. If you can't volunteer, grab the kids, grandkids, or neighbor's kids, and come down to enjoy the demonstrations and activities on hand. I hear there may even be a mystery to solve! This year is our 30th year co-hosting this event with the Kalamazoo Valley Museum. It is a real gem, and I hope to see you there.



A demo at the 2015 Chemistry Day

Also, please mark your calendars for the evening of Thursday, February 23rd. We have reserved the Air Zoo Atrium to celebrate the Kalamazoo Local Section's 75th Anniversary! Rides will be running, we will be hosting a talk about the SR-71 Blackbird, and members of ACS governance will be in attendance. This is shaping up to be a great celebration, so please plan on joining us for the evening. Look for more information in future newsletters on time and RSVP details.

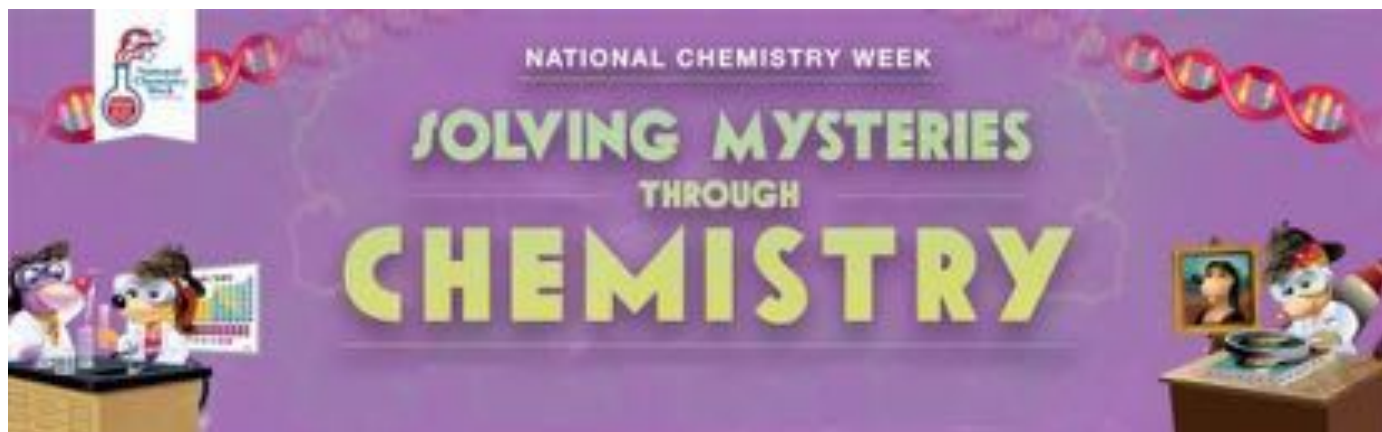
30th Chemistry Day at the Kalamazoo Valley Museum Saturday October 8, 2016 12 noon – 4 pm

by Annette Hoppenworth, the Kalamazoo Valley Museum collaborator:

It's that time of the year when summer winds down, fall revs us and we get all excited about Chemistry Day at the Kalamazoo Valley Museum! Chemistry Day has kicked off our fall programs every year and this is our 30th birthday! Do you all feel as old as I do? This year's theme is forensic chemistry. Let's do our yearly favorites and add in some new ones related to the national theme. Volunteer quickly so we can start promoting the event. Invite new chemists to the area for this yearly tradition and help us spread the word throughout the Southwest Michigan region that **chemistry is fun and for all ages!** Thank you all for your expertise, your collaboration with the Kalamazoo Valley Museum, and a rich history of science education and manufacturing. I'm so thankful for all the friendships over the years and the joy of watching our visitors explore and learn during this program.



*Annette Hoppenworth of the KVM and our own Councilor Lydia Hines
at a past Chemistry Day event*



We have a need for volunteers of various skills and ages! Don't worry, if you are at loss for an activity, we have pre-planned forensics science activities and lists of other activities! We can also train you in an activity of your choosing.

With your help, we are going to make this a fantastic gift to our community!

Volunteer for Chemistry Day Now!

