KAS Newsletter

Kentucky Academy of Science

Fostering Scientific Discovery and Understanding in Kentucky

May 2017

Things Going on with KAS!

AAAS 2017: A Call to Action

KAS Executive Director Amanda Fuller

The American Association for the Advancement of Science (AAAS) took the opportunity at the Annual meeting in February 2017 to call together their affiliated societies and encourage local and national actions to "Stand up for Science." AAAS has been keeping in close contact with many other national scientific societies and is encouraging scientists across the United States to defend against threats to research funding, cuts to scientific programs in federal agencies, and even *ad hominem* attacks on scientists whose research findings may be politically inconvenient.

Keynote speaker Naomi Oreskes used historical examples to debunk the myth that scientists lose credibility when they venture into the social and political spheres, and into the media, to help educate the general public about the implications of scientific knowledge. She recalled Robert Oppenheimer (who lost his political status but not his scientific status over his efforts to contain nuclear weapons), Rachel Carson, and Albert Einstein.

(https://www.aaas.org/news/naomi-oreskes-should-scientists-serve-sentinels)

She assured us that "It's rational to be alarmed about things that are alarming!" and showed us that in today's world, the facts do not speak for themselves. She and others throughout the several days at the AAAS meeting urged scientists to speak up to make sure that scientific understanding is being used to craft smart public policies.

One session provided an overview of ways scientists can get involved in shaping public policy, at the local state and national levels.

- advising an NGO in need of technical expertise
- serving on a committee in your city or county
- writing an *amicus curiae* brief for a legal case
- Meet with decision makers
- Consider a policy fellowship with AAAS or another scientific society
- Run for office (see 314action.org for resources)

Other session helped scientists craft better communications for public audiences and use some storytelling techniques to create impact. Many scientists are using YouTube, Facebook, Reddit, and Twitter to share their work, and celebrated the power of short videos (<5min) to engage diverse audiences. It is possible to tell a Good Story even about Bad News – and certainly scientists have plenty of good news to share too.

Find out more at AAAS.org

The National Association of Academies of Science (NAAS) also meets in conjunction with AAAS every year. Nancy Martin is KAS' representative to NAAS and I also just joined the board of NAAS. I look forward to helping NAAS improve communications among the state academies & finding opportunities to collaborate and share information with our sister societies.

Historian's Article – Marilyn Akins

I wanted to take this opportunity to introduce myself and let you know some of the things I hope to accomplish as your historian.

Although my degrees are in math, physics and science education, I have had an interest in history for a long time. My interests have been focused on family history and the history of the areas where family had lived. This has been of interest to our whole family, with our daughter often picking what battlefield she wanted to visit for a vacation. She continued her interest by obtaining degrees in history and she is now working as an archivist. My interest expanded to the history of science to the extent that I minored in

the History and Philosophy of Science and Technology while in graduate school.

So far, I, with Amanda's help, have spent some time looking at what we have archived at UK. There is a lot of correspondence about membership and about getting presenters for the meetings. The meeting booklets,

reports and minutes from the meetings are also stored there. I have also visited the Science Outreach Center. They have a complete set of Journals that we hope to move to the archives. Eventually, we hope to have all materials in one central place where anyone can view the materials. Meanwhile, I will continue to look through our materials to find what we have available.

If there is anything you think should be in our archives, please let me know. If there is anything I can try to find out for you from our archives, please also let me know. I'm looking forward to working with the material and trying to answer any questions you might have about the history of KAS.

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 (JKAS), effective 1 January 2017. 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 co-editors we hope that sharing the editorial workload is a first step toward this goal. Because we are a peer-reviewed 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. The Journal of the Kentucky Academy of Science – what it is and is not. J Ky Acad Sci72(1):69-70.

Posters-at-the-Capital

Undergraduates presented results of their research in areas of science at Posters@Capitol, the annual exhibition of undergraduate research from Kentucky state-supported universities and colleges, and KCTCS. Themes in science research included nanostructures for use in disease diagnosis and in solar power, research in sensory systems of organisms, and evaluations of the quality of air, wastewater, and streams. Studies in food production were represented by aquaculture studies. Space research analyzed the effects of high altitude on materials and physiology.

