

# *Pennsylvania Academy of Science*

## FIRST CALL FOR ABSTRACTS

### Pennsylvania Academy of Science 81<sup>st</sup> ANNUAL MEETING

Radisson Inn  
Camp Hill, PA

## April 8-10, 2005

**DEADLINE FOR RECEIPT OF ABSTRACTS:  
15 DECEMBER 2004**

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#### *The Pennsylvania Academy of Science Newsletter*

Richard L. Stewart Jr. and Pablo R. Delis, Editors  
Shippensburg University, Shippensburg, PA 17257

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York, PA 17405-7199

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PAS Home Page: <http://www.pitt.edu/~aap/pas/pas.htm>

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## FROM THE DESK OF THE PRESIDENT

### Back to Basics: The Three R's for PAS

I want to welcome everyone back from the summer and update you on the upcoming activities of the Academy. Our fall meeting will be held at Penn State, October 1-2. During this meeting we will begin preparing for the annual meeting which will be held at the Radisson Hill, Camp Hill, PA, April 8-10, 2005.

When I began college I really didn't know what to expect. I found that my professors were introducing me to worlds I didn't know existed. The professor's caring, knowledge, and for some, relief that I was able to master new concepts provided me with many opportunities. My undergraduate research experience was invaluable.

Now, turning to the 3 Rs from the title of the presentation, I won't be speaking of Reading, 'Riting, and 'Rithmetic; but rather Recruitment, Research and Responsibility. PAS needs to attract and recruit new members. As faculty and professionals we have a responsibility to pique students' interest and to introduce them to PAS.

The next "R" is for research. The first step is awareness, graduate and undergraduate students need to be made aware of the opportunities in science. Beyond awareness is the creation of inquisitiveness. Awareness can be created by providing opportunities to participate in research projects. At the next annual meeting a variety of symposiums will be offered on various topics. I encourage you to bring your students and colleagues to the annual meeting.

The final "R" is for responsibility. We have a responsibility to foster scientific research and scientific cooperation, increase public awareness of the role of science in human progress and human welfare and to promote science education. And we cannot do any of that successfully and efficiently without constructive input from our members, this is truly a cooperative effort.

Additionally, I ask that each of you make a personal commitment to contribute to the betterment of our organization, which ultimately benefits all our colleges and schools and professional organizations. I encourage you to let me know your concerns and ideas for PAS.

Churchill once said, "Courage is what it takes to stand up and speak. Courage is also what it takes to sit down and listen." On that note I would like to begin by listening to you, the membership of PAS.

Jane E. Huffman, PhD

President  
Pennsylvania Academy of Science  
Professor  
Department of Biology  
East Stroudsburg University of Pennsylvania  
East Stroudsburg, PA 18301

## OFFICERS AT LARGE

**Director (2004-2006): Dana Harriger**  
**Director (2004-2006): Robert Cox**

### Address Change and Membership Applications:

**Valerie G. Kalter**, Membership Chairperson, Biology Department,  
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## PENNSYLVANIA BIODIVERSITY PARTNERSHIP SOLICITS INPUT ON PENNSYLVANIA BIODIVERSITY CONSERVATION PLAN



The Pennsylvania Biodiversity Partnership (PBP) is a broad-based public-private partnership formed in 2000 to promote the conservation of native species and their habitats. PBP members include conservation and environmental organizations;

government agencies; business and industry; scientists and academic organizations; sportsmen and women; and private landowners.

A consensus quickly emerged with the Partnership that a statewide plan, focusing on strategies and opportunities for protecting Pennsylvania's natural resources, while at the same time maintaining economic vigor and quality of life for all Pennsylvanians, must be developed and implemented.

The development of this comprehensive plan for biodiversity is a multi-year process with a projected completion date of 2005. *Biodiversity in Pennsylvania: Snapshot 2002*, released in December 2002, marked the end of the first phase. This 48-page document is a concise literature-based report that synthesizes the present status of Pennsylvania's biodiversity.

Building on *Biodiversity in Pennsylvania*, PBP is actively soliciting input from all stakeholders, including biologists and other scientists, in developing the first draft of the Pennsylvania Biodiversity Conservation Plan. Please tell us what issues are important to you and what you would like the plan to contain by visiting the PBP website ([www.pabiodiversity.org](http://www.pabiodiversity.org)) and completing a short comment form online.

