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Iowa Academy of Science

Spring 2014

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Iowa Academy of Science

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Iowa Academy of Science

The New Bulletin

Volume 10 Number 2 Spring 2014



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

Dear IAS Member,

Inside this issue of the Bulletin you will find your ballot and biographical information for the candidates for IAS President-Elect and the IAS Board of Directors. Please take time to review the candidates and cast your ballot before the April 1st deadline. You may mail the ballot found on Page 3 to the IAS office or vote online at <http://www.surveymonkey.com/s/ias2014>. Each printed ballot has a unique identification code. The code must also be used if you vote online.

We want to thank all of the candidates for their willingness to run for election. Serving on the Board of Directors carries the responsibility of overseeing the operation of the Academy but also the opportunity to help shape its direction. But the Board cannot do it alone. The Academy is a membership driven organization. It is the membership that ultimately determines the effectiveness of the organization in Iowa. Please take the time to vote in this election.

As member you may want to volunteer to serve on IAS committees or in section leadership positions. Committee members with terms beginning after the Annual Meeting will be chosen soon. New section leadership will be chosen in the section meeting held on Saturday at the Annual Meeting. Exceptions are ISTS which will hold an election soon and the Community College Biologists who select their leadership in the fall. There are also opportunities to serve as a judge for the Iowa Junior Academy of Science, review ISF submissions, be a mentor for aspiring scientists, and more. Please let the Board or the IAS office know of your interest. We can connect you with something that matches your skills.

The Academy is making more of its publications available online. While this newsletter is being mailed other IAS Bulletins during the year will be online. The Advance Program for the Annual Meeting is online. Online publications save money and cut paper and delivery usage but we run the risk of members not reading these publications. We hope you take the time to read them online. If you wish to receive a printed copy of the Bulletin please contact the IAS office.

Finally, we hope to see you and your colleagues at the 126th IAS Annual Meeting at Iowa Central Community College in Fort Dodge on April 11th and 12th. Encourage your non-member colleagues to experience an IAS Annual Meeting and join the Academy.

- Craig Johnson, Executive Director



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Candidates for IAS President –Elect



"The Iowa Academy of Science is a uniquely collaborative organization that promotes research in many of the varied disciplines of science. It brings together educators, research scientists and other science professionals and allows for the public dissemination of scientific knowledge all across the state of Iowa. By continually encouraging students and teachers, whether at the collegiate, secondary or elementary levels, the mission of furthering scientific research and science education is always at the forefront. IAS is even more relevant in today's world with the goal of broadening the participation of Iowa's students in STEM. If given an opportunity to serve as President, I will work hard to expand the role of science advocacy for IAS across Iowa."

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Kavita R. Dhanwada

Associate Professor, Biology; Associate Dean, College of Humanities, Arts and Sciences, University of Northern Iowa

Professional Experience

Associate Dean, College of Humanities, Arts and Sciences, University of Northern Iowa; 2010 - present.
Interim Head, Department of Biology, University of Northern Iowa, 2007-2008.
Faculty member, Department of Biology, University of Northern Iowa, 1998 – present.
Postdoctoral Fellow, University of Iowa College of Medicine, 1994-1997.
Adjunct Faculty, Department of Math and Science, Kirkwood Community College, 1996-1997.

Special Activities & Recognition

Milestone Award Recipient, University of Northern Iowa Graduate College, 2013
Coordinator/Advisor Professional Science Masters (PSM) in Biotechnology, 2007-2012
Iowa Biotechnology Association Board of Directors, 2008-Present.
Member of Management Team/Broader Impacts section, Iowa EPSCoR project, 2011-present.
Supervised undergraduate and graduate students awarded "Best Student Presentation", Sigma Xi Annual Meeting
UNI Chapter, 2002, 2003, 2006, 2007.

IAS Membership

IAS member 2002-present
Served as Chair/Co-chair of Environmental Science and Health section from 2004-2009;
Elected to IAS Board of Directors in 2011.



"I value this association greatly. Membership in the Iowa Academy of Science has provided me a broad network of professionals and friends to consult on issues of content, methodology and policies. We are the voice for science within the state and I would hope to strengthen the visibility, respect and financial support for our organization if elected."

Carol W. Schutte

Retired, Instructor, Biological Sciences
North Iowa Area Community College
Programming Assistant, Women, Food and Agriculture Network

Professional Experience

Instructor, Majors Biology and Human Anatomy and Physiology at NIACC for 25 years.
Led/co-led numerous extended student field courses, including to the tropics, temperate rain forest, boreal forest, western prairie trek with Daryl Smith from Iowa Lakeside Lab. Spent 6 weeks in the subtropical rainforest of Belize collecting butterflies for the Indiana Nature Conservancy and Belize Audubon Society.
Currently helping facilitate Women Landowner Meetings on Soil Health and sustainable agriculture in seven Midwest states.

