

Industrial Affiliates

Associate Patron \$2,000 level
Touchstone Energy

Associate Member \$100 level
Wood Hudson Cancer Research
Laboratory, Inc.

Institutional Affiliates

Fellow \$1,000 level
University of Kentucky

Sustaining Member \$500 level
Eastern Kentucky University
Murray State University
Northern Kentucky University

Member \$250 level
Berea College
Campbellsville University
Centre College
Pikeville College

Associate Member \$100 level
Jefferson Community College
Thomas More College
Transylvania University

Middle and High Schools
Taylor County High School

KENTUCKY ACADEMY OF SCIENCE

2002 ANNUAL MEETING

Northern Kentucky University
Highland Heights, Kentucky
November 7-9, 2002

The 2002 Annual Meeting of the Kentucky Academy of Science will be NOVEMBER 7-9, 2002 and will be hosted by Northern Kentucky University in Highland Heights, KY. The Comfort Suites will be the headquarters hotel and is closest to NKU. From I-75 take I-275 east to I-471 north. Take exit 5 off of I-471 north and turn right at the bottom of the exit and the hotel is on the left. The hotel has blocked in a number of rooms at a rate of \$80.00 per room for a single - quad which includes a continental breakfast. This rate is good until October 7, 2002, so make your reservations early by calling (859) 291-6700. When making reservations be sure to identify yourself as a member of the Kentucky Academy of Science.

In conjunction with the KAS Annual Meeting, the Ohio River Basin Consortium for Research will hold its 18th annual Scientific Symposium. Each organization will present their own sessions but members of each group are welcomed and encouraged to attend each other's sessions. The Local Arrangement Committee has a link, <http://www.nku.edu/~fernando/kasmeeting.html>, which will provide links to many of the local attractions located in the Northern Kentucky and metropolitan Cincinnati area.

A preregistration form and a paper submission form are enclosed in the Newsletter and I would encourage everyone to preregister for the meeting. **For your information**, on-site registration must be paid by check or cash. The Academy cannot accept credit cards nor bill the participant for the registration fees. Programs **will not** be sent out prior to the meeting as in previous years but will be provided to those attending the meeting. Upon completion, the program will be put on the KAS website. If you have any questions regarding the meeting, please call Robert Creek at (859) 623-6646 or rcreek@chpl.net.

Directions to NKU: From I-75 take exit 185 east on I-275 to exit 76 onto Three Mile Road. Three Mile Road will become University Drive. Continue on it to the first stop light and turn right onto Kenton Drive. This will bring you past the residence halls on the right and the new Science Center which will be on your left. Follow the signs to the parking area and to the entrance of the Science Center.

Additional Motels

Holiday Inn - Riverfront (859) 291-4300	\$72 single to quad; contact Erin
Signature Inn at Florence (859) 371-0081	\$60 single to quad, includes breakfast; contact Jennifer
Drawbridge Inn at Ft. Mitchell (859) 341-2800	\$79 single to quad: contact Michelle
Motel 6 at Florence (859) 283-0909	\$38 single, \$44 double on M - Th
	\$50 single, \$56 double on Fri - Sun

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Changes in the Undergraduate Research Competition

Remember the significant change in the Undergraduate Research Competition at the annual meeting this year. The URC will be held **ONLY** on Friday. While undergraduate students may still present on Saturday they will not be able to enter the URC. This change will mean that sections that have previously met only on Saturday will now have a session scheduled for Friday in an effort to make certain that undergraduates in those sections have an opportunity to participate in the URC. Therefore, unless otherwise specifically requested, all undergraduate presentations will be scheduled on Friday. This will provide greater consistency in the judging of the presentations. Please encourage your students to give an oral or poster presentation on Friday. Those students that make poster presentations must be at their posters by 2:00 Friday afternoon for judging. In addition to the consistency of the judging, having the URC on Friday will provide the opportunity for the winners to be recognized at the awards banquet on Friday evening. This year **ALL** students that enter the URC will be able to attend the awards banquet free. If a URC student plans on attending the banquet, please note at the bottom of the preregistration or registration form that you are a URC student. A note that should be of interest to all young scientists is that Nobel Laureate in Physiology, Dr. Phillip Sharp, will be the banquet speaker. In addition, Dr. Sharp would like to meet with all undergraduate and graduate students at 4:00 on Friday afternoon for a general discussion of science.

Notes from *Journal* Editor Sicard

The spring issue of the *Journal of the Kentucky Academy of Science* was a bit late this year. I apologize for this problem that arose as a result of my learning to coordinate with Allen Press. Now that this part of the learning curve is behind me, I expect that future issues will be more timely.