Additional information about PBP and copies of *Biodiversity in Pennsylvania* and the executive summary, may be found on the PBP website. Free copies of the report or executive summary may be obtained by contacting PBP, 16 Terminal Way, Pittsburgh, PA 15219, telephone (412) 481-4100, [pbpinfo@pabiodiversity.org](mailto:pbpinfo@pabiodiversity.org)



## UPCOMING MEETINGS

The **81<sup>st</sup> Annual PAS Meeting** will be held at the *Radisson Inn, Camp Hill, PA, April 8-10, 2005.*

The **82<sup>nd</sup> Annual PAS Meeting** will be held at the *Holiday Inn, Grantsville, PA, March 31-April 2, 2006.*

The joint meeting of **PAS and PJAS** will be held at the *Innovation Center, Sept. 23-24, 2005.*

The **NCUR 18<sup>th</sup> Annual Meeting** will take place on *April 21-23, 2005, Lexington, VA.* The Mission of the National Conferences on Undergraduate Research is to promote undergraduate research, scholarship, and creative activity done in partnership with faculty or other mentors as a vital component of higher education. NCUR® 2005 will bring together undergraduates involved in scholarly and artistic activities representing a range of disciplines including creative arts, mathematics, business, social science, humanities, physical and life sciences, natural resources, and engineering, among others. Participants are expected to come from over 300 colleges and universities representing almost every state in the nation. Please visit the website for more information <http://www.ncur.org/>

The **American Society for Microbiology 105<sup>th</sup> General Meeting** will take place *June 5-9, 2005, Atlanta, GA.*

Plan to attend five days of spectacular scientific programs, all while enjoying the scenery in this great city.

Workshops precede the meeting and will be held both Saturday and Sunday, June 4 and 5. The scientific program will feature nearly 300 individual colloquia, symposia, roundtable discussions, award lectures, and poster sessions. The 27 division chairs and the General Meeting Program Committee have devoted their energies to creating a well-rounded program. Please visit the website for more information <http://www.asmta.org/>

## CALL FOR NOMINATIONS

Call for nominations for the election to be held at the 2005 Spring PAS meeting.

Nominations are solicited for the following officers whose terms expire in April 2005. Their major duties are described below:

**Recording Secretary (2-year term)** Takes minutes, and keeps a record of all official business.

**Book Treasurer (2-year term)** is responsible for all financial matters relating to book publication, including the book fund.

**Editor of the Journal:** Decides on suitability of manuscripts for publication in the Journal after examination by referees; sees that the Journal issues are published on time; sends the Journal to the members and libraries; selects the Editorial Committee members.

In addition, two (2) Directors-at-large positions (staggered 2 year terms) as defined in Article III, Section 1 of the PAS Constitution are to be filled and selected from chairs and standing committees as defined in Article VI, Section 4 of the PAS Constitution.

**Director-at-large #1 (2 year term, 2005-2007)**

**Director-at-large #2 (2 year term, 2005-2007)**

Submit all nominations to:  
Dr. Clarence J. Murphy, Chair  
PAS Nominating Committee  
312 Albert Road  
Stroudsburg, PA 18360-9122

## NEWS AND COMMENTS SOLICITED

Please do not hesitate to submit to the editors of this newsletter, items that you feel may be of interest to PAS members. These can include publications, honors and awards (by you or colleagues), upcoming events, jobs, grants, and scholarship information.

In addition, please feel free to send your comments and suggestions to the editor regarding the content of the Newsletter. Submission by e-mail is preferred, but submissions through the regular mail are also welcomed.

## PHOTOGRAPHY CONTEST

A photography contest promises to be a highlight of the annual conference. Categories for this year's contest are: **Landscape, Botanical, Mammals, Birds, Other Wildlife, Digital Camera, and Microscopy – TEM, SEM and light.** A panel of judges will select 1<sup>st</sup>, 2<sup>nd</sup>, and 3<sup>rd</sup> place winners in each category, and best of show. Conference attendees also will select the *people's choice* winners in each category. Prizes will be awarded to first through third place winners in each category, including people's choice, and best of show as selected by the panel of judges and conference attendees. Photographs for the contest will be accepted until 10am Saturday. Photographs will be displayed all day Saturday and attendees will have until 4pm on Saturday to vote for their people's choice selections. On Saturday evening, after dinner, winners will be announced and prizes awarded during a judge's critique.

### Photography Contest Rules

1. You must be registered for the conference to enter.
2. Photographs entered must have been taken by the entrant.

Entry fee is \$3.00 per photograph or \$2.00 per photograph if 5 or more are submitted.

Submit black and white or color prints. Actual print size must be from 5"x7" to 16"x20". Each photo must be mounted on a stiff backing or matted. The backing or matting must not exceed 20"x24". No glass or prints framed in wood, plastic, or metal will be accepted. Signatures, titles, captions, and other text not part of the original photo must be completely covered. Please provide a name, address, and phone number on the back of each photo.

By submitting your photos, you agree to allow us to affix Velcro tabs to the back of your photo and a small identifying sticker to the front, and allow us to publish your photo in a future issue of the PAS Newsletter. The photography contest booth will be staffed by volunteers during daytime hours. However, we cannot guarantee total security of your photographs.

Judges will evaluate photographs on the basis of technical quality, composition, overall impression, and originality. Photographs in the Digital category must have been taken with a digital camera and must be submitted in a digital format that can be imported into PowerPoint (jpeg preferred).

