

# KAS Newsletter

**Kentucky Academy of Science**

*Fostering Scientific Discovery and Understanding in Kentucky*



## Messages from the President

Dear KAS Members,

Welcome to the first Kentucky Academy of Science (KAS) newsletter of 2017 and I hope each of you rang in a Happy New Year. Whether being immersed with the start of a new academic semester or working on business plans, this may be a good time to reflect on what great accomplishments were made in 2016 and what to look forward to as part of the Academy in 2017.

### **Kentucky Junior Academy of Science Annual (KJAS) Meeting**

While we mainly culminate the calendar year with the annual KAS meeting, we also had success with the KJAS meeting with the next generation of scientists. The KJAS typically meets in April every year where middle and high school students present their research. I have been fortunate to judge for this event in the past and it is remarkable to see the vast work being done. Please consider participating this coming spring to ensure we can continually encourage these individuals.



### **Kentucky Science Speaker Bureau**

Beginning in August 2016, the KAS started recruiting individuals willing to share their knowledge and experience with other Kentuckians. We have started a directory that shows a potential speaker field of expertise and preferred audience. Please view the current bureau membership and consider being added by signing up through the KAS website.

### **KAS Grants, Award, and Publication**

The KAS continues to offer funding opportunities for members within a variety of research topics.

While we always encourage members to apply, we are also interested in identifying individuals willing to serve as a reviewer when needed. The success of the review process allows KAS to make sound investments. While we continue awarding grants, a new *KAS Excellence in Science Education & Outreach Award* was generated to recognize activities,

educational programs, or approaches that have increased the involvement, engagement, and sustainability of science in the Commonwealth. Furthermore, please consider the *Journal of the Kentucky Academy of Science* for publishing

original research papers and notes. In addition to publishing, one can also serve as a reviewer to ensure high quality research is reaching our issues.

### ***Kentucky Annual Meeting***

The 102<sup>nd</sup> KAS meeting at the University of Louisville was a great success with many excellent presentations, posters, and performances (and I hope some got a sample of the 'Universal Solvent' during the Night at the Museum). We look forward to the 103<sup>rd</sup> KAS meeting at Murray State University and hope many will be planning to attend.

While this highlights some aspects with KAS, many more opportunities are available to get involved and we are always interested in hearing new ideas.

## New KAS Officers for 2017

KAS Welcomes Tracy Hodge from Berea College as a new At-Large Representative; and Leslie North of WKU as the new Vice-President.

Thank you to everyone who ran for an office this year!

We had a fantastic ballot: Doug Chatham, Pei Gao, Sanghyun Lee, Avinash Topè, and Martin Veillette

### Kentucky Academy of Science

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Louisville, KY 40202  
(859) 227-2837

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The main element to remember with all these events is none would be possible if it wasn't for the support and dedication of our members. I extend thanks to our fellow KAS members who have chosen to be a part of our Academy. If someone is not yet a member, there has never been a better time to become engaged. The strength of the Academy comes from all that decide to contribute to our mission. Hope to see you soon.

Cheers,  
Darrin Smith, KAS President

## KAS 2016 Annual Meeting at University of Louisville

It was great to see more than 700 of our members & colleagues at the 2016 annual meeting at the University of Louisville.



Melony Stambaugh with 2016 Vice President  
Jennifer Birriel

If you missed our Keynote presentation of the living history of Marie Curie, check out the Storysmith website with video clips.

<http://storysmith.org/manya/pd.html>



Executive Director Shira Rabin volunteers

## 2017 KAS Governing Board members:

Darrin Smith

President

Jennifer Birriel

President-Elect

Leslie North

Vice President

Eric Jerde

Past President

Pamela Feldhoff

Secretary

Rodney King

Treasurer

Amanda Fuller

Executive Director

Ruth Beattie

Director, Junior Academy of Science

Bruce Griffis

Junior Academy Co-chair

Crystal Simons

Newsletter Editor

Melony Stambaugh

Program Coordinator

Claire Rinehart

Webpage Editor

Nancy Martin

AAAS/NAAS Representative

Maggie Whitson

Biological Sciences Representative

Michael Fultz

Biological Sciences Representative

R. Douglas Chatham

Physical Sciences Representative

Richard Gelderman

Physical Sciences Representative

Gregory Corso

Social & Behavioral Sciences

Representative

Kerrie McDaniel

Social & Behavioral Sciences

Representative

Mary Janssen

At-Large Representative

Tracy Hodge

At-Large Representative

Walter Borowski and Kelly Watson

Journal Co-Editors

## 2017 Section Leaders

### Agricultural Sciences

Jean Gumirakiza- Section Chair

Vikas Kumar- Section Secretary

### Anthropology and Sociology

Benjamin Freed- Section Chair

Amanuel Beyin- Section Secretary

### Botany

Lawrence Alice- Section Chair

Maggie Whitson- Section Secretary

### Cellular and Molecular Biology

Emily Shifley- Section Chair

Gary ZeRuth- Section Secretary

### Chemistry: Analytical / Physical

Harry Fannin- Section Chair

Bommanna Loganathan- Section Secretary

### Chemistry: Organic / Inorganic

Kevin Revell- Section Chair

Kyle Watson- Section Secretary

### Computer and Information Sciences

Jerzy Jaromczyk - Section Chair

Muzaffar Ali- Section Secretary

### Ecology and Environmental Science

Maheteme Gebremedhin- Section Chair

Roberta Challener- Section Secretary

### Engineering

Aaron Daley- Section Chair

Shen liu - Section Secretary

### Geography

Buddhi Gyawali - Section Chair

Christopher Day- Section Secretary

### Geology

Ann Harris- Section Chair

David Dockstader- Section Secretary

### Health Sciences

Bruce Branam- Section Chair

Avinash Tope- Section Secretary

### Mathematics

R. Douglas Chatham- Section Chair

Andy Martin- Section Secretary

### Microbiology

Lingyu Huang- Section Chair

Joseph Mester- Section Secretary

### Physics and Astronomy

Troy Messina- Section Chair

Marilyn Akins- Section Secretary

### Physiology and Biochemistry

Michael Smith - Section Chair

Julia Carter- Section Secretary

### Psychology

Richard Osbaldiston- Section Chair

KatieAnn Skogsberg- Section Secretary

### Science Education

Shira Rabin- Section Chair

Karen Hlinka- Section Secretary

### Zoology

Roy Scudder-Davis- Section Chair

Oliver Beckers- Section Secretary

Updated KAS Bylaws

KAS Bylaws have been updated – you can find them here.

