

# Nebraska Science News



Nebraska Academy of Sciences



Nebraska Association of Teachers of Science

***Serving Scientists and Science Educators Across the State of Nebraska***

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## FROM THE NAS PRESIDENTS' DESK

Fall is an exciting season for scientists: Each year the Nobel Prize announcements present us with opportunities to learn something new. What a pleasure to read of Takaaki Kajita and Arthur McDonald's discovery of neutrino oscillations, Tomas Lindahl, Paul Modrich and Aziz Sancar's elucidation of the mechanics of DNA repair, and William Campbell, Satoshi Ōmura and Youyou Tu's discoveries of avermectin and artemisinin. Their work has prompted discussions with colleagues, friends and students from which I've learned much! Nobels aside, I hope you will agree that this fall is proving generous with memorable, sharable events in science.

September celebrated one of Omaha's own renowned researchers, Henry Lynch, chairman of the Creighton School of Medicine's Department of Preventive Medicine and Public Health, and president of the Hereditary Cancer Institute. The [Henry T. Lynch Symposium](#) honored his contributions as a physician and geneticist. Two cancer centers in Omaha have been named in his honor: CHI Health Henry Lynch Cancer Center at Bergan Mercy Hospital and CHI Health Henry Lynch Cancer Center at Immanuel Hospital.

Look up in the predawn sky to Mars: NASA's Mars Reconnaissance Orbiter, carrying six scientific instruments and in operation since 2006, has provided strong evidence of [briny liquid water flowing on Mars](#) during warm—that is, when temperature rise above  $-23^{\circ}\text{C}$ —seasons. Early bird or not, I hope you had the opportunity to look up the night of September 27<sup>th</sup> and see the outstanding [super blood moon](#), the next of

which won't be until 2033. Observatories across the state—Behlen, Boswell, Sachtleben—hosted viewing parties for the event (which was spectacular from my own front porch).

The night sky's lights remind me that it is the International Year of Light. Appropriate, then, that the University of Nebraska—Lincoln Department of Chemistry's 2015 Hamilton Awardee is Professor David W. C. MacMillan of Princeton University. His October 29<sup>th</sup> award lecture will be "The Design of New Chemistry Using Light." Across the state, Chadron State College offered another wonderful lecturer when it hosted its second Galaxy Series speaker, [Jean-Michel Cousteau](#), president of Ocean Futures Society, on October 22.

Fall also has brought us news that Nebraskans are bringing new species to light. Undergraduate student Carissa Raymond, working in New Mexico with University of Nebraska, Lincoln paleontologist Ross Secord last summer, discovered a fossil of a [new species](#), *Kimbertopsalis simmonsae*. Henry Doorly Zoo scientists have announced the identification of another [new lemur species](#); the Zoo's conservation work in Madagascar has led to the description of 23 new lemur species since 1999.

### IN THIS ISSUE:

- NATS Fall Conference Report
- Scholarships and Fellowships
- 2016 NAS Annual Meeting Info

Students from Chadron State, Peru State and Wayne State Colleges and from the University of Nebraska, Kearney converged on the University of Nebraska

Medical Center's campus in late September, representing [three health education pipeline programs](#) which are successfully encouraging our state's rural residents to pursue careers in health care. I am sure they as well as many other state residents will profit from the newly approved [Global Center](#) for Advanced Interprofessional Learning to be built at the Med Center. This learning resource holds promise to transform the delivery of health science education and clinical care through high-tech competency-based learning. The future Global Center may in some ways echo [Do Space](#), the digital library set to open November 7<sup>th</sup> in Omaha. Do Space is a community digital technology library which aims to equalize access, enable exploration and invention, provide greater technological literacy, and be a leader shaping technology education.

It is getting cooler and the days shorter, but these events and all you will find in this issue of *Nebraska Science News* tell us that in schools and libraries, laboratories and the field, exploration of science and technology percolates across the state. Join in: Learn something new!

Martin Hulce, NAS President  
Creighton University

## GREETINGS FROM THE NATS PRESIDENT

This year's Fall conference was a huge success. After a rainy start to the week, the skies cleared and the weather was perfect for spending a couple of days with fellow science teachers at Camp Calvin Crest. This year's theme Science Runs Through It fully captured the essence of our conference. Just as the Platte River flows through Nebraska, science runs through our state: from Harrison to Falls City, Benkelman to Ponca, Springview to Alma, and Kimball to Omaha, Science Runs Through It!

Running a conference of this magnitude does not happen on its own ... everyone plays a part in the success .... NATS Board Members, session presenters, special guests, conference participants, Camp Calvin Crest Staff, NATS members, and our Executive Secretary Cecelia Dorn. gracias, asante, takk, hvala, спасибо, merci, kam sah hamnida, toda, danke, xièxie ... thank you!