Special Activities & Recognition

2006 National Association of Biology Teachers 2-year Section Outstanding Teacher of the Year.
NABT Secretary, V-P and Chair, 2-year College Section.
NIACC Outstanding Teacher Award.
The Honor Society of Phi Kappa Phi. Iowa Conservation Education Coalition Executive Committee for six years; one year as co-chair.
Iowa Association of Community College Biology Teachers
Chair, 17th North American Prairie Conference
Chair, 2005 Midwest Environmental Education Conference
Co-chair, 2013 National Conference for Women in Sustainable Agriculture
County REAP board member and representative to REAP congress

IAS Membership

Member since 1989
Director for three years 2009-2012
Elected fellow in 2000
1998 and 2012 served as co-chair for IAS annual meeting on NIACC's campus.
2008 recorded an IAS Refuge Audio Series segment.
Served on the Committee on Committees and the ISF

**Journal
of the
Iowa Academy of Science**

JIAS is soliciting papers. The Journal considers several types of contributions from disciplines represented by sections of the Academy including formal research with no minimum or maximum length; reviews or annotated bibliographies; and papers on science teaching. Previously copyrighted material will not be considered.

A checklist and submission form is available on the IAS website:

www.iacad.org

**Like us on Facebook
The Iowa Academy of Science**

Facebook members can show their support for science in Iowa by becoming a fan of the Iowa Academy of Science. IAS Facebook Members will receive updates about the IAS Annual Meeting and the ISTS Fall Conference plus other IAS events and programs appropriate for the general public. Simply search for Iowa Academy of Science to become a fan or join!

Iowa Academy of Science

2014 Ballot

Rules: One vote per individual member. This original ballot only, no photocopies. Read candidate profiles on pages 2, 4, and 5.

Ballots must be arrive at the IAS Office by Tuesday, April 1st, 2014.

IAS President-Elect

(vote for *one*)

_____ Kavita Dhanwada

_____ Carol Schutte

IAS Board Director

(vote for *two*)

_____ Ron DeArmond

_____ Doug Karlen

_____ Clint Meyer

_____ Heidi Peterson

_____ De Anna Tibben

_____ Jeff Wilkerson

**You may vote using this ballot OR online.
The ballot code is required.**

YOUR BALLOT CODE: <CODE>

Vote Online at:

<http://www.surveymonkey.com/s/ias2014>

-or-

Mail Full Paper Ballot to:



Iowa Academy of Science
BRC 50
University of Northern Iowa
Cedar Falls, Iowa 50614-0508



"I would like to focus on three areas using the resources of the Pella Wildlife Company if elected to the Board of Directors. The areas include promoting IAS membership by reaching teachers through education wildlife programs; increasing participation in the Junior Academy through STEM based wildlife education programs; and helping the Academy become a leader in providing education for the general public and politicians through wildlife management program development."

**Ron DeArmond, CEO
Pella Wildlife Company
Candidate for IAS Director**

Founder and CEO of Pella Wildlife Company
1984—Present, Developed and presented S.T.E.M. based wildlife education programs for students Pre-K through university level. Developed and presented a course on how to present basic wildlife education programs for adults, students and wildlife professionals presented at conferences, in classrooms and internet. Assisted in the communication strategy for the fourth edition of the Global Biodiversity Outlook (GBO-4) for the International Union for Conservation of Nature (IUCN). Assisted in the educational communication element for the 2012 IUCN World Conservation Congress. Continue to assist the Wisconsin DNR in research on carnivores.

Member of the International Union for Conservation of Nature Commission on Education and Communication, the Wildlife Society, National Wildlife Rehabilitators Association and the Iowa Academy of Science. Past Vice President of the Association of Professional Wildlife Educators now a part of the Zoological Association of America. I have been a speaker at the International Wolf Symposium, The Midwest Wolf Stewards Conference, IAS Conferences and presented an education workshop for the Wildlife Society at their conference in Milwaukee, WI.



"Using science to protect and enhance soil health is essential for humankind to address an expanding global population, fluctuating weather patterns, and slowly diminishing fossil fuel supplies. If elected, I would be honored to serve Iowa citizens by striving to enhance scientific literacy for youth and adults."

**Doug Karlen,
Research Soil Scientist
USDA—Agriculture Research Service, National Laboratory for Agriculture & the Environment/Agronomy
Candidate for IAS Director**

2014 – Research Soil Scientist, USDA-ARS/NLAE, Ames, IA2011 – 2013 Research Leader, USDA-ARS/NLAE, Ames, IA2006 – 2010 Research Leader, USDA-ARS/National Soil Tilth Laboratory (NSTL), Ames, IA1989 – 2005 Research Soil Scientist, USDA/NSTL, Ames, IA 1978 – 1988 Research Soil Scientist, USDA-ARS/Coastal Plains Soil & Water Conservation Research Center, Florence, SC
Member of the Iowa Academy of Science since 1994; Conservation and Preserves Committee; Published in the Iowa Academy of Science Journal.