Shaumik Alam, with advisors Dr. Minsub Chung and Dr. Moon-Soo Kim of Western Kentucky University, engineered sequence-specific DNA-binding proteins to detect pathogenic DNA in bacteria previously targeted. They constructed DNA-binding zinc finger protein fragments that would recognize shiga toxin in E.coli and staphylococcal enterotoxin B in Staphylococcus aureus and that could be detected using a fluorescence detection system. Sherafghan Khan, with advisor Dr. Edwin Stevens of Western Kentucky University, used X-ray crystallography to discover the 3-D molecular structure of an anti-thyroid drug in order to understand its mechanism of inhibitory binding. The drug works by blocking the production of the enzyme thyroid peroxidase, which when overactive produces an excess of thyroid hormones. Parker Graff, with advisor Dr. Ali Er of Western Kentucky University, synthesized graphene quantum dots (GQDs), single-layer, hexagonal lattices with high chemical stability and low toxicity, which may be a means of deactivating pathogenic bacteria. GQDs may be used as a replacement for methylene blue, which is ineffective in blood due to its protein binding. Tyler Smith and Alexander Banaszak, with advisor Dr. Sanju Gupta of Western Kentucky University, investigated GQDs for their electrochemical properties and use as electrochemical enzyme-based glucose biosensors.

Xinju Dong, with advisor Dr. Yan Cao of Western Kentucky University, synthesized a titanium dioxide nanotube array to be assembled with graphene-oxide in a light-penetrable structure. The synthesized material allows long (red) wavelengths of light to be used for various photocatalytic applications. Logan Parker, with advisor Dr. Yan Cao of Western Kentucky University, investigated the known UV-light photocatalyst titanium dioxide, which, when combined with graphene, enhances the photocatalytic ability of solar cells by allowing the cell to access visible light. These researchers studied effects of size of the titanium dioxide nanoparticles on photocatalytic ability, with results showing smaller nanoparticles more effective.

Kylie Heupel and Haley Sizemore, with advisor Dr. Judith Jenkins of Eastern Kentucky University, studied the nanocrystal zinc sulfide for use as a material for solar energy conversion to hydrogen gas. Zinc sulfide does not absorb much sunlight; by substituting copper ions into the zinc sulfide material more sunlight can be absorbed. The researchers demonstrated synthesis and characterized several copper sources. Alberto Rondon, with advisor Dr. Matthew Gentry of the

University of Kentucky, engineered binding regions of plant enzymes to target and degrade carbohydrates for biofuel production.

Ecology studies included investigations of sensory and motor systems of invertebrates, use of biological controls of pests, and effects of pollution on environments. Noah Gripshover and Evan Gora, with advisor Dr. Stephen Yanoviak of the University of Louisville, studied the effects of an environmental challenge, pools of standing water on a forest floor, on wingless terrestrial ants. Locomotor morphology and swimming performance of two species of ants, Camponotus pennsylvanicus and Formica subsericea, were compared. Results showed the two front legs are used in propulsion only, and middle and rear legs provide swimming velocity and stability, allowing ants to overcome an obstacle in a forest ecosystem. Gabriela Talavera-Santiago, with advisor Dr. Melody Danley of the University of Kentucky, studied the ability of Procambarus clarkii, the red swamp crayfish, to dig burrows with chimney-like openings and tunnels, and to find its way back to these burrows after foraging using tactile and chemosensory antennae. They hypothesized that removal of antennae would result in decreased burrowing or less complex burrows; results showed no loss of number of burrows but differences in amounts of time spent being inactive or active without burrowing, indications of effects on burrowing activity.

Kylie Colvin, with advisor Dr. Bruce Webb of the University of Kentucky, investigated the suppression of pest moth species using the HZNV-2 nudivirus, a sexually-transmitted insect virus that causes insect sterility by deforming reproductive tracts of males and females, reducing egg output, and creating sterile progeny. The wild-type virus often enters a latent stage in which no damage is done to the pest insect. The researchers produced mutant viral types that decrease the latent stage typical of the wild type virus and therefore may be better biological controls of pests. Jessica Johnson, with advisor Dr. Jarrett Johnson of Western

Kentucky University, studied the effects of several brands of glyphosate-based herbicides on survival and growth of axolotl salamander larvae. Of four products, use of Roundup Pro resulted in the lowest survival rates of larvae. Rhiannon Cecil, Demetrius Davis, and Garett Heiby, with advisor Dr. Tamara Sluss of Kentucky State University, surveyed three Kentucky streams for aquatic insects, and collected data on water quality. Results indicated differences in the streams, with deleterious effects of channelization and habitat degradation in two streams. Anjelique Kyle and Aneasa Jakes, with advisor Alexander Lai of Kentucky State University, sampled indoor air for microbial content using the sedimentation method on nutrient agar plates exposed to air and then incubated and gram-stained to determine microbial species. Kenyatta Davis and Shreya Patel, with advisor Dr. Avinash Tope of Kentucky State University, evaluated microbial content on produce from small farms and found Enterobacteria most frequently detected, with isolates resistant to many antibiotics.