The 2016 Fall Conference dates and location have been set – September 22nd -24th at Camp Calvin Crest in

Fremont. Mark these dates on your calendar and begin to think how you can play a part in this grand event. Whether you are a veteran or a new-comer, the NATS conference is like no other. It resembles a family reunion more than an educational conference. Don't get me wrong, there is plenty of learning going on, but NATS members are family. We care about each other, and we want to see our colleagues excel in their careers. New comers are welcomed with open arms and open hearts; the veterans are ready to take them under their wings. The 2016 Presentation Proposal Form is up and running and ready for your submission. The following information features highlights from this year's conference.

### 2015 Fall Conference Success

The NATS 2015 Fall Conference experienced many FIRSTS.



*T shirt designed by Justin Stanton*

Board member Rich Powers (Lincoln Public Schools) came up with this year's conference theme, Science Runs Through It!, which prompted us to offer, for the 1st time, a conference t-shirt with registration. NATS is hoping to make conference t-shirts a tradition.

With the assistance of Sara Cooper, NDE Science Director, Tricia Parker, NDE Language Arts Director, and James Blake, LPS Science Director; we created another 1st -- a conference within a conference offering a full-day Saturday conference specifically designed for elementary teachers. This year's elementary science conference theme "Promoting Literacy Through Science", featured sessions for creating multidisciplinary experiences that integrate science into other K-6 curricular areas. With almost 100 elementary teachers registered for the conference, we are looking forward to next year's Saturday Elementary Science Conference.

Our Saturday morning Keynote presentation was another 1st for NATS. To kick-off our conference within



Jeff Kurrus with daughter Madeline and son Eli.

a conference, Jeff Kurrus, Editor Nebraskaland Magazine and children's author, provided insights on how to encourage scientific literacy through writing during his presentation titled Creating the 21st Century Scientist.



<http://m.confplusapp.com/>

Speaking of 21st century scientists...another 1st for NATS was going digital with our conference program. You can still check it out, by downloading the Confplus APP to your Android or IOS device. We also, for the 1st time, used Google Forms for submitting proposals. I hope that you will seriously consider sharing your expertise with us next year!

The Brogie Brother Bird Walks are definitely not a first for NATS, but this year's walk was. Participants on the Friday morning bird walk had an extra special treat when, for the 1st time in the history of the NATS Brogie Brother Bird Walks, Mark and Ed were able to call in a Barred Owl for everyone to see.

Barred Owl *Strix varia*



## Conference FACTS

- The 2015 NATS Fall Conference featured 1 Maiben Lecture, 2 Keynote Presentations, 1 Chemistry Demo, 2 Brogie Brother Bird Walks, 1 star party, and 62 concurrent sessions.
- 345 attendees -- 21 Vendors -- 10 Awardees -- 4 NSTA Board Members -- 3 newly elected NATS Board Members -- 2 Teachers of the Year -- 1 NATS Executive Secretary
- SAVE THE DATE -- NATS 2016 Fall Conference -- September 22-24, 2016.

## Outstanding Members Presented with Awards



NATS President Joe Myers presents the 2015 Catalyst Awards

NATS is proud to honor the 2015 Catalyst Award Winners for their contributions to science education in Nebraska: David Harwood, University of Nebraska–Lincoln and Katie Ramsey, Grand Island Public Schools.



The award recipient and the microscope are both 1950's models.

Gary Brown, G.W. Brown Company, presented the 2015 Pinnacle Award to Ed Brogie, retired high school science teacher, past-president of NATS and NAS, and current director of the National Association for the Academies of Science. This award included a refurbished 1950's model Kyowa microscope.

Nebraska's most recent Awardees and Finalists for the Presidential Award for Excellence in Mathematics and Science Teaching were recognized by Sara Cooper, NDE Science Director. The 2012 Elementary Awardee is Kimberly Humphrey, Meadowlark Elementary School-Kearney; 2013 Secondary Awardee is Angela Bergman, Westside High School. The 2014 Elementary Awardees have not yet been named.



Herrington, Miller, Barent, and Putnam Nebraska's 2015 Secondary Presidential Award Finalists.

The Nebraska 2015 Secondary Finalists are Betsy Barent, Norris Middle School; Sean Putnam, Lincoln High School; Nicole Miller, Columbus-Lakeview High School; and Mary Herrington, Culler Middle School-Lincoln.

### Special Guests



Presidents Mary Gromko (NSTA) and Lee Brogie (NATS) Mary's a Colorado fan, but we still love her!

