



# NEWSLETTER

## Oklahoma Section American Chemical Society

Volume 19 Number 1

<http://oklahoma.sites.acs.org/>

February 2013

Section Meeting  
Thursday 07 Feb 2013

### SCIENTIFIC ADVISING FOR *BREAKING BAD*

Donna J. Nelson

Department of Chemistry  
and  
Biochemistry

University of Oklahoma



Dr. Donna Nelson, technical advisor to the Emmy Award-winning television series, "Breaking Bad." A proponent of scientific accuracy in television and film, Dr. Nelson will discuss her role as technical advisor to a television show which involves chemistry.

"Breaking Bad" is the story of a struggling high school chemistry teacher who is diagnosed with advanced lung cancer. He turns to a life of crime, producing and selling methamphetamine with the aim of securing his family's financial future before he dies.

*continued on page 2 with the speaker's biographical sketch. →*

University of Central Oklahoma, Edmond, OK  
Howell Hall Atrium and  
Nigh University Center Room 421

6:00–6:30 pm Reception (Howell)

6:30–7:30 pm Dinner (Nigh)

7:30–8:30 pm Presentation (Nigh)

*Paid parking is available in the Visitor Lot,  
east of the Nigh University Center.*



UCO  
campus map

### Dinner Reservation Information

#### Menu, Rancher's BBQ Buffet

Grilled hickory chicken,  
sliced BBQ brisket  
pulled pork  
ranch style beans  
mini corn cob  
cornbread with butter  
potato salad  
green salad  
apple pie or peach cobbler

#### Cost

\$18 members

\$5 students

#### RSVP Deadline

Thursday 04 Feb 5 pm

Contact: Carla Supon

405-974-5732

[csupon@uco.edu](mailto:csupon@uco.edu)

*Vegetarian option available  
Please indicate when you RSVP.*

*RSVP is NOT required to attend the presentation.*

## COMBINED NCW AND CHEMISTRY DAY AT SMO A BIG SUCCESS

Thanks to Michael Ferguson for organizing our section's NCW event again this year.

This year we combined the event with Chemistry Day at Science Museum Oklahoma (SMO). The event at SMO was very successful overall. According to Jim Foster, the Academic Networking Coordinator at SMO, about 1,800 students participated in Chemistry Day.

UCO had four students working with Ferguson with hands-on activities. We had a lot of students make gack and/or pot-pourri. Judging by the amounts of chemicals used, we served about 800-1000 students. Dr. Jeffrey White from OSU was unable to attend, but he sent 3 or 4 of his students to give several close-up demonstrations to students. The demos seemed to be well-received. Finally, Floyd Farha, from Chemical Products, a private company in OKC, presented a slide presentation and showed samples of catalysts his company manufactures that remove hydrogen sulfide from natural gas.

We hope we can resume having the Mall Event again next year, but Jim Foster appreciated our involvement and he would welcome it again in the future.

*—contributed by John Michael Ferguson*

## Fall Election Results

Please join me in congratulating the winners of this year's ACS Oklahoma Section Election. Terms beginning 01 Jan 2013.

- Chair-Elect (3 year term chair elect/chair/past chair, will be chair in 2014)

*Paul A. Sims*

- Treasurer (2 year term starting 01/01/13)

*Jason Wickham*

## ACS Webinar on Chemistry of Dinner and Dessert

The ACS Younger Chemists Committee and ACS Webinars has teamed up to bring you a great programming idea. All across the nation on Thursday, February 28th at 8 pm EST/ 5 pm PST local sections will be gathering to discuss the "Chemistry of Dinner and Dessert". A 30 minute online presentation on the chemistry of cooking and the chemistry of sweetness will be provided followed by a 30 minute Question & Answer session with two subject matter experts. Members of your group will be able to ask two professional food chemists about anything from tips on cooking and baking to insights into food chemistry. Oklahoma State University is planning an event and I encourage other local section colleges and universities to do so. The YCC has made the following suggestions to enhance the evening by enjoying a food tasting before or after the webinar:

- A smorgasbord of international cuisine
- A meal centered around foods from one main ingredient prepared several different ways (for example: a meal centered around different preparations of tomatoes might include salsa, bruschetta, pasta (either with sauce or tossed with sundried tomatoes), tomato pie, pizza, stuffed tomatoes, etc.)
- A spice sampling
- A dessert tasting bar including chocolates/candies from the many stages of candy making (soft ball, hard ball, etc.) and tempered vs. untempered chocolate.