The *Journal* continues to receive a modest, but steady, flow of manuscripts. The scope of submissions, however, is not reflective of the full spectrum of disciplines represented in the Academy. We would encourage members particularly in the physical sciences, behavioral sciences, mathematics, and the biomedical sciences to consider sharing the results of their work with colleagues through our *Journal*. In addition, we would like to continue the series on Kentucky scientists that was begun by John Thieret. Accordingly, we would appreciate communications about prominent or interesting (hopefully both) Kentucky scientists from members of the Academy or suggestions of possible authors for this series.

The fall issue of the *Journal* is in the initial stages of preparation. This issue will include an article on aquaculture by Michael Schardein, Siddhartha Dasgupta, and Steven Mims (Kentucky State University), a note on butterflies in Kentucky by Charles Covell (University of Louisville), and an appendix containing abstracts from the recent meeting of the Junior Academy.

Kentucky Biomedical Research Infrastructure Network

During the past year a Kentucky Biomedical Research Infrastructure Network (KBRIN) has been initiated with support from the National Institute for Research Resources at the NIH. KBRIN is being coordinated by the University of Louisville (the grantee institution) and the University of Kentucky and currently includes ten other predominantly undergraduate institutions throughout the state. The objective of the KBRIN is to promote biomedical research capacity in the state. The grant, which emphasizes genetics and bioinformatics, seeks to increase competitiveness of faculty throughout the state for federal research support, on the one hand, and to augment the numbers of graduates from Kentucky colleges and universities pursuing careers in biomedical research, on the other. A Summer Undergraduate Research Program and a Faculty Collaborative Research Grant Program are two mechanisms used to promote these objectives. The program director for KBRIN is Dr. Nigel Cooper at the University of Louisville. Additional information about KBRIN can be obtained by visiting their website at <http://www.kbrin.louisville.edu>.



Calendar

Due Dates

September 29, 2002

Nominations for
KAS Superlative Awards

October 4, 2002

Paper Abstracts for
KAS Annual Meeting

December 1, 2002

Paper Abstracts for Publication
in the KAS Journal

October 1, 2002

Proposals for
KAS Special Research Program

November 15, 2002

Proposals for
Undergrad. Research Supply Grants
Summer Undergrad. Research Grants

February 15, 2003

Athey Fund
Botany Fund

Send additions to the calendar to
stempleton@gwmail.kysu.edu.

88th ANNUAL MEETING OF THE KENTUCKY ACADEMY OF SCIENCE (Tentative Program)

THURSDAY, NOVEMBER 7, 2002

(Note: All Thursday activities will be held on the campus of Northern Kentucky University.)

- 2:00 p.m. - 5:00 p.m. KAS Governing Board Meeting
- 5:00 p.m. - 7:00 p.m. Registration
- 6:00 p.m. - 8:00 p.m. **SYMPOSIUM - Conservation Initiatives in the Northern Kentucky/Greater Cincinnati Region. The session will consist of a panel discussion among five groups in the Ohio/Indiana/Kentucky tri-state that are actively conducting conservation programs.**
- 8:00 p.m. - 8:30 p.m. KAS Sectional Officers Meeting
- 8:00 p.m. - 10:00 p.m. Reception

FRIDAY, NOVEMBER 8, 2002

(NOTE: All Friday activities except the reception and banquet will be held on the campus of Northern Kentucky University)

- 7:30 a.m. - 8:30 a.m. KAS Past President's Breakfast
- 7:30 a.m. - 11:00 a.m. Refreshments
- 7:30 a.m. - 5:00 p.m. Registration
- 10:00 a.m. - 11:30 a.m. Kentucky Community Colleges Faculty Meeting
- Biology Faculty
- Chemistry Faculty
- Physics Faculty
- 9:00 a.m. - 5:00 p.m. Scientific Posters on Display
- 8:00 a.m. - 11:30 a.m. Paper Sessions
- 11:30 a.m. - 12:30 p.m. Lunch
- 12:45 p.m. - 1:45 p.m. **PLENARY SESSION - Integrating Science and Mathematics - Dr. Phil Schmidt, Director of the Center for Integrative Natural Science and Mathematics, will present a discussion on the integration of disciplines within the sciences and mathematics and the benefits and costs of such integration.**
- 2:00 p.m. - 4:30 p.m. Paper Sessions
- 2:00 p.m. - 4:00 p.m. Judging Posters for Undergraduate Research Competition. Students must be present for judging
- 4:00 p.m. - 5:00 p.m. Undergraduate and graduate students meet with Dr. Phillip Sharp
- 6:00 p.m. - 7:00 p.m. Presidential Reception
- 7:00 p.m. - 9:00 p.m. **ANNUAL AWARDS BANQUET - Gene Research and Biotechnology - Dr. Phillip A. Sharp, 1993 Nobel Laureate in Physiology, will speak on the excitement of biological research and its potential for the improvement of the quality of human life.**

SATURDAY, NOVEMBER 9, 2002

(Note: All Saturday activities will be held on the campus of Northern Kentucky University.)

