



# INDIANA ACADEMY OF SCIENCE NEWSLETTER

Number 129

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## *INDIANA ACADEMY OF SCIENCE ELECTION - 2006*

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### CANDIDATES FOR PRESIDENT-ELECT



**Richard L. Conklin** did undergraduate and some graduate work at the University of Illinois, taught physics for four years at Huron College in South Dakota, and completed graduate studies at the University of Colorado. In 1957, he joined the faculty of Hanover College, teaching physics until 1989 and returning as Interim Vice President for Academic Affairs in 1994-95. He has served the Academy as Program Chairman, visiting lecturer in high schools, Secretary, Newsletter Editor, and chairman of the History of Science Section and the Fellows and Nominating Committees. He has been a Fellow of the Academy since 1963.



**Nils Johansen** received his Bachelor and Masters degrees in Civil Engineering as well as his Ph.D. from Purdue University. He held multiple faculty positions at University of Alaska Fairbanks for many years. After retiring from UAF in 1996 he returned to Indiana as an Advisor at the University of Southern Indiana. His research has primarily been in the area of Arctic resource development, but since returning to Indiana, he has been involved with historical projects. He has served as chair of the Engineering section of the IAS several times. He was the Co-chair of the local arrangement committee for the Academy meetings in 1999. Nils was made a Fellow of the Academy in 1995 and has served the last six years as the Secretary of the Academy.

## CANDIDATES FOR SECRETARY

**Kimberly Lyle-Ippolito** holds a PhD from The Ohio State University in molecular genetics. She worked for a number of years in clinical virology and research at the Cleveland Clinic Foundation, Dayton VA Medical Center, and Wright State University before joining the faculty of Anderson University in 2000. She is currently a professor in the biology department. She is also an author with McGraw-Hill working on non-majors introductory biology. Kimberly has served as the chairperson of the Cell Biology Section for three years.

**Heather Bruns** received her Ph.D. from Indiana University School of Medicine in microbiology and immunology. She is assistant professor of immunology at Ball State University and primarily teaches Immunology, Virology, and Introduction to Molecular and Cellular Biology. She is active in the Indiana Branch of American Society of Microbiology and is interested in studying the effects of mutated proteins on the functions of cells of the immune system. She has been a member of Indiana Academy of Science since joining the faculty at Ball State.

## CANDIDATES FOR RESEARCH GRANTS COMMITTEE

**Pamela Connerly** received her undergraduate degree at Earlham College and graduate degrees at The University of Chicago and post doctoral work at Miami University of Ohio. She is assistant professor of biology at Indiana University East and has particular interests in genetics and cell biology and has developed a strong program of undergraduate research. She chaired and coordinated development for a biotechnology degree program. She is an active member in the American Society for Cell Biology and has been a member of the Indiana Academy of Science since joining the faculty at IU East.

**Joyce Cadwallader** received her undergraduate degree from Western College for Women and her graduate degrees from Indiana State University. Upon receiving her Ph.D. she joined the faculty of Saint Mary-of-the-Woods College and progressed through the ranks to professor of biology. She has taught a wide range of biology courses and is particularly interested in the history of biology. She is active in BIOQUEST and has served as president of the local chapter of Sigma Xi. She co-chaired the 2006 Indiana Academy of Science meetings at Saint Mary-of-the-Woods College.

## CANDIDATE FOR ACADEMY FOUNDATION

**Wendell McBurney** held the position of Indiana University Director of Research Compliance, responsible for Federal, State, and University regulatory compliance matters involving the use of humans and animals as research subjects prior to his retirement. He has served his community as a founding director of the education foundation and school corporation committee. He currently serves as the

chair of the grants committee for his county's community foundation. Wendell, an Academy Fellow, has served the Academy in several capacities including President, a member of various committees, and as director of the Indiana Science Talent Search. He is currently a trustee of the Academy Foundation.