## PAYPAL

Dr. Ricker has established an account for the Academy with PayPal, an on-line payment service. Using this service, members can now pay membership dues, meeting expenses, and publication costs on line using a credit card. In addition, books and other academy publications can also be purchased on-line. This service is available at <http://www.pitt.edu/~aap/pas/pas.htm>

# CALL FOR ABSTRACTS

**81<sup>ST</sup> Annual Meeting of the Pennsylvania Academy of Science  
April 8-10, 2005**

Radisson Inn  
Camp Hill, PA

**DEADLINE FOR RECEIPT OF ABSTRACTS: 15 December 2004**

## INSTRUCTIONS FOR PREPARING AND SUBMITTING ABSTRACTS

\*\*

Read All Instructions Before Writing Abstract

**PLEASE NOTE: ALL ABSTRACTS MUST BE SUBMITTED  
\*\*ELECTRONICALLY\*\***

<http://www.pitt.edu/~aap/pas/pas.htm>

## RULES GOVERNING SUBMISSION AND ACCEPTANCE OF ABSTRACTS

1. The corresponding author must be a member of PAS in order to submit an abstract.
2. One person cannot be listed as the presenter on more than **three** abstracts.
3. Once the Program Committee has accepted an abstract, it cannot be withdrawn.
4. The abstracts will be published in a supplemental issue of the *Journal of the Pennsylvania Academy of Science* to be distributed at the annual meeting.
5. Any abstracts received after December, 15, 2004 will not be published.
6. Authors will be notified when the abstract is received and again in February concerning the acceptability and presentation time of the abstract.

## PREPARATION OF ABSTRACTS

1. The abstract should contain a statement of the problem being investigated, the methods used, the important results, and a conclusion.
2. The abstract cannot be longer than 150 words. It should be typed, double-spaced, and four copies of the abstract should be submitted along with the standard abstract form.
3. The format will be *title, authors' names, addresses, and abstract*. The title should be concise. Place an asterisk after the name of the author presenting the paper. Each author's address should include the institution, city, and state. All addresses should follow the last author's name.
4. Improperly prepared abstracts will be rejected.

## ORAL AND POSTER PRESENTATIONS - PROJECTION FACILITIES

1. Oral presentations are normally limited to fifteen minutes per paper. Speakers should prepare a clear and precise presentation.
2. Papers can also be presented at a poster session. Indicate this preference on the Standard Abstract Form. Allotted poster space is 4'x 4'. If additional space is needed, please indicate this on your abstract form (8'x 8' maximum). Space for oversize posters is limited.
3. Projectors for 2"x 2" (35mm) slides and overhead transparencies will be available in each room. The speaker must arrange other facilities in advance of the meeting. Computers and LCD projection plates are the responsibility of the speaker. Contact Dr. Kenneth Thomulka. Phone (215) 596-8710 or email: [k.thomul@usip.edu](mailto:k.thomul@usip.edu)
4. The number of poster presentations has climbed in recent years, while the number of oral presentations has dropped. This has caused some scheduling problems at recent meetings. We particularly encourage faculty and graduate students to consider giving an oral presentation.

### \*\*\*\*\*NO ABSTRACT SUBMISSION BY SNAIL MAIL\*\*\*\*\*

#### Electronic Submission of Abstracts:

All abstracts **must** be submitted electronically. Please visit <http://www.pitt.edu/~aap/pas/pas.htm>

## NO ABSTRACT SUBMISSION FEE REQUIRED

Direct questions concerning preparation of abstracts to either:

**Dr. Lucinda Elliot**  
Department of Biology  
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## 81<sup>st</sup> Annual Meeting, Pennsylvania Academy of Science

### HOUSING RESERVATION FORM

The 81<sup>st</sup> Annual Meeting of the Pennsylvania Academy of Science will take place April 8-10, 2005 at the Radisson Hotel, Camp Hill, PA. Total cost of the housing and meal package: \$167/person, double, and \$249 for a limited number of single rooms. Package price includes: 2 nights lodging, 2 breakfasts, 1 lunch, 2 dinners, taxes and gratuities, beginning with dinner on Friday, April 8, 2005. The package is only available to those staying two nights. **Reservations are to be made directly to the hotel before March 8, 2005, using the reservation form below.** Colleges and universities making reservations for blocks of students must include a separate reservation form for each **two** students sharing a room (this will necessitate making copies of the form). Reservation forms sent in one package must include the total amount on one check to cover those reservations. Those not staying at the hotel may purchase individual meal tickets at the registration desk.

Breakfast: \$12.00

Lunch: \$15.00

Dinner: \$23.00

Two day meal package cost for children in parent's room: 5 years and under: No Cost. 6-12 years: \$40. 13+ years: \$75.

