

# American Chemical Society – Kalamazoo Local Section Newsletter

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## Comments from the Chair

John H. Engelmann



John H. Engelmann,  
Ph.D. (KACS Chair)

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February is a good month for chemistry. Several famous chemists were born in February. Dmitri Mendeleev, the inventor of the periodic table, was born in February 1834. February 7 is a possible date. Josiah Willard Gibbs was born February 11, 1839. Gibbs free energy is named after him. Friedrich Konrad Beilstein was born February 17, 1838. His standard reference work on organic chemistry was first published in 1880-83 and has been updated ever since. Linus Carl Pauling was born February 28, 1901. He made great contributions to the theory of molecular structure, and bonding. He won the Nobel Prize for chemistry in 1954 and the Nobel Peace Prize in 1962. The list goes on. So next time you think that February is nothing but snow and cold, think again. February is a good month for chemists to be born.

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](mailto:ACSkzoo@gmail.com)

# Chemistry & Culture: Food

By Elke Schoffers with Photos by Roxana Manta-Bielanski

As part of its “Chemistry & Culture” series, KACS hosted a free, public event that focused on food titled “**Sense-ational Molecules in Nutrition**” at Bell’s Eccentric Café on January 29, 2014, 6-10 PM. It attracted 98 people who were curious to see a presentation, enjoy demonstrations and a variety of snacks. Dr. Sara Risch of *Popz Europe* gave the keynote speech connecting nutrition and science by commenting on fats and sodium in foods, among others. She also used jelly beans in order for the audience to experience the difference between *taste* and *flavor*. The talk was followed by hands-on-activities. Several different tables were set up for everybody to visit with and learn more about chemesthesis, natural colors, beer foaming action, and emulsions.



Fruit and meatballs from Bell’s Eccentric Café.



Cream cheese brownies and lemon bars from Victorian bakery



Many Kalsec volunteers helped prepare and demonstrate hands-on activities (left to right): Shane McDonald, Tanushree Tokle, Mark Wolf, Rongmin Huang, Doug Williams, Mark Schulze, Lindsay Bond, Peggy Iler (not shown) and Brian Buffin (not shown).



Elke Schoffers, (Ph.D, KACS Past-Chair) with Don Berdahl, (Ph.D, Kalsec, Executive VP and CTO)



Chemistry major Ashley Mead won a hot pepper pen as door prize.

This event would not have been possible without major funding from Kalsec, Waters Corporation and the Great Lakes Concentrates Company (GLCC). KACS thanks additional supporters who provided food samples or gift cards: Victorian Bakery, Harding’s Friendly Markets, Hunan Gardens, Bacchus Wine & Spirits, Sawall Health Food, and Family Fare Supermarkets.



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# Chemistry & Culture: Food

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More pictures from the event:



Drs John Engelmann (KACS  
Chair) and Don Berdahl (Kalsec)

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# Chemistry & Culture: Food

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There were a variety of refreshments and snacks, such as seasonal fruits, meatballs in house-beer-BBQ sauce and stuffed mushrooms from Bell's; crab Rangoon and spring roll appetizers from Hunan Gardens; Victorian Bakery's seeded sour dough bread, cream cheese brownies and lemon bars; cheeses from Bacchus [Wisconsin cheddar, Piave (hard white cheese), Butterkäse (soft, semi-white cheese), and Gourmandise with Kirsch (soft white cheese)], as well as Salsa, hummus, crackers and more.



Shane McDonald explains pungency to Brian Eklov (KACS Chair-Elect) and Tom Runge

## Sara Risch, Ph.D

Sara Risch is the Director of Global R&D and QA for [Popz](#) Europe, a microwave popcorn company. Prior to joining Popz, she had her own consulting business, working with food, flavor and packaging companies. Sara moved away from consulting for a couple of years to serve as the Director of the School of Packaging at Michigan State University. She received both her B.S. and Ph.D. in Food Science from the University of Minnesota. She has an M.S. in Food Science from the University of Georgia. Her work has focused primarily on **microwave foods and food-package interactions**. Sara is active in the American Chemical Society, for example as a **member of the Committee on Committees and as the Councilor for the Division of Agricultural and Food Chemistry (AGFD)**. Dr. Risch was elected a **Fellow of the American Chemical Society** in 2012.



Keynote speaker Sara Risch, Ph.D.

## Why Chemistry & Culture:

Chemists are not just experts in their field but are also interested in art, history, cooking, baking, brewing, gardening and exercise, among others. "Elements of Dance" invited all chemists, chemistry enthusiasts and the general public to enjoy ballroom dancing. Future "Chemistry and Culture" themes will address topics like "Art Conservation", "Forgery", "Cooking" and "Gardening", for example.

The goals of the "Chemistry and Culture" series are...

- To offer a social networking opportunity for members of the Kalamazoo Local Section of the American Chemical Society (KACS) and the public
- To educate the general public about the goals and activities of KACS
- To highlight the connections between "chemistry" and "culture"
- To encourage student participation
- To instill an appreciation for how chemistry contributes to the world in many ways
- To forge ties with the local community

# Miscellaneous

## Love Potion #9: The Chemistry of Scent & Fragrance

By Amanda Bolles

A Younger Chemists Committee (YCC) webinar

Three days before Valentine's Day, twenty-three students from chemistry clubs at Kalamazoo College and Western Michigan University came together to participate in a webinar titled **Love Potion #9: The Chemistry of Scent & Fragrance**. Participants learned about the history of perfume, the perfumer's palette, the basics of odor analysis, how to use perfumes in products, careers in fragrance chemistry and much more. The webinar also included a hands-on demonstration, which allowed the students to test their nose for fragrance, and a Q&A session with the experts.