<http://kyacademyofscience.net/about/bylaws/>

A few minor amendments and clarifications have been proposed to this version. See the new version with edits in red (<http://kyacademyofscience.net/wp-content/uploads/2014/05/KAS-Bylaws-w-Amendments-Oct-5-2016-version.pdf>)

Members are being asked to approve small amendments to the new bylaws. Please vote by March 1, 2017 to approve the amendments to these bylaws – we need forty members to vote for a quorum.

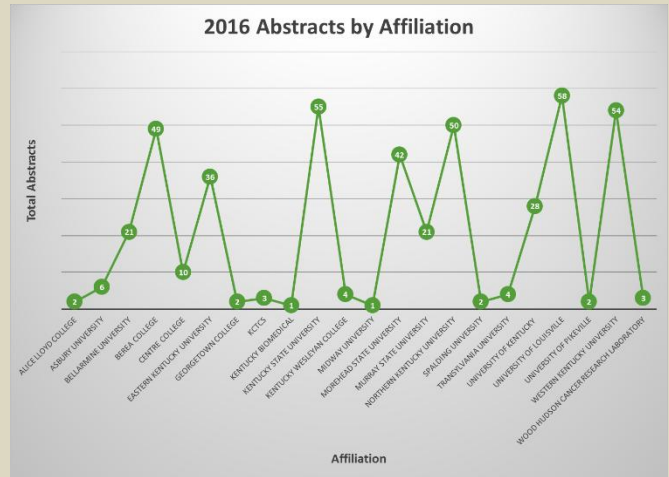
<https://www.surveymonkey.com/r/KASBylawamendments>



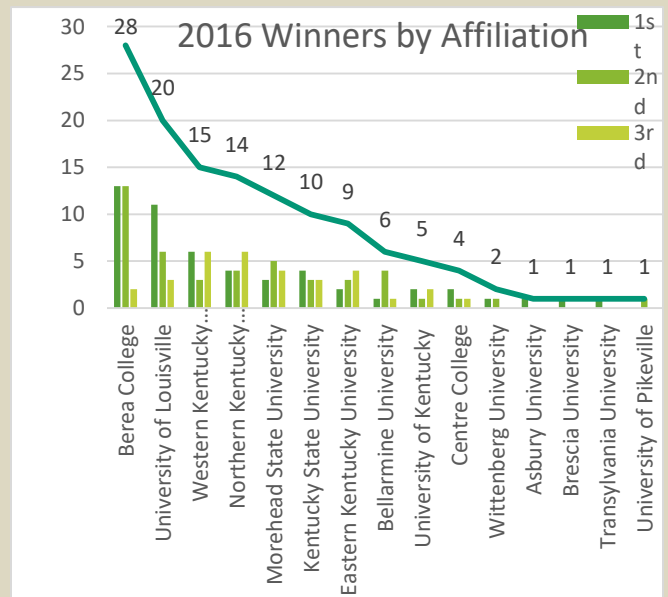
# Annual Meeting Abstracts & Student Research Competition Awards

The number of abstracts the nineteen sections for our annual meeting was 442, up from our average 408.5. Of that number, there were 222 poster presentations and 220 oral presentations. For the undergraduate competition, there were 131 entered as poster presentations and ninety-four as oral presentations. In the graduate oral presentation competition there were sixty-four submissions. Four schools submitted more than fifty abstracts including Kentucky State University (55), NKU (50), WKU (54), and our host University of Louisville (58). (Table 1)

The Kentucky Academy of Science is divided into nineteen sections each with section officers, a section meeting, oral and poster presentations, and winners for graduate and undergraduate students. The top two sections for this year are Cellular & Molecular Biology (55) and Ecology and Environmental Sciences (50). (Table 2). As you see from Table 1, Cellular & Molecular Biology jumped from third largest to first over last year. Judges bestowed a total of 129 awards across the nineteen sections (Table 3). The institution with the most awards for 2016 is Berea College with a total of twenty-eight (13 first place, 13 second place, and 2 third place) awards. Our host, University of Louisville, is second with a total of twenty awards. Rounding out the top three is Western Kentucky University with fifteen awards. Please see the complete list of winners below. Congratulations to all of our winners and we look forward to seeing the next step of your research in Murray State. Check our website for a call for abstracts this fall.



