



NewsLetter

The New Jersey Academy of Science

Kean University, Center for Science, Technology & Math Education

1000 Morris Ave. T-117, Union, NJ 07083

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53RD ANNUAL MEETING

The 53RD Annual Meeting of the Junior and Senior Academies of the New Jersey Academy of Science will be held on April 26, 2008 at Kean University.

KEYNOTE ADDRESS - JENNIFER R. COX, MA

Jennifer R. Cox is a Senior Planner at RPA focusing on sustainable land use, climate change, and geographic information systems (GIS). Jennifer directs GIS at RPA and manages the Pennsylvania / Connecticut Highlands build out analysis. In addition, she works on the LIS Stewardship Initiative, America 2050, and the Regional Visioning Initiative. As a doctoral student at the CUNY Grad Center, Earth and Environmental Sciences Program, Jennifer is investigating environmental policy, natural hazards, and climate

change. She has co-authored several articles on urban heat islands, green infrastructure, and socio-economic vulnerability.

Jennifer has a MA in Geography from Hunter College and a BA in Geography from the State University of New York at New Paltz. Prior to RPA, Jennifer was Assistant GIS Manager at the NYS DEC Region 2 and a GIS Specialist at the Town of East Fishkill. Jennifer is the Coordinator of NYC ARC Users Group, a GIS support group in the New York metropolitan region.

NJAS HAS THE FOLLOWING OPEN POSITIONS

Executive Secretary: Responsible for keeping the Executive Board aware of deadlines for varied activities of the Academy, as well as procedural deadlines for elections and similar functions.

Junior Academy Director: Work to oversee the high school student membership constituents of the NJAS, specifically to expand the membership base of participating high schools in the state in the many NJAS high school orientated initiatives like Science for Breakfast and Grant in Aid. The Jr Acad director will play a large role in the organization of the annual NJAS meeting.

Grant-In-Aid Chairperson: GIA chair handle the yearly Grant-in-Aid program that is funded by AAAS to accept science/math research proposals from high school students each fall that are reviewed by senior scientists. Highest-ranking proposals are awarded small funds to offset the cost of the student's research project. GIA chair works with the participating high school science/math sponsoring teachers to encourage all GIA participants to present their research at the annual NJAS meeting.

Program Development Coordinator: Works to keep NJAS activities up-to-date, and continuously advancing. Keeps abreast of programs sponsored or developed by other State Academies, the National Academy, educational organizations, and similar groups in order for the NJAS to engage in program partnership opportunities as they arise.

Science For Breakfast Coordinator: Once or twice a year the NJAS hosts a Science for Breakfast program for high school students in different areas throughout the State. The coordinator maintains contact with interested schools, arranges for scientist in various disciplines to be present for the event, coordinates

advertisement of the event, maintains registration and similar activities which are required to host a successful event.

Web Manager: Web Manager: Maintains the NJAS official web page and makes changes to the site as requested by the Executive Board. Keeps the web site up-to-date and interesting for Academy members.

Nominations should be sent to Gail P. Carter, NJAS President at gcartographer@yahoo.com or to the NJAS directly at Kean University, CSTME, Townsend Hall, T117, 1000 Morris Ave, Union, NJ 07083

Volunteers should contact Gail P. Carter, NJAS President at gcartographer@yahoo.com or contact the NJAS at: 732-463-0511 or njacadsc@rci.rutgers.edu

NJAS Grant-In-Aid (GIA) 2007-08 Winners

The NJAS proudly announces the 2007-2008 Grant-In-Aid (GIA) winners. This year, there were some thirty-five high school science and math student written proposals submitted for the competition. The students' project work is performed with oversight from a high school teacher or other scientist. Senior scientists served as reviewers to evaluate the research proposals and the highest ranking fifteen proposals will be funded up to \$100 for reagents/materials. Congratulations to the students named below, who will present their research work at the annual NJAS meeting on April 26, 2008 at Kean University. For information on the next GIA cycle, refer to the njas.org website late summer as high school student proposals are accepted each September through November.