Once again, the NATS Fall Conference was honored to have NSTA Board Members share their expertise with us. Spending time at camp were Mary Gromko, President-elect; Paul Adams, District XI Director; Sally Harms, Division Director-College Science Teachers, and Beverly DeVore-Wedding, Division Director-High School Science Teachers.

Nebraska Presidential Awardee and 2012 Nebraska Teacher of the Year, Bob Feurer, shared insights on the social/emotional side of learning and how the brain works in learning during his session titled  $1 + 1 = 3$ .

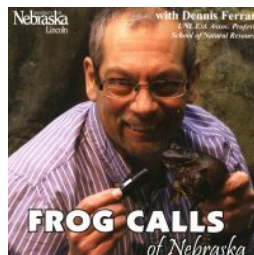


Download a copy of Bob's presentation slides [here](#).

Missouri Presidential Awardee and 2012 Missouri Teacher of the Year, Bob Becker, illustrated chemistry principles and his philosophy of teaching during his Thursday afternoon session titled The Chemistry of Teaching. In addition, Bob provided a session for secondary teachers on stoichiometry and back-to-back sessions on Saturday showing elementary teachers how their students can create geometric forms using coffee stirrers, twist ties, and soapy water.



Download a copy of Becker's Chemistry of Teaching Powerpoint presentation [here](#).



Ferraro on the cover of his Frog Calls of Nebraska CD. These calls are now available for free via his website.

This year's Maiben Lecture featured Nebraska's expert herpetologist Dennis Ferraro. Dennis' love for herps began at a young age, and he continues to share this passion with others. To learn more about the amphibians, turtles, and reptiles in Nebraska, visit Ferraro's website: <http://snr.unl.edu/herpneb/>



Mike Farrell



Val Cuppens

Friday's Keynote Presentation featured Nebraska's Platte Basin Timelapse Project. Mike Farrell, Executive Producer, and Val Cuppens, Educational Media Producer, revealed how the power of photography and storytelling can help us understand more about our water resources. <http://plattebasintimelapse.com>



Saturday's Keynote Presentation featured award-winning writer, Jeff Kurrus. Jeff is also the editor of Nebraskaland Magazine and he worked with photographers Michael Forsberg and Rob Palmer to write "Have You Seen Mary?" and "The Tale of Jacob Swift". During his presentation titled "Creating the 21st Century Scientist", Jeff encouraged teachers to promote scientific literacy through writing. After his session, Mr. Kurrus talked with teachers and signed books.

<http://haveyouseenmary.com/>

Lee Brogie, NATS President

## NJAS NEWS AND NOTES

### Let's Engage in Science

"Everybody starts out as a scientist. Every child has the scientist's sense of wonder and awe." -Carl Sagan (as cited by the National Research Council, 1998) How do we continue to capture that sense and awe and wonder to keep students engaged in science? With the demands for STEM workers on the rise and projections of US students prepared for those roles falling short, it is essential that we find answers to that question. One avenue to engage students is through science competitions. Nebraska Junior Academy of Sciences and Science Olympiad offer opportunities for students to pursue passions, investigate questions, and engage in authentic science learning experiences.

Science Olympiad's diverse roster of events includes all the STEM disciplines and science domains, including inquiry. This diversity serves as a vehicle to engage a wide range of students in scientific endeavors in a collaborative team environment. In addition, students are exposed to potential careers in STEM fields and begin building a network of colleagues and mentors to further guide their pursuit of science. Science Olympiad competitions allow students to become experts in their chosen events and dive deeper into science content than what typically occurs in the science classroom.

This ability to specialize is both engaging and motivating.

Through Nebraska Junior Academy of Sciences competitions, students are able to **be** the scientist in pursuit of answers to their own questions related to the natural world. As a truly authentic scientific experience, students gain first-hand experience in the work of scientists. This new perspective can inspire students in ways traditional science classroom learning can't. In pursuit of answers to their own questions, students practice a plethora of career skills; e.g. communication, analytical problem solving, and time management.

Between Science Olympiad and Nebraska Junior Academy of Science competitions, we can engage more students in science and keep their sense of wonder and awe alive. We all have a part to play so get involved; be a mentor, share your expertise, supervise and judge competitions, volunteer your time to engage our Nebraska students in their scientific pursuits in Science Olympiad and Nebraska Junior Academy of Sciences.

Aurietha Hoelsing, NJAS President



The Nebraska Science News is a publication of the Nebraska Academy of Sciences, a private foundation associated with the American Association for the Advancement of Science.

NAS President: Martin Hulce

NATS President: Lee Brogie

NJAS President: Aurietha Hoelsing

NAS Executive Secretary: Cecelia Dorn

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Website: [www.nebraskaacademyofsciences.wildapricot.org](http://www.nebraskaacademyofsciences.wildapricot.org)

Donations are tax deductible.