Section	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	Average
Agricultural Sciences	39	37	37	32	36	35	30	37	35	34	29	34.6
Anthropology and Sociology	13	24	10	9	10	6	12	6	5	2	10	9.7
Botany	9	12	17	12	14	9	9	11	15	16	11	12.3
Cellular & Molecular Biology	55	41	36	41	27	22	39	33	28	30	29	34.6
Chemistry: A/P	15	31	30	25	69	60	79	64	60	35	70	48.9
Chemistry: O/I	33	44	44	42	69	60	79	64	60	35	70	40.8
Computer Information Sciences	21	18	8	17	3	10	17	10	8	10	14	12.4
Ecology and Environmental Sciences	50	59	58	60	33	27	32	34	28	50	31	42.0
Engineering	16	14	17	19	7	9	9	7	8	6	6	10.7
Geography	15	8	11	6	10	17	32	8	6	17	14	13.1
Geology	10	8	10	13	19	11	17	11	5	7	27	12.5
Health Sciences	23	11	25	17	11	12	17	15	17	20	19	17.0
Mathematics	14	10	8	14	4	5	12	13	5	8	9	9.3
Microbiology	28	18	26	16	11	10	30	17	15	14	12	17.9
Physics and Astronomy	25	31	16	29	29	21	22	24	25	23	28	24.8
Physiology and Biochemistry	26	31	35	40	35	25	14	25	25	24	19	27.2
Psychology	15	19	36	42	24	15	40	35	33	23	25	27.9
Science Education	17	14	20	23	14	6	16	11	9	12	18	14.5
Zoology	18	15	27	21	37	19	19	28	32	27	23	24.2
Total	442	445	471	478	393	319	446	389	359	358	394	408.5



## Abstracts by Institution 2016

- Alice Lloyd College 2
- Georgetown College 2
- Asbury University 6
- KCTCS 3
- Kentucky Biomedical 1
- Bellarmine University 21
- Kentucky State University 55
- Berea College 49
- Kentucky Wesleyan College 4
- Brescia University 0
- Lindsey Wilson College 0
- Campbellsville University 0
- Midway University 1
- Centre College 10
- Morehead State University 42

- Eastern Kentucky University 36
- Murray State University 21
- Northern Kentucky University 50
- Spalding University 2
- Thomas More College 0
- Transylvania University 4
- University of Kentucky 28
- University of Louisville 58
- University of Pikeville 2
- University of the Cumberlands 0
- Western Kentucky University 54
- Wood Hudson Cancer Research Laboratory 3

Total 454

## 2016 Student Research

### Competition Winners

#### Agriculture Posters

1<sup>st</sup> Place – Helina Asrat, Berea College

2<sup>nd</sup> Place – Cassandra Carter, Berea College

3<sup>rd</sup> Place – Nathan Kring, Kentucky State University

#### Agriculture URC Orals

1<sup>st</sup> Place – Jarod Jones, Kentucky State University

2<sup>nd</sup> Place – George Pate, Kentucky State University

#### Agriculture GRC Orals

1<sup>st</sup> Place – Brittany Woodward, Kentucky State University

2<sup>nd</sup> Place – Rick Hulefeld, Kentucky State University

3<sup>rd</sup> Place – Chelsea Walling, Kentucky State University

#### Anthropology and Sociology Posters

1<sup>st</sup> Place – Kyree Hobson and Simeon Huff, Berea College

2<sup>nd</sup> Place – Eleanor Kremer, Northern Kentucky University

3<sup>rd</sup> Place – Sage Boyers and Liza Vance, Northern Kentucky University

#### Anthropology and Sociology URC Orals

1<sup>st</sup> Place – Lindsey Meador, Northern Kentucky University

#### Anthropology and Sociology GRC Orals

1<sup>st</sup> Place – Kendra Hein, Northern Kentucky University

#### Botany Posters

1<sup>st</sup> Place – Preye Agbana, Brescia University

2<sup>nd</sup> Place – Austin Adam, Bellarmine University

#### Botany URC Orals

1<sup>st</sup> Place – Breanna Knicely, Morehead State University

2<sup>nd</sup> Place – Faithe Goff, Eastern Kentucky University

3<sup>rd</sup> Place – Sean Nilan, Berea College

#### Cellular & Molecular Biology Posters

1<sup>st</sup> Place – Hsuan Peng, Berea College

2<sup>nd</sup> Place – Eashwar Somasundaram, University of Kentucky

3<sup>rd</sup> Place – Megham Kramer, Berea College

#### Cellular & Molecular Biology URC Orals

1<sup>st</sup> Place – Seth Reasoner, Berea College

2<sup>nd</sup> Place – Ashley Munie, Murray State University

3<sup>rd</sup> Place – Jodi DeJohn, Georgetown College

#### Cellular & Molecular Biology GRC Orals

1<sup>st</sup> Place – Swathi Kuppireddy, University of Louisville

2<sup>nd</sup> Place – Margaret Wallen, University of Louisville

3<sup>rd</sup> Place – Tyler Hoard, Murray State University

#### Chemistry: Analytical/Physical Posters

1<sup>st</sup> Place – Job Limo, Berea College

2<sup>nd</sup> Place – Ana Gabriela Mira, Centre College

3<sup>rd</sup> Place – Ariel Porter and Corbin Arrasmith, Northern Kentucky University

#### Chemistry: Analytical/Physical URC Orals

1<sup>st</sup> Place – Kyaw Hpone Myint, Berea College

2<sup>nd</sup> Place – Franklyn Wallace, Western Kentucky University

3<sup>rd</sup> Place – Konnor Jones, Western Kentucky University  
Chemistry: Analytical/Physical GRC Orals

1<sup>st</sup> Place – Jacob Strain, University of Louisville

2<sup>nd</sup> Place – Reika Haskell, Eastern Kentucky University

3<sup>rd</sup> Place – Ali Abdulrheem, Western Kentucky University

#### Chemistry: Organic/Inorganic Posters

1<sup>st</sup> Place – Anh Nguyen – Murray State University

2<sup>nd</sup> Place – Michael James and Kateryna Nabukhotna, Berea College

3<sup>rd</sup> Place – Kylie Heubel and Haley Sizemore, Eastern Kentucky University

