



# NEWSLETTER

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Editor: Thomas P. Coohill, Depts. of Biology and Physics,  
Western Kentucky University, Bowling Green, KY 42101 tel.: (502)745-3697

No. 79 May 1984

ASP - Newsletter

FROM AN ARTICLE "FACILITATING SCIENTISTS AND ENGINEERS COMMUNICATION TO CONGRESS"

by Nancy Lindas (December 1983) Submitted by R. Rahn, Congressional Science Fellow

A summary of advice to facilitate communication from scientists and engineers to Congresspersons, based on interviews with Congressional Fellows.

- Do not rely on communication experiences within your own profession as a guide to facilitate communication with professional legislators.
- "The scientists who are effective politically are those who can take a global vision, and can take a piece of information and format it so that it can be used by the politician."
- "You have to learn the rules of the political world in order to change it."
- "You can't have a scientist talk to a politician." The scientist must learn about politics in order to communicate clearly.
- "Everything that goes to Congress that's effective has to be tailored for Congressional use. And that means it has to be simplified, and it has to be relevant to the types of decisions that Congresspeople make."
- You can't understand your audience without respecting the wheeling and dealing skills of Congresspersons.
- To gain Congressional attention, link the issue to as many people as possible and/or to the member's home district.
- Use lay language not jargon.
- Use analogies or metaphors to avoid technical terms; paraphrase.
- Aim to communicate about a high school level description of scientific and technical processes.
- Words are preferred by Congresspersons to numbers, and oral to visual presentations.
- Simplify; do not fear oversimplification.
- Communicate in headlines. Tell the Congressperson the answer.
- Don't confuse a Congressperson with the science, just give him or her the facts, i.e., the outcome.
- Skip the details. Give trends and relationships, not uninterpreted numbers.
- Put the conclusion first; do not derive it from first principles.
- Fit your conclusions into a coherent framework showing how they lead to specific effects.
- Provide persuasive arguments for the Congressperson to give to his or her constituents.
- Choose members with interest in or jurisdiction over the issue to communicate with.
- It is more effective to inform those who lean toward your side than those who do not.
- Advocacy of a point of view may be more credible to members of Congress than objectivity.

Observe the status distance between the expert and the elected official. Don't be a know-it-all.

Observe the rule that the purpose of the expert is to inform and advise, but the purpose of the Congressperson is to make and implement decisions.

Don't waste a member's time with information he or she can't use.

Initiate communication with Congresspersons before the issue comes up on the Congressional agenda.

Initiate communication with Congresspersons when the scientific or technical information can make a significant impact on the decision.

A scientific or technical society should not initiate communication on issues in which it has a vested interest or on which the scientific community has not reached consensus. To do so lowers the credibility of the scientific and technical community.

Recognize that, while technology or science may have caused the problem, they are not enough to solve it.

Communicate research results in a timely fashion even if the results are rough. They can be polished by the time the issue comes up in Congress again.

Scientific and Congressional laws are constantly being replaced by newer laws which better reflect the political or scientific understanding of the times.

Realize that values are inseparable from facts in public policymaking and that public values are likely to be more important in determining the outcome than scientific or technological facts.

Acknowledge your biases.

Acknowledge the limitations of your own or others' expertise.

Do communicate. Do not keep silent when you have a contribution to make.

Congresspersons passively accept rather than actively seek information. Scientists and engineers must initiate communication in order to be sure of being heard.

#### Guidelines Specifically for AAAS Science and Engineering Fellows

"In selecting AAAS Fellows, judge on their integrity (and) ability to communicate, not their knowledge in a specialty discipline."

"The Fellow's job is to translate science and technology into public policy."

Previous participation in politics, and public speaking or teaching experience give a Fellow a background from which to understand and communicate to Congress.

Public policy analysis instruction provides a good perspective for new Fellows.

"I think you spend the whole year as a Congressional Fellow losing all your prejudices and all your stereotypes about the way this place (Congress) operates."

"I assumed that I (as a Fellow) am an ambassador from science to the Hill to make Congressional people a little bit more comfortable working with scientists. But I think it's probably more important in reverse...Go back into science and say, Look you guys, you can make an impact! You have to stop thinking that your research is in a vacuum; it has social implications!"

Continue this valuable program because it facilitates two way communication between scientists and engineers and Congresspersons.

