

Iowa Academy of Science

The New Bulletin

Volume 7 Number 2 Summer 2011



The Iowa Academy of Science is established to further scientific research and its dissemination, education in the sciences, public understanding of science, and recognition of excellence in these endeavors.

Message from the Executive Director

With the arrival of autumn comes a new season of Academy events beginning with the ISTS Fall Conference. This year the conference will be held at Iowa State University with evening events on Monday October 17th followed by a full day of conference activities on Tuesday the 18th. With the theme "Soar to the Core" the Iowa Science Teaching Section of the Academy has planned another excellent conference. Tell your colleagues, check out the exciting opportunities and register at www.iacad.org.

The Academy has received a disbursement in the amount of \$46,934.48 from the Iowa Mathematics and Science Coalition (IMSC). The IMSC Executive Board made the decision to dissolve the organization and generously directed a portion of its remaining funds to the Iowa Science Teaching Section of the Academy. The Academy appreciates the confidence shown by the Executive Board of IMSC. The funds will be used in accordance with the missions of the Academy and IMSC.

This fall you will receive your dues renewal notice for 2012. We will mail the first notice and up to two reminders before the December 31st deadline. Please respond to the first mailing if possible. You will be helping the Academy save considerable time and money by not processing second and third mailings.

Planning is underway on the 124th Annual Meeting to be held at NIACC in Mason City on April 20-21, 2012. This might seem like an early date for a reminder but we want to encourage you get these dates on your calendar. Please let your colleagues know about the meeting and encourage them to submit papers. This is an ideal professional meeting for graduate and undergraduate students to make either a poster or oral presentation. Papers may be submitted online now at www.iacad.org.

Today's Iowa Academy of Science formed out of a recognition that science needed to be promoted in Iowa. The formation of the American Association for the Advancement of Science (AAAS) in 1848, the establishment of the Geological Survey of Iowa in 1855, and a meeting at Dubuque and field trip across northern Iowa by AAAS in 1872, was the catalyst to form the Iowa Academy of Sciences in 1875. Today, much like the 1800s, the disciplines in science, technology, engineering, and mathematics need to recognize there is strength in numbers. Rather than being divided we need to work together for the benefit of all. Please take the time to encourage your colleagues to join the Academy.

Craig Johnson
Executive Director



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Congratulations 2011 Friends of Science & Outstanding Service Award Winners

The Friend of Science (FOS) Award - Individual – Sherman Lundy & Jay Staker

Sherman is currently the Production Geologist for BMC Aggregates with corporate offices in Elk Run Heights, IA. An active member of the Iowa Academy of Science since 1986, Sherman became an Academy Fellow in 2005. He has served countless projects that promote science education and public understanding of science, including the ever popular Geology of Iowa for Iowa Teachers.

Jay Staker is the Director of Iowa State University Extension's Extension-Science, Engineering and Technology (E-SET) Program and Associate Director of Education for Iowa Space Grant Consortium. He is the co-author of two inquiry based science books: Negotiating Science & Learn Like a Scientist. Iowa teachers know him for his commitment to support them with equipment loans, funding, and professional development opportunities. Jay brings NASA Missions into Iowa classrooms through professional development opportunities for Iowa educators at NASA Centers.

The Friend of Science (FOS) Award – Corporate – Iowa Public Television

Iowa Public Television (IPTV) is Iowa's statewide public broadcasting network. IPTV provides educational media that enlightens, educates, and entertains Iowans. A significant portion of IPTV's efforts are focused on science education.

PBS *LearningMedia* has just been launched in Iowa by Iowa Public Television. This innovative new online service provides a large collection of STEM video, interactives, games, and other media designed specifically for use in the classroom, all of which are linked to Common Core and other national education standards. These resources are available for all Iowa educators online at:
<http://iptv.pbslearningmedia.org/>.

In 2004, the Iowa Academy of Science partnered with Iowa Public Television on the water episode of Explore More. More information about IPTV's support of science education can be found online at
http://www.iptv.org/education/science_technology.cfm.

The Outstanding Service Award (OSA) – Michael Clough

While serving as ISTS president from 2005-2006, Michael resurrected the Iowa Science Teachers Journal (ISTJ) as a service to Iowa's science teachers. He served as the ISTJ Editor from 2005 - 2008 and has served as Associate Editor since 2008.