Rank	Name	Title	High School	Subject
1	Melissa Felizardo	The Effect of Sleep on Adolescent Heart Rate	High Technology HS	Psychology/ Human Behavior
2 (Tie)	Jay Feldman	A Heat Detector Using Fiber Optic Interferometry	High Technology HS	Engineering
	Steven Castellano	Acupressure Induced Attention in the Teenage Brain	High Technology HS	Neuroscience
3	Brigit Carlson	The Effects of the Size of Spawning Tank on the Area of Bubble Nest Created by Male <i>Betta splendens</i>	High Technology HS	Zoology/ Animal Behavior
4	Rima Patel	Glucose and Susceptibility to False Memory	John F. Kennedy Memorial HS	Psychology/ Human Behavior
5 (Tie)	Mansi Vira	Pain Relief through Meditation	John F. Kennedy Memorial HS	Human Behavior
	Anthony Chen	The Effect of LED Grow Lights on Bush Bean Plants	High Technology HS	Botany
6	Ritesh Patel	Methyl Jasmonate: Defense Responses in Neighboring Plants	John F. Kennedy Memorial HS	Botany
7 (Tie)	Mansi Patel	Using Glutamic Acid to Enhance the Antibacterial Effects of Epigallocatechin Gallate on <i>Escherichia coli</i>	John F. Kennedy Memorial HS	Microbiology
	James Lagas and Richard Wegenroth	Developing Cytotoxic and Genomic Bioassays in Zebrafish Embryos	Vernon Township HS	Environmental Science/ Ecology
8	Jessica Phan	Impact of three color schemes on students academic performance	John F. Kennedy Memorial HS	Psychology/ Human Behavior
9	Natalia Ziarnik	Affect of Soil pH on Soybeans	Academies at Englewood	Botany
10	Harpreet Uppal	The Ability of Certain Plants to Uptake Carbon Monoxide	John F. Kennedy Memorial HS	Botany
11	Mariam Amini	Yogurt Preventing Spread of Bacteria?	Academies at Englewood	Microbiology
12	Sanandeesh Kamat	Investigation of Intranasal Delivery of Hypocretin (<i>Orexin</i>) A Peptides on Locomotor Activity and Feeding Behavior in the Rat	John F. Kennedy Memorial HS	Neuroscience

2008 Annual NJAS Meeting Registration & Abstract Submission Form
Must Be Received By March 24, 2008

PART I. YOUR CONTACT INFO

Last Name: _____ First Name: _____

Organization/School: _____

Mailing Address: _____

Phone: _____

E-mail: _____

PART II. REGISTRATION FOR ATTENDING THE ANNUAL MEETING

If you will be attending the meeting you must register in advance (there is no on-site registration)

Indicate your type of registration ("member" means you've paid 2008 NJAS dues):

____ NJAS Member \$25

____ Non NJAS Member \$35

____ Graduate Student Member \$15

____ Undergraduate Student Member \$15

____ High School Teacher Member \$15

____ High School Student Member \$10

____ Family member of high school student presenting at the meeting \$5

Lunch will be provided if you indicate below and send payment. Otherwise, you will likely need to DRIVE off campus to purchase lunch elsewhere.

____ Lunch \$10 (Indicate if special request like vegetarian, etc. _____)

If you are not presenting at the meeting, then proceed to PART IV.

PART III. ABSTRACT SUBMISSION FOR PRESENTATION AT ANNUAL MEETING

If you wish to present, you must be a NJAS member & submit an abstract. If you are not a 2008 dues paid NJAS member, submit the membership application & payment at this time.

There is a standard \$10 fee for each abstract submission. Abstracts are published in the *NJAS Bulletin*, with the exception of high school students whose abstracts are printed in NJAS Newsletter. Please see the end of this form for full details regarding format guidelines for abstracts.

PART III. ABSTRACT SUBMISSION FOR PRESENTATION CONTINUED

Please indicate your 1st & 2nd choice of subject category for your abstract. In order to keep the program balanced, be aware that reassignment of abstracts may be necessary by the NJAS executive committee.

- | | |
|---|--|
| <input type="checkbox"/> Ecology or Environmental science | <input type="checkbox"/> Mathematics |
| <input type="checkbox"/> Health or Medicine | <input type="checkbox"/> Earth Science, Geology or Meteorology |
| <input type="checkbox"/> Cell or Molecular Biology | <input type="checkbox"/> Microbiology |
| <input type="checkbox"/> Chemistry or Biochemistry | <input type="checkbox"/> Marine Science |
| <input type="checkbox"/> Physics or Engineering | <input type="checkbox"/> Science or Math Education |
| <input type="checkbox"/> Computational Science | <input type="checkbox"/> Botany |
| <input type="checkbox"/> Psychology or Animal behavior | <input type="checkbox"/> Other _____ |

College students, graduate students (masters or doctoral), or science or math professionals (holding a master's or doctoral degree) may present posters. Indicate your category of poster presentation:

- | | |
|--|---|
| <input type="checkbox"/> High School Teacher \$10 | <input type="checkbox"/> Post doc \$10 |
| <input type="checkbox"/> Ph.D. student \$10 | <input type="checkbox"/> Ph.D. or equivalent \$10 |
| <input type="checkbox"/> Undergraduate student \$10 | <input type="checkbox"/> Master's degree students \$10 |

For posters, 6' long tables will be provided. Posters will be placed in a general meeting area for display. All **posters must be self-supporting aka self-standing** on the tabletop. Posters are displayed during the entire day. Should a poster stand be required, you the presenter must supply your own.

