

# Iowa Academy of Science

## The New Bulletin

Volume 3 Number 2 Spring 2007



*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

Hello from the IAS staff,

Your spring 2007 issue of the Iowa Academy of Science Bulletin has arrived. Inside you will find articles about the latest Academy activities. We hope you will take a few minutes to read through this issue to learn more about what the Academy is doing to benefit science in Iowa.

Make plans to attend the 119th Annual Meeting of the IAS to be hosted by Central College in Pella. You should have already received your Advance Program Guide. A copy of the guide and the latest updates on the meeting are also available on our website at [www.iacad.org](http://www.iacad.org). You may also register for the conference online and locate information on our two conference hotels offering reduced rates.

We have another excellent program planned with diverse topics in our general sessions, symposia, oral and poster presentations, tours, and social events. Color posters advertising our meeting are being distributed throughout the state. There is something for everyone at an IAS Annual Meeting.

The Academy has new promotional materials including 5000 color brochures to distribute to potential Professional, Institutional, Corporate, and Junior Academy members. Color 12" x 18" general promotional posters have also been printed and will be placed across the state. Call us if you are able to help distribute these materials in your area.

Thank you for supporting the Iowa Academy of Science with your membership, as a volunteer, or with your donations. We look forward to seeing you in Pella.

Craig Johnson, Executive Director

### ELECTION INFO

Your ballot for the 2007-2008 IAS President-Elect and Board of Directors is included in this issue of the news letter. If you are a member of the Iowa Science Teachers Section, your ballot will also include the ISTS President and ISTS Treasurer election materials. Additional information about all of this year's candidates is available on the website. Ballots must arrive at the IAS Office by April 20th. Only original ballots will be accepted, no photocopies or faxes.



#### Table of Contents

Executive Director Message .....	1
Candidate Information .....	2
Ballot .....	4
Financial Update .....	5
Expedition Iowa Update .....	5
IJAS represents Iowa at AmJAS .....	5
2006 Donations .....	6
Membership Pie .....	6
Schutte Receives National Biology Teaching Award .....	7
Where your donations go .....	7
Institutional Members .....	8

## Candidates for President-Elect

### Dr. Cliff Chancey

Professor & Head of Physics, University of Northern Iowa



*"IAS is one of the few active state organizations of its kind in the US—evidence both of our successes and the general difficulty of promoting science-based dialogues at the state level. Science education is a strong component of our programs—let's support and build more science partnerships in Iowa!"*

#### *Special Academy Activities & Recognition:*

IAS Board Member, 2004-2007; IAS Physics Section Director, 2002-2005 & Interim, 2007; IAS Fellow, 2005.

#### *Other Special Activities & Recognition:*

Editor, American Journal of Undergraduate Research, 2002-present.

Board Member for North Central US, Sigma Xi-The Scientific Research Society, 2001-2004.

Board Member for US Comprehensive Colleges & Universities, Sigma-Xi-The Scientific Research Society, 2007-present.

Nominations Committee member (Chair 2005-2006), Sigma-Xi-The Scientific Research Society, 2004-2007.

President, UNI Chapter, Sigma Xi-The Scientific Research Society, 2003-2004.

President-Elect, UNI Chapter, Sigma Xi-The Scientific Research Society, 2002-2003.

President, President-Elect, & Secretary, NW Indiana Chapter, Sigma Xi-The Scientific Research Society, 1996-2001.

### Dr. Cherin A. Lee

Assoc. Professor of Biology and Science of Education, Chair of Science Education, University of Northern Iowa



*"The time is right for massive action by the science and education communities with regard to providing scientists, engineers, technicians and science teachers for sustaining the state of Iowa economically, intellectually and educationally. The Academy must take on both active and leadership roles in this endeavor."*

#### *Special Academy Activities and Recognition:*

My very first publication was in the original Iowa Science Teachers Journal, with IAS membership since 1983. I served as ISTS Region 7 Director (1986-1988); ISTS Treasurer (1988-1994); on the Student Programs Committee (1990-1993) and received the ISTS Outstanding Service Award (1994). I served on the Board of Directors (1997-2000) achieving Fellow status in 1998. I assisted establishing the College Science Teaching section, serving as chair (2002-2003). More recently I chaired the Local Arrangements Committee for the 2004 IAS meeting and am completing my term on the Committee on Committees. Additionally I serve as Science Education Editor for the JIAS and manuscript reviewer for the IST Journal.