### HOUSING RESERVATION REQUEST

RADISSON HOTEL CAMP HILL

Check-in time: 4:00 PM / Check-out time: 12:00 noon

1150 Camp Hill Bypass

Camp Hill, PA 17011

717-763-7117

Name \_\_\_\_\_ Affiliation: PA Academy of Science

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

City \_\_\_\_\_ State \_\_\_\_\_ Zip Code \_\_\_\_\_

Single \_\_\_\_\_ Double \_\_\_\_\_ Smoking \_\_\_\_\_ Non-smoking \_\_\_\_\_ Handicapped\* \_\_\_\_\_

Roommate \_\_\_\_\_

Address \_\_\_\_\_

Children (age) \_\_\_\_\_

Check or Money Order amount \$ \_\_\_\_\_

AMEX \_\_\_\_\_ MasterCard \_\_\_\_\_ Visa \_\_\_\_\_ Discover \_\_\_\_\_ Diners Card \_\_\_\_\_

Credit Card # \_\_\_\_\_ Expiration Date \_\_\_\_\_

Signature \_\_\_\_\_

- These special accommodations and rates will be available up to two weeks prior to your gathering, after which time these rooms will return to the hotel for their normal sale.
- Guaranteed reservations not cancelled by Friday, March 26, 2005 will be charged one night (\$85).
- The hotel is not responsible for assigning roommates. If sharing rooms, place name and address of roommate on reservation form.
- \*Handicapped room requests must be made early since there are only a limited number of specially equipped rooms available.

# Directions to the Radisson Inn, Camp Hill, PA

## From Philadelphia, Pennsylvania: (PA Turnpike Westbound)

Merge onto US-30 W toward I-76/INT'L AIRPORT/VALLEY FORGE. After about 2 miles you will need to merge onto I-76 W (Pennsylvania turnpike). Stay on this road for about 96 miles, and then merge onto I-283 N via exit #247 toward HARRISBURG/HERSHEY (3 miles). Then merge onto I-83 S via exit #3A (on left) toward HARRISBURG. Take exit #42 toward LEMOYNE then turn *slight right* onto LOWTHER ST. followed by a *right* turn onto S 3<sup>RD</sup> ST. Turn *right* onto MARKET ST. then *left* onto FRONT ST. and finally, *left* onto WALNUT STREET. Continue for about 1 mile until you see the hotel.

## From Pittsburgh, Pennsylvania: (PA Turnpike Eastbound)

Merge onto I-376 E/US-22 E toward MONROEVILLE and stay on this road about 14 miles. Then, merge onto I-76 E via exit #15 and stay on this highway for 181 miles. Finally, merge onto US-15 N via exit #236 toward HARRISBURG for about 6 miles until you see the hotel.

## From Harrisburg International Airport:

Start out going Northwest on ramp toward AIRPORT CONNECTOR and merge onto AIRPORT CONNECTOR. Stay straight to go onto PA-283 W and merge onto I-283 N toward HARRISBURG. From here, merge onto I-83 S via exit #3A (on left) toward HARRISBURG. Take exit #42 toward LEMOYNE and turn a *slight right* onto LOWTHER ST. Turn *right* onto S 3<sup>RD</sup> ST and then *right* onto MARKET ST. From here, make a *left* onto S FRONT ST. for about one mile and then turn *left* onto WALNUT ST/US-11/US-15 and continue until you see the hotel. (www.mapquest.com).

**Radisson Penn Harris Hotel**  
1150 Camp Hill Bypass  
Camp Hill, PA 17011

**Note:**  
Hotel Registration form will appear  
in the JANUARY issue of the PAS  
newsletter



## 81<sup>st</sup> Annual Meeting, Pennsylvania Academy of Science

### MEETING REGISTRATION FORM

Name: \_\_\_\_\_ Phone: \_\_\_\_\_  
Address: \_\_\_\_\_ City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_  
Employer/Affiliation (for badge): \_\_\_\_\_

#### Full Meeting Registration:

No. of members or affiliates \_\_\_\_\_ @ \$40 = \_\_\_\_\_  
No. of non-members \_\_\_\_\_ @ \$50 = \_\_\_\_\_  
No. of students \_\_\_\_\_ @ \$20 = \_\_\_\_\_

#### One-Day Meeting Registration:

No. of members or affiliates \_\_\_\_\_ @ \$25 = \_\_\_\_\_  
No. of non-members \_\_\_\_\_ @ \$45 = \_\_\_\_\_  
No. of students \_\_\_\_\_ @ \$15 = \_\_\_\_\_

#### Abstract Payment:

No. of Abstracts \_\_\_\_\_ @ \$10 = \_\_\_\_\_

#### For Registration and Abstract Fee Only:

Make checks payable to: *Pennsylvania Academy of Science*  
Send completed forms and payment to: **Dr. Lucinda Elliot**, Department of Biology, Shippensburg University,  
Shippensburg, PA 17257.