- 7:30 a.m. - 11:00 a.m. Refreshments
- 7:30 a.m. - 12:00 p.m. Registration
- 8:00 a.m. - 12:00 p.m. Scientific Posters on Display
- 8:00 a.m. - 9:30 a.m. Paper Sessions
- 9:30 a.m. - 9:45 a.m. Refreshment Break
- 10:00 a.m. - 11:00 a.m. **KAS ANNUAL BUSINESS MEETING**
- 11:15 a.m. - 12:30 p.m. Paper Sessions
-

PREREGISTRATION FORM

KENTUCKY ACADEMY OF SCIENCE ANNUAL MEETING
NORTHERN KENTUCKY UNIVERSITY
HIGHLAND HEIGHTS, KY
NOVEMBER 7-9, 2002

Please type or print. Duplicate as needed, but use a separate form for each person.

Name Badge to Read _____

Address _____

City, State, Zip _____

School/Employer _____

Telephone Number _____ E-mail _____

(Your e-mail will be used to notify you of receipt of preregistration fees.)

REGISTRATION FEE SCHEDULE

Category	Pre-Registration	On-site Registration
Current 2002 Dues Paid		
Regular Member	\$15.00 _____	\$25.00
Student Member	\$ 5.00 _____	\$10.00
Non-Members		
Regular	\$25.00 _____	\$35.00
Student	\$ 5.00 _____	\$10.00

MEMBERSHIP DUES SCHEDULE

	2002	2003
Regular Member	\$25.00 _____	\$25.00 _____
Family Member	\$35.00 _____	\$35.00 _____
Student Member	\$15.00 _____	\$15.00 _____

TOTAL FEES (Check each item) \$ _____

KAS AWARDS BANQUET, Friday, November 8

\$ 20.00 x _____ Tickets \$ _____

*Banquet is free to students entering Undergraduate Research Competition;
if you are going to the banquet, indicate that you are a URC student after "Tickets" above.*

GRAND TOTAL ENCLOSED \$ _____

Thursday Evening Social at University Center Ballroom (no charge) Attending Yes _____ No _____

THIS FORM MUST BE POSTMARKED NO LATER THAN OCTOBER 25, 2002

MAIL TO:

**PREREGISTRATION
KENTUCKY ACADEMY OF SCIENCE
SCIENCE OUTREACH CENTER
UNIVERSITY DRIVE
LEXINGTON, KY 40536-0078**

PAPER SUBMISSION FORM

KENTUCKY ACADEMY OF SCIENCE

88th ANNUAL MEETING

November 7-9, 2002

Northern Kentucky University

Highland Heights, Kentucky

Title of Paper (Please type) _____

(An abstract must be submitted with this form. See reverse side for guidelines for preparation of abstract.)

Author(s) (check presenter) (one author must be a KAS member)	KAS		Institutional Affiliation	Position (circle)			
	Member	Member		High School	Ugrad	Grad	Professional
_____	Yes	No	_____	H	U	G	P
_____	Yes	No	_____	H	U	G	P
_____	Yes	No	_____	H	U	G	P
_____	Yes	No	_____	H	U	G	P

*Sponsor _____

*All undergraduate or high school students who are not members of KAS must be sponsored by a member of the Academy. There is not a limit on the number of papers a member may sponsor.

_____ Check if entering the Undergraduate Research Competition. The URC presentations will be given ONLY on Friday.

Check Section in Which Paper will be Presented

_____ Agricultural Sciences	_____ Health Sciences
_____ Anthropology and Sociology	_____ Industrial Sciences
_____ Botany and Microbiology	_____ Mathematics
_____ Cellular and Molecular Biology	_____ Physics and Astronomy
_____ Chemistry	_____ Physiology and Biochemistry
_____ Computer Science	_____ Psychology
_____ Engineering	_____ Science Education
_____ Geography	_____ Zoology
_____ Geology	

Type of Presentation (Check one)