## 2015 PUBLIC INFORMATION AND EDUCATION GRANT REPORT

The Academy received nine applications for the second quarter of 2015 with a total request of \$20,300. Four grants were awarded to the following: WasteCap Nebraska, Building Better Communities Webinar Series; Nebraskans for Civic Reform, Field Guide and Interactive

Journal; The Groundwater Foundation, Recharging Groundwater Education; and Sandhills Task Force, Private Lands Partners Day 2015 for a total of \$10,150.00

2015 3<sup>rd</sup> quarter applications were received from Cozad Community Schools, Dawson County Species I.D.; Pheasants Forever, Train the Trainer-Prescribed Fire Program; Lancaster Event Center, Go Green Day; City of Falls City, Recycling Education to Keep Falls City Beautiful; Water Futures Partnership-NE, INC., Nebraska Water Leaders Forum; Nebraska Conservation Education Fund, Nebraska Conservation Summit; GI-Kearney-Hastings Visitor Bureau, Wildlife Viewing Guide; Kearney Visitors Bureau, 2016 Crane Watch Brochure; Nebraska Game and Parks Commission, Wildlife Ecosystems Climate Change Roundtable; and WasteCap Nebraska, Sustainable Business Awards Luncheon for a total request of \$27,495.38.

Grants were awarded to: Pheasants Forever, Train the Trainer-Prescribed Fire Program; Nebraska Conservation Education Fund, Nebraska Conservation Summit; GI-Kearney-Hastings Visitor Bureau, Wildlife Viewing Guide; and WasteCap Nebraska, Sustainable Business Awards Luncheon. Total awarded in the third quarter was \$12,000.00.

Six grant applications were received for the fourth quarter from the Rainwater Basin Joint Venture, Rainwater Basin Joint Venture Informational Seminar; Community Crops, Urban Homesteading Series, Jon Mayo/Brownell Talbot School, Student Designed Rain Garden at Brownell Talbot; Jon Mayo/Brownell Talbot School, Geosciences of Nebraska Outreach Program; Pyrtle PTO, Outdoor Enrichment; and Geographic Educators of Nebraska, Training the 4<sup>th</sup> Grade Teachers to Use the Student Atlas of Nebraska. Total grant dollars requested was \$15,782.00.

The Nebraska Environmental Public Information and Education MiniGrant Program awards MiniGrants of up to \$3,000 each, to support the presentation and dissemination of information and perspectives that will stimulate enhanced environmental stewardship in any category eligible for Nebraska Environmental Trust (NET) funding. These categories are habitat, surface and ground water, waste management, air quality, and soil management. The grant expands dialogue on important current conservation topics and provides information on emerging or highly useful conservation methods. All Nebraska individuals, private organizations, and public entities are eligible to apply for these funds.

The Nebraska Legislature created the Nebraska Environmental Trust in 1992. Using revenue from the Nebraska Lottery, the Trust has provided over \$225 million in grants to over 1,700 projects across the state. Anyone –

citizens, organizations, communities, farmers and businesses – can apply for funding to protect habitat, improve water quality and establish recycling programs in Nebraska. The Nebraska Environmental Trust works to preserve, protect and restore our natural resources for future generations. <http://www.environmentaltrust.org/>

First quarter 2016 applications are due January 9, 2016.

Grant forms and information can be found on our website, [www.neacadsci.org](http://www.neacadsci.org). Click on NAS and then click on Grants and Scholarships.



## SUMMER 2016 OPPORTUNITY FOR HS SCIENCE TEACHERS AND STUDENTS

Peter and Eli Sutter, Professors in the College of Engineering at the University of Nebraska–Lincoln, are looking for Nebraska high school science teachers interested in a summer research experience for themselves and a group of their students. They are planning a one-week hands-on workshop for one teacher and up to 6 (junior-level) students for the summer of 2016. During this week, the participants will have the opportunity to actively join in their research, and to develop experiments they will bring back to their school to enrich their science classroom materials and share their experience with other students at their school. Travel costs, accommodations and meals during the workshop will be covered for all participants, and a stipend for the teacher will also be provided. If you are interested in this opportunity, please contact Peter and Eli Sutter by e-mail at [psutter@unl.edu](mailto:psutter@unl.edu) and [esutter@unl.edu](mailto:esutter@unl.edu).

## ALBERT EINSTEIN DISTINGUISHED EDUCATOR FELLOWSHIP (AEF) PROGRAM

Accepting Applications for 2016-2017 Fellowship Year

**Application Deadline: Nov. 19, 2015, at 8 p.m. EST**

The **Albert Einstein Distinguished Educator Fellowship (AEF) Program** provides a unique opportunity for accomplished K-12 science, technology, engineering and mathematics (STEM) educators to serve 11 months in a Federal agency or U.S. Congressional office. Einstein Fellows bring their extensive classroom knowledge and experience to their host offices to inform Federal STEM education efforts.