High school, college, or graduate degree-seeking students may present 10 min talks in competition. Indicate your category of oral presentation:

- | | |
|---|-------------------------------|
| <input type="checkbox"/> Doctoral degree student | \$10 |
| <input type="checkbox"/> Master's degree student | \$10 |
| <input type="checkbox"/> Undergraduate student | \$10 |
| <input type="checkbox"/> High School student | \$ 0 (abstract fee is waived) |
| <input type="checkbox"/> High School student who is a 2007 NJAS Grant-In-Aid Winner | \$0 (fee waived) |
- NJAS Grant-In-Aid winners 2008 must submit an abstract & present.**

Talks are to be PowerPoint; bring slides on a USB flash drive, a CD, your own laptop, or email slides to a web-based email account. Presentation rooms are wireless, with a computer & LCD projector. If you cannot do your talk as PowerPoint and require an overhead transparency, you must indicate that by checking here (_____). Oral presentations should be 10 minutes in length, then 5 minutes for question/answer.

PART IV. PAYMENT TALLY

Make checks payable to: NJAS

Send meeting registration & abstract submission paperwork along with fees by March 24 to:

NJAS c/o Kean University ATTN: Dr. Laura Lorentzen
1000 Morris Ave. T-117 CSTME
Union NJ 07083

The actual abstract for presentation is to be emailed by March 24st to LLorentzen@hotmail.com

Abstract Format Guidelines for Presentations NJAS Meeting 26 Apr 2008 at Kean University

Follow these instructions (improperly prepared abstracts/missing info may cause rejection of your abstract):

1. This year we will only accept abstracts that are submitted in electronic form. The preferred format is MSWord, Arial font, size 10, fully justified. RTF format is also acceptable.
2. Abstracts should be sent via an attachment to an e-mail message to Dr. Laura Lorentzen at LLorentzen@hotmail.com
3. While the abstract is sent as an attachment, please write in the text of the email the following information:
 - a. Your full name and your school or university affiliation
 - b. If your abstract is for a POSTER or an ORAL presentation
 - c. State if you are high school, college, master's or doctoral student
 - i. If you are a student, also give name and email for your sponsoring mentor
4. The abstract should be approximately 200 words long, excluding title, author and school or institution affiliation information.
5. Type the title in bold and all capitals, except for scientific names.
6. Start authors with the first author. Underline the name of the presenting author. The presenting author must be an active NJAS member. If the presenting author is a student, type (student) after the presenter's name. The presenting author must complete the information requested below the example of a typical abstract.
7. Leave a blank line before the text.
8. **All abstracts and abstract fees MUST be received by March 24, 2008 to be guaranteed a room assignment. In order to have the printed programs ready for the meeting, late submissions CANNOT be accepted for any reason.**
9. You will be notified by e-mail after the abstract has been received and accepted.

Example of typical abstract:

SYNTHESIS AND IDENTIFICATION OF TERPENYL ETHERS - A COOPERATIVE COLLEGIATE-INDUSTRY PRODUCT

Joe Smith (student), Jane Doe, Chemistry Department, Kean University, Union NJ 07083

A series of terpenyl ethers was synthesized and analyzed for purity and structure. The ethers were submitted for aroma quality evaluation...

Application For NJ Academy of Science (NJAS) Membership

NOTE: if you have already paid your 2008 NJAS membership dues, proceed directly to Annual Meeting Registration & Abstract Submission Form. If you have not yet paid your 2008 membership dues to NJAS, you will need to complete this form and send along with payment when you register for the April 2008 NJAS annual meeting.