**TOTAL DUE** (registration): \_\_\_\_\_

**Amount Enclosed:** \_\_\_\_\_



# SCHEDULE OF ACTIVITIES AT A GLANCE

81<sup>st</sup> Annual Meeting of the Pennsylvania Academy of Science

April 8-10, 2005 – Radisson Hotel, Camp Hill, PA

## FRIDAY, APRIL 8

1:00 pm	Board of Director's Meeting	Governor A
3:00-8:00 PM	<b>Registration</b>	Hotel Lobby
6:30-8:00 PM	<i>Dinner</i>	Ballroom North
8:15 PM	<b>Friday night</b>	Ballroom North

## SATURDAY, APRIL 9

7:30-9:00 AM	<i>Breakfast</i>	Ballroom North
8:30-11:00 AM	<b>Registration</b>	Convention Center Lobby
9:00-5:00 PM	<b>Exhibits</b>	Center Lobby Ballroom South
9:00-12 Noon	<b>Paper Presentations</b>	
	<b>I</b>	Keystone A
	<b>II</b>	Keystone B
	<b>III</b>	Keystone C
9:00 AM-12 Noon	<b>Poster Session I</b>	Ballroom South
10:00-10:30 AM	<i>Coffee Break</i>	Ballroom South
12 Noon-1:15 PM	<i>Lunch</i>	Ballroom North
1:15-5:00 PM	<b>Paper Presentations</b>	
	<b>IV</b>	Keystone A
	<b>V</b>	Keystone B
	<b>VI</b>	Keystone C
11:30-3:00 PM	<b>Advisory Council Meeting</b>	Governor A
1:30-4:00 PM	<b>Poster Session II</b>	Ballroom South
2:30-3:00 PM	<i>Coffee Break</i>	Ballroom South
5:00 PM	<b>Business Meeting</b>	Keystone A
5:00-6:30 PM	<i>Social Hour (Cash Bar)</i>	
6:30-8:00 PM	<i>Dinner</i>	Ballroom North
8:15 PM	<i>Mixer</i>	

## Sunday, April 10

7:30-9:00 AM	<i>Breakfast</i>	Ballroom North
8:30-11:00 AM	<b>Registration</b>	Convention Center Lobby
8:30-11:00 AM	<b>Paper Presentations</b>	
	<b>VII</b>	Keystone A
	<b>VIII</b>	Keystone B
	<b>IX</b>	Keystone C
8:30-11:30 AM	<b>Poster Session III</b>	Ballroom South
11:00 AM	<b>Board of Director's Meeting</b>	Keystone A

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## RECENT PUBLICATIONS BY MEMBERS

**Schneck, Jessica L.; Fried, Bernard; and Sherma, Joseph** (2004). Effects of tonicity on the release of neutral lipids on *Echinostoma caproni* adults and observations on lipids in excysted metacercariae. *Parasitology Research* 92:285-288.

**Evans, Ryan T.; Fried, Bernard; and Sherma, Joseph** (2004). Effects of diet and larval trematode parasitism on lutein and  $\beta$ -carotene concentrations in planorbid snails as determined by quantitative high performance reversed phase thin layer chromatography. *Comparative Biochemistry and Physiology part B* 137:179-186.

**\*Schneck, Jessica L.; \*Bandstra, Sharon R.; Fried, Bernard; and Sherma, Joseph** (2004). (\*student co authorship) Thin Layer chromatographic analysis of neutral lipids in snail conditioned water and feces of *Biomphalaria glabrata* infected with *Echinostoma caproni*. *Journal of Liquid Chromatography & Related Technologies* 27:2039-2045.

**Toledo, Rafael; Espert, Ana; Carpena, Ines; Munoz-Antoli, Carla; Fried, Bernard; and Esteban Jose-Guillermo** (2004). The Comparative development of *Echinostoma caproni* (Trematoda: Echinostomatidae) adults in experimentally infected hamsters and rats. *Parasitology Research* 93:439-444.

**Fried, Bernard and Toledo, Rafael** (2004). Criteria for species determination in the 'revolution' group of *Echinostoma*. *Journal of Parasitology* 90:917.

**Toledo, Rafael; Espert, Ana; Munoz-Antoli, Carla; Marcilla, Antonio; Fried, Bernard; and Estaban, J. Guillermo** (2004). Kinetics of *Echinostoma caproni* (Trematoda: Echinostomatidae) antigens in feces and serum of experimentally infected hamsters and rats. *Journal of Parasitology* 90:752-758.

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The locust borer, *Megacyllene robiniae* (Forst.), Cumberland County, Pennsylvania, by Richard Stewart  
Please submit original digital photographs of science related items in Pennsylvania to the editors at [prdeli@wharf.ship.edu](mailto:prdeli@wharf.ship.edu)

## COLLEGE STUDENT RESEARCH FUNDS AVAILABLE

The Pennsylvania Academy of Science has funds available to support UNDERGRADUATE AND GRADUATE COLLEGE STUDENT research in the natural, physical, or social sciences. Proposals should be written and submitted by the student under faculty guidance. Proposals will be accepted until May 1 at which time they will undergo review by professional referees, and evaluation by the PAS Research Grant Committee. Authors of proposals selected for funding will be notified by October 15. Unsuccessful applicants will be notified by November 15. Grants are normally made in the amount of \$500 or less, as requested in the proposal and, therefore, proposal budgets should take this limit into consideration.

### General Guidelines for proposal:

- (1) Projects should be of such nature that they can be initiated and completed within one year.
- (2) The PAS funds are to be used primarily for expendable supplies, small pieces of equipment, travel, living, and/or housing expenses, if essential for the project.
- (3) Funds are not to be used for major pieces of equipment.
- (4) Results of the project are normally communicated at the next meeting of the PAS following completion of the research. The student is encouraged to submit a manuscript for consideration of publication in the *Journal of the Pennsylvania Academy of Science*.