Fellow of the American Society of Agronomy, Crop Science Society of America, Soil Science Society of America, and Soil and Water Conservation Society;
Recipient of the ASA Agronomic Research Award; Warner L. Nelson Award for Diagnosis of Yield-Limiting Factors; SSSA Soil Science Applied Research Award, 2007 SWCS Conservation Research Award, and 2011 SWCS Leadership Award.
Current Secretary General for ISTRO



"The Iowa Academy of Science has a long tradition of supporting, recognizing, and promoting science research and education. As a biology educator, I feel that science education is critical to cultivating an informed citizenry. Also, Academy support has helped provide opportunities for me and fellow faculty and student collaborators to conduct research and

communicate findings. I would be proud to do my part to further the mission of the Iowa Academy of Science."

**Clint Meyer, Associate Professor of Biology & Environmental Science
Simpson College
Candidate for IAS Director**

Assistant Professor: Biology & Environmental Science, Simpson College, 2008-present.

Andrew Mellon Post-Doctoral Fellow: Plant Biology, Southern Illinois University Carbondale, 2007-2008.

PhD: Zoology, Southern Illinois University Carbondale, 2007; MS: Entomology, Kansas State University, 2000; BS: Biology, Wayne State College, 1997.

IAS Member since 2009, currently serving on Recognition and Awards Committee, Student Research Presentations at IAS Meetings in 2011 and 2013.

Distinguished Junior Faculty Award, Simpson College 2013; Trio Student Support Services Faculty of the Year Award, Simpson College 2011-2012; Dissertation Research Award, Southern Illinois University 2006-2007; Florence and Charles Foote Award for outstanding teaching assistant in Zoology, Southern Illinois University 2004-2005.



"Working within the Iowa Academy of Science community college division, I have seen the progress of discourse and cooperation between regent universities and community colleges. I see a future in continuing to work together to better Science Technology Engineering & Math (STEM) education throughout Iowa and believe the IAS plays a large role in increasing awareness of the issue. I also have seen the future of science in our great Iowa youth while working

on the student programs committee. To be able to nurture, encourage, and mentor future scientists and health care professionals I teach is one of the joys of my career. If elected to the IAS Board of Directors, I believe I can bring my passion and experience in STEM education, student engagement, and faculty development to identify opportunities for cooperation between divisions within the IAS. "

**Heidi Peterson
Professor of Anatomy & Physiology
Indian Hills Community College
Candidate for IAS Director**

IHCC Faculty Senate President 2005-2008; Quality Faculty Plan co-chair 2013-2014; STEM-UP committee co-chair 2012-present. Iowa Community College Biology Teacher Association (ICCBTA) member since 2000. Vice-president 2006; President 2007.

Iowa Department of Education, CC Faculty Advisory Committee 2010-present.

MS in Anatomy, Palmer College of Chiropractic, 1997; BS in Biology, Central College, 1992.

2005-2006 Vice president of IAS Community College Biologists Section; 2006-2007 President of IAS Community College Biologists Section. Member since 2000.

2012 to present Student Programs Committee.



"The Academy provides the catalyst for science professionals, science educators, community members, business leaders, and governmental agencies (both local and state) to work together for Iowa's future. The Academy can move forward when the membership gives of their time and talents. With the Next Generation Science Standards, 21st Century Skills, and Iowa's Common Core, there are many opportunities for Science professionals and Science Educators

to work together to provide resources and experiences for Iowa's students, Iowa's future. I would like to offer my time and efforts to identify and implement such opportunities. "

De Anna Tibben
Earth and Space Science Teacher
Ames Community School District
Candidate for IAS Director

1999-Present Earth & Space Science Teacher, Ames High School.
 1994-1999 Middle School Science Teacher, Union Middle School,
 Summers 2009, 2010 Curriculum Instructor, Astronomy for Teachers Workshop, Earth Science Department, UNI.
 Spring 2008 Instructor on Record, CI439 Elementary Science Methods, Curriculum & Instruction, Iowa State University.
 2010 Section Outstanding Earth Science Teacher Award, Excellence in Earth Science Teaching; Supervising Teacher, Student Teaching Program, Iowa State University; Member Sigma Gamma Epsilon, Gamma Sigma Chapter
 Active IAS Member since 2006; ISTS Chair 2009, 2012; ISTS Fall Conference Chair 2010, 2013; Fall Conference Facility Coordinator 2014; Interest Area Chair (Earth Science), 2005- 2007; IJAS Chapterone 2012, 2013; IJAS Member School Sponsor 2010-present.