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## Call for Volunteers

By Maren Zanotti

This year the ACS is celebrating its eleventh annual Chemists Celebrate Earth Day (CCED), an event that is aimed at showing chemists' involvement in preserving the planet we call home. Every year the ACS chooses a unifying theme for CCED celebrations, this year's CCED theme is "The Wonders of Water."

As we have in the past, the KACS will be celebrating CCED by participating in the Kalamazoo Nature Center's Earth Day celebration on Saturday, April 26, 2014 from 10 AM to 5 PM, ([www.naturecenter.org](http://www.naturecenter.org)). We will be hosting an informational table that will offer hands-on water related chemistry demonstrations and educational resources for the attendees.

As March and April approach there will be more details to come about the Earth Day events we have planned. If you have any suggestions for other Earth Day events or ideas for activities that could be implemented in CCED please contact me directly at [maren.c.zanotti@wmich.edu](mailto:maren.c.zanotti@wmich.edu).

As Earth Day nears please consider volunteering to assist with CCED activities. Volunteers are greatly appreciated, if you are interested in helping please contact me directly at the email listed above.

Maren Zanotti  
2014 CCED Coordinator

# Miscellaneous

## Trip Report Summary: ACS Leadership Training

By Brian Eklov

Every year the national ACS holds a Leadership Institute in Dallas on the last weekend in January. Each local section is asked to send one executive committee member for training, and I represented the KACS at this year's meeting. It was a jam-packed schedule, and we were busy! The topics of discussion covered everything imaginable, from funding and planning activities, communications, and working with the national office. We even discussed how to file the local section's taxes. Needless to say, I learned a lot, met a good number of the national ACS staff, and came back with some good ideas for the future. I'm looking forward to applying what I learned over the next year as Chair-Elect of the KACS.

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## What can ACS do to increase the Quality of Science Education in Grades 7-12?

By Lydia Hines

In the last few years, at Council Meeting at the National ACS meetings, councilors have been given opportunity to comment on a specific issue of particular interest and concern to the Society president; at the Dallas council meeting on March 19 our current president, Thomas Barton (U of Iowa emeritus), who has a great concern about K-12 education in the US, has offered opportunity for councilors to respond to the question **"What can ACS do to increase the quality of Science Education in Grades 7-12?"**. During the time allotted I would be happy to present suggestions, which you may want to share with me. [I plan to leave for the meeting on March 16, so if you care to reach me please do so before then, either at 269-375-7349 or at [lemhwgh@gmail.com](mailto:lemhwgh@gmail.com)]. The extensive array of curricular and extra-curricular educational offerings for K-16 students, teachers (and members) may be found at [www.acs.org/education](http://www.acs.org/education), and many of these are free to the parties for whom they are intended; I have brought the majority of them to our Section's teachers' attention by means of e-mail or personal contact.

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# Final Thoughts

## WMU Climate Change Program

By John Miller

The KACS has partnered with the Western Michigan University Climate Change working group (<http://www.wmuclimatechange.info/>) to provide a series of workshops on climate change, focusing on the ACS Climate Change Toolkit (<http://www.acs.org/content/acs/en/climatescience.html>). The target audiences are non-scientists who are in a position to pass along the information to their constituent audiences. This program was funded by a mini-grant from National ACS, and a small grant from WMU.

On the very snowy morning of Saturday 19 January, eight members of local faith communities, primarily education and outreach coordinators, braved the weather for this four-hour workshop on the WMU campus. (Four others were registered, but kept away by the weather.) On a more clement Saturday 22 February, thirteen teachers and educators attended a workshop at KRESA, where they were able to earn CEU or SCECH credits.

At both workshops, which included both presentations and hands-on activities, five WMU faculty members led the program: Dr. David Karowe (Biological Sciences), Dr. Steven Bertman (Chemistry), Dr. John B. Miller (Chemistry), Dr. Denise Keele (Environmental Sciences) and Dr. Terrell Hodge (Mathematics). The participants left with a flash memory drive loaded with copies of the presentations and lots of links to useful and fun activities to help them spread the scientific consensus on the causes, effects, and possible solutions to climate change resulting from human activities.

At least one more workshop is planned, with Boy Scout and Girl Scout leaders the intended audience.

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## 2015 Joint Great Lakes Central Regional Meeting – Call for Sessions

By James Kiddle

The co-program chairs are soliciting suggestions for technical session topics for the 2015 Joint Great Lakes Central Regional Meeting of the American Chemical Society to be held May 27 - May 30, 2015 in Grand Rapids. The overall theme of the meeting is "**Chemistry - A Grand Enterprise**" and will focus on three main areas: Food, Health, and the Environment.

Please follow the link to submit your suggestions.

[https://docs.google.com/forms/d/1eyX-D50xt\\_0z9Ownlx0a587L4x9vq3p4tSqWuFcJvu0/viewform](https://docs.google.com/forms/d/1eyX-D50xt_0z9Ownlx0a587L4x9vq3p4tSqWuFcJvu0/viewform)