#### *Other Special Activities and Recognition:*

My involvement in science education includes consulting for the Iowa Dept. of Education and area school districts. In recognition of my teaching I have been nominated for College of Natural Sciences undergraduate teaching awards six times. In the past 12 years I have worked with 30 graduate students as major advisor or thesis committee member.

## Candidates for IAS Board of Directors



**Dr. Gary N. Donnermeyer** Biology Professor, Kirkwood Community College

*"I am motivated to continue on the board of directors because The Iowa Academy of Science is absolutely essential to the quality of life in this state. We are one of the few organizations that supports scientific research without a profit motive and the academy is also a leader in promoting science education."*

Biology and Environmental Science at Kirkwood Community College, 1992-present.  
Biology at Iowa Central Community College, 1986-1992.

IAS Member since 1996; IAS Board of Directors 2005- present; Chair of local planning committee Kirkwood for IAS 2008 Annual Meeting; Instrumental in forming the Community College Biologist Section of IAS; Parish Farm Committee..

Principle Investigator for National Science Foundation STEP Grant. 2004-2009.

NISOD Excellence in Teaching Award. 1997.

Instrumental in forming the Iowa Community College Biology Teachers Association (ICCBTA). 1994-95.

## Candidates for IAS Board of Directors



**Dr. Robert L. Dunbar**  
Assistant Professor  
Buena Vista University

*"The opportunity to work closely with others around the state to facilitate and showcase "Science in Iowa" would be a tremendous honor."*

Currently working to coordinate with the Nebraska Physiological Society on a combined meeting in the Fall of 2007.

2006 - Present: President of Iowa Physiological Society  
2006 - Present - Physiology and Health Science Section Chair  
2006 - Present - Participating member of Committee on Committees and Elections.  
2006 - Coordinated visit of Dr. Kathy Olsen (Deputy Director of NSF) as speaker at IAS meeting.  
2005: NSF MRI grant for confocal microscope.  
2003-Present: Tenure Track Assistant Professor of Biology - Buena Vista University  
2002-2003: Postdoctoral Position - Duke University  
2002: Ph.D. - Neuroscience - University of Minnesota

**Dr. John Pearson**  
Botanist/Plant Ecologist  
Iowa Department of  
Natural Resources

*"The Academy has the potential for serving as an important forum for dissemination of scientific information about the status of natural resources in Iowa."*



Botanist/Plant Ecologist for Iowa Department of Natural Resources since 1985, involved with natural areas inventory, threatened and endangered species, state preserves, and state parks. Plant ecologist for The Nature Conservancy 1982-1985 for South Dakota Natural Heritage Program. Doctoral degree in Botany from University of Wyoming (1982), master's degree in Forestry from Southern Illinois University (1978), bachelor's degree in Psychology from Oakland University (1973).

Served as chair of Botany and Conservation sections.

Co-author of The Guide To Iowa's State Preserves; co-author of "Floristic composition and conservation status of fens in Iowa" (JIAS 99; member of interagency team for the Loess Hills Special Resource Study (NPS 2002)



**Dr. David A. McCullough**  
Associate Professor, Biology  
Wartburg College

*"Science and technology are vital to the future success of Iowa, as well as the nation in general. Preservation of the environment, sustainability of agriculture, and economic growth associated with biotechnology, all depend on sound science and a well-educated public. It is the role of the IAS to create, support, and promote an atmosphere in the state so that this is possible."*

Associate Professor, Biology Department, Wartburg College. 2002-Present. Assistant Professor, Biology Department, Wartburg College. 1998-2001. Consultant, Audubon International, Institute for Renewable Resources, Science Advisory Group. 1996-Present. Nature Conservancy, Niobrara Valley Preserve. 1999-Present.  
Assistant Professor, Biology Department, Siena College. 1994-1998.