**Past Einstein Fellows have:**

- Designed and implemented national STEM education programs.
- Built partnerships among Federal agencies.
- Drafted legislation seeking to improve U.S. K-12 education and teacher preparation.
- Evaluated national STEM programs centered on school reform.
- Designed and deployed digital and online learning tools for students and teachers.

**To be eligible**, applicants must be U.S. citizens who are currently employed full time in a U.S. public or private elementary or secondary school or school district. Applicants must have been teaching full time in a public or private elementary or secondary school for at least five of the last seven years in a STEM discipline.

Current sponsoring agencies include the **U.S. Department of Energy (DOE), the National Science Foundation (NSF), and the National Aeronautics and Space Administration (NASA)**. In addition to sponsoring placements at DOE headquarters, DOE sponsors up to four placements in U.S. congressional offices.

The Albert Einstein Distinguished Educator Fellowship Program is managed by the DOE Office of Science's Office of Workforce Development for Teachers and Scientists, in collaboration with the sponsoring agencies and the Oak Ridge Institute for Science and Education (ORISE).

Program applications are due **Nov. 19, 2015, at 8 p.m. EST** and must be submitted through an online application system.

Additional information about the program, including eligibility requirements, program benefits, application requirements and access to the online application system may be found at <http://science.energy.gov/wdts/einstein/>.

## SCHOLARSHIP REMINDERS

The Nebraska Academy of Sciences offers five scholarships for high school seniors in amounts of \$100 to \$1000. There are two scholarships for college sophomores or juniors. The collegiate scholarships are \$3000, paid in two installments, \$1500 at the beginning of the fall semester following the award and \$1500 for the spring semester. The collegiate application deadline is February 1<sup>st</sup>, 2016 and the high school application deadline is March 1, 2016. Please check the website for application forms and requirements.

## SPRING ANNUAL MEETING DEADLINES

- February 6, 2016 – Deadline to register on-line or send your forms and abstract to the appropriate section chairperson
- February 26, 2016 – Registration forms, abstracts, and section program detail due in the Academy office
- April 15, 2016 – Last day for on-line general registration
- April 22, 2016 NAS Annual Meeting at Nebraska Wesleyan University

## NEW SECTION OFFERED AT THE NAS 2016 ANNUAL MEETING

A new section is being offered this spring at the NAS Annual Meeting April 22, 2016. The section is entitled Environmental Sciences and we hope to encourage presentations of research topics that might not quite “fit” some of our other sections. Dr. Barbara Hayford from Wayne State College is the new section chair.



**THE NEBRASKA ACADEMY OF SCIENCES, INC.**  
**(Founded January 30, 1880)**  
**126th ANNUAL MEETING TO BE HELD**  
**at**  
**NEBRASKA WESLEYAN UNIVERSITY**  
**50TH and ST. PAUL, LINCOLN, NEBRASKA**

**FRIDAY, APRIL 22nd, 2016**

# **"Call for Papers"**

**ABSTRACTS, FORM, AND FEES ARE DUE TO SECTION CHAIRPERSONS**  
**FEBRUARY 5, 2016**

Individuals are invited to submit an abstract of original research or synthesis of primary research/literature for consideration by one of the sections for inclusion in the Program of the Annual Meeting of the Nebraska Academy of Sciences. You may also complete your presenter registration on line using the Events tab on the NAS website. Be advised if your abstract contains any special characters or formulas you may be requested to submit a hard copy as well.

Annual Meeting Presenters may also want to consider submitting their complete research articles for review and possible publication in the Transactions of the Nebraska Academy of Sciences. Papers from all sections are eligible. Contact the Academy office for publication information.

**SECTION CHAIRPERSONS FORWARD ALL DOCUMENTS TO THE ACADEMY, [nebacad@unl.edu](mailto:nebacad@unl.edu) BY FEBRUARY 26th. A HARD COPY OF THE ABSTRACT MUST BE INCLUDED WITH THE REGISTRATION FORM. FORMATTING INSTRUCTIONS ARE AVAILABLE ONLINE AT <http://www.neacadsci.org>,**

Click on NAS, then Information

or contact

THE NEBRASKA ACADEMY OF SCIENCES  
302 MORRILL HALL, 14TH AND 'U' STREETS,  
LINCOLN, NE 68588-0339  
TELEPHONE (402) 472-2644