reported by Allen Apblett, councilor

## New ACS Resources for Unemployed Chemists

This spring there will be numerous students graduating from chemistry programs at colleges and universities in Oklahoma and some of them will be joining the ranks of other chemists looking for employment. The ACS offers an extensive suite of career services that address the needs of its unemployed members, details for which may be found at [www.acs.org/unemployed](http://www.acs.org/unemployed). Recently several new resources were launched:

- Online discussion forums on [LinkedIn](https://www.linkedin.com) and the [ACS Network](http://www.acs.org/network) where unemployed members can share experiences and job search resources. ACS career consultants are available to offer advice at these sites.
- Chemists can download a list of local and national job-hunting resources at [www.acs.org/unemployed](http://www.acs.org/unemployed). The list, includes job boards, job clubs, employer information, and other resources. It is maintained by local sections and [ACS Careers](http://www.acs.org/careers). Please let me know ([apblett@okstate.edu](mailto:apblett@okstate.edu)) about job opportunities in Oklahoma that could be posted on this site as well as in this newsletter.
- ACS Careers started an online job club for unemployed members on Nov. 13. The group will meet virtually on Tuesdays, 2–3 PM ET. Participants will connect via Web conferencing to exchange job-hunting tips and support. Sign up online at [www.acs.org/unemployed](http://www.acs.org/unemployed).

reported by Allen Apblett, councilor

(Speaker—continued from front page)

### Donna J. Nelson Biographical Sketch

Dr. Donna Nelson, professor of chemistry at Oklahoma University, obtained her PhD in chemistry at UT-Austin with MJS Dewar, did her postdoctorate at Purdue with HC Brown, and joined OU.

Her research areas are nanoscience, communicating science to the public, organic chemical education, and scientific workforce development. She has over 100 publications and many honors, including American Chemical Society (ACS) Fellow, ACS Israel Award, ACS Nalley Award, Oklahoma Chemist Award, Fulbright Scholar, National Science Foundation (NSF) ADVANCE Leadership Award, Women's eNews "21 Leaders for the 21st Century," AAAS Fellow, Guggenheim Award, NOW "Woman of Courage," Ford Fellow, Sigma Xi Faculty Research Award, NSF Special Creativity Extension, and many keynote talks.

Her nanoscience research involves functionalizing single walled carbon nanotubes (SWCNTs), with applications in energy research and technology development, and led to the successful application of nuclear magnetic resonance (NMR) to functionalized SWCNT analysis. Her work showed that both covalent functionalization and complexation of organic molecules to SWCNTs causes nearby protons to be shifted downfield in the NMR.

She advises television programs, such as *Breaking Bad*, in order to further the universal goal of presenting accurate science to TV audiences. In accord with this program, in 2011, she organized the highly-popular Hollywood Chemistry symposium at the Anaheim ACS Meeting and Science on the Screen symposia at the Denver ACS Meeting.

Her scientific workforce surveys, of faculty race/ethnicity, gender, and rank in science and engineering at research universities, revealed that women and minorities are much less represented among professors than degree recipients.

## SWRM 2013

### 69th Southwest Regional Meeting 17–20 November 2013

Hosted by The Heart O' Texas Section (Waco, TX)

## OSSEF

Oklahoma State Science and Engineering Fair

7–8 March 2013

Kerr Activity Center  
East Central University, Ada, OK  
<http://ossef.ecok.edu/>



**58TH ANNUAL PENTASECTIONAL MEETING****Saturday 09 Mar 2013**

Hosted by the Tulsa Section.

Symposium Session Topics

Analytical Chemistry  
 Chemical Education  
 Nanoscience  
 Physical and Computational Chemistry  
 Organic and Biochemistry  
 Environmental Chemistry  
 Biofuels and Green Chemistry  
 Inorganic and Organometallic chemistry

Pentasectional  
Web siteCall for Abstracts•• **DEADLINE EXTENDED UNTIL 01 FEB 2013** ••

Send Abstract to Patrick Idwasi ([pidwasi@tulsacc.edu](mailto:pidwasi@tulsacc.edu))  
 complete the abstract form and attach to your email.