#### Chemistry: Organic/Inorganic URC Orals

1<sup>st</sup> Place – Quynh Nguyen, Northern Kentucky University

2<sup>nd</sup> Place – Maxwell Boyle, Northern Kentucky University

3<sup>rd</sup> Place – Jason Loxterkamp, Northern Kentucky University

#### Chemistry: Organic/Inorganic GRC Orals

1<sup>st</sup> Place – Haleh Jeddi, Western Kentucky University and Andrew Haddad, University of Louisville

2<sup>nd</sup> Place – Rahul Jain, University of Louisville

#### Computer & Information Sciences Posters

1<sup>st</sup> Place – Eura Shin, University of Kentucky

2<sup>nd</sup> Place – Zachary Eckert, Bellarmine University

3<sup>rd</sup> Place – Carson Blevins, Bellarmine University

#### Computer & Information Sciences URC Orals

1<sup>st</sup> Place – Eura Shin, University of Kentucky



1<sup>st</sup> Place – Bailey Phan, University of Kentucky  
 2<sup>nd</sup> Place – Aaron Andries, Bellarmine University  
 3<sup>rd</sup> Place – Seth Pritchett, Murray State University  
Computer & Information Sciences GRC Orals  
 1<sup>st</sup> Place – Jongouk Choi, Kentucky State University  
Ecology & Environmental Science Posters  
 1<sup>st</sup> Place – Jaylen Beatty, Transylvania University  
 2<sup>nd</sup> Place – Olivia Slater and Nina Meneses, Berea College  
 3<sup>rd</sup> Place – Bryson Dahlberg, Murray State University  
Ecology & Environmental Science URC Orals  
 1<sup>st</sup> Place – Katie Arstingstall, University of Louisville  
 2<sup>nd</sup> Place – Keegan Thompson, University of Louisville  
 3<sup>rd</sup> Place – Christina Walker, Murray State University  
Ecology & Environmental Science GRC Orals  
 1<sup>st</sup> Place – Benjamin Adams, University of Louisville  
 2<sup>nd</sup> Place – Donald Benkendorf, Murray State University  
 3<sup>rd</sup> Place – Rachel Wells, University of Louisville  
Engineering Posters  
 1<sup>st</sup> Place – Brooke Kennedy, Bellarmine University  
 2<sup>nd</sup> Place – Adam Stanley, Morehead State University  
 3<sup>rd</sup> Place – Jonathan Murphy, Kentucky State University  
Engineering URC Orals  
 1<sup>st</sup> Place – Michael Edlin, Morehead State University  
 2<sup>nd</sup> Place – Dylan Stewart, Murray State University

3<sup>rd</sup> Place – Enrique Samudio Cano, Morehead State University  
Engineering GRC Orals  
 1<sup>st</sup> Place – Rayeanne Balgemann, University of Louisville  
 2<sup>nd</sup> Place – Mohammad Mohebbi, University of Louisville  
 3<sup>rd</sup> Place – Nadieh Moghadam, University of Louisville  
Geography Posters  
 1<sup>st</sup> Place – Kelsey Voit, University of Louisville  
Geography URC Orals  
 1<sup>st</sup> Place – Dolly Na-Yemeh, Western Kentucky University  
 2<sup>nd</sup> Place – Bijesh Mishra, Kentucky State University  
 3<sup>rd</sup> Place – Hongli Yang, Murray State University  
Geology Posters  
 1<sup>st</sup> Place – Ashley Casselberry, Murray State University  
Geology URC Orals  
 1<sup>st</sup> Place – Lee Minzenberger, Eastern Kentucky University  
 2<sup>nd</sup> Place – Ethan Sweet, Eastern Kentucky University  
 3<sup>rd</sup> Place – Laura Kelley, Eastern Kentucky University  
Health Sciences Poster  
 1<sup>st</sup> Place – Nicholas Vossenberger, Eastern Kentucky University  
 2<sup>nd</sup> Place – Danielle Upton, University of Pikeville  
 3<sup>rd</sup> Place – Harsh Patel, Northern Kentucky University  
Health Sciences URC Orals  
 1<sup>st</sup> Place – Tia Dowling, University of Louisville  
 2<sup>nd</sup> Place – Hailey Shanahan, Northern Kentucky University  
 3<sup>rd</sup> Place – LaShay Byrd, University of Kentucky  
Health Sciences GRC Orals  
 1<sup>st</sup> Place – Samantha Carlisle, University of Louisville

2<sup>nd</sup> Place – Patrick Trainor, University of Louisville  
Mathematics Poster  
 1<sup>st</sup> Place – Bhavesh Ramkorun, Berea College  
 2<sup>nd</sup> Place – Connor Owens, Morehead State University  
Mathematics URC Orals  
 1<sup>st</sup> Place – Andrew Davis, Western Kentucky University  
 2<sup>nd</sup> Place – Zackary Kiser, Morehead State University  
Microbiology Poster  
 1<sup>st</sup> Place – Millicent Ronkainen, Western Kentucky University  
 2<sup>nd</sup> Place – Daniel Powers, Northern Kentucky University  
 3<sup>rd</sup> Place – Megan Peterson, Morehead State University  
Microbiology URC Orals  
 1<sup>st</sup> Place – Rhinnon Cecil, Kentucky State University  
 2<sup>nd</sup> Place – Andre Lorenz, Wittenberg University  
 3<sup>rd</sup> Place – Earl Hollon, Eastern Kentucky University  
Microbiology GRC Orals  
 1<sup>st</sup> Place – Jae Lee, University of Louisville  
 2<sup>nd</sup> Place – Nik Short, University of Louisville  
 3<sup>rd</sup> Place – Aubrey Mojesky, University of Louisville  
Physics & Astronomy Poster  
 1<sup>st</sup> Place – Tanner Thompson, Berea College  
 2<sup>nd</sup> Place – Dustin Watts, Berea College  
 3<sup>rd</sup> Place – Honor Hare, Western Kentucky University  
Physics & Astronomy URC Orals  
 1<sup>st</sup> Place – Isaac Vock, Centre College  
 2<sup>nd</sup> Place – Joshua Allen, Morehead State University