#### POSTDOCTORAL POSITIONS OPEN

Mutagenesis and Gene Analysis - Postdoctoral positions (2) starting within the 1984-85 academic year at \$16-18,000 per annum. For individuals experienced in bacterial genetics and/or genetic engineering, to develop studies of mutagenesis in E. coli at the seven-tRNA operon including the sites for suppressor mutations in glutamine tRNA genes. Broadly we are concerned about specific functions in UV mutagenesis and the role of gene conformation where numerous inverted repeats occur in the target DNA sequence. Call Rick Bockrath at 317/264-2235 or send inquiry and curriculum vitae, Department of Microbiology and Immunology, Indiana University School of Medicine, 635 Barnhill Drive, Indianapolis, IN 46223.

Bioenergetics and Electron Carriers - The Applied Science Division of Lawrence Berkeley Laboratory is seeking a recent Ph.D. graduate to assist the Photochemical Conversion group with low temperature electron paramagnetic studies on the pathways of electron transport in cyanobacteria. The research will involve identification of electron carriers involved in H<sub>2</sub> production and measurement of bioenergetic parameters using electrode and ESR methodology.

Background and experience in the bioenergetics of photosynthesis and, in particular, cyanobacterial studies required. Knowledge of pathways of electron transport and energy, nitrogen and hydrogen metabolism, and research methodology of pathways of electron transport utilizing spectrophotometric and electron paramagnetic resonance techniques is essential. Demonstrated ability in this area includes prior training and publications. Interested applicants should send resume and publications list to:

Ron Lowder, Lawrence Berkeley Laboratory, Employment Office, 90-1012, Berkeley, CA 94720.

Please refer to: Job A/2791

IMPORTANT NOTICE

NINTH INTERNATIONAL CONGRESS ON PHOTOBIOLOGY

SPECIAL SESSION -- WORKS-IN-PROGRESS POSTER SESSION

On Thursday, July 5th, from 7:30 - 9:30 pm, there will be a **SPECIAL WORKS-IN-PROGRESS POSTER SESSION**. The Scientific Program Committee is now soliciting **TITLES** from those persons interested in participating in this session. The purpose of this Special Session is to offer you an opportunity to present data that was not available in time to submit a regular abstract, or to present data on experiments just now being done that you think is significant and exciting.

An abstract is **NOT** required. Instead, please complete the bottom portion of this sheet. This must be **COMPLETELY** filled out, with the **TITLE** of the proposed presentation, all **AUTHORS** and all **ADDRESSES** of authors. Return this completed form to: **NINTH INTERNATIONAL CONGRESS ON PHOTOBIOLOGY, c/o American Society for Photobiology, 1340 Old Chain Bridge Road, Suite 300, McLean, VA 22101, by not later than Friday, 15 June 1984.**

Please note that each poster should **INCLUDE A HEADING** (title and authors), using lettering at least 25 mm (1") high. The material in the body of the poster should be legible at 1 m (1 yard), and lettering should therefore be heavy and at least 10 mm (3/8") high. **AN ABSTRACT SHOULD BE PREPARED AND SHOULD BE A PART OF THE POSTER PRESENTATION.**

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TITLE OF WORKS-IN-PROGRESS ABSTRACT: \_\_\_\_\_  
\_\_\_\_\_