## **A CALL FOR VOLUNTEERS TO SERVE THE ACADEMY AS**

- 1. The AAAS representative, and/or**
- 2. Co-chair for the Youth Activities Committee**

*Interested individuals should contact*

**President Clare Chatot**  
**765-285-8827**  
**cchatot@bsu.edu**

## Note From the President's Corner

Dear IAS Colleagues,

With fall semester getting underway, it is time to begin thinking about the fall IAS meeting which will be held at Ball State University on November 2<sup>nd</sup> and 3<sup>rd</sup>. I hope that you have submitted your abstract and plan to attend!!!

I am still in need of a volunteer to be our AAAS representative. Here is a brief description of duties once again. The representative attends the AAAS annual meeting and represents us at that meeting as a delegate to the National Association of Academies of Science (NAAS), at the AAAS Section Y meeting (Section on General Interest in Science and Engineering) and also at the American Junior Academy of Science meeting that some of our Junior Academy students will also attend. Maintaining this position is crucial for us since the Junior Academy depends on a grant that is available from the AAAS for some of its funding. We must remain in good standing with a representative appointed in order to be eligible for this funding. **If you are interested in assuming these duties please e-mail or call me at your earliest convenience at 765 -285-8827 or [cchatot@bsu.edu](mailto:cchatot@bsu.edu).** Thanks in advance for volunteering to serve the Indiana Academy.

We are also in need of someone to co-chair the Youth Activities Committee of the academy. Patti Zech is the other co-chair. I am sure that she would be willing to share information with you on the duties of this position. If you are interested please get in touch with me at the above e-mail or phone number! Thanks again.

My remaining comments will concern the resolution on the teaching of intelligent design in the Indiana



Clare Chatot, 2006 IAS President

schools. The text of that resolution will follow in the newsletter. This is a revision of our current resolution which uses creationism language. Although it did not make it onto the floor of the legislature for a vote, the topic of teaching intelligent design certainly made an appearance in the Indiana Legislature in the past year. It was time to revisit our resolution to be sure that we updated the language and took a strong stand on the issue. As the state academy of science, we need to provide clear guidance to the legislature on this topic. I once again thank **Gary Dodson, Jim Bandoli, and Linda Airey** for their hard work on this resolution.

If the resolution and explanation is passed at the business meeting this fall, the intention is to post both of these on the IAS web site. The explanation provides links to a number of additional web sites that dedicate a considerable amount of space to explaining the rationale for the exclusion of non-science based evolutionary concepts in science classrooms. The ad hoc committee and I felt that it was necessary to provide others looking to us for guidance with more information than the resolution

itself included, but we did not feel that we needed to reinvent the wheel. The explanation and the links should allow more extensive information gathering on the topic. Please take some time to visit the web sites that we have listed.

Once the resolution and explanation are posted to the web site, we will also be cross cited by some of the other web sites that discuss this issue. Finally, the ad hoc committee asks that this information be reviewed and, if necessary, updated every 3 years. It would be the task of the president to form an ad hoc committee to accomplish this task. I look forward to our discussion and vote on this important issue at the fall meeting.

The Ball State Chapter of Sigma Xi, under the leadership of **Don Ruch**, is working very hard to plan an excellent meeting for us this fall! I hope that many of you will join us and I look forward to seeing you there! Look for more information on the meeting in this newsletter and on the IAS web site  
[www.indianaacademyofscience.org](http://www.indianaacademyofscience.org).

Warmest Regards,  
-- Clare L. Chatot  
IAS President

See page 4 for the  
IAS Resolution on  
Teaching of  
Intelligent Design  
in  
Indiana Schools

# IAS Proposed Resolution on Teaching of Intelligent Design in Indiana Schools

*(To be vote on by the membership at the Fall Meeting)*

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## **Resolution:**

*Whereas science is defined as and limited to explanations based on natural, observable and testable phenomena and, therefore, is explicitly distinguished from other types of explanations that depend on concepts relating to the supernatural (for example, "intelligent design", "creation science", and "informed debate" paradigms); and*

*Whereas, learning and inquiry are severely inhibited if teachers are placed in a position where they may feel pressured to alter their teaching of the fundamental concepts of science in response to demands external to scientific disciplines; and,*

*Whereas, evolution theory is fundamental to a thorough understanding of biological concepts as reflected in the Indiana teaching standards,*