Franklyn Wallace, Ryan Lamb, John Bertram, and Kayla Steward, with advisor Dr. Matthew Nee of Western Kentucky University, worked on developing materials and analytical techniques for improving photocatalytic degradation, the process that uses sunlight to break down chemical pollutants. Konnor Jones and Olivia Obermyer, with advisor Dr. Matthew Nee of Western Kentucky University, studied steps in nitrate photolysis, the decomposition of nitrate ion by sunlight, a process that produces toxic gases in the environment. They observed the effects of different concentration of nitrate ions in solution by using infrared light to measure the molecular distortions of ions at a series of specified temperatures. Different charged particles arising from water molecules and other ions in solution distort the geometry of the nitrate ion, and the ratios of nitrate geometries in water could be correlated with the amount of products produced during photolysis.

Agricultural themes included studies of genotypes of peppers and hydroponic food production.

Alexander Antonious, with advisors Dr. Buddhi Gyawali and Dr. George Antonious of Kentucky State University, planted seeds of four genotypes of hot pepper species, and analyzed fruits for ascorbic acid content, to select candidate genotypes for fruit production and breeding. Lusekelo Nkuwi, with advisor Dr. George Antonious of Kentucky State University, planted tomato seedlings to test effects of recycled waste in the form of sewage sludge, chicken or horse manure, and yard waste compost. Results showed highest yields from treatments with chicken manure, and lowest yields from yard waste compost. Robert Cavasos, with advisor Dr. Jacob Domenghini of Eastern Kentucky University, compared a commercially-available and a student-designed tower system for the effectiveness of each in growing lettuce, with results that the commercial tower produced higher yields.

George Pate, with advisors Janelle Hager and Dr. James Tidwell of Kentucky State University, compared production of Bibb lettuce in aquaponics systems stocked with large-mouth bass, Micropterus salmoides, or Nile tilapia, Oreochromis niloticus. Nathan Kring, with advisor Dr.

Andrew Ray of Kentucky State University, examined the effects of stocking biofloc aquaculture systems with the Pacific white shrimp, Litopenaeus vannamei, or white shrimp combined with juvenile tilapia, Oreochromis niloticus. Results were expected to show that tilapia fed on micro organisms, improving water quality. Sathya Govindasamy, Karen Friley, Kirk Pomper, Kyle Slusher, Mamata Bashyal, Jeremiah Lowe, and Sheri Crabtree, with advisor Dr. John Sedlacek of Kentucky State University, monitored the presence of a new fruit fly pest, the spotted wing Drosophila, Drosophila suzukii, by capturing individuals using lures. The researchers investigated the efficacy of two lure types placed in blackberry rows. Results showed the best-performing trap also caught a greater number of all other Drosphilidae.

Near-space effects on several materials and on physiology were themes of student researchers who launched balloon-satellites carrying experimental payloads. Ashley Greene and Theresa Pallandro, with advisors Sherry McCormack and Scott Bain of Hopkinsville Community College, tested materials sent into near-space to an altitude of about 100,000 ft. Results of the performance of three types of plastic pipe, PVC, PEX, and CPVC, showed only the CPVC pipe burst under pressure. Solar-powered batteries sent into near-space were compared for voltage generation with batteries on the ground. Jennifer Burden and Sarah Bell, with the same advisors, collected data on ultraviolet light exposure rates in near-space, and studied effects of a change in atmospheric pressure on blood chemistry and cell structure. Blood sent into near-space showed evidence of having been frozen from unexpected low temperatures. Christopher Young investigated the effect of temperature on ascent rate of high-altitude balloons. Temperatures could change how the balloon expands as it rises, affecting the height at which it bursts. Measures of temperature in near-space were addressed by Mitchell Harris and Saeed Almalki, with advisor Dr. Abdul Yarali of Murray State University. They presented CricketSat, a satellite composed of a wireless module and a receiving antenna, which is attached to a balloon. The sensor transmits an audio tone that changes frequency in response to atmospheric temperature.