Member since 1999  
Associate Editor (Zoology) JIAS (2003-present)  
Vice Chair Ecology and Conservation Section

**Dennis W. Schlicht**  
Advanced Placement Biology Instructor  
Cedar Rapids Washington High School

*"As a 38 year member of the academy I feel that I have insight into the issues and challenges to the Academy. We need to work to meet the challenge of a changing demography to keep the Academy strong."*

Biology Instructor, Central City Community School  
Consultant/facilitator for many private and publicly funded Lepidoptera research projects Founder/manager of the Iowa Lepidoptera project

38 year member of IAS; Conservation Section chair; Fellow of IAS, 2001; Excellence in Science Teaching Award for Environmental Science in 1997; Presented 6 papers at IAS meetings since 1987 and 2 published in the Journal.



Co-author of The Butterflies of Iowa and have been heavily involve in issues related to the preservation of rare butterflies in Iowa.

Advisor to Prairie Biotic Research.

## Iowa Academy of Science – Election 2006

### Ballot for ISTS Section

Rules: Ballots must arrive at the IAS Office by April 20<sup>th</sup>, 2007. One Ballot per member.  
Return to: Toni Arends, IAS Office Manager, 175 Baker Hall, Cedar Falls, IA 50614-0508

**IAS President-Elect**  
(vote for one)

\_\_\_\_\_ Cliff Chancey

\_\_\_\_\_ Cherin A. Lee

**IAS Board Director**  
(vote for two)

\_\_\_\_\_ Gary N. Donnermeyer (I)

\_\_\_\_\_ Robert L. Dunbar

\_\_\_\_\_ David A. McCullough

\_\_\_\_\_ John Pearson

\_\_\_\_\_ Dennis W. Schlicht

**ISTS Section Vice Chair/President-Elect**

\_\_\_\_\_ Morgan Masters

\_\_\_\_\_ write in \_\_\_\_\_

**ISTS Treasurer**

\_\_\_\_\_ Jeanne A. Rogis (I)

\_\_\_\_\_ write in \_\_\_\_\_



**Candidate for ISTS Section  
Vice Chair/President-Elect  
Morgan Masters**

Southeast Polk Community Schools

*"I have been involved with the Iowa Academy of Science for more than 25 years. One of my major goals is that the Iowa Science Teachers Section*

*continues to provide one of the very best avenues for the exchange of scientific knowledge and science teaching information in Iowa."*

Member of Iowa Academy of Science for more than 25 years

Presenter at ISTS Fall Conference more than 10 times.  
Worked on membership and planning committees and Academy bookstore for several Fall Conferences.

Presidential Award for Excellence in Science Teaching,  
National Award for State of Iowa. 1988.

Iowa Community Education Association Award. "Traveler I Project". 1989.

AECI Aviation Educators Grant. "Academic Olympic Events". 2000-2001.

*Your ballot will only include a section to vote on the ISTS Officers if you are currently a member of the ISTS Section.*



**Candidate for ISTS Section Treasurer**

**Jeanne A. Rogis**

Science Teacher, Central Community Schools, DeWitt

*"I feel very strongly that Science Teachers in Iowa need to promote Science Education.*

*For the past four years, I have served as the ISTS Treasurer. During that time the IAS and the ISTS have worked to improve the accounting system. Many improvements have been made in the system and we are now able to have accurate treasurer's reports for our meetings."*

I joined IAS in 1974. I was the ISTS Regional Director for AEA 9 for several years. As Treasurer, I have had the responsibility of organizing the bookstore for the Fall conference. In 1990, I received the Excellence in Science Teaching Award for Junior/Middle School Science. I have given several presentations at the Fall Conference.

Appointed to the NSTA's National Advisory Board for Aviation/Aerospace Education for a term of three years.  
Selected to receive the IAS ESTA for Junior/Middle High School Science in 1990.

Selected to be a Lead Teacher for University of Iowa's Chautauqua Program using Science/Technology/Society to improve Science Education in Iowa.