These and other award winners will be recognized during the Luncheon at the IAS ISTS Fall Conference.

IAS Corporate Memberships

The Iowa Academy of Science has a new membership category—Corporate Membership. Corporate membership is open to any Iowa For-profit business that wishes to support science in Iowa. Businesses that join the Academy will receive a plaque and IAS publications and announcements. Corporate members are encouraged to share information about IAS programs and membership with their scientific and engineering employees.

Corporate membership is divided into Bronze (\$250), Silver (\$500), Gold (\$750) and Platinum (\$1000) levels. The business decides which level to join. Higher levels include free registration to IAS Conferences.

Help make our Corporate Member program a success—contact the IAS Office and request Corporate member brochures, then invite a business you know to become a part of the Academy today!

The New Bulletin is a publication of the Iowa Academy of Science and is distributed to current IAS members 3-4 times per year.

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also available online at:
<http://www.iacad.org>

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Article Submission: The deadline for submission of articles for Vol. 7 #3 is September 1, 2011. Articles must be pre-approved. For more information contact Craig Johnson, IAS Executive Director, at craig.johnson@uni.edu

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Keynote Presentation

Citizen Science:

**Can it really make a difference?
Assessing the value of volunteers to
conservation science –
and the value of engagement
and education to society**

*Dr. Christina Buesching &
Dr. Chris Newman
from Oxford University
and hosts of Earthwatch's
Mammals of Nova Scotia expedition.
Learn more: http://bit.ly/citizen_sci*

Register Now

<http://www.iacad.org/ists/index.html>

Monday 10/17/2011 Reiman Gardens	Tuesday 10/18/2011 Scheman Hall
4:00 pm—Tour Reiman Gardens	7:45—Interest area breakfasts
5:15 pm—PAEMST Award Presentation & Dinner Soar to the Core Presentation	9:00—Concurrent sessions & Exhibit hall
6:30—Select a tour:	12:00 Lunch and Program
1) Reiman Gardens	Keynote—Citizen Science: Can it really make a difference?
2) E-SET: Extension-Science, Engineering, & Technology	Assessing the value of volunteers to conservation science – and the value of engagement and education to society
3) Biotechnology Outreach Ed. Center	2:00—Concurrent sessions & Exhibit hall
8:45 Chair Reception & Iowa's New Bedrock Geology Map with Ray Anderson	4:00-4:15 Door prizes



Dr. Christina Buesching



Dr. Chris Newman

2011 Distinguished Science Awards

Distinguished Iowa Science Teacher—Dr. Ronald Jack Warnet

Dr. Warnet has taught Chemistry at Simpson College since 1969. Dr. Warnet's current and former students describe him as a respected professor and a esteemed mentor. Former student Jordan Peterson wrote, *"Even when he was not in the classroom, Dr. Warnet could most often be found helping a student, whether it was with class work or a research project... Dr. Warnet was always looking for new ways to engage students who were struggling with class material instead of dismissing the struggling student. Working with Dr. Warnet helped kindle an interest in laboratory work as well as deepen my own interest in teaching."* Read more about Dr. Warnet here: <http://www.simpson.edu/chemistryphysics/faculty/warnet.html>



*Distinguished Iowa Science Teacher
Ronald Warnet (right)
with his nominator Werner Kolln*



*Distinguished Iowa Scientist Lloyd L. Anderson
(middle) with nominator Donald Beitz (l) and IAS
President Jim Colbert (r)*

Distinguished Iowa Scientist—Dr. Lloyd L. Anderson

Dr. Anderson is a professor of Animal Science in the College of Agriculture and Life Sciences and a Professor of Biomedical Sciences in the College of Medicine at Iowa State University. He has published more than 150 original refereed research papers and mentored numerous graduate students. Dr. Anderson is a world leader in the understanding of neuroendocrine regulation of reproduction and growth in cattle and pigs. Read more about Dr. Anderson and agriculture science in his own words here: <http://www.ag.iastate.edu/coa150/landerson.php>