Forensics Science Activities:

Doug Williams (dwilliams@kalsec.com)

Other activities & training:

Lydia E. M. Hines (lemhwgh@gmail.com)

Brian M. Eklov (chair@kalamazooacs.org).



Kalamazoo youth having fun with hands-on learning at a past Chemistry Day!



Wally Hines at the 1995 Chemistry Day

CALL for PAPERS! 2017 Great Lakes Regional Meeting

The next **Great Lakes Regional Meeting** will be held in Fargo, North Dakota. The Kalamazoo Local Section is part of the Great Lakes Region of the ACS. The GLRM committee is now accepting abstracts, please consider supporting this event by presenting and attending!

Theme: Sustainability and Energy

Location: Holiday Inn, Fargo ND

Date: June 27 – 30, 2017

glrm2017.com



Vote and Speak-up!

Did you know that an important election is just around the corner?
Yep, that's right... the annual ACS National Elections for ACS President and various directors is occurring this fall (umm, what did you think we meant?)
To learn more about the candidates and process please visit www.acs.org

President-Elect, 2017 Candidates:
Peter K. Dorhout *Thomas R. Gilbert*



ACS also wants to work on improving the ACS National Election process.

Therefore, the Committee on Nominations and Elections has created a “Vote 2020 Task Force” to seek input on improving and modernizing methods of running elections. They invite comments on the following:

- Aspect of the current ACS National Election process that you like the most.
- One major change that you would like to see about the ACS National Election process.
- What you like about how other organization and groups to which you belong (or have heard about) elect their leaders.
- What you expect to be different in the ACS National Election process in the future.

Please send your thoughts and ideas to: Vote2020@acs.org

Councilor's Report

by Lydia Hines, KACS Councilor

**American Chemical Society
252nd ACS National Meeting
Philadelphia, Pennsylvania
August 21-25, 2016**

Actions of the Council

Election Results

Elected Committees of Council

By electronic ballot, the Council elected Harmon B. Abrahamson, Lissa A. Dulany, Andrea B. Twiss-Brooks, and Sally B. Peters for a 2017-2019 term, Martin D. Rudd for a 2017-2018 term, and Karl S. Booksh and Ella L. Davis for a one-year term, 2017, on the Council Policy Committee

By electronic ballot, the Council elected Lisa M. Balbes, Thomas H. Lane, Amber S. Hinkle, Alan M. Ehrlich, and Alan A. Hazari for a 2017-2019 term and Neil D. Jespersen for a one-year term, 2017, on the Committee on Nominations and Elections.

By electronic ballot, the Council elected Wayne E. Jones, Jr., D. Richard Cobb, Stephanie J. Watson, Dee Ann Casteel, and Emilio X. Esposito for three year terms, 2017-2019, on the Committee on Committees.

Other Council Actions

On the recommendation of the Committee on Membership Affairs, the Council approved a petition to amend the ACS Bylaws to extend the Unemployed Members' Dues Waiver, which will extend waivers for unemployed members' dues from the current two years to three years, subject to confirmation by the Board of Directors.

Highlights from Committee Reports

Nominations and Elections

The Committee on Nominations and Elections solicits input of qualified individuals for President-Elect and/or Directors for future consideration. Suggestions may be sent to nomelect@acs.org. N&E has established the Vote 20/20 Task Force, charged with examining all aspects of nominations and elections for ACS national offices, and designing an enhanced process to be in place by the year 2020. The committee welcomes ideas from all members as to how nominations and elections should be handled. Send comments to vote2020@acs.org. The current procedure for elections can be found at www.acs.org/bulletin5.

Chemical Safety

New materials pertaining to Safety were highlighted and the websites where they can be accessed are safety@acs.org www.acs.org/safety
www.acs.org/hazardassessment

On the recommendation of the Society Committee on Budget and Finance, the Board voted to approve the advance member registration fee of \$445 for national meetings held in 2017.