**1. EACH ABSTRACT MUST BE ACCOMPANIED BY A \$70.00 REGISTRATION FEE (\$15.00 FOR STUDENTS—COPY OF VALID STUDENT ID MUST BE ENCLOSED) FOR THE PERSON PRESENTING THE PAPER. PLEASE COMPLETE CONTACT INFORMATION ON THE REGISTRATION FORM ACCURATELY AND LEGIBLY. FORM IS AVAILABLE ON OUR WEBSITE: <http://www.neacadsci.org>**  
Click on NAS, then Click on Information

**2. MAKE CHECKS PAYABLE TO THE NEBRASKA ACADEMY OF SCIENCES.**

**3. AUTHORS SUBMITTING MORE THAN ONE ABSTRACT SHOULD PAY ONLY ONCE.**



**NAS ANNUAL MEETING, APRIL 22, 2016**  
**NEBRASKA ACADEMY OF SCIENCES ABSTRACT INSTRUCTIONS**  
**ABSTRACTS DUE FEBRUARY 5, 2016 TO YOUR SECTION CHAIR**

**Email or MAIL TO YOUR SECTION CHAIRPERSON or Complete the on-line presenter registration form**

1. *YOUR ABSTRACT, INCLUDE 1 HARD COPY OR WORD AND PDF ELECTRONIC FILES (so editor can proof scientific notation)*
2. *COMPLETED PRESENTERS REGISTRATION FORM & FEE*

**GENERAL INSTRUCTIONS**

**DEADLINES:** ABSTRACTS, REGISTRATION FORM AND FEES must be received by the Section Chairperson(s) on or before **FEBRUARY 5, 2016.**

Late submissions may not appear in the printed program.

**PREPARING THE ABSTRACT:** Abstracts should be informative condensations of the essential parts of the paper; not merely recitation of the subjects to be covered in the presentation. *Since the abstracts receive international distribution by our utilization of abstracting services and a journal exchange program, please proofread your work carefully.*

Please use Times New Roman, 12 pt. Type single-spaced. Margins should be Top 0.5", Bottom 0.5", Left 1.0", and Right 0.5".

Type the TITLE in CAPITAL LETTERS. Type Name, Department, Institution, City and Address on the line immediately below the Title, indenting 5 spaces (one tab). Leave exactly one line between this material and the BODY of the Abstract. (See sample below.)

CHARACTERIZATION OF THE SITE OF NORA VIRUS REPLICATION IN *DROSOPHILA*  
*MELANOGASTER*

Justin Buchanan, Brad Ericson, Darby Carlson, and Kimberly Carlson, Department of Biology,  
University of Nebraska at Kearney, NE 68849

Nora virus is a picorna-like virus that infects *Drosophila melanogaster*, but displays no apparent  
pathogenicity. The mode of .....

Please save your abstract in Microsoft Word and submit it (by email, CD or jump drive), together, with one hard copy of the abstract (or a PDF file), registration form and fee **TO YOUR SECTION CHAIRPERSON.**

**PLEASE PROOFREAD YOUR WORK!!**

PLEASE NOTE: Each abstract is to be accompanied by a completed registration form and \$70.00 registration fee for the PRIMARY PRESENTER; (includes membership). If there are multiple authors, registration fees are required for only those who attend the Annual Meeting. If the presenter is a student who encloses a copy of his/her current I.D. with the registration, the fee is \$15.00. (If an individual is presenting more than one paper, only one registration form and fee is required.)

**PRESENTER'S**  
**REGISTRATION/SECTION FORM**  
**NEBRASKA ACADEMY OF SCIENCES**  
**DUE FEBRUARY 5, 2016 TO SECTION CHAIR**  
**SEND REGISTRATION FORM, PAYMENT AND ABSTRACT TO YOUR SECTION CHAIRPERSON.**  
**REGISTRATION IS REQUIRED OF ALL WHO PRESENT PAPERS OR ATTEND/CHAIR ANY SESSION**

**REGISTRATION Please print or write legibly**

Name \_\_\_\_\_

Mailing Address \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Institution \_\_\_\_\_

E-mail address: \_\_\_\_\_

Phone Number: \_\_\_\_\_

Speaker: \_\_\_\_\_

Time Required: 5-10 min. \_\_\_\_\_ 10-15 min. \_\_\_\_\_ 15-20 min. \_\_\_\_\_

Section in which paper is to be presented (Check one)