3<sup>rd</sup> Place – Bryce Aberg, Western Kentucky University

Physics & Astronomy GRC Orals

1<sup>st</sup> Place – Sara Botero Carrizosa, Western Kentucky University

2<sup>nd</sup> Place – Clarissa Roe, Western Kentucky University

Physiology & Biochemistry Poster

1<sup>st</sup> Place – Marco Santos, Berea College

2<sup>nd</sup> Place – James McCarthy, Berea College

3<sup>rd</sup> Place – Rachel Hudson, Morehead State University

Physiology & Biochemistry URC Orals

1<sup>st</sup> Place – Young Hwan Kim, Asbury University

2<sup>nd</sup> Place – Tatiana Mikhailova, Berea College

3<sup>rd</sup> Place – Denis Hodzic, Western Kentucky University

Physiology & Biochemistry GRC Orals

1<sup>st</sup> Place – Aiste Dobrovolskaite, Western Kentucky University

Psychology Poster

1<sup>st</sup> Place – Alicia Bedolla, Berea College

2<sup>nd</sup> Place – Samuel Case, Morehead State University

3<sup>rd</sup> Place – Zoe Becerra, Morehead State University

Psychology URC Orals

1<sup>st</sup> Place – Tiffany Estep, Berea College

2<sup>nd</sup> Place – Valeir Zehr, Berea College and Brett Vitkun, Centre College

Science Education Poster

1<sup>st</sup> Place – Aubrey Melton, Berea College

2<sup>nd</sup> Place – Douglas Kelly, Bellarmine University

Science Education URC Orals

1<sup>st</sup> Place – Alexandria Szalanczy, Centre College

2<sup>nd</sup> Place – Casey Tetidrick, Berea College

3<sup>rd</sup> Place – Tori Hickey, University of Kentucky

Science Education GRC Orals

1<sup>st</sup> Place – Melissa Michael, University of Louisville

Zoology Poster

1<sup>st</sup> Place – Blake Nelson, Wittenberg University

2<sup>nd</sup> Place – Robin Hauschner and Favour Akabogo, Berea College

3<sup>rd</sup> Place – Rachel Prokopius, Northern Kentucky University

Zoology URC Orals

1<sup>st</sup> Place – Shelby Nemec, Northern Kentucky University

2<sup>nd</sup> Place – Jillian Kendall, Berea College

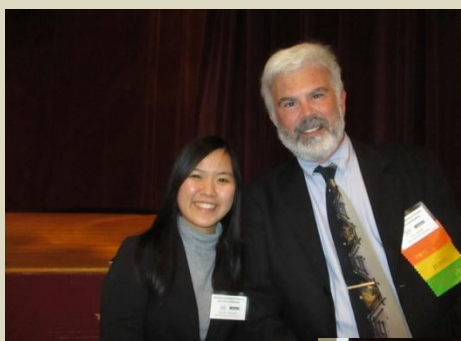
3<sup>rd</sup> Place – Sanida Palavra, Western Kentucky University

Zoology GRC Orals

1<sup>st</sup> Place – Brandon Yates, Morehead State University

2<sup>nd</sup> Place – R. Lynn Von Hagen, Western Kentucky University

# Congratulations to the 2016 Winners!!



These are a few of the student competition winners who were recognized at our Saturday awards reception. For more photos of award winners visit <http://kyacademyofscience.net/2016-student-research-competition-winner-photos/>

## KAS Committees are working hard to realize the goals in our Strategic Plan – and fulfill our mission.

Would you like to get involved in fostering Scientific Discovery and Understanding in Kentucky? ALL our members, including student scientists, are welcome to get involved!

### The Committee on Science Education & Advocacy

Terrie McDaniel, Chair, [terrie.mcdaniel@wku.edu](mailto:terrie.mcdaniel@wku.edu)

Members of this committee follow legislation impacting science and science education in the Commonwealth, and are leading initiatives to get scientists more engaged in promoting strong STEM education at the P-12 levels. If you'd like to join a conference call in January, email Terrie McDaniel or Amanda Fuller ([executivedirector@kyscience.org](mailto:executivedirector@kyscience.org))

### Communications Committee

Doug Chatham, Chair, [d.chatham@moreheadstate.edu](mailto:d.chatham@moreheadstate.edu)

This committee will be helping improve KAS' website, social media, and newsletter, which may include more videos, member and volunteer profiles, or whatever else you think would help members like you communicate with fellow scientists about your work!

### Public Engagement Committee

Richard Gelderman, Chair, [richard.gelderman@wku.edu](mailto:richard.gelderman@wku.edu)

This committee is helping to bring science to people in more places, like the Kentucky Association for Environmental Education conference and the ROMP Music Festival. They are interested in bringing science activities to events all over the state, like fairs & festivals, scout groups, and others. They are also using the Science Speakers Bureau as a way to reach public audiences. If you'd like to join a conference call in January, email Richard Gelderman or Amanda Fuller ([executivedirector@kyscience.org](mailto:executivedirector@kyscience.org))

### Grants & Awards Committee

Jennifer Birriel, Acting Chair, [j.birriel@moreheadstate.edu](mailto:j.birriel@moreheadstate.edu)

Members of this committee help evaluate nominations for annual KAS awards and grants  
Recent activity & accomplishments: Drafted, launched and awarded the first "KAS Excellence in Science Education and Outreach" award. Committee members are evaluating 2017 grant proposals.  
Priorities: Increase number of nominations to increase recognition for members who are doing good outreach work

### Membership Committee

This committee is seeking to expand and diversify KAS membership by identifying under-represented fields or sectors of scientists and supporters and welcoming them into the Academy of Science. This Chair is currently vacant. For more information, contact KAS Executive Director Amanda Fuller, [executivedirector@kyscience.org](mailto:executivedirector@kyscience.org)



## KAS Video Gallery features Kentucky Scientists at work!

Check out what your colleagues are doing,  
at our video gallery:

<http://kyacademyofscience.net/about/kas-video-gallery/>

Do you have a short video (3-4 minutes) about you or your work that you'd like to share? Send a link to [executivedirector@kyscience.org](mailto:executivedirector@kyscience.org) and we'll add it to our page.