Do you have questions, comments, or would like to contribute to this newsletter?
Send an email to Christine Pruis, Communication Chair at ACSkzoo@gmail.com

Newsletter for the Kalamazoo Local Section of the American Chemical Society

Nov 10, 2016

Vol. 6 – Issue 7



2016 KACS Executive Officers

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lemhwgh@gmail.com

Alternate Councilor

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

Chair's Comments

By Brian Eklov

I would like to extend a big thank you to all who participated in our Chemistry Day fun! You will find a full report and photos in the newsletter. An especially big thank-you to those who organized and participated in our forensics mystery. It was gratifying to see so many attendees working diligently to solve the mystery.

Now that Chemistry Day is behind us, we turn to our annual Sustainable Science Event at Bell's. Mark your calendar for Tuesday November 15th at 6 PM, and please consider bringing a poster - new or old - to showcase some local science. Our speaker this year will be Tom McTier from Zoetis, who will talk about the discovery and development of Simparica. Come see and hear some science, chat with fellow members, and don't forget to say hello!

Visit our website

www.kalamazooacs.org



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Sustainable Science – Recycle a Poster

by Elke Schoffers

“Discovery and Development of Simparica®”

A Novel Companion Animal Isoxazoline Parasiticide

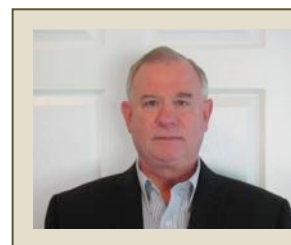
Keynote Speaker Tom L. McTier (Zoetis)

7 PM Tuesday, Nov 15th, 2016

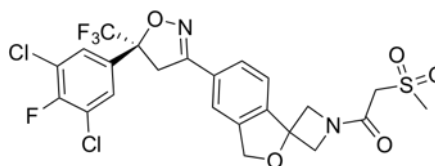
(open to the public)



Bell's Eccentric Café
355 E. Kalamazoo Ave
*Complimentary hors d'oeuvres**



Dr. McTier is currently Therapeutic Area Head for Companion Animal Parasitology, and Research Director in Global Therapeutics Research, Veterinary Medicine Research and Development at Zoetis in Kalamazoo, MI. He will discuss the discovery and development of sarolaner (Simparica®) in Zoetis' labs here in Kalamazoo. This drug is a novel isoxazoline derivative and has unique structural features important for its potency and pharmacokinetic (PK) properties.



5-7 pm

7-8 pm

8 pm

8-9 pm

Reception

Keynote Speaker

Prize Announcement

Sci-Mix Poster Session & Networking

*Please note that attendees may be eligible for complimentary drink tickets; two tickets will be given to current ACS members, poster presenter and Zoetis employees.

Funding provided through a generous grant by



You are invited to a 75th birthday celebration

by Lydia E. M. Hines

Our Kalamazoo Section of the American Chemical Society (KACS) will be celebrating its 75th anniversary with a dinner event on the main floor of the Air Zoo (6151 Portage Road) on the evening of Thursday, February 23, 2017. We anticipate a presentation on the SR71, the Executive Director of the ACS will join our celebration, and we will have access to 4 of the Air Zoo's event experiences for those who would like to take advantage of them. Please plan to join many of your fellow KACS members for this special party!



REPORT: 30th Chemistry Day at the Kalamazoo Valley Museum

by Lydia E. M. Hines (KACS) and Annette Hoppenworth, (KVM)

Though it was a beautiful Fall afternoon with many competing events in the Kalamazoo, MI, area, for four hours beginning at noon on October 8 at the Kalamazoo Valley Museum we saw a large number of enthusiastic visitors of all ages; they were treated to a smorgasbord of 23 hands-on activities which included 6 in an area that required a solution to a "mystery" heist. This was all the result of the hard work and enthusiasm shown by about 60 volunteers, approximately half of whom were high school and college/university students :) Their availability to work with our public and to show them how much they love chemistry was exemplary! The smiles on the children's faces, and their accompanying adults' expressed thanks, were the icing on the cake for the afternoon. The museum staff are still talking about it. The level of engagement and family interaction surpassed all past programs - it was noteworthy that parents were not on their phones but actually working and talking with their children. We heard several patrons ask what colleges to go to so that they could become a chemist. Most of our visitors were here for at least two hours during the 4-hour program. According to the latest count we reached somewhere around 700, with over 500 people doing the CSI mystery.