<http://tulsasection.sites.acs.org/pentasectional.htm>



**ACS**  
 Chemistry for Life™

**CHEMISTRY OLYMPIAD**

- March 1–31 — Local Section Competitions
  - April 11–15 — National Exam (exact date TBA)
  - June 4–19 — Study Camp
  - July 15–24 — 45th IChO Moscow, Russia
- Contact Nathan Malmberg for more information  
[nathan.malmberg@okbu.edu](mailto:nathan.malmberg@okbu.edu) 405.878.2048

**WANTED****CHEMISTRY OLYMPIAD COORDINATOR**

Our section needs a volunteer to serve as the Chemistry Olympiad Coordinator. Nathan Malmberg has served diligently for several years. Unfortunately for us, he needs to step down. Thus a replacement is needed.

See the article describing the duties of the Coordinator in the Nov 2012 edition of the Newsletter.

Interested persons should contact:

Nathan Malmberg [Nathan.Malmberg@okbu.edu](mailto:Nathan.Malmberg@okbu.edu)  
 or Dane W. Scott [dscott@ecok.edu](mailto:dscott@ecok.edu)



Check out the OK section's web site

<http://oklahoma.sites.acs.org/>

**Oklahoma Chemist Award  
2013 Call for Nominations**

Five (5) copies of a single nomination should be sent  
 no later than **04 February 2013** to:

Dr. K. Darrell Berlin  
 Chair, Oklahoma Chemist Awards Committee  
 Department of Chemistry  
 Oklahoma State University  
 Stillwater, OK 74078  
 (405) 744-5950

[kenneth.d.berlin@okstate.edu](mailto:kenneth.d.berlin@okstate.edu)

*Criteria and Guidelines for the Preparation of the  
Nomination and for Selection of the Recipient*

1. A nomination letter for the candidate by a colleague, friend, etc.
2. A complete, up-to-date resume of the candidate.
3. A two-page "highlight" of the candidate's major accomplishments.
4. Five (5) letters of support for the nominee.
  - a) a) Two (2) letters from colleagues at the candidate's place of employment.
  - b) b) Three (3) letters from outside the candidate's place of employment.

Letters from individuals with expertise in the candidate's field are especially welcomed.
5. Special information on the candidate is also solicited, especially as to how the candidate has advanced chemistry in the state of Oklahoma.
6. Candidates may be involved in research or in chemical education within the state.

**NATIONAL CHEMISTRY WEEK****20–26 OCTOBER 2013**

— this year's theme —

*Energy: Now and Forever!***2013 Oklahoma ACS Section Officers  
and  
Standing Committee Chairs**

Dane W. Scott	Chair
Paul A. Sims	Chair Elect
Donna J. Nelson	Immediate Past Chair
Lloyd A. Bumm	Secretary + interim Newsletter ed.
Jason Wickham	Treasurer
Allen Applett	Councilor + Nominations Com.
Nicholas F. Materer	Alternate Councilor
Charles V. Rice	Awards Com.
Nathan Malmberg	Chemistry Olympiad Com.
Valerie Ferguson	National Chemistry Week Com.
Cheryl Frech	Public Relations
Jim Dechter	Web Master



L. A. Bumm  
Oklahoma Section of the ACS  
Homer L Dodge Dept of Physics & Astronomy  
The University of Oklahoma  
440 W Brooks St  
Norman, OK 73019-2061

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## Oklahoma ACS Calendar of Events.

Visit the Oklahoma ACS WWW site for the latest information.

<http://oklahoma.sites.acs.org/>



OK ACS web  
QR code

### CALENDAR OF EVENTS

#### 2013 Dates & Speakers

**Feb 07 (Thu)** UCO, Donna Nelson, *Department of Chemistry, Univ. Oklahoma Scientific Advising for "Breaking Bad"*

**Mar 09 (Sat)** 58th Pentasectional Meeting, hosted by the Tulsa Section.

**Apr 09 (Tue)** OC, Chuck Gay, Valero, Ardmore, OK

**May 02 (Thu)** OSU-OKC, Jarrad R. Wagner, *Forensic Science, OSU Tulsa Forensic Toxicology and Trace Chemistry*

**Sep 20 (Fri)** OBU, Dr. Jim and Jenny Marshall, *Univ. North Texas*

**Oct 15 (Tue)** TBA, Chunming Su, *Soil Scientist, National NRMML/EPS*

**Nov (17-20)** SWRM 2013  
Waco, TX

**2019** Oklahoma Section Centennial