### Proposal Format should include the following Sections:

- (1) A titled INTRODUCTION section, describing the nature of the project and discussing the novelty or significance of the research. A general summary of the pertinent literature must be provided to demonstrate to the reviewers that the author has adequate knowledge of the research area.
- (2) A titled METHODS & MATERIALS section, describing how the research will be carried out; the kinds of materials and equipment used; the procedures to be employed regarding the care, use and disposition of research animals; the approximate starting and finishing dates of the research for which PAS funding is requested.
- (3) A titled STUDY PARTICIPANTS section, identifying the student(s) and supervising PAS member, their affiliation (e.g., academic institution or employer), and position or section status. The role of the student(s) must be CLEARLY identified. The previous relevant experience of the PAS member in supervising research must be discussed. A statement is required that the research supervisor is a current PAS member. A statement should be made regarding primary responsibility for writing the proposal, if not the author(s) given.
- (4) A titled BUDGET section will include an ITEMIZED budget showing how PAS funds are to be used, and identifying the piece of equipment and facilities currently available to do the research. If funding is to be supplied by other sources, this should be identified. Additional guidance regarding format can be found in "Guidelines for Authors" in the *Journal of the Pennsylvania Academy of Science*.

Submit an original, plus FIVE (5) additional copies of the proposal and clearly list on the cover page, the area to which the grant most closely applies: Biochemistry, Chemistry, Cell Biology, Ecology, Environmental Science, Genetics, Geology, Microbiology or other. All proposal reviews will be evaluated by the PAS Research Grant Committee, and the proposals will be ranked for preference for funding. Only those proposals judged worthy of funding will receive funding to the extent funding is available. Unsuccessful proposals may be reconsidered after revision in accordance with suggestions by the PAS Research Grant Committee and proposal referees.

### Send all materials to:

**Dr. Jane Cavender,  
Chairman PAS Research Grant Committee  
Department of Biology  
Elizabethtown College  
Elizabethtown, PA 17022**

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## DARBAKER PRIZE - \$1,000

The Darbaker Prize is a Pennsylvania Academy of Science (PAS) award given for outstanding scholarly contributions which use microscopic techniques and present microscopic illustrations in the reporting of biological research. The award is competitive amongst qualified papers submitted in association with the Academy's annual meeting.

The Pennsylvania Academy of Science established the Darbaker Prize in 1952. Funds for the award are made available through a bequest of the late L.K. Darbaker, 1939 PAS President. Referring to the award, Dr. Darbaker stated: "Any sum applicable to the Pennsylvania Academy of Science shall be for grant or grants in Microscopical Biology."

To qualify for the Darbaker Prize, a scientist or scientists must: (1) have used microscopy (light, SEM, TEM or other technologies) in the research they report, (2) submit in proper format a manuscript reporting the results of the completed study for consideration to be published in the *Journal*, (3) specifically state a request to the Editor of the *Journal* to have their manuscript considered for the Darbaker Prize for the current calendar year, and (4) be a member of the Pennsylvania Academy of Science. Darbaker Prize competition manuscripts are expected to be presented and submitted at the PAS annual meeting, but if not, manuscripts will be accepted for consideration within four weeks (28 calendar days) following the last day of the annual meeting. Only manuscripts that have successfully completed the review process and have been accepted for publication in the *Journal* will be eligible for the award.

The Editor of the *Journal* will examine all manuscripts submitted for award consideration to determine the fulfillment of requirements. The editor will then forward the eligible manuscripts with his/her and reviewers' recommendations to the PAS President for final decision. The Darbaker Prize will be made in the *Journal* at an appropriate time.

For further information contact:

Shyamal K. Majumdar, Ph.D,  
Editor of the Journal  
Professor of Biology  
Lafayette College  
Easton PA 18042  
Ph: (610) 330 5464; Fax: (610) 330 5705  
E-Mail: [majumdas@lafayette.edu](mailto:majumdas@lafayette.edu)

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## PAS HIGH SCHOOL STUDENT RESEARCH GRANTS

The PAS has funds to provide modest financial support, not in excess of \$100, for student research projects. Students working on projects in the Natural or Physical Sciences under the direction of PAS member scientists at high schools, colleges, or in industry may submit an application for support.

### Proposal Guidelines:

1. Funds are to be used primarily for supplies; secondarily, for small pieces of equipment if essential.
2. Funds are not to be used for major pieces of equipment, student stipends, travel, etc.
3. Proposals are encouraged that involve groups of students working together on a project.
4. Students are encouraged to present their findings at the next meeting of the Pennsylvania Junior Academy of Science (PJAS).