Dr., Miss, Ms., Mrs., Mr. (Please Circle One)

Last Name: _____ **First Name:** _____

Organization/Ed. Unit: _____

Mailing Address: _____

Phone: _____ **Fax:** _____

E-mail: _____

Professional Field(s): _____

Signature: _____ **Date** _____

Please check type of annual membership:

Regular Member **\$40.00**

Post doc

Ph.D/M.S. in Academia

Ph.D./M.S. not in Academia

High School Teacher

Other science or math professional [Please indicate _____]

Student Member **\$15.00**

High School

Bachelors

Masters

Doctoral

Life Member (1 payment) **\$250.00**

Retired/Emeritus

\$15.00

Corporate Member **\$500.00**

Corporate Sponsor

\$1000.00

Corporate Benefactor **\$2500.00**

Send the application and fee to:
Make check payable to NJAS

NJAS c/o Kean University
Center for Science, Tech & Math Educ
1000 Morris Ave. T-117
Union NJ 07083

RESPONSE FORM FOR JUDGES FOR THE 2008 NJAS ANNUAL MEETING

If you are a science or math professional (hold at least a master's degree in science or math), please consider serving as a judge for the NJ Academy of Science's annual meeting and student competition on April 26, 2008 at Kean University (Union, NJ) from 8:00am to 2:00pm. Judges arrive by 8:30am. Lunch is provided to judges free of charge & their meeting registration is waived.

Please complete and return this form to: NJAS c/o Kean University
Center for Science, Tech & Math Educ
1000 Morris Ave. T-117
Union NJ 07083

_____ Yes, I am willing to judge oral 10 minute research presentations at the **NJAS 53rd Annual Research Meeting** to be held on Saturday, April 26, 2008 at Kean University in Union NJ.

My Judging Preference is: **Junior Academy (high school student presentations)**
 Senior Academy (college or graduate student presentations)
 Either, just place me where needed

NAME: _____

ADDRESS: _____

CITY/STATE/ZIP: _____

DAYTIME PHONE NUMBER: _____ **EVENING PHONE NUMBER:** _____

EMAIL(S): _____

ACADEMIC INSTITUTION OR CORPORATION: _____

POSITION HELD: _____

DEGREES: _____

PLEASE DESCRIBE YOUR AREA OF EXPERTISE: _____

CHECK THE DISCIPLINE(S) YOU WOULD LIKE TO JUDGE:

- | | |
|---|--|
| <input type="checkbox"/> Ecology or Environmental science | <input type="checkbox"/> Mathematics |
| <input type="checkbox"/> Health or Medicine | <input type="checkbox"/> Earth Science, Geology or Meteorology |
| <input type="checkbox"/> Cell or Molecular Biology | <input type="checkbox"/> Microbiology |
| <input type="checkbox"/> Chemistry or Biochemistry | <input type="checkbox"/> Marine Science |
| <input type="checkbox"/> Physics or Engineering | <input type="checkbox"/> Science or Math Educaton |
| <input type="checkbox"/> Computational Science | <input type="checkbox"/> Botany |
| <input type="checkbox"/> Psychology or Animal behavior | |

NJAS EXECUTIVE COMMITTEE

President:

Gail P. Carter (2008)
NJDEP
gcartographer@yahoo.com

President-Elect:

Dr. Laura Lorentzen (2008)
Kean University
llorentzen@hotmail.com

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The Hawk Group
njacademyscience@aol.com

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OPEN

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Junior Academy Director:

OPEN

Grant-In-Aid Chairwoman:

OPEN

Science Program, Annual Meeting

Chairman:

Dr. Laura Lorentzen
Kean University
llorentzen@hotmail.com

Member At Large:

Dr. Paul Bologna
Montclair University
bolognap@mail.montclair.edu

Membership/Finance:

Gail P. Carter (See President above)

Program Development Coordinator:

OPEN

High School Liason:

Dr. Graham Cleaves
Ridge High School

Web Manager:

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njadsc@rci.rutgers.edu

<http://www.njas.org>

THE BULLETIN: CALL FOR MANUSCRIPTS

Individuals seeking publication of their work are urged to consider submitting their manuscripts to *The Bulletin*, The peer-reviewed journal of the New Jersey Academy of Science. We are currently on a twice-yearly publication schedule, which consists of a spring and a fall issue.

Original papers and reviews in any field of science are considered for publication. Manuscripts should be submitted to Dr. Michael Kennish, Editor, Institute for Marine & Coastal Sciences, Rutgers University, 71 Dudley Rd. New Brunswick, NJ 08901. Instructions for contributors are printed on the inside back cover of each issue of *The Bulletin* and are now available on the NJAS website (www.NJAS.org), in the Bulletin section. Anyone having questions about the review and/or publication process should contact the editor at (732) 932-6555, ext. 240 or kennish@imcs.rutgers.edu

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