## Keep funding for science in the federal budget

Your senators and representatives are going to be working on the federal budget between now and April 28; Now is the time for scientists to make our voices heard about maintaining federal funding for research & science.

Contact your representatives or senators about the value of the NSF, NIH, EPA, or other federal agencies to science & research in your community.

Find your representative: <http://www.house.gov/>

Find your senator: <http://www.senate.gov/>

## Calling Murray members: The 2017 Annual Meeting will be at Murray State Nov 3-4.

Would you be willing to lend a hand with local arrangements?

Email Amanda Fuller at  
[executivedirector@kyscience.org](mailto:executivedirector@kyscience.org)

Thank you!

Fair Labor Standards Act (FLSA) injunction and post-docs: one month later  
Read an article by KAS member Adriana Bankston about how post-docs may be affected by the recent ruling on the Fair Labor Standards Act:

<http://futureofresearch.org/2016/12/22/guest-post-fair-labor-standards-act-flsa-injunction-and-postdocs-one-month-later/>

## Eagle Watch Weekends Available At Kentucky State Parks

### Trips Available In January, February

FRANKFORT, Ky. – (Nov. 21, 2016) -- Eagle Watch Weekends, a unique Kentucky State Park tradition, will be offered once again in January and February 2017.

A special educational opportunity is being offered on Feb. 3 for public, private and home school students aboard the CQ Princess. In addition to wildlife viewing, there will be environmental education activities on the yacht. The fee is \$15 per student. The trip is only for student groups and teachers and will start and end at Kenlake State Resort Park. Call Carey Ruff at 502-564-8110, ext. 150 or email [carey.ruff@ky.gov](mailto:carey.ruff@ky.gov)

The park system will sponsor this wildlife-watching opportunity as bald eagles gather around the major lakes of western Kentucky looking for food. The park tours allow guests to observe and learn about these beautiful birds of prey.

The tours take place at three state resort parks during weekends in January and February, on an excursion yacht and by van. They are led by state park naturalists and staff from the Department of Fish and Wildlife Resources.

Ticket prices for the weekend tours range from \$25 to \$65 a person. Most tours last from three to 3½ hours. The weekend tours include evening programs on Friday and Saturday.

Kenlake State Resort Park is also offering brunch cruises on Feb. 5 and 11.

Kentucky Dam Village State Resort Park (800-325-0146): Jan. 21-22. Yacht tours and van tours to the Ballard Wildlife Management Area.

Lake Barkley State Resort Park (800-325-1708): Jan. 28-29. Yacht tours and van tours to the Land Between the Lakes.

Kenlake State Resort Park (800-325-0143): Feb. 4-5 Yacht tours. Feb. 5 & 11, brunch cruises.

*Guests should bring warm clothes, rain gear and binoculars. These trips can take place under extreme weather conditions. The resorts offer lodges, cottages and restaurants. Registration is required for the Eagle Watch Weekends. Call the parks for registration, details and fee information or visit: [www.parks.ky.gov](http://www.parks.ky.gov)*



# Announcements

## Transition in the Journal of the Kentucky Academy of Science

As the outgoing Editor of the Journal of the Kentucky Academy of Science, I would like to announce a transition and welcome the new editors, Walter Borowski and Kelly Watson, from Eastern Kentucky University. Their editorial works will start with Volume 78, 2017.

The Journal has been serving the academic community of Kentucky and beyond for 102 years (originally under the title Transactions of the KAS) under a handful of editors: I feel very proud and lucky having had the opportunity to be one of them. My work in the years of service 2013-2016 would not have been possible without the support of the Board, KAS presidents, and Executive Director Amanda Fuller; and practical advice from David White, one of the previous editors. Neil Moore served as an Associate Editor and his assistance was essential in all the stages of the process. The high quality of the published work would not be so impressive without strong submissions from the authors, and without professional reviewers to whom I am grateful and indebted.

Special thanks are due to the Allen Press, Inc. for their beautiful typesetting and publishing, and especially to Katy Hollingsworth, our account manager at Allen Press.

I wish the Journal and the new Editors many successful years.

Thanks to all.  
Jerzy W. Jaromczyk

## New Editors for the JKAS We would like to introduce ourselves as the new co-editors of the Journal of the Kentucky Academy of Science