**Additional Information on all of the candidates is available  
in the Announcement Bulletin Board on the IAS Member's Only Website.**



# Financial Statement Fiscal Year 2007 As of March 1, 2007

## Assets

Total Assets \$725,350.22

## Selected Asset Breakdown

JA Parrish Fund	502,152.45
Frank Starr Investments	22,497.15
Benchmark Development	2,100.47
Education Programs	29,908.75
Myrle Burke Endowment	57,698.10
Science Endowment	12,211.71
ISTS CD	3,038.62

## Profit and Loss

### Selected Combined Income/Expenses

Fiscal Year 2007 as of March 1, 2007

Ordinary Income(Expense)	
IJAS income	3,134.27
Iowa Science Foundation	43,081.10
Expedition Iowa	303.80
General Fund	-3,531.46
ISTS	15,926.53
IJAS	-5,411.21
Education Programs	490.90
Saylorville	2,546.41
Gain/Loss on Investments	11,741.65

GROSS PROFIT \$68,281.99

Payroll Expenses \$48,477.16

Net Income \$19,804.83

## IJAS Represented at American Junior Academy of Science

Haley Burgess, Shala Hawes, Cory Millmier and Jordan Lightfoot were selected at the 2006 annual IAS meeting held in Storm Lake, Iowa as the Iowa finalist representatives for the Iowa Junior Academy of Science. February 15-19, 2007 they traveled to San Francisco, CA where they displayed their research posters and gave a seminar on their science research at the AJAS (American Junior Academy of Science) Meeting. Along with attending the AJAS conference and presenting their research, these Central Lee students also had the chance to visit and tour around San Francisco, visiting the University of California Berkley, where they toured research labs, met and had dinner with many scientists, met the man that has put numerous elements onto the period table, and even personally met the 2006 Nobel Laureate in Physics. They also had a chance to tour around downtown San Francisco with a trip to Fisherman's Warf and the famous Pier 39. They got the see the sea lions, eat some local food and even visit the sour dough bread factory located in the Warf area. They also made a stop at the Golden Gate Bridge; saw Alcatraz from the bay side, and many tourist attractions located around the San Francisco area.

These students had an incredible time learning about science while experiencing a welcomed un-seasonal warm front that just happened to pass through San Francisco while they were there. Accompanying these Iowa researchers were Alicia Schiller, the science mentor for the students, and Ernest Schiller, the IJAS representative for the State of Iowa. Congratulations Haley, Shala, Cory and Jordan! —Contributed by Alicia Schiller

## EXPEDITION IOWA Update

The Iowa Academy of Science "Expedition Iowa" project received a boost in March from Project 33, a conference that brought together over 60 marketing and advertising students from Iowa colleges and universities. "Expedition Iowa" was selected as the marketing project competition by the Advertising Professionals of Des Moines, the sponsoring organization. IAS President, Pat Finnerty, Executive Director, Craig Johnson, and Program Director, Marcy Seavey, represented the Academy.

A blizzard interrupted the conference on March 2nd but 15 students returned March 9th to finish the project. Their marketing plan includes a new name and specific actions to develop, execute, and promote, "Expedition Iowa" throughout the state. The goals of the Academy are to introduce the enjoyment of hands-on science experiences to all Iowans, encourage youth to pursue science and technology related careers, and fulfill our mission to promote the public understanding of science. Pat Finnerty will present the latest developments at President's Banquet during the Annual Meeting at Central College in Pella.

The Academy is grateful to the students, the Ad Pros of Des Moines, Strategic America, and Josh and Kathleen Riessen for their hard work in support of this project. A special thank you goes to the Iowa Space Grant Consortium for a \$2500 grant supporting its development. -Craig



## Gifts Received 2006

### General Fund

General Fund contributions assist the Academy in day to day operations and programs. General Funds pay for the Academy's phone bills, publication of the Bulletin, and the Academy's web server. Any donation to the Academy may be designated by the donor as a General Fund Donation. Donations that are not directed specifically as the Benchmark Fund or Science Endowment Fund are placed in the General Fund.