In summary, the 30th anniversary event was a tremendous success because of our volunteers' willingness to share time, talent and enthusiasm, and we applaud them. Maybe YOU can plan to join us in 2017 when our theme will be "Geochemistry - Chemistry Rocks"

Enjoy some photos from the 2016 Chemistry Day, Courtesy of Elena Meadows:



Making "Instant Snow"



Making "Bath Bombs" (aka baking soda + acid)



"Dancing Milk"



Forensics: Fingerprinting



Forensics: Crime Tape

2017 Great Lakes Regional Meeting

by Graeme R. A. Wyllie, General Chair, ACS Great Lakes Regional

Greetings from the 2017 GLRM

It's time to get an update for the 2017 GLRM. Feel free to share this with any interested colleagues and contact me if you have any questions (wyllie@cord.edu). The meeting will be June 27-30th held at the Holiday Inn in Fargo, North Dakota, so save the date. Some specific updates in what will be an at least monthly email keeping people in the loop as to all things GLRM2017.

Symposia:

Symposium Sessions need to be submitted by Dec 15th to Seth Rasmussen, contact information and the list of Symposia to date can be found at <http://www.glrm2017.com/symposia.html>. If you wish to propose a session especially for a specific topic, contact Seth at the link provided. While our overarching theme is Energy and Sustainability, we are still interested in anything that will bring together colleagues from the region to share their science. We are also still looking for people to host some of the general papers in the divisions or review papers. Contact Seth if interested in helping out.

Awards:

We plan to award a number of regional awards at the meeting including the Stanley Israel award, the P3 Award, the High School Teacher Award and E. Ann Nalley Award for Service to the ACS Region. Details on all of these can be found at <http://www.glrm2017.com/awards.html> We will be more actively soliciting for nomination packages soon but for now, check out the awards and if you have suitable nominations, it's a chance to begin preparing the packet.

We look forward to seeing you in Fargo in 2017.

REPORT: Two School Outreach Programs

by Lydia Hines

Lake Center Elementary

In mid-September of 2016 the chair of the PTO at Lake Center Elementary in Portage contacted the KACS leadership to ask for our help in their first-ever undertaking to present a successful evening of Science- Technology- Engineering- and Math-learning for their students and their families, in an I <3 STEM event at that school. We are very pleased to inform you that we sent them a \$300 cash donation, as well as supplied them with written materials for participants to take home and continue their science learning there (500 copies of Celebrating Chemistry focused on Forensic Science experiments, and 500 copies focused on how chemistry is integral to the Colors we observe around us). Additionally, students from the WMU ChemClub happily agreed to present hands-on activities which helped the children and their parents make slime, as well as change common pennies to "gold" pennies. Pfizer chemists rallied to our request as well and offered chemistry-related activities such as "acid/base indicators" and "Instant Snow (super-absorbent polymer)".

The school's PTO did a yeoman job of assembling together MANY southwest Michigan organizations which represent each of the aspects of STEM, and the crowd of more than 800 attendees during the evening was busily engaged at each of the 35 stations set up throughout both floors of the school. Each of the Lake Center Elementary students who came got a bag of at least 7 items to take home to continue their science learning; as one parent excitedly replied as she was pulled by her children into one of the areas, "the kids really wanted to come, and after all, this is real science learning". It was obvious that the PTO was most appreciative for our generous participation, as was the enthusiastic crowd on that evening of October 20.

Arcadia Elementary

In late October a Chemistry Graduate Student, a member of the Iraqi Student Association at WMU, who had attended our Chemistry Day at the Museum, requested and received written materials to supplement his presentation on chemistry careers to about 60 Arcadia Elementary School Students. If YOU are willing to present at a school you may contact Lydia E. M. Hines (lemhwgh@gmail.com or [269-375-7349](tel:269-375-7349)) for materials.