Posters@Capitol gives these young researchers an opportunity to present the work they carried out with their mentors, and to see the work of others. The ongoing laboratory and field research of faculty mentors in Kentucky colleges and universities, and their willingness to give time and expertise in guidance of these undergraduates, makes these projects possible.

Submitted by

Mary Janssen, Ph.D.

Member-at-Large Governing Board,
Kentucky Academy of Science

Announcements

Job Posting: Graduate position (M.S.) in evolution of animal communication at Murray State University (KY).

The Beckers' Lab at Murray State University accepts M.S. student who are interested in investigating the evolution of animal communication starting Fall of 2016. Our research focuses primarily on the proximate and ultimate causes of the physical environment on the evolution of male mating signals (i.e., phenotypic plasticity) and female preferences for these signals. We use crickets and katydids as model organisms to address our questions.

Qualifications: We seek driven, enthusiastic, and focused students to join our lab. Successful applicants have a B.S. in biology, ecology, or related discipline. Experience with insects and acoustics preferred, but not necessary. Teaching assistantship and housing at Hancock Biological Station on Kentucky lake are available. To Apply: Email a letter of application indicating your research interests and career goals, a curriculum vitae including undergraduate GPA and GRE scores to Dr. Oliver Beckers: obeckers@murraystate.edu

Deadline: review of applications starts immediately.

Please find more information on Dr. Beckers' research here: https://www.murraystate.edu/academics/CollegesDepartments/CollegeOfScienceEngineeringandTechnology/CollegeOfSciencePrograms/biologyDept/faculty/oliver-beckers/index.aspx

Information on the Department of Biological Sciences at MSU: https://www.murraystate.edu/academics/CollegesDepartments/CollegeOfScienceEngineeringandTechnology/CollegeOfSciencePrograms/biologyDept/faculty/

School's Out Science Camps

Want a fun, hands-on experience for your kids? School's Out Science Camps offer exciting educational experiences for little scientists! Join us for unique topics designed to inform,

engage and entertain! We have a variety of offsite camps across the Commonwealth. Check out our camps in Oldham, Fayette, Daviess, Warren, and Bullitt counties: http://kysciencecenter.org/kids/camps/off-site-schools-out-science-camp/

Youth Science Summits

Calling KAS Members: If you'd like to present a lab activity at a Youth Science Summit, or if you can show up & answer questions as a Speed Mentor, we welcome your leadership! Please email Andrew.spence@louisvilleky.gov

Middle & High School scientists: Join your peers for a day-long Science, Technology, Engineering and Mathematics (S.T.E.M.) focused event that puts you on track to becoming a leader of tomorrow. Youth Science Summits help match your big ideas to potential careers, programs, and fields of study.

Louisville June 3

http://kysciencecenter.org/kids/youth-science-summit/youth-science-summit-louisville/

Lexington June 24

http://kysciencecenter.org/kids/youth-science-summit/youth-science-summit-lexington/

Science in Play 2GO

Children are natural scientists! Science in Play 2GO encourages their curiosity with open-ended opportunities to imagine, create, and share as they learn simply by exploring the

world around them. This year, the exhibit will be in Woodford, Oldham, Logan and Laurel counties: http://kysciencecenter.org/permanent-exhibits/science-in-play/science-in-play-2go/

Science in Play 2GO is the mobile version of Kentucky Science Center's permanent early-childhood experience housed in Louisville. With 3-month residencies at libraries throughout the state, Science in Play 2GO empowers kids and adults to learn together and for life.

2017 KAS Research Grant winners

Congratulations to the following KAS members for their successful research proposals:

Marcia Athey Grants

Jarrett Johnson: Western Kentucky University
Comparative landscape genetic of two pond-breeding amphibians and an evaluation of alternative analysis methods

Kara Jones: University of Kentucky
Resolving evolutionary relationships in a morphologically diverse salamander clade

Special Research Program Awards

Kirk Abraham: Transylvania University
Effects of alcohol and exercise on glycemic control in prediabetes assessed using continuous glucose monitoring

Jacob Hutton: University of Kentucky
The effects of specific conductance on stream salamander occupancy, abundance, and allochthony in southeastern Kentucky

Undergraduate Research Program Awards

Austin Adam: Bellarmine University
Assessing the effects of urban air pollution on lichens

(Find out more at http://kyacademyofscience.net/programs/kas-research-grants/)

2017 Kentucky Junior Academy of Science winners

2017 Award winners
Grand Prizes, Group 1
1st: Allison Tu
2nd: Betty Ngo
3rd: Agharnan Gandhi

Grand Prizes, Group 2
1st: Anjali Chadha
2nd: Gregory Schwartz
3rd: Nina Render

All grand prize winners will receive financial support from KAS to attend the American Junior Academy of Science meeting in Austin Texas in February 2018, as Kentucky delegates.