Distinguished Iowa Scientist—Dr. Athanasios N. Papanicolaou

Dr. Papanicolaou is a professor at IIHR-Hydrosience and Engineering at the University of Iowa and a member of the Iowa Policy Center. In his seven years at the university he has mentored more than 20 graduate students and published 53 refereed articles. Dr. Papanicolaou's research is the intersection of civil and environmental engineering—hydrodynamics, sediment transport and fate, environmental fluid mechanics, and experimental hydraulics. Read more about Dr. Papanicolaou: <http://www.iihr.uiowa.edu/research/watershed-processes/on-the-trail-of-sediments/>



*Distinguished Iowa Scientist Athanasios (Thanos) N. Papanicolaou (l) with
IAS President Jim Colbert (r)*



*Distinguished Iowa Scientist Mark F. Stinski
(r) with nominator Paul Rothman (l)*

Distinguished Iowa Scientist—Dr. Mark F. Stinski

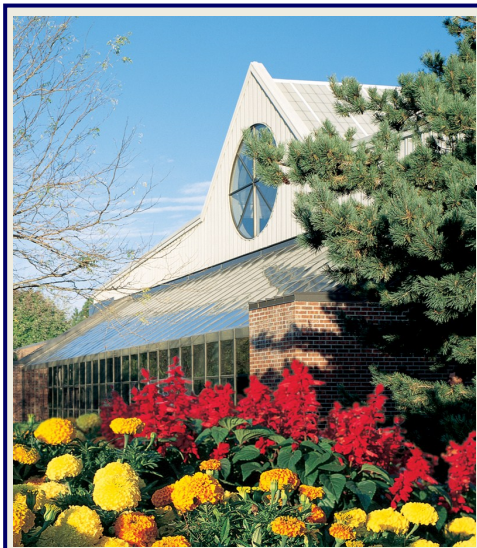
Dr. Stinski is a professor of microbiology at the University of Iowa. He is most known for the discovery of the cytomegalovirus (CMV) promoter. The patents resulting from this discovery have led to the development and manufacture of dozens of breakthrough biotechnology products impacting millions of patients with serious and life threatening diseases including respiratory syncytial virus and non-Hodgkin's lymphoma disease. Dr. Stinski has published more than 80 refereed articles. Learn more about Dr. Stinski's research here: <http://www.uiowa.edu/microbiology/stinski.shtml>

IAS—Iowa DNR Pilot Workshop bucks national trends.

In spring 2011, the Iowa Academy of Science and Iowa Department of Natural Resources partnered to deliver the REAP-CEP funded course **Leading Place-based Student Investigations—Water**. This pilot professional development workshop for 4th-8th grade classroom teachers was designed to build pedagogical knowledge about place-based education and inquiry based science investigations through readings, content knowledge about Iowa's water resources through interaction with resource professionals and individualized implementation practice through flexible classroom assignments. Participating teachers and their students developed their own science investigations about issues important to their communities. They presented their projects in a special session at the 123rd Annual Meeting of the Iowa Academy of Science.

The TIMSS (Trends in International Mathematics and Science Study, available: <http://nces.ed.gov/timss/>) reports document that attitudes toward science decrease between 4th and 8th grade. Yet, overall the 4th-8th grade students participating in the Leading course illustrated a mostly positive trend in attitudes toward science, outdoor activities, interest in Iowa's natural resources and intentions to pursue a science related career.

Paired pre and post survey data was collected from 115 of the involved students. Following the course a significant number of students agreed more strongly with the statements "Science is fun." and "I want to take more science classes in the future." "My actions don't affect water quality." and "I would like a career that includes science." trended near significant as well. Of the 15 statements on the survey only 4 trended in a negative direction. The surveys were reviewed to see if any students who began with strong positive or strong negative attitudes reversed their responses on the post survey. That does not seem to be the case, rather the students in the middle trended positive



Save the Date

124th Annual Meeting of the
Iowa Academy of Science

April 20th and 21st, 2012
North Iowa Area Community College
Mason City, Iowa

while those with set attitudes one direction or the other stayed the same.

The data collected through the pre and post survey indicates that overall these students are bucking expected trends by remaining or becoming more interested in science class and careers, natural resources and outdoor recreational activities.

Contact IAS Program Director, Marcy Seavey seavey@uni.edu for additional information about the course or course evaluation.