### Proposal Requirements:

1. A title page with project title, name and grade of the student; sponsor name (PAS member); school name, address and phone number; characterization of school location (urban, suburban, or rural). The title page should also include the total amount requested (not to exceed \$100) and the signatures of student and sponsor.
2. A short summary of the project, including pertinent background information, a statement of the hypothesis, a description of the planned experiments, and a statement of the expected results.
3. Budget, including a statement of how the money will be used and a statement of the time frame during which the project will be performed.

### Proposal Deadlines:

March 30 and November 15. Proposals received after a deadline will be reviewed during the following period. Send completed proposals or requests for further information to:

Dr. Jane F. Cavender  
Chairperson, PAS Research Grant Committee  
Department of Biology  
Elizabethtown College  
Elizabethtown, PA 17022-2298.

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Information on various research grants can be found on the PAS web site at <http://www.pitt.edu/~aap/pas.htm>

## MANUSCRIPTS SOLICITED FOR *THE PENNSYLVANIA GEOGRAPHER*

The editors of *The Pennsylvania Geographer*, a peer reviewed, semi-annual journal of the Pennsylvania Geographical Society, are soliciting manuscripts for the Fall/Winter 2004 edition. The journal is in its 42<sup>nd</sup> consecutive year of publication. The general topic for this edition of the journal is: APPLIED GEOGRAPHY. Papers dealing with the above theme, or any other geographical topics, will be considered for publication. Please send manuscripts and/or inquiries to Dr. William B. Kory, Editor, or Dr. Gregory Faiers, Associate Editor, *The Pennsylvania Geographer*, Geography Department, University of Pittsburgh at Johnstown, Johnstown, PA 15904. Phone: (814) 269-2994; 2993 or 2990. E-mail: [koryupj@pitt.edu](mailto:koryupj@pitt.edu)

<u>Issue Deadline</u>	<u>Featured Topic</u>	<u>Submission</u>
Spring/ Summer 2005	Climate in Arid Lands	15 Feb. 2005
Fall/ Winter 2005	Environmental Hazards	15 Aug. 2005
Spring/ Summer 2006	Ecotourism	15 Feb. 2006
Fall/ Winter 2006	Geography and Terrorism	15 Aug. 2006

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## SCHOLARSHIP & AWARD OPPORTUNITIES

### Spencer Foundation Major Research Grants Program

The grants program is intended for research projects requiring more than \$35,000 in grant support. Awards of up to \$35,000 are made. Inquiries and preliminary proposals are accepted at any time. The principal investigator must have an earned doctorate in an academic discipline or a professional field and must be affiliated with a college, university, research facility, or cultural institution. The foundation supports research that promises to contribute new knowledge to the improvement of education, broadly conceived, in the U.S. and abroad. A variety of disciplinary and interdisciplinary approaches are favored, though emphasis is given by charter to the behavioral sciences. The foundation is interested as well in the related research areas of cultural knowledge, socialization, and the production and distribution of knowledge. Research may range from medium-sized studies that can be completed in a year by an individual researcher to more extensive collaborative studies that last several years. Grants are not made to maintain organizations or infrastructures of educational research. Additional information can be found on the Web at <http://www.spencer.org/proginfo.htm>. For further information, contact: John B. Williams, Vice-President, Spencer Foundation, 900 North Michigan Avenue, Suite 2800, Chicago, IL 60611-1542.

## LEARNED DISCOURSES (TIMELY SCIENTIFIC OPINIONS)

**Intent.** **Learned Discourses** provide a forum for open discussion by and for PAS members. These articles will reflect the professional opinions of the authors regarding scientific issues. They will not represent PAS positions or policies. And, although they are subject to editorial review for clarity, consistency, and brevity, these articles will not be peer reviewed. Learned Discourses' success depends on our contributors. We encourage submissions that are timely and will inform and stimulate discussion. If you disagree with an opinion expressed here, submit a reply.

**Rules.** All submissions must be succinct: no longer than 1,000 words, no more than 6 references, and at most one table or figure. Reference format must follow that of the Journal of the Pennsylvania Academy of Science. Topics may fall within any area of science.

**Submissions.** Send submissions as e-mail attachments (Word), to Richard Stewart ([rlstew@ship.edu](mailto:rlstew@ship.edu)). Submissions will be printed on a first-received basis when space limitations apply.

### *Learned Discourses* Editors

Richard Stewart and Pablo Delis  
 Department of Biology  
 Shippensburg University, Shippensburg, PA 17257

## PENNSYLVANIA SOCIETY FOR BIOMEDICAL RESEARCH

The Pennsylvania Society for Biomedical Research (PSBR) is a 501(c)(3) non-profit science education organization which was founded in 1990 and became operational in 1991.

The society was formed by universities, medical schools, pharmaceutical firms and professional societies in Pennsylvania. Current members and supporters include many of the Commonwealth's leading biomedical research and educational institutions, professional societies, and hospitals.

Our mission is to foster a better understanding of the benefits of biomedical research and the vital role it plays in improving the quality of human and animal health and expanding our economy.

The society is governed by a board of directors elected from its membership. The board meets three times a year, usually at a member organization. PSBR's annual meeting provides an opportunity for participants to be briefed of the status and activities of PSBR and to discuss important issues.