*Therefore be it resolved that the Indiana Academy of Science, as a part of its commitment to educational excellence in science instruction, opposes any restriction or imposition on the teaching of biological and cosmic evolution in the curricula of Indiana's educational institutions.*

## **Explanation:**

Indiana scientists and educators recognize the critical importance of a strong grounding in the fundamental principles of science for all of Indiana's youths. The extensive reasoning and consideration that has gone into the official position of the Indiana Academy of Science on this issue (described in the resolution above) parallels that of all significant scientific and science education organizations across North America. If you are interested in more details on the justification for this important and unanimous stance across these institutions, we strongly recommend that you go to the WWW links provided below for the National Academy of Science, the American Association for the Advancement of Science, the National Science Teachers Association and the National Center for Science Education.

These organizations provide helpful background information on science, science education, and the distinction

between scientific and supernatural explanations of life.

The fact that this information is typically highlighted on the front pages of their web sites is an indication of the importance placed on this issue. The Indiana Academy of Science fully endorses the resolutions and policies of these prominent institutions in order to promote instruction in science unencumbered by non-scientific explanations of life and the cosmos.

<http://nationalacademies.org/evolution/#statements>

[http://www.aaas.org/news/press\\_room/evolution/](http://www.aaas.org/news/press_room/evolution/)

<http://pubs.nsta.org/galapagos/resources/page1.html>

<http://www.natcensci.org/>

**NOTE:** IT IS PROPOSED THAT THIS ENTIRE TEXT, (RESOLUTION, EXPLANATION, AND WEB SITE LINKS) SHOULD APPEAR ON THE WEB SITE OF THE IAS AND THAT THIS STATEMENT BE REVIEWED EVERY 3-4 YEARS FOR EDITORIAL PURPOSES.

For Reference: Current IAS Resolution on Teaching of Creationism in Indiana Schools

Whereas, neither creationism nor "Creation Science" should be taught as science because both are based, at least partially, upon beliefs which are not supported by observed facts; and

Whereas, learning and inquiry are severely inhibited if teachers are placed in a position where they may feel pressure to alter their teaching of the fundamental concepts of science in response to demands external to scientific disciplines,

Therefore, be it resolved that the Indiana Academy of Science, as a part of its commitment to educational excellence in science instruction, opposes any restriction on the teaching of biological and cosmic evolution in the curricula of Indiana's educational institutions.

**INDIANA ACADEMY OF SCIENCE**

Registration Form

121st FALL MEETING, NOVEMBER 2-3, 2006

**Ball State University, Muncie, Indiana**

*Advance Registration must be postmarked by October 25, 2006*

Name: \_\_\_\_\_

Institution/Agency: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Phone: \_\_\_\_\_ Email: \_\_\_\_\_

**CIRCLE AMOUNT PAID**

	<b>Advance Registration</b>	<b>Membership 2007 Dues</b>	<b>Total</b>
Member	\$35	\$35	_____
Member, Sustaining	\$35	\$60	_____
Member, Associate	\$35	\$25	_____
Student*	\$10	\$10	_____
Emeritus Member	\$10	\$10	_____
Non-Member	\$45		_____
Luncheon	\$15		_____
		<b>Total</b>	_____

**Total amount enclosed**      Check No. \_\_\_\_\_      Cash \$ \_\_\_\_\_

\*College student must be a student member of the Indiana Academy of Science and must have paid the \$10 membership fee to be eligible to register at the \$10 student fee. If not already an IAS student member, the fee may be paid at this time along with the registration fee for a total of \$20. Otherwise, college students may pay the \$45 non-member fee.

**Check Workshop you wish to attend**

- Tree Identification for the Beginner
- Planetarium Presentation
- Nanoscience Presentation/Discussion

No refunds will be made after October 25, 2006

Make checks payable to **Indiana Academy of Science**

Mail to:      Edward L. Frazier, Treasurer  
                 Indiana Academy of Science  
                 5007 West 14<sup>th</sup> Street  
                 Indianapolis, IN 46224-6503



## General Information, Fall Meeting of the Academy

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The following information is available on the IAS Home Page at [www.indianaacademyofscience.org](http://www.indianaacademyofscience.org).