REPORT: Ice Cream Social Event at WMU

by Jaafar Hachem, president of CGSA

On September 30, 2016, 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 at WMU; the aim of this event was to introduce the new students to the existing chemistry family. With more than 60 people in attendance, students were able to make new connections, get to know the student organization, as well as catch up with old friends. Thank you to KACS for helping to defray some of the cost of this successful event.

Do you have questions, comments, or would like to contribute to this newsletter?
Send an email to Christine Pruis, Communication Chair at ACSkzoo@gmail.com

Newsletter for the Kalamazoo Local Section of the American Chemical Society

Dec 20, 2016

Vol. 6 – Issue 8



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Visit our website
www.kalamazooacs.org



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Chair's Comments

By Brian Eklov

First and foremost, please look below for an invitation to join us on Thursday, February 23rd from 6-9:30 at the Air Zoo in Portage to celebrate the 75th anniversary of the KACS. We will have the Air Zoo to ourselves, four of the attractions will be running, we will have a talk on the SR-71 Blackbird, and plenty of social time and a nice dinner. Tickets are \$10 for age 12 and over and free to children 11 and under. Please see page 3 and 4 for more details and registration information.

I would also like to take a moment and thank all of you for participating in our events over the last few years, and especially for volunteering your time to help further our common goals. Every volunteer organization runs on the energy and commitment of its members, and I am thankful for all of the hours KACS members contributed to making the events of the last few years successful. I have enjoyed every event I attended as chair - from the Joint Great Lakes / Central Regional Meeting last spring to our Recycle-A-Poster event this past month and everything in between. Even though my time as chair comes to a close at the end of the month, I cannot wait to see what the next 75 years has in store for the KACS. Knowing this community, we can all expect great things!



Join us for our Section's 75th Anniversary Celebration!

by Lydia E. M. Hines

**75th Anniversary Celebration
Air Zoo
6151 Portage Road
Thursday February 23, 2017
6:00 – 9:30 pm**

Our Kalamazoo Section of the American Chemical Society (KACS) will be celebrating its 75th anniversary with a dinner event on the main floor of the Air Zoo on the evening of Thursday, February 23, 2017, from 6-9:30 pm.

We will have time to socialize, reminisce, celebrate our accomplishments, enjoy dinner, and be treated to a presentation on the SR-71. The Executive Director of the ACS will join our celebration, and we will have access to four of the Air Zoo's event experiences (including the simulators and the 4-D theater) for those who would like to take advantage of them!

We hope you will join us at this family-friendly event. The cost for dinner for each attendee age 12 years and older will be \$10.00 (young people under 12 may come at no cost) so please plan to join fellow KACS members that evening for this special party! If you plan on attending please register by completing the form on the next page. See you there!



75th Anniversary Celebration REGISTRATION FORM

In order to help make appropriate dinner arrangements for the Thursday Feb 23rd event we will need to know how many will be attending. Please make checks payable to [Kalamazoo ACS](#).

Mail payment and completed form to:

Dr. Andre Venter, KACS Treasurer

Department of Chemistry

Western Michigan University

Kalamazoo, MI 49008-5413

Your Name: _____

Email: _____

Phone number: _____

Number of attendees age 12 and over (\$10 each) = \$ _____

Number of attendees under age 12 (free) _____

Climate Change Symposium

By Elke Schoffers (KACS Publicity and ACS Symposium Organizer)

KACS' commitment to supporting 'Climate Change' began last year by including a half-day session "Climate Science Symposium" at the American Chemical Society Joint Great Lakes / Central Regional Meeting (ACS JGLCRM), on May 27th, 2015, in Grand Rapids, MI. The symposium brought together climate change researchers, from the field of Environmental Science and Climatology with policy makers, to discuss problems and share solutions related to regional and global climate change. The conference also included societal topics on climate change.



KACS continued its support for climate change education this year by co-sponsoring a half-day symposium at the 251st ACS National Meeting in San Diego, CA, on March 15, 2016, titled "The Science and Perception of Climate Change". The goal was to disseminate the latest research updates and to identify ways that help engage a more scientifically literate public that in turn would be more supportive of the sciences and its practitioners.