_____ Oral Presentation (15 minutes max.) - each room will have an overhead projector and a 2x2 slide projector.

_____ Power Point Presentation

_____ Poster Presentation - a 4' x 6' poster board will be provided.

Session Time Preference for Oral Presentation (1 = first preference; program requirements may restrict honoring preferences)

_____ Friday a.m. _____ Friday p.m. _____ Saturday a.m. _____ Saturday p.m.

Name and Mailing Address of Contact Person (undergraduate student use mentor as contact person)

_____ Phone _____

_____ Fax _____

_____ E-mail _____

Return this form and a single spaced abstract by October 4, 2002 to: Robert Creek, KAS Program Coordinator, Dept. of Biology, Eastern Kentucky University, Richmond, KY 40475. Phone (859) 623-6646; Fax (859) 622-1399; e-mail: rcreek@chpl.net

GUIDELINES FOR PREPARATION OF ABSTRACTS FOR PAPER AND POSTER PRESENTATIONS

1. Text of abstracts must be 250 words or less.
2. Abstracts must be on white, good quality paper (8.5 x 11 in.). They must be single spaced throughout and have a margin of 1 inch all around.
3. Use a type size of 12 point (10 cpi) and the same font throughout: do not use bold. Italics should be used only for the scientific names of the organisms and other expressions that conventionally appear in italic type.
4. Do not justify the right-hand margin.
5. The address should contain the capitalized name(s) of the author(s), department, university or company, name of the city, name of the state (use two-letter abbreviation, e.g. KY, IN, OH) and the zip code.
6. In multi-authored abstracts, the name of the presenter of the paper will be indicated by an asterisk.
7. Use standard, well-known abbreviations when the use of abbreviations is necessary.
8. When using abbreviations for chemical compounds, spell out the name in full at the first mention and follow with the abbreviation in parentheses; use the abbreviation thereafter. Do not abbreviate chemical compounds in the title of the abstracts.
9. Any special symbols not on your word processor must be carefully drawn in by hand with a fine pen and black ink.
10. Scientific names of organisms should be in italics (not underlined). Spell out generic names the first time they are used; afterwards these names should be abbreviated to first letter (plus a period) when followed by a specific epithet unless confusion may result with another abbreviated generic name in the abstract.
11. In the upper right hand corner of the abstract, type in CAPITALS the name of the section in which your paper or poster is being presented.
12. The following is an example of a portion of a proper abstract.

BOTANY AND MICROBIOLOGY

Taxonomic status of the varieties of Seneca snakeroot, *Polygala senega* (Polygalaceae). AMY E. TRAUTH* and ROBERT F. C. NACZI, Department of Biological Sciences, Northern Kentucky University, Highland Heights, KY 41099.

Seneca snakeroot, *Polygala senega* (Polygalaceae), is an uncommon plant ranging throughout most of eastern North America. Two varieties have been described for the species: variety *senega* and variety *latifolia*. The taxonomic

13. The abstract must be sent with your Paper Submission Form to the Program Coordinator listed at the bottom of the form.

PUBLICATION OF ABSTRACTS IN THE *JOURNAL*

If you would like to submit your abstract for publication in the *JOURNAL*, the guidelines are the same as above except you need to send a hard paper copy and a disk or e-mail version in WordPerfect or Word. Please include with your abstract a check for \$15.00 made payable to the Kentucky Academy of Science to cover publication costs (invoices will not be sent). Abstracts for publication must be received by the Abstract Editor by December 1.

Dr. Robert J. Barney
Abstract Editor
Community Research Service
Kentucky State University
Frankfort, KY 40601
rbarney@gwmail.kysu.edu

Kentucky Junior Academy of Science Symposium

The Kentucky Junior Academy of Science held its annual Spring Symposium on Friday, April 19, 2002, on the campus of Campbellsville University. Seventy papers were presented representing six schools from across the state. Congratulations, winners! The overall winner of the Life Sciences Division was David Meigooni from Paul L. Dunbar High School in Lexington. He presented a paper entitled "Synchronization versus Sensitization of Prostate Cancer Cells by Curcumin". Chris Rezvanian from duPont Manual High School in Louisville was



selected as the overall winner in the Physical Sciences Division. His work involved the "Utilization of Optical Brightener as an Indicator of Non-point Pollution Sources along Beargrass Creek". These two young men will represent Kentucky at the national American Junior Academies of Sciences meeting February 13-18, 2003 in Denver, CO.

KAS President Jerry Warner presented plaques to winners Chris Rezvanian (left) and David Meigooni (below).

Individual section winners are listed below.