**Where:** Ball State University, Muncie, IN

**When:** November 2<sup>nd</sup> and 3<sup>rd</sup>

**Directions to Ball State University:** *can be found at*  
<http://www.bsu.edu/students/admissions/article/0,,23303--,00.html>

**Ball State Campus Map:** *can be found at*  
<http://www.bsu.edu/map/>

### Parking for the Meeting:

There is limited parking in the two parking garages on McKinley Avenue (south of Riverside Avenue). However, most parking will occur in the lot west of the football stadium and west of Tillotson Avenue. This lot can be seen on the campus map, quadrant 1, in the NW corner formed by Bethel Avenue and Tillotson Avenue.

When you pull into the parking site, you will need to get a parking permit in order to park without being ticketed. Student assistants will be handing out these permits. **MAKE SURE YOU GET A PARKING PERMIT!!!!** You will need to fill in the licence plate number.

Two shuttle buses will transport participants from the parking site to Cooper Science Complex (see campus map, quadrant 4; Cooper is on Riverside Avenue) and from Cooper Science Complex back to the parking area. Shuttle buses will run from 7 AM to 5 PM on Friday, November 3<sup>rd</sup>.

You will need to remove your car by 9 PM Friday, November 3<sup>rd</sup> or you will be towed. All of the lots must be evacuated by 9 PM on home football weekends.

### Dining at Noon:

The Academy will offer its annual noon luncheon. On the Ball State Campus, there are two food courts, one located in Pittenger Student Center on University Avenue (campus map, quadrant 4) and one in the Atrium of the Arts and Journalism Building on McKinley Avenue (campus map, quadrant 3). "The Village," located east of Pittenger Student Center, offers a variety of dining types. If you prefer to eat away from campus, you will need to take the shuttle back to your car.

**Lodging in Muncie:** listed below are motels that are within two miles of the parking lot on Tillotson Avenue.

#### Best Western Muncie

(765) 282-0600

#### Days Inn

(765) 288-2311

#### Fairfield Inn

(765) 282-6666

#### Holiday Inn Express Hotel & Suites

(765) 289-HOST (4678)

#### Lees Inn

(765) 282-7557

#### Pittenger Student Center Hotel

(765) 285-1555

Ball State University

#### The Roberts Hotel

(765) 741-7777

#### Signature Inn

(765) 284-4200

#### Super 8 Motel (Muncie)

(765) 286-4333

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## Necrology

**Joseph R. Siefker**, 72, died September 2, 2005 as Professor Emeritus of Chemistry at Indiana State University-- having taught there from 1962 to 1995. He was born March 14, 1933 at Brownstown, Indiana. Dr. Siefker earned his bachelor's degree from Wabash College, his master's from the University of North Dakota, and his Ph.D. from Indiana University. He also taught at St Louis University from 1960 to 1962. Among his other activities, Joseph was a member of the ISU Faculty Senate, the American Chemical Society, Sigma Xi Honorary, Lambda Chi Alpha Fraternity, Trinity Lutheran Church, and Terre Haute Elks Lodge 86. He had several of his works published in various scientific journals and also served as the Faculty Advisor to the ISU Student Chapter of the American Chemical Society. Joseph Siefker was elected to the rank of IAS Fellow in 1960.

-- **William R. Gommel**  
Historian-Necrologist

# **IMPORTANT NOTICE**

**Deadline for submission of abstracts for the Fall meeting is  
September 1<sup>st</sup>.**

**To submit an abstract on line, go to the IAS Home Page at  
[www.indianaacademyofscience.org](http://www.indianaacademyofscience.org)**

**Fall 2006 meeting of the Academy is November 2-3,  
Ball State University, Muncie, IN**

**Deadline for submission of copy for the December issue of the IAS Newsletter is November 15, 2006.**

**Send copy to Donald G. Ruch at [druch@bsu.edu](mailto:druch@bsu.edu)**

**For IAS information, go to: [www.indianaacademyofscience.org](http://www.indianaacademyofscience.org)**