The symposium featured scientists from a broad background to discuss the risks, responsibilities, politics and policies of climate change. The symposium was well

attended with up to 70 attendees and concluded with a panel discussion titled "When Facts Don't Matter". Among others, the lineup included Bassam Shkhashiri (past ACS President), Jerry Bell (U. of Wisconsin, ACS Climate Science Toolkit developer) and Andrew Hoffman (University of Michigan), who is the author of "How Culture Shapes the Climate Change Debate". Presentations by the invited speakers, along with their affiliations and their presentation titles, are listed below.

"How culture shapes the climate change debate"

By Andrew J. Hoffman
Graham Sustainability Institute, University of Michigan,
Ann Arbor, MI

"The ACS climate science toolkit: What's next?"

By Jerry Bell
Chemistry, Wisconsin Initiative for Science Literacy,
Madison, WI

"Evaluating 10 ways to communicate climate change issues"

By Robert Landolt
Chemistry, Texas Wesleyan University
Arlington, TX

"Climate change, extreme events, are regional impacts"

By Nathan Moore
Geography, Michigan State University
East Lansing, MI

"Metal-organic framework as single site catalyst and catalyst support"

By Omar Farha
Chemistry, Northwestern University
Evanston, IL

"Getting people excited about the science of climate change"

By Angela Hoffman
Chemistry, University of Portland
Portland, OR

"Lost in translation: A scientist's perspective on how the media portrays climate change"

By Elke Schoffers
Chemistry, Western Michigan University,
Kalamazoo, MI

"Global warming is unequivocal: ACS and its members can help point the way for meaningful action"

By Bassam Shkhashiri
Department of Chemistry,
University of Wisconsin-Madison, Madison, WI



Andrew J. Hoffman - Whistleblower of climate change rhetoric and author of "How Culture Shapes The Climate Change Debate"



Bassam Shakhshiri
ACS Past President

Acknowledgements

The symposium organizers, Elke Schoffers and Sherine Obare, are grateful to KACS, the ACS Division of Environmental Chemistry and other sponsors for their support. Additional symposia have been scheduled for the 253rd and 254th ACS meetings in 2017. Please continue to read the KACS newsletters for updates on climate change.

Cosponsors:

Committee on Environmental Improvement (CEI)
CAS, Western Michigan University
Kalamazoo ACS Local Section (KACS)
Upper Peninsula Local Section of the ACS



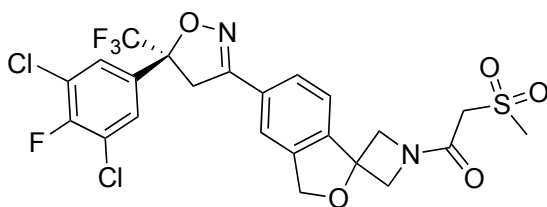
REPORT: Sci-Mix Poster Session Keynote Speaker Dr. Tom McTier

By Elke Schoffers (KACS Publicity) with Photos by Denis Billen (DB Family Photography)



Dr. T. McTier of Zoetis was the keynote speaker

KACS hosted its annual poster session titled "Sustainable Science - Recycle a Poster" at Bell's Eccentric Café in downtown Kalamazoo on Nov. 15, 2016. For the 6th year in a row, KACS organized this public event, which was made possible through a generous grant from Zoetis. As before, there were many research posters in addition to a keynote speaker. Over 110 people attended this social gathering; 49% of the attendees were ACS members.



Dr. McTier discussed the discovery and development of sarolaner (Simparica®) in Zoetis' labs here in Kalamazoo in his talk "Discovery and Development of Simparica® - A Novel Companion Animal Isoxazoline Parasiticide." He is Therapeutic Area Head for Companion Animal Parasitology and Research Director in Global Therapeutics Research, Veterinary Medicine Research and Development at Zoetis in Kalamazoo, MI. This drug is a novel isoxazoline derivative and has unique structural features important for its potency and pharmacokinetic (PK) properties.



Dr. McTier presented the research results obtained at Zoetis in Kalamazoo



KACS rented "The Back Room" at Bell's Eccentric Café for this event.