Congratulations to Iowa's Presidential Awards for Excellence in Mathematics and Science Teaching



2010 PAEMST Winner
Elementary Science
Brandon Schrauth
1st Grade Teacher
Beaver Creek
Elementary,



2011 PAEMST Nominee
High School Science
Jody Stone
Northern University
High School
Cedar Falls, Iowa

Brandon will be honored at the Iowa Science Teaching Section Fall Conference during the PAEMST Banquet October 17th at Reiman Gardens. Jody Stone will be honored the following day during the ISTS Awards Luncheon.

Visit: <http://www.paemst.org> for more information about PAEMST.



Call for Papers

124th Annual Meeting

Iowa Academy of Science
April 20 & 21, 2012
North Iowa Area Community College
Mason City, Iowa

Iowa scientists, engineers, science educators and science students are cordially **invited to submit abstracts to be considered for poster or oral presentation** at the 124th Annual Meeting of the Iowa Academy of Science. Whether your work is in progress or complete, you are encouraged to submit an abstract. Presenting at the IAS Annual Meeting is an excellent opportunity for you and your colleagues to interact with other Iowa scientists.

Our meeting offers a friendly atmosphere for undergraduate and graduate students to gain experience in presenting their research to others. *You do not need to be a member of the Academy to present at the Iowa Academy of Science Annual Meeting.*

Abstracts submission is open through February 10th, 2012.

Abstract Submission
Includes
publication of your
abstract in the
*Proceedings of the
Iowa Academy of
Science*, a
complimentary
conference
registration for the
primary presenter

Submit an abstract today!

Visit www.iacad.org.

Click on the Submit Abstract button.

IAS Members log in with your username and password.

Non-members create a temporary account - enter your email address in the new user box.

Wanted: Saylorville Gift Shop

Coordinator

Gene Lucas, the Academy's longtime volunteer in the gift shop of the Saylorville Visitor Center, has asked to step down from his position. Gene has served the Academy, the Saylorville Visitor Center, and the public for many years by overseeing the inventory in the gift shop. To continue our relationship with the Army Corps of Engineers at Saylorville the Academy needs a volunteer to fill the position.

Our arrangement with the Army Corps of Engineers at Saylorville has provided the Academy with an important outreach opportunity. We help choose interpretive and educational items for the visiting public and in return the Academy is able to use the facilities for IAS sponsored events such as our summer Speaker Series at Saylorville. We also share in the profits earned from the gift shop.

If you would like to learn more about this position please contact:

Craig Johnson, Executive Director

Phone: 319-273-2581

Email: craig.johnson@uni.edu



Announcements, Events & Deadlines

- **iExploreSTEM Public Event**
Sunday, September 18th, 2011
Iowa Hygienic Laboratory, Coralville
Stop by the Academy Booth!
- **Iowa Science Teaching Section Fall Conference**
October 17th-18th, 2011
Scheman Center on the ISU Campus, Ames

- **IAS Membership Renewals**
Due: January 1st, 2012
- **Excellence in Science Teaching Awards (ESTA)**
Due: January 31st, 2012
- **Iowa Science Foundation (ISF)**
Grant Proposals Due: January 31st, 2012
- **Nominations for Distinguished Awards**
Due: February 3rd, 2012
- **IAS Annual Meeting Abstract Submission**
Due: Friday, February 10th, 2012
- **IJAS Members represent Iowa at American Junior Academy of Science Conference**
February 16-20, 2012
Vancouver, Canada
- **Myrle Burke Scholarship**
Applications Due: March 30th, 2012
- **Advance Registration for IAS Annual Meeting**
Due: Friday, April 5th, 2012
(fees increase after this date)
- **The 123rd Annual Meeting of the Iowa Academy of Science**
April 20 & 21, 2012
North Iowa Area Community College,
Mason City


See www.iacad.org for additional event/program details.

Do you have know of an event that should be listed in here? Contact iascience@uni.edu and let us know!

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Great Ape Trust of Iowa, Des Moines
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Simpson College, Indianola
The Nature Conservancy, IA
The Putnam Museum, Davenport
University of Dubuque, Dubuque
University of Iowa, Iowa City
Wartburg College, Waverly