"I have intentionally blurred my teaching, research and outreach to the public with the hope of inspiring people of any age and situation to better appreciate and understand the history and role of science. The Iowa Academy of Science is the ideal organization to promote such work for all the people of Iowa. Together we can help build a sense of vibrancy in the community of scientists and educators. We can devise new ways to bring science to the people and to

advocate for science throughout the state. We can inspire bringing high-impact practices to students at all levels, those interested in STEM careers and those just passing through. If I am able to help with this work I am delighted to do so."

Jeff Wilkerson
Professor of Physics and Associate Dean
Luther College
Candidate for IAS Director

2012 – present Professor of Physics/Associate Dean and Director of Faculty Development, Luther College
 2003 – 2012 Associate Professor of Physics, Luther College
 2001 – 2011 Physics Department Head, Luther College
 1997 – 2003 Assistant Professor of Physics, Luther College
 1995 – PhD Physics, University of California, Berkeley
 1989 – MS Physics, University of California, Berkeley
 1987 – BS Physics, Indiana University, Bloomington
 Co-author "Contemporary Activities in Astronomy", Kendall-Hunt, 4th Ed. 2012. Winner of first Janet Andersen Lecture Award from Midstates Consortium for Mathematics and Science, 2008. Collaborator on 41 research projects with undergraduate students from Luther, Buena Vista and Dordt, and one high school student from Decorah High, leading to 31 conference presentations and one refereed journal article, 1998 to present.

Specify where your IAS donation goes...

Iowa Academy of Science General Fund— IAS Membership dues do not account for all of the funding required to pay staff, publish newsletters and other member mailings, maintain the website, pay phone bills, etc. If you do not select a place to allocate your donation and you donate less than \$250, your donation will be placed in this category.

Iowa Junior Academy of Science Endowment– Show your support of Iowa's young scientists by contributing to the Junior Academy. Funds help support the IJAS Annual Competition at the IAS Annual Meeting and the Iowa Delegation that travels to the American Junior Academy of Science Annual Meeting.

Iowa Junior Academy of Science Starr Student Research Grants-IAS provides \$1,000-\$2,000 in small grants to individual middle and high school students to support their science fair projects. The Student Programs Committee provides additional support to these students through grant proposal feedback and matching students to scientist mentors.

Iowa Science Teachers Fall Conference-Iowa's Largest gathering of Science educators. The Iowa Science Teachers Section of IAS raises their own funds to put on this conference each year. Donations to ISTS will assist in bringing in guest luncheon speakers and other event programming.

Iowa Science Endowment Fund-This fund was established to secure the long term financial success of the Academy. Donations of \$250 or more that are not designated specifically for other projects are automatically placed into this fund.

Benchmark Fund-IAS uses the Benchmark fund to develop additional revenue for the Academy. The benchmark fund pays membership brochures and other promotional materials and activities.

**You are invited
to the 126th
Annual Meeting of the
Iowa Academy
of Science**

April 11-12, 2014
Iowa Central Community
College
Fort Dodge, Iowa



**General Session I
Advances in Precision Agriculture**

Friday, 11:00 a.m.—Noon

Amy Kaleita-Forbes, Associate Professor
Agricultural & Biosystems Engineering
Iowa State University



**General Session II
Understanding the Peopling of the
Americas: A discourse between an Archeologist
and Geneticist**

Friday, 7:45-8:45 p.m.

Matthew Hill, Jr., Assistant Professor of Anthropology, University of Iowa
Andrew Kitchen, Assistant Professor of Anthropology, University of Iowa



**General Session III
Obstructive Sleep Apnea**

Saturday, 11:00 a.m.—Noon

James C. Meyer, DO
UnityPoint Clinic—Pulminology
Fort Dodge, Iowa

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>

Managing Editor: Craig Johnson
Editor: Craig Johnson

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Article Submission: The deadline for submission of articles for Vol. 10 #3 is June 1, 2014. Articles must be pre-approved. For more information contact Craig Johnson, IAS Executive Director, at craig.johnson@uni.edu

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2013 Member Donations to the Academy

\$500 or more

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\$200 or more

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Holmes Semken, Jr.

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Allen Moen
Brenda Molano-Flores
Tami Plein
Diane Robertson
Rebecca Schmidt
Stephanie Toering Peters
Ed Trullinger
Anita Vasto

Announcements, Events & Deadlines

- **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**
Online deadline: Sunday, March 30th
By Mail: Postmarked by Friday, March 28th
(fees increase after these dates)
- **IAS Annual Meeting**
Friday-Saturday, April 11—12, 2014
Iowa Central Community College
Fort Dodge, Iowa

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!

ISTS Elections information will be sent to Iowa Science Teaching Section members in a separate letter.

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Cedar Falls, Iowa 50614-0508

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