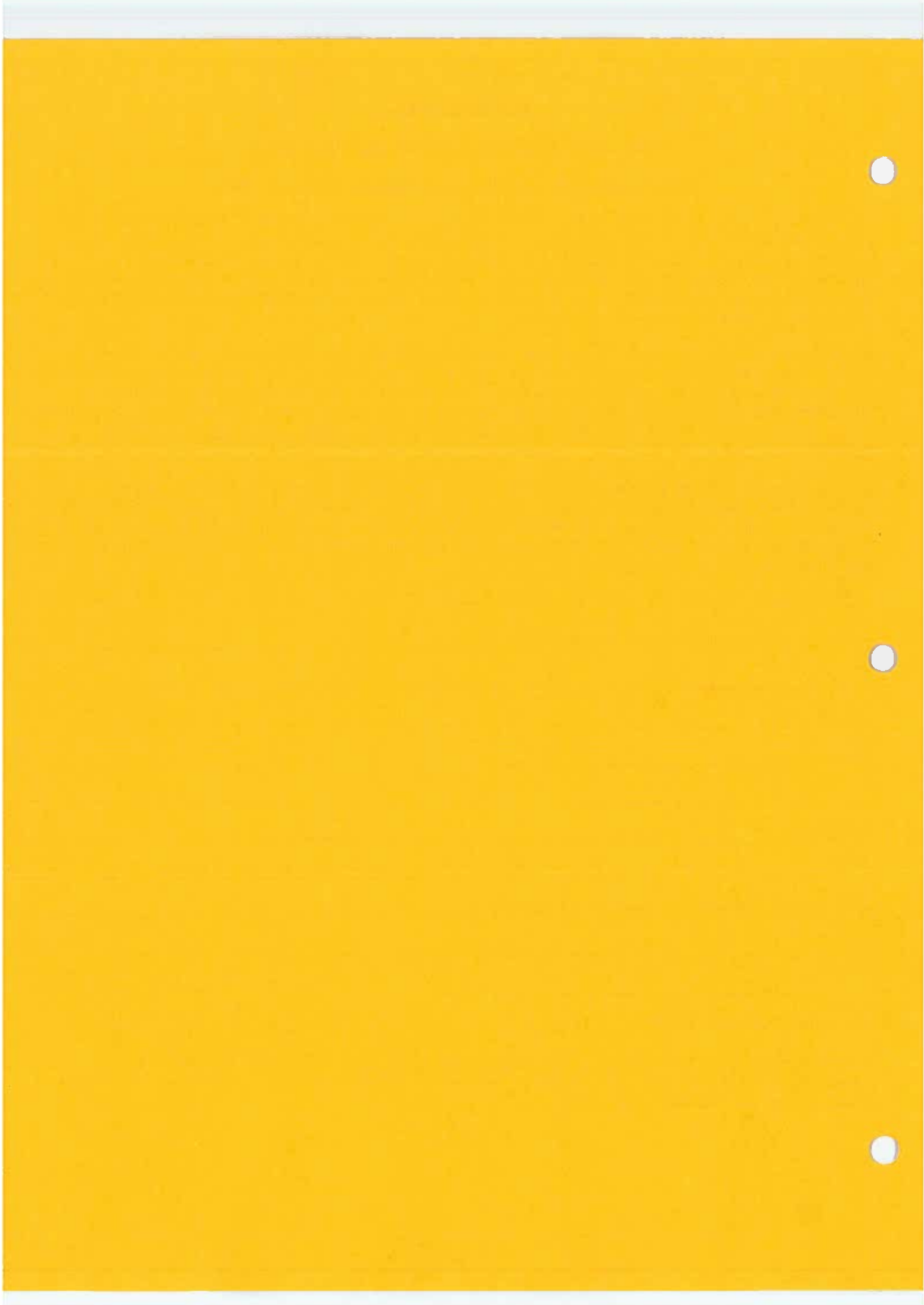
AUTHORS: \_\_\_\_\_  
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ADDRESSES: \_\_\_\_\_  
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FULL NAME & ADDRESS OF PRESENTING AUTHOR: \_\_\_\_\_  
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DAY TIME TELEPHONE NUMBER: ( \_\_\_\_\_ ) \_\_\_\_\_

PLEASE RETURN THIS FORM BY NO LATER THAN FRIDAY, 15 JUNE TO: **NINTH INTERNATIONAL CONGRESS ON PHOTOBIOLOGY, c/o American Society for Photobiology, 1340 Old Chain Bridge Road, Suite 300, McLean, VA 22101.**



## BOOKS

Optical Properties of Human Epidermis. 1984. W. A. G. Bruls. Anth. Matheuslaan 13, 3515 AN Utrecht, The Netherlands.

Biophysical Plant Physiology and Ecology. 1983. Park S. Nobel. 608 pp. \$34.95. W. H. Freeman and Co., Publishers, 41 Madison Avenue, New York, NY 10010.

C<sub>3</sub>, C<sub>4</sub>: Mechanisms and Cellular and Environmental Regulation of Photosynthesis. 1983. G. Edwards and D. A. Walker. 542 pp. Blackwell's Scientific Publications. Marketed by: University of California Press, Berkeley, CA 94720.

Photomorphogenesis. 1983. W. Shropshire, Jr. and H. Mohr, eds., 832 pp., \$145.50. Springer-Verlag New York, Inc., 175 Fifth Avenue, New York, NY 10010.

## COUNCIL NEWS

### Sigma Xi Lecturers

1984-85 - Howard H. Seliger, Biology