- \_\_\_ AERONAUTICS & SPACE SCIENCE – [mlucas@unomaha.edu](mailto:mlucas@unomaha.edu)
- \_\_\_ ANTHROPOLOGY – [erin.carr05@gmail.com](mailto:erin.carr05@gmail.com)
- \_\_\_ APPLIED SCIENCE & TECHNOLOGY – [maattell@wsc.edu](mailto:maattell@wsc.edu)
- \_\_\_ BIOLOGICAL & MEDICAL SCIENCES – [annemarieshibata@creighton.edu](mailto:annemarieshibata@creighton.edu)
- \_\_\_ CHEMISTRY & PHYSICS
- \_\_\_ CHEMISTRY SECTION – [jdarr@unomaha.edu](mailto:jdarr@unomaha.edu)
- \_\_\_ PHYSICS SECTION – [addavis1@wsc.edu](mailto:addavis1@wsc.edu)

**MEMBERSHIP**

Student \$10.00 \_\_\_\_\_  
 (with copy of student ID)

**REGISTRATION**

General & Presenter Registration \$70.00 \_\_\_\_\_  
 (dues included)

Student Presenter Registration \$15.00 \_\_\_\_\_

Lunch \$ 7.95 \_\_\_\_\_

Check \_\_\_ Cash \_\_\_ Credit Card: Visa \_\_\_ MC \_\_\_ Discover \_\_\_

Credit Card Name \_\_\_\_\_

Credit Card Number \_\_\_\_\_ 3 digit code \_\_\_\_\_

Credit Card Address \_\_\_\_\_ EXP Date \_\_\_\_\_

**TOTAL REGISTRATION + MEMBERSHIP \$ \_\_\_\_\_**

- \_\_\_ EARTH SCIENCE – [ccalkins@live.com](mailto:ccalkins@live.com)
- \_\_\_ ENVIRONMENTAL SCIENCES – [bahayfo1@wsc.edu](mailto:bahayfo1@wsc.edu)
- \_\_\_ HISTORY & PHILOSOPHY OF SCIENCE – [riwebb@ucollege.edu](mailto:riwebb@ucollege.edu)
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- \_\_\_ CHEMISTRY/PHYSICS SECTION – [dat@nebrwesleyan.edu](mailto:dat@nebrwesleyan.edu)

Plan your AUDIO VISUAL NEEDS carefully and indicate the LENGTH OF TIME REQUIRED for your presentation by circling the appropriate item above. The allotted time is at the discretion of the Section Chairperson, and if a special time slot is needed, be sure to indicate your needs. This is essential for accurate scheduling.

Equipment Provided: PP equipment. Other equipment: Confer w/ your section chair, any special set-up must be completed before the session begins, no additional time between speakers is allotted for set-up.

Questions ??? Contact:  
 Nebraska Academy of Sciences  
 P.O. Box 880339  
 Lincoln, NE 68588-0339  
 (402) 472-2644 voice email: [nebacad@unl.edu](mailto:nebacad@unl.edu)  
 (402) 472-8899 fax



## 2015-2016 NEBRASKA ACADEMY OF SCIENCES PROGRAM COMMITTEE

Area code 402

<b>Section</b>	<b>Chairperson</b>	<b>Address</b>	<b>unless listed</b>
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Aeronautics & Space	Scott Tarry Michaela Lucas	NASA NE Space Grant, 6001 Dodge St, CB 041, Omaha 68182-0589 <a href="mailto:mlucas@unomaha.edu">mlucas@unomaha.edu</a>	554-3772
Anthropology	LuAnn Wandsnider	UNL, Dept of Anthropology, Lincoln 68588-0368 <a href="mailto:lwandsnider1@unl.edu">lwandsnider1@unl.edu</a>	472-8873
Applied Sci & Technol	Mary Ettl	Wayne State College, 1111 Main St, Wayne, 68787 <a href="mailto:maettell@wsc.edu">maettell@wsc.edu</a>	375-7342
Biological & Medical Sciences	Annemarie Shibata	Creighton Univ, Dept of Biology, Omaha 68178-0103 <a href="mailto:annemarieshibata@creighton.edu">annemarieshibata@creighton.edu</a>	280-3588
General Chemistry	Joshua Darr	UNO, Durham Sci 331, Omaha 68182 <a href="mailto:jdarr@unomaha.edu">jdarr@unomaha.edu</a>	554-2653
General Physics	Adam Davis	Wayne State College, 1111 Main St, Wayne, 68787 <a href="mailto:addavis1@wsc.edu">addavis1@wsc.edu</a>	375-7339
Earth Sciences	Jennifer Balmat	556 Ridgeview Rd, Chadron 69337 <a href="mailto:jbalmat@csc.edu">jbalmat@csc.edu</a>	308-432-6483
Environmental Sciences	Barbara Hayford	Wayne State College, 1111 Main St, Wayne, 68787 <a href="mailto:Bahayfo1@wsc.edu">Bahayfo1@wsc.edu</a>	374-7338
History & Philosophy of Science	Richard Webb	Union College, Division of Sci & Math, Lincoln 68506 <a href="mailto:riwebb@ucollege.edu">riwebb@ucollege.edu</a>	486-2515
Teaching of Science & Mathematics	Josef Kren	Bryan LGH Health Sciences, 5035 Everett, Lincoln 68506 <a href="mailto:josef.kren@bryanlgh.org">josef.kren@bryanlgh.org</a>	481-4968
Junior Academy	Aurietha Hoesing	7174 N 82 <sup>nd</sup> Ave, Omaha 68122 <a href="mailto:beton@cox.net">beton@cox.net</a>	290-4253
Collegiate Academy	Adrienne Prokupek-Pickett	NE Wesleyan Univ., 5000 St Paul, Lincoln 68504 <a href="mailto:aprokupe@nebrwesleyan.edu">aprokupe@nebrwesleyan.edu</a>	465-2466
(Chemistry/Physics)	David Treichel	NE Wesleyan Univ., 5000 St Paul, Lincoln 68504 <a href="mailto:dat@nebrwesleyan.edu">dat@nebrwesleyan.edu</a>	465-2260
	Nathaniel Fackler	<a href="mailto:nfackler@nebrwesleyan.edu">nfackler@nebrwesleyan.edu</a>	465-2260
Local Arrangements Chair	Bob Fairchild	NE Wesleyan Univ., Physics Dept, Lincoln 68504 <a href="mailto:rwf@nebrwesleyan.edu">rwf@nebrwesleyan.edu</a>	465-2253
Academy Exec Secretary	Cecelia Dorn	302 Morrill Hall, 14th & U St, Lincoln 68588-0339 <a href="mailto:nebacad@unl.edu">nebacad@unl.edu</a>	472-2644