The PSBR strongly supports the continued role of animals in research when no reliable alternative exists.

### ***Our goals include:***

1. Develop PSBR as a resource for pertinent facts about the indispensable use of animals in biomedical research.
2. Serve as a credible resource for the general public, educators, students, legislators and member organizations.
3. Responsibly manage our resources to enhance an environment which supports biomedical endeavors to improve human and animal health.

PSBR seeks to meet its goals through the following programs in cooperation with our member organizations:

#### **1. PSBR Information**

- Publish PSBR Bulletin, a newsletter which documents items of interest to the biomedical research community
- Maintain a PSBR home page and web site on the Internet (<http://www.psbr.org>)
- Maintain a database and resource library of biomedical research information.

#### **2. Educational Programs**

- Conduct contests for students on topics related to animals in research
- Provide information for teachers through workshops and training programs
- Provide educational materials and speakers to elementary, secondary and college classrooms
- Provide reference materials on biomedical research to school and public libraries
- Exhibit materials at scientific and educational conferences
- Develop and maintain a hands-on exhibit about animals in research
- Coordinate all PSBR programs with the Pennsylvania Department of Education

#### **3. Membership support – Public Relations/media**

- Media/speaker training
- Assistance in crisis management planning
- Provide resources and information to members dealing with requests from the media and animal rights organizations
- Contribute editorials and press releases on items of interest to biomedical research
- Enlist the governor to proclaim October 21 as Biomedical Research Day, Pennsylvania

#### **4. Staff Orientation and Information**

- Assist animal care staff in explaining their contribution to biomedical research
- Enlist member personnel to participate in PSBR educational programs

#### **5. National Cooperation**

- Network with other state biomedical research organizations, and with national organizations in order to maximize effectiveness through information exchange and development of cooperative projects and programs

#### **6. Animal Rights Movement**

- Maintain a current knowledge of the animal rights movement by review of animal activist publications, web sites and information hotlines
- Cooperate with national and other state biomedical research organizations
- Seek opportunities to counter negative representations about biomedical research

#### **7. Legislation and Government Relations**

- Monitor and review newly introduced legislation for impact on biomedical research
- Provide information on key issues to legislators
- Keep members informed of the status of important legislation

*For further information  
contact:*

PSBR  
Post Office Box 1163  
Camp Hill, PA 17001-1163  
Ph: (717) 731-3557  
Fax: (717) 731-3506  
E-mail: [psbr@psbr.org](mailto:psbr@psbr.org)

# PENNSYLVANIA ACADEMY OF SCIENCE-APPLICATION FOR MEMBERSHIP

Date: \_\_\_\_ / \_\_\_\_ / \_\_\_\_

Last Name: \_\_\_\_\_ First Name: \_\_\_\_\_ Middle Name or Initial: \_\_\_\_\_

Complete Mailing Address: \_\_\_\_\_ City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Institution: \_\_\_\_\_ E-mail: \_\_\_\_\_

Office Phone: (\_\_\_\_) \_\_\_\_\_ Home Phone: (\_\_\_\_) \_\_\_\_\_ Fax: (\_\_\_\_) \_\_\_\_\_

Branch of Science Main Interest: \_\_\_\_\_

(Biology, Zoology, Botany, Physiology, Chemistry, Physics, Engineering, Spectroscopy, Biochemistry, Psychology, Medicine, Mathematics, Geology, Geography, etc.)

Degrees: \_\_\_\_\_ Title: \_\_\_\_\_

Where did you learn about PAS? \_\_\_\_\_

Member of AAAS? ☐ Yes PSTA ☐ Yes PASA ☐ Yes PA Chapter Wildlife Society ☐ YesSociety of College Science Teachers ☐ Yes PA Biological Survey ☐ Yes PA Assoc of Environmental Professionals ☐ YesComm of PA Univ Biologists ☐ Yes MidAtlantic Assoc College Biologists ☐ Yes☐ Active Member - \$ 35.00 per year ☐ Student Member - \$17.50 per year ☐ Sustaining Member - \$35.00 or more per year☐ Life Member - \$525.00 (*can pay in installments*) ☐ Non-profit Institution/Library Member - \$45.00 per year☐ For-profit Institution/Library Member - \$150.00 per year☐ Back Issue of *Journal* - \$15.00 each (List desired issue) \_\_\_\_\_ ☐ Contribution to PAS \_\_\_\_\_Please return this application and first year's membership dues, made payable to the **Pennsylvania Academy of Science**, to:**Dr. Valerie G. Kalter, Membership Chairperson, Biology Department, Wilkes University, Wilkes-Barre, PA 18766.****(570) 408-4752 or e-mail: [vkalter@wilkes.edu](mailto:vkalter@wilkes.edu)**

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**Discounts on orders of 10 or more copies of a single title.***This book order form, together with the appropriate payment made payable to The Pennsylvania Academy of Science, should be sent to: Dr. Shyamal Majumdar, Department of Biology, Lafayette College, Easton, PA 18042.*

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