Behavioral and Social Sciences:

High School Division

First Place: EMMA ESSOCK-BURNS, duPont Manual High School

Second Place: SHANNON TURNEY, Notre Dame Academy

Third Place: ERIN FINGER, duPont Manual High School

Biological Topics I:

Freshman Division

First Place: VERONICA RODRIGUEZ, Notre Dame Academy

High School Division

First Place: [Tie] DEBORAH ERNST, Seneca High School

JIAXI LIU, duPont Manual High School

Biological Topics II:

High School Division

First Place: SUPRAJA PARTHASARATHY, duPont Manual High School

Second Place: ZOE ZHANG, duPont Manual High School

Third Place: SUDIP SAHA, duPont Manual High School

Botany:

High School Division

First Place: GEORGINA ANDERSON, Lincoln County High School

Second Place: MONICA SUMME, Notre Dame Academy

Third Place: HUY LE, duPont Manual High School

Chemistry:

High School Division

First Place: ALLISON MORRIS, Notre Dame Academy

Second Place: ANDREA MASON, Notre Dame Academy

Third Place: JAY ANDERSON, duPont Manual High School

Computer Science and Mathematics:

High School Division

First Place: NIKITA GUPTA, duPont Manual High School

Second Place: JOHN HANAUER, duPont Manual High School

Third Place: MARK GRUENTHAL, duPont Manual High School

Earth and Space Science:

High School Division

First Place: JOSEPH YEAGER, duPont Manual High School.

Second Place: CHARLES SMITH, duPont Manual High School

Third Place: LISA SOPER, Notre Dame Academy,

Engineering:

High School Division

First Place: [Tie] OLUMAKINDE ADEAGBO, duPont Manual High School

JESSICA OTTEN, Notre Dame Academy

Third Place: JASON MOORE, duPont Manual High School



Environmental Science:

High School Division

First Place: CHRIS REZVANIAN, duPont Manual High School

Second Place: MARGUERITE BLIGNAUT, Notre Dame Academy

Third Place: SCOTT MOORE, duPont Manual High School

Microbiology:

Middle School Division

First Place: JOHN MEIGOONI, Morton Middle School

Freshman Division

First Place: JULIE DUNCAN, Notre Dame Academy

High School Division

First Place: DAVID MEIGOONI, Paul L. Dunbar High School

Second Place: TERESA JUE, duPont Manual High School

Third Place: BRITTANY JAMISON, Lewis County High School

Physics:

High School Division

First Place: VINITA ALEXANDER, duPont Manual High School

Second Place: ANGY MOUNIR, Notre Dame Academy

Third Place: JOHN WRIGHT, duPont Manual High School

Zoology:

High School Division

First Place: MELISSA BRADLEY, Lewis County High School

The Kentucky Junior Academy of Science also elected state officers for the 2002-2003 year. They are: President: Andrea Mason, Notre Dame Academy; Vice-President: David Meigooni, Paul L. Dunbar High School; Secretary: Jay Anderson, duPont Manual High School. Congratulations to all of the state officers!



Kentucky Junior Academy of Science

The Junior Academy was begun over fifty years ago to foster an interest in science for high school students in Kentucky. KJAS has expanded over the years to include middle school students as well as high school students. Members of the Kentucky Junior Academy have the opportunity to :

- interact with other high school students across the state who are interested in science and technology,
- apply for money to design and complete science projects,
- present projects at the annual KJAS meeting, and
- publish an abstract in the Journal of the Kentucky Academy of Science.

Two winners from the KJAS annual meeting represent Kentucky at the National American Junior Academies of Sciences meeting each year.

Are you interested in joining the Kentucky Junior Academy of Science or just want to learn more about it? Check out the web site at:

<http://www.kyjas.org>

or contact the KAS/KJAS office at:

University of Kentucky Outreach Center for Science & Health Careers
102 Chandler Medical Center Annex 5
Lexington, KY 40536-0078

Yes, I Want to Join the Kentucky Academy of Science

Check appropriate boxes

Individual Membership

(January to December)

- \$25 Active Member
- \$15 Student member (Collegiate)
- \$10 KJAS member (High School)
- \$35 Family member
- \$350 Life member

Educational/Industrial Affiliate Membership

- \$5,000 Patron
- \$2,000 Associate Patron
- \$1,000 Fellow
- \$500 Sustaining Member
- \$250 Member
- \$100 Associate Member
- \$25 High School Member

Section Choice _____

Payment Enclosed \$ _____

Name _____

Street _____

City _____ State _____ Zip _____

Employer or School _____

Please make checks payable and mail to:

The Kentucky Academy of Science
Science Outreach Center
University Drive
University of Kentucky
Lexington, KY 40536-0078



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