High School Behavioral & Social Science
1st: Betty Ngo
2nd: (team) Sanya and Akash Mehta
3rd: Riya Shah

High School Biological Topics 1
1st: Arushi Gupta
2nd: Ellie Hummel
3rd:(team) Natalie and Naomi Kim

High School Biological Topics 2
1st: Agharnan Gandhi
2nd: (team)David Ma and Amy Wang
3rd: Nivedha Loganathan

High School Biological Topics 3
1st: Allison Tu
2nd: Madison Sneve
3rd: Jennifer Xu

High School Chemistry and Engineering
1st: (team)Ruchira Sumanasekera and Mark Raj
2nd: Joshua Jacob
3rd: Jack Boylan

High School Computer Science & Mathematics
1st: Gregory Schwartz
2nd: Henry Robbins
3rd: Ria Jain

High School Environmental Science
1st: Anjali Chadha
2nd: Will Drury
3rd: (team)Shreshth Srivastava and Karthik Jetty

High School Microbiology and Zoology
1st: Nina Render
2nd: Srikhar Padmanabhan
3rd: Tushar Sharma

Middle School Group 1
1st: Sophia Bryant
2nd: Aliana Conway
3rd: Shreeya Arora

Middle School Group 2
1st: Anne Liang
2nd: Eliza Gallagher
3rd: Henry Dayle

Middle School Group 3
1st: Elaina Render
2nd: Kyle Sanderfer
3rd: (Tie) Charlie Murr and Manya Tiwar

Pictured above are the 2017 Award Winners

March for Science – join one and Stand Up for Science

The March for Science on Earth Day (April 22) will be the culmination of a group of scientists to publicly advocate for evidence-based policymaking, science education, research funding, and inclusive and accessible science. This aligns with aspects of the mission of the Kentucky Academy of Science by encouraging scientific research, advancing science education based on the standards of our scientific community, promoting the use of sound science in policy initiatives, and unifying the scientific interests of the Commonwealth of Kentucky. If Members would like to support this nonpartisan celebration of science, the following are March for Science regional events occurring in Kentucky:

March for Science – Lexington: Saturday, April 22: 1 PM at Fayette Circuit Courthouse. March for Science – Bowling Green: Saturday, April 22: 1 PM at Thompson Complex March for Science – Louisville: Sunday, April 23: 1 PM at Louisville Metro Hall

If you attend, please share photos and/or stories with executivedirector@kyscience.org.

Science Education and Advocacy Committee

Report to Executive Board

April 15, 2017

I. March for Science:

* Bowling Green: Saturday, Aprill 22, 2017: 1:00-3:00 Thompson Complex Center Wing, WKU

* Lexington: Saturday, April 22, 2017: 1:00- Fayette Circuit Courthouse

* Louisville: Sunday, April 23, 2017: 1:00- Louisville Metro Hall

II. Heartland Institute fraudulent information on climate change sent to 25,000 teachers. Alert by NSTA. Below are NSTA resources on climate change: * NSTA resources on climate change are here. * Here are resources from the North American Association for Environmental Education. * Download National Wildlife Federation's resources and Climate Classroom lesson plans. * AAAS curriculum materials are here and here. * Resources from the National Center on Science Education are here.

III. Welcome Rae McIntyre and Christine Duke from the Kentucky Department of Education to KAS board meeting.

* Ways KAS can support science education in P-12 schools

* Information on science standards and assessments

IV. Kentucky Bills of Interest:

* Senate Bill 1 will create new rules for how students are taught and tested and how teachers are evaluated in Kentucky public schools. The legislation will require a review of academic standards in the schools beginning next school year and every six years thereafter while implementing a performance-based assessment of student learning and new benchmarks for measuring college and career readiness. Worry that this will undermine NGSS, although currently focusing on arts and literature.

* HB 520 will allow publicly funded charter schools to operate in Kentucky beginning next school year. Local school boards would be allowed to authorize an unlimited number of the schools, which will be established by contract and governed by independent boards. A local board's decision regarding charter schools could be overridden by the state school board, although the courts could be called on to review the state board's action. Also included are provisions requiring that teachers and administrators hired to work at the charter schools be state-certified and that the mayors of Louisville and Lexington be allowed to authorize charter schools in their cities upon request.