We are both located at Eastern Kentucky University and are geoscientists: Kelly Watson uses remote sensing and geoinformatics to investigate environmental concerns and Walter Borowski is a geologist and aqueous geochemist. Our primary goal for the JKAS is to increase the number of papers in each of the two issues we publish per year, while maintaining the quality of its publications. As is the custom of the JKAS, we welcome manuscripts from all scientific disciplines including the life and physical sciences to informatics and computer science. We also welcome manuscripts from scientific work outside of Kentucky because the JKAS is a wonderful venue for those scientists doing regional work without considering artificial state boundaries. The JKAS is available in both print and electronic form (members can log in to access journals at <http://www.kyscience.org>), and is searchable through BioOne (<http://www.bioone.org/search/advanced>). Your publications will be accessible and archived properly as important works of science. Another important goal is to process manuscripts into publications as quickly and efficiently as possible. As coeditors we hope that sharing the editorial workload is a first step toward this goal. Because we are a peerreviewed journal, a second step is to gather expert reviewers that span the full diversity of the sciences. Consequently, we now reach out to our scientific colleagues as potential manuscript reviewers. As geoscientists, we need biologists, chemists, physicists, computer scientists and those from fields of medicine through informatics to be expert reviewers. Please do contact us and throw your hat into the ring as reviewers – we will be most appreciative! The JKAS has a long history of publishing and we invite you read White (2011) for historical perspective. In addition to individual manuscripts we wish to encourage thematic issues. If you have an idea for a thematic issue and can rope-in a core of colleagues committed to publishing in the JKAS, we would love to hear from you as a potential guest editor. The JKAS also sponsors features and notes, so feel free to contact us about publishing these items. Please refer to our webpage (<http://kyacademyofscience.net/publishing-in-the-journal/>) for information about submitting manuscripts to the JKAS. We will be making changes in the editorial process sometime in the future and will update the webpage accordingly. Thank you for your consideration!

Walter Borowski and Kelly Watson White, D. S. 2011.

## KAS Announcements of 2017 Continued:

Calling Kentucky REU Hosts: Please send us your listings!

Every year we collect summer REU (Research Experiences for Undergraduates) announcements and share the postings with our student members- If you are hosting REUs (or other summer student researchers) this summer please send your REU details to [executivedirector@kyscience.org](mailto:executivedirector@kyscience.org)

We'll be posting the list here:

<http://kyacademyofscience.net/membership/research-experiences-for-undergraduates-reu-in-kentucky/>

Don't be shy—Communicate Science!

Wikipedia is one of the most used internet sites where people go to get their questions answered – have you considered bringing your expertise to bear on Wikipedia sites about scientific topics?

You can edit pages on topics related to your field of expertise, or create new ones – and help people get trustworthy information on the internet!

Learn how to edit Wikipedia in under an hour:

[https://en.wikipedia.org/wiki/Wikipedia:The\\_Wikipedia\\_Adventure](https://en.wikipedia.org/wiki/Wikipedia:The_Wikipedia_Adventure)

(Wikipedia just wrapped up their Year of Science campaign: <https://wikiedu.org/yearofscience/> )

Are you a member of any other small- to medium- scientific societies?

KAS is seeking new database software and we need your help. We're surveying other scientific societies to find out what works well for them – and we'd love for you to help us gather that information. You can help in TWO ways:

1. Send the name of your small or medium-sized scientific society (and any contact info) to Amanda Fuller at [executivedirector@kyscience.org](mailto:executivedirector@kyscience.org), OR
2. Forward this link to the person in that organization who is in charge of managing membership and thank them for their help: <https://www.surveymonkey.com/r/MCXFXXC>
- 3.

Kentucky Academy of Science launches the Kentucky Science Speakers Bureau

Have you joined yet? The Kentucky Science Speakers Bureau offers teachers, media professionals, or civic groups, access to scientific experts across the Commonwealth - for free\*! From our 3700 members around the state of Kentucky, the Kentucky Academy of Science has begun to assemble a list of experts willing to talk to a variety of different audiences. Check out the Kentucky Science Speakers Bureau

<http://kyacademyofscience.net/programs/kentucky-science-speakers-bureau/> and sign up today (Graduate students are welcome!). You will be able to tell us your preferred topics, geographic areas and types of audiences you're willing to speak to. Your contact information will not be publicly visible and all requests for speakers will come through KAS.

\*KAS leaves it up to the parties involved to negotiate reimbursement for travel or other expenses, as applicable

## Calendar of Events

**January 21** Science with a Twist at the Kentucky Science Center.

<http://kysciencecenter.org/grownups/science-with-a-twist/>

**February 9** Darwin Lecture: Dr. James I. Kirkland, Utah Geological Survey State Paleontologist, "Dinosaurs of the Cedar Mountain Formation." Seay Auditorium, Agricultural Science North Bldg., University of Kentucky

**February 16-20** American Association for the Advancement of Science (AAAS) / American Junior Academy of Science (AJAS) / National Association of Academies of Science (NAAS) meetings, Boston

**February 22** Sigma Xi Online Student Research Showcase deadline: <https://www.sigmaxi.org/meetings-events/student-research-showcase>

**March 2** Posters at the Capitol – a showcase of student research at Kentucky's publicly supported universities, Frankfort, KY

**April 15** Kentucky Junior Academy of Science, Kentucky State University

### Sigma Xi 2017 Student Research Showcase



Sigma Xi, The Scientific Research Honor Society, invites high school, undergraduate and graduate students to participate in the 2017 Student Research Showcase, an innovative opportunity to develop their science communication skills using a virtual platform.

Participants in the Student Research Showcase create a website that contains three components; a short video to introduce their project, an abstract, and a technical slideshow. They receive feedback from judges, who are qualified Sigma Xi members and the public.

Monetary awards of up to \$500 are given to the top Graduate, Undergraduate and High School winners. The winner of the People's Choice Award is selected based on a public vote and receives a \$250 monetary award.

Pre-approval must be obtained before the registration deadline of Feb 22. More details here:

<https://www.sigmaxi.org/meetings-events/student-research-showcase>

# Fun, Games, and Science Education- Science with a Twist at Kentucky Science Center January 21

Join us & Support science literacy! Get your ticket here: <http://kysciencecenter.org/grownups/science-with-a-twist/>



## Engineers Week

Feb. 23-25, 2017. This Science Celebration provides a valuable opportunity for visitors to interact with professionals in the field and to be exposed to a variety of engineering careers. Last year we saw 1800 visitors over this 3-day event.