# C. Bertrand and Marian Othmer Schultz Collegiate Scholarship

## Application for Scholarship Paid Out during the 2016-2017 Academic Year

*Application Deadline: FEBRUARY 1, 2016*

### Interested applicants should meet the following criteria:

- a. Be a sophomore or junior enrolled at a four-year, accredited college or university in the state of Nebraska
- b. Be a declared major in a natural science discipline (chemistry, physics, biology or geology).
- c. Be anticipating a career in a science related industry, science teaching, or scientific research.

### To apply for this scholarship, please fill out this application.

- a. Arrange for a letter of nomination by a member of the Nebraska Academy of Sciences and one additional letter from a science faculty member.
- b. Submit a transcript of your college grades as of the end of fall semester 2015.
- c. Include a letter in which you describe your career plans.

Name \_\_\_\_\_

Address \_\_\_\_\_

email address \_\_\_\_\_

Telephone number \_\_\_\_\_

Educational Institution \_\_\_\_\_

Standing \_\_\_\_\_

Number of college credits at end of fall semester 2015 \_\_\_\_\_

Grade Point Average \_\_\_\_\_

Science courses completed

Letter Grade

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

Send your application materials to: Nebraska Academy of Sciences  
302 Morrill Hall, 14<sup>th</sup> and U Streets  
Lincoln, NE 68588-0339  
402/472-2644  
nebacad@unl.edu



## NEBRASKA ACADEMY OF SCIENCES SCHOLARSHIP APPLICATION SUMMARY

Scholarships sponsored by the Nebraska Academy of Sciences, Inc. require the completion of this Application Summary. In addition, scholarship applications require some written information, usually in the form of an essay referring to the particular scholarship –each is somewhat different in its requirements. Supporting information is also necessary, such as a list of the applicant’s activities and related accomplishments, testimonial letters from 2-3 supervisors or teachers, grade reports, etc. Please refer to the scholarship description for specific requirements. Typed material is preferred but clear handwriting is acceptable.

Applicant’s name	_____
Applicant’s address	_____ _____ _____
Email address	_____
School name	_____
School address	_____ _____ _____
Teacher’s name	_____
Parent(s) or Guardian(s)	_____
Student Contact Phone	_____
Scholarship name	_____
Essay or research title	_____

**This form may be duplicated as necessary.**

**The postmark deadline for all high school scholarships is March 1.** All materials should be sent to:

**NEBRASKA ACADEMY OF SCIENCES, INC.  
SCHOLARSHIP APPLICATION  
P.O. BOX 880339  
LINCOLN, NE 68588-0339  
402/472-2644**

**Email documents accepted at <nebacad@unl.edu>**

Application checklist: See scholarship listing for specifics

- General checklist: \_\_\_\_\_ Application cover page  
\_\_\_\_\_ Essay specific to the scholarship you are applying for  
\_\_\_\_\_ Two Teacher recommendations  
\_\_\_\_\_ Scholastic and or community achievements  
\_\_\_\_\_ Evidence of acceptance at a Nebraska college or university