* SB 153 will establish performance-based funding for state colleges and universities by basing state funding for all but mandated programs on the schools' student success rate, course completion, and operational needs.

* SB17 requires public university governing boards to ensure that students are permitted to voluntarily express religious or political viewpoints in their assignments and that First Amendment speech rights are protected on campus. You can read the full bill here: http://www.lrc.ky.gov/recorddocuments/bill/17RS/SB17/bill.pdf

* HB147 would require all students entering a public postsecondary institution beginning in the 2017-2018 academic year to provide documentation of vaccination for diseases as required by the Cabinet for Health and Family Services. Religious exemptions are provided for in the legislation. You can read the full bill here:

http://www.lrc.ky.gov/recorddocuments/bill/17RS/HB147/bill.pdf

* SB107 pertains to gubernatorial appointments to public postsecondary institution governing boards. SB107 would permit the Governor to remove and replace previously appointed board members to ensure compliance with statutory proportional representation requirements, including political party affiliation and race. SB107 also permits the Governor to remove and replace entire boards if it is demonstrated that a board is unable to perform its statutory duties. The public universities and the Council on Postsecondary Education (CPE) have provided input on this bill, and CPE provided a consensus letter to Senate Leadership with suggestions to improve the processes included in the bill. You can read the full bill here: http://www.lrc.ky.gov/recorddocuments/bill/17RS/SB107/bill.pdf

Submitted by: Dr. Kerrie McDaniel, Chair, Science Education and Advocacy Comm

Stand up (and Speak) for Science!

Join the Kentucky Science Speakers Bureau! We welcome graduate and professional scientists of all disciplines who are willing and interested to speak to new audiences about what they do!
Find out more and sign up here:
http://kyacademyofscience.net/programs/kentucky-science-speakers-bureau/

***Please share this link with schools, civic groups, or anyone who who'd like to meet a real scientist**

Shout out to KAS members who have volunteered their time!

Junior Academy Judges April 15

Ilsun White
Mary Janssen
Jessica Higgins
Shanin Lodhi
Tyra Dunn-Thomas
Li Lu
Luc Dunoyer
Maggie Whitson

Mike Smith
Darrin Smith
Cecilia Ramilo
Maheteme Gebremedhin*
Dirk Grupe
Michael Mihalco
Rachael Cicci
Robin Cooper
Muthu Kumaran
Gnanamani
Ignacio Birriel
Pam Feldhoff

Andy Martin
Jennifer Birriel
Harlan Scott
Iuliana Popescu
Melody Danley
Scientific Proofs speakers for the Kentucky Science Center:
Jake Wildstrom
Roman Yampolskiy

Kentucky Science Center Brain Days leaders

Kris Rau, Society for Neuroscience Louisville chapter – champion organizer for Brain Days!

Andrew Bankston doing a demonstration during Brain Days at the Kentucky Science Center, March

Kentucky Science Center Brain Days Leaders:

Andrew Bankston
Fiona Brabazon
Naomi Charambalakis
Casey Steadman
Cynthia Corbitt
Amanuel Beyin

Thank you to many others who volunteered at Brain Days on March 16-17

Fiona Brabazon developed a Build- A Neuron activity for young participants at Brain Days

Kris Rau, Society for Neuroscience Louisville chapter – champion organizer for Brain Days

Did you know? KAS posts Kentucky science job postings here :

http://kyacademyofscience.net/membership/job-postings/ Send yours to executivedirector@kyscience.org

We also keep a list of volunteer opportunities here:

http://kyacademyofscience.net/membership/volunteer-opportunities-for-scientists-students/

Managing that Information Firehose!

KAS wants your best ideas & suggestions about **communications** within our membership, and we'd like a few members to join an upcoming conference call to talk about it. Would you join the conversation and share your ideas, or best practices from other organizations?

We want your opinions about:

How much / how often / what kind of announcements do you want from KAS?

Email communications & newsletters;

Use of the KAS website

KAS presence on social media

Publicizing the Annual Meeting & other events

Doug Chatham will be convening this call – please email him if you have ideas to share, or if you would offer an hour or two for a couple of phone calls! Thank you!
d.chatham@moreheadstate.edu

Internal Communications is tasked to "develop mechanisms to publicize Academy events, including annual and special meetings of the Academy and the spring symposium of Junior Academy." What mechanisms would you suggest that the committee develop?