### \$100 or more

Paul Bartelt  
E. Robert Baumann  
Gilbert Hewett  
Harry Horner  
Craig Johnson  
Charlie Martinson

### \$50 or more

George Burnet  
John Clem  
Brenda Molano-Flores  
Donald Gurnett  
Stephen Hendrix  
Donald Koch  
Jerry Kollros  
Peter Peterson  
Jean Prior Sandrock  
Ernie Schiller  
Marcy Seavey  
William Shore  
Karl Siefert  
Clayton Swenson  
Ruth Swenson  
John Wozniak

### Under \$50

Lee Burras  
Cliff Chancey  
Shirley Cropper

### Under \$50 (continued)

William Desmarais  
Gary Donnermeyer  
Douglas Haefele  
Matthew Henry  
Roger Landers, Jr.  
Donald Perschau  
Marvin Peterson  
Willis Skrdla  
Melissa Spencer  
Thomas Zimmerman

### Science Endowment Fund

The Science Endowment Fund has been established to provide for the future of the Academy. Gifts of \$1000 or more (in \$250, \$500, or \$1000 installments) may be designed for this fund.

### \$500

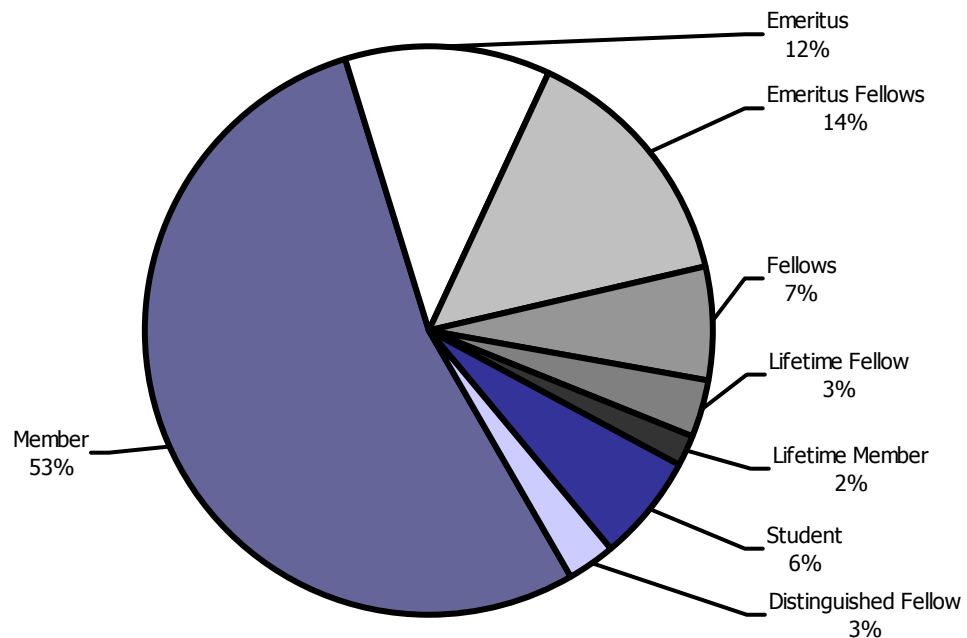
Nick Stoyhoff

### IJAS Match to Iowa Space Grant Consortium Donation

\$100 or more  
Adam Guzick  
Craig Johnson  
John Pesek

Thank you to all who have donated to the Academy in 2006, either monetarily, by volunteering time and skills, or both.

## Iowa Academy of Science 2007 Membership



## Schutte Receives National Biology Teaching Award

Carol Schutte, a science instructor at North Iowa Area Community College, has received the Two-Year College Biology Teaching Award from McGraw-Hill and the National Association of Biology Teachers (NABT) two-year college section.

"I've been involved with NABT for several years, and am so impressed with the caliber of dedicated people I've met in the two-year section. It is a great honor for me to be selected by these colleagues to receive the award," Schutte said. Schutte was selected for the Two-Year College Biology Teaching Award based upon criteria including mastery of effective and diverse teaching techniques, scholarship and professional growth, student service and accessibility as well as academic standards and student

performance. Curriculum design and laboratory utilization are also important.