Event visitors had a chance to enjoy hot appetizers and beer from 5 to 9 PM while listening to the keynote speech, mingling and reviewing the posters that were given. There were 28 new or "recycled" (from a previous conference) posters highlighting scientific results from Zoetis, Kalamazoo College and Western Michigan University (WMU), among others. Some work was done in collaboration with other institutions. There were 15 student presenters from WMU; 8 from Kalamazoo College and one student from Portage High School. The local section also gave out three \$50 cash prizes, which were drawn from the pool of poster presenters who submitted an abstract early. KACS Treasurer Andre R. Venter delivered the prizes to the winners: Lainey R. Barber, Nicole L. Burke and Haider Faraj.

The prize winners presented these posters:

A Spectroscopic Investigation of the Gas-Phase Folding of Leucine Enkephalin and its Analogues

Nicole L. Burke, Timothy S. Zwier* and Scott A. McLuckey* (collaborative project, joint PIs)
Department of Chemistry, Purdue University, West Lafayette, IN

Sorption of Noble Metal Nanoparticles from the Water Column by Periphytic Algal Turf Communities

Haider Faraj and John B. Miller*
Department of Chemistry, Western Michigan University, Kalamazoo, MI

Crossed-Benzoin Condensations Utilizing N-Heterocyclic Carbenes in Green Solvents

Lainey R. Barber and James J. Kiddle*
Department of Chemistry, Western Michigan University, Kalamazoo, MI



Organizers and prize winners: Brian Eklov (KACS Chair); Elke Schoffers (KACS Publicity); winner Lainey R. Barber; Andre R. Venter (KACS Treasurer) and prize winners Nicole L. Burke and Haider Faraj (left to right)



KACS Chair Brian Eklov gave a brief power point presentation to highlight past and planned Local Section activities, also announcing current volunteer opportunities.

The Kalamazoo Local Section also used this popular event as an opportunity to get feedback from all visitors by distributing a paper survey. The Executive Committee thanks all the participants for filling out the questionnaires, and the data is currently being reviewed. Last but not least, the KACS Board is grateful for the financial support that Zoetis has provided to help defer the expenses associated with this event.



ACS members and non-members enjoyed the atmosphere.
Joel Huber, Tom Runge, Steve McWethy, Gabe Kornis, Lydia Hines (KACS Councilor), Fred Antosz



Scientists from academia and industry, with various expertise and background, mingled for hours over food and drinks.



Discussion of science posters.



Poster presenters from industry and academia participated.



WMU students and faculty members presented posters.



A group photo of Kalamazoo College students and faculty members, posing at the end of the poster session.



Scientists enjoyed a relaxing atmosphere.



Attendees listened to the keynote speech upstairs and downstairs in The Back Room.

KACS Bells Poster Session, Nov. 15, 2016

Kalamazoo American Chemical Society Local Section



Closing Notes

Looking for a good read?

by Lydia Hines

As part of our National Chemistry Week celebration in 1994 our Local Section invited Dr. Joseph Nagyvary, a chemistry professor from Texas A&M, to speak on his research on the chemistry of the wood used in Stradivarius violins. He gave his presentation at the Dalton Recital Hall at WMU where we had invited violinists from the Kalamazoo Symphony with their “name violins”, as well as Edith Hines, a young aspiring violinist at the time who used one of Dr. Nagyvary’s violins, for a recital - this would offer “comparisons” of the various violins. Our Section received a Phoenix Award (now called ChemLuminary Award) for that unique event. Dr. Nagyvary is from Hungary; he is now retired and has written a memoir describing his experiences as a young student in Eastern Europe under adverse political circumstances.

Learn more about Joseph Nagyvary’s books “Violence and Violins: The Making of a Hungarian Refugee” at <http://violenceandviolins.com/>

Great Lakes Regional Meeting

Theme: Sustainability and Energy

Location: Holiday Inn, Fargo ND

Date: June 27 – 30, 2017

glrm2017.com

Please consider supporting this event by presenting and attending!

Do you have questions, comments, or would like to contribute to this newsletter?
Send an email to Christine Pruis, Communication Chair at ACSkzoo@gmail.com