## Have a background that's not been represented at our lineup of Science Celebrations?

We are starting a new event April 3-7, 2017 free of all thematic restrictions! Our Spring Break Extravaganza is an open invitation for science content providers throughout the region to share what they do with an enthusiastic public audience. Spring Break is consistently our largest in-gallery audience of the year, averaging 1000 people a day!

The most common type of partner program for a Science Celebration is a table-top activity to share a brief hands-on lesson. For more information regarding shift times, available gallery spaces, previous programming ideas, and much more contact Andrew Spence, Manager of Public Programs and Events at [Andrew.Spence@louisvilleky.gov](mailto:Andrew.Spence@louisvilleky.gov) or (502) 560-7129.



## KAS Announcements of 2017

Do you need a job?

Check out our science job listings at

<http://kyacademyofscience.net/membership/job-postings/>

Send us your listings: Email postings (including closing date) to [executivedirector@kyscience.org](mailto:executivedirector@kyscience.org)

Did you know?

Your KAS Membership entitles you to discounts at the Kentucky Science Center and the Newport Aquarium! Go to our website to take advantage:

<http://kyacademyofscience.net/membership/member-benefits/>

(&if you know of a business that would like to offer member benefits to Kentucky scientists, let us know)

Association of Women in Science (AWIS) group forming in Kentucky

The group started in June 2016 after discussions with AWIS National to try and increase membership of the society in Kentucky. In July 2016, Dr. Isabel Escobar gave a talk at UofL about the group, where she discussed what AWIS is all about. This was also advertised on the AWIS National website.

More information about the group can be found here: <http://www.awis.org/group/kentucky>

You can officially join the group here: <https://awis.site-ym.com/?page=IndividualSignUp> Membership rights include access to additional benefits, including leadership positions within the group.

If you are just interested in what the group is up to (but not necessarily in being an official member), you can join our LinkedIn group here: <https://www.linkedin.com/groups/12000532> Please also use this group for posting anything of interest to women in science.

Finally, please follow us on Twitter and post anything of interest to women in science using @awiskygrp. Please spread the word about our group and invite other interested people to join!

Louisville Science Pathways  
Is seeking STEM mentors at U of L  
for a diverse and motivated  
cohort of local high school  
students

- 8 week summer research internship for HS students in all STEM disciplines
- University of Louisville Belknap and Health Sciences Campuses
- 20 hr/week minimum commitment

The overall goal of the program is to allow students with an interest in the sciences an opportunity to obtain hands-on experience working a research laboratory with U of L faculty. Applications will be screened by the U of L Science Policy & Outreach Group (SPOG) board and all efforts will be made to match students' interests with an appropriate research mentor. On an individual basis, a limited number of interns may continue to work with their research mentor during the school year and return for a second summer to complete more complex projects.

At this time, LSP does not offer a stipend to students. However, the experience acquired is unparalleled and will be extremely beneficial for future academic endeavors.

Address Questions to: Teodora Stoica  
[teodora.stoica@louisville.edu](mailto:teodora.stoica@louisville.edu)

## Volunteer Shout Out!



Thank you to our  
volunteers! We couldn't  
do it without you!

### KAS Annual Meeting volunteers

Amanuel Beyin  
Ignacio Birriel  
Jennifer Birriel  
Roberta Challener  
Mallory Cox  
Aaron Daley  
Andrew Day  
Megan DeVries  
Craig Grapperhaus  
U of L Chemistry students!  
Gerry Harris  
Holly Hogue  
Melissa Holst  
Eric Jerde  
Riley Kneale  
Nancy Martin  
Mohammed Mohebbi  
Kerrie McDaniel  
Daniela Prince  
Shira Rabin  
Darrin Smith  
Rachel Wells

### KAS Annual Meeting Judges&

Section Leaders  
Aaron J Daley  
Alen Cohen  
Alexander Lai  
Amanuel Beyin  
Andy D Martin  
Andy Martin  
Ann Harris  
Avinash Tope  
Ben Brammell  
Benjamin Freed  
Benjamin Z Freed  
Bikram Subedi  
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Volunteers for Kentucky Science  
Center programs  
Dirk Grupe  
Michael Snyder  
David Brown  
Brian Knowles

## Thank you to our Exhibitors

ASRC- Michelin

<http://www.americansyntheticrubberco.com/>

KBRIN (Kentucky Biomedical Research Infrastructure Network) <http://louisville.edu/research/kbrin>

Kentucky Organization of Field Stations  
<https://kentuckyfieldstations.wordpress.com>

Kentucky State University <http://www.kysu.edu>

Morehead State University Space Science Center  
<http://www.moreheadstate.edu/ssc/>

Murray State University Jones School of Science Engineering and Technology  
<https://www.murraystate.edu/academics/CollegesDepartments/CollegeOfScienceEngineeringandTechnology>

Sullivan University College of Pharmacy  
<https://sullivan.edu/college-of-pharmacy/>

University of Kentucky Integrated Biomedical Sciences  
<https://graduate.med.uky.edu/integrated-biomedical-sciences>

University of Louisville School of Interdisciplinary and Graduate Studies <http://louisville.edu/graduate/>

University of Louisville Integrated programs in Biomedical Sciences <http://louisville.edu/medicine/ipibs>

University of Louisville School of Dentistry  
<http://louisville.edu/dentistry>

Western Kentucky University Ogden College  
<http://www.wku.edu/ogden/>

## Thank you to our Sponsors for supporting our Annual Meeting

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<http://www.americansyntheticrubberco.com/>

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<https://sullivan.edu/college-of-pharmacy/>

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