Schutte finds professional meetings and workshops a great way to upgrade her biology foundation and teaching skills. One of Schutte's special teaching techniques includes exposing students to natural environments. "From the short excursions to our local pond to the two-week tropical ecology trips, the students seem to gain immensely from these out-of-classroom immersion experiences and they appreciate the benefits and effort as much as I appreciate the privilege of sharing new experiences with them," Schutte said. In recognition of her award and excellence in two-year college biology instruction, Schutte has received \$1,000 and a plaque at the 2006 NABT National Professional Development Conference in New Mexico in October.



### Program Focus – Benchmark Fund

Making a contribution to the Iowa Academy of Science is an important way to support its future. Support given to the Benchmark Fund has recently been used to design and print the new Academy full color brochure. The purpose is to create a strong first impression for the Academy to attract new members and interest in Academy programs. The brochure has already been sent to all high schools in Iowa in support of the Junior Academy and it will be used in conjunction with a new IAS color poster to attract new individual, institutional, and corporate members. Generating consistent funding of the Academy through new memberships and sponsors is an important way to support science in Iowa. Please consider contributing to the Benchmark Fund or any other Academy program.

### *Specify where your IAS donation goes...*

**Iowa Academy of Science General Fund**—Funding the day-to-day operations of the Academy. 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. Until the Iowa Science Endowment is large enough to support the regular activities of the Academy, additional funds for general activities must be sought. 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 Annual Meeting**—Includes meals and registration materials for Iowa Junior Academy of Science members to attend the IAS Annual Meeting, 2 \$500 scholarship awards, a trip for two 9th-11th graders and a chaperone to represent Iowa at the American Junior Academy of Science and a most promising young scientist award.

**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 Academy of Science Annual Meeting**—IAS collects only about 66% of the per person costs of this conference in registration fees. Donations to the Annual meeting are used to pay for the meals and registrations of ESTA and Distinguished Science Award winners, to pay travel for guest speakers, and for the various publications related to the conference.

**Iowa Science Teachers Fall Conference**—Iowa's Largest Science Teacher Conference. 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. A portion of the annual growth of this fund may be used by the IAS Board for IAS projects including general expenses.

**Benchmark Fund**—IAS uses the Benchmark fund to develop additional revenue for the Academy. For example, the new IAS Brochure, which will be used to gain new individual, institutional and for the first time in many years Corporate members, was paid for in part through the Benchmark Fund.



# Iowa Academy of Science

## The New Bulletin

Volume 3 Number 2 Spring 2007

**Iowa Academy of Science**  
175 Baker Hall – UNI  
Cedar Falls, Iowa 50614-0508

*Return Service Requested*

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. 3 #3 is June 1, 2007. The summer issue will be online only. Articles must be pre-approved. For more information contact Craig Johnson, IAS Executive Director, at [ias@uni.edu](mailto:ias@uni.edu)

**Advertising Rates:** Full page, single issue \$160; Half page, single issue \$60, two consecutive issues \$100; Business Card (3.5"x 2.0"), single issue \$30, two consecutive issues \$50. For more information or to submit an advertisement, contact [ias-science@uni.edu](mailto:ias-science@uni.edu)

### **Iowa Academy of Science Institutional Members**

University of Northern Iowa, Cedar Falls  
Buena Vista University, Storm Lake  
Central College, Pella  
Coe College, Cedar Rapids  
Cornell College, Mt. Vernon  
Des Moines University, Osteopathic & Podiatric Medicine  
Drake University, Des Moines  
Graceland University, Lamoni  
Grinnell College, Grinnell  
Iowa State University, Ames  
Iowa Wesleyan College, Mt Pleasant  
Kirkwood Community College, Cedar Rapids  
Loras College, Dubuque  
Mount Mercy College, Cedar Rapids  
Simpson College, Indianola  
The Nature Conservancy, IA  
The Putnam Museum, Davenport  
University of Iowa, Iowa City  
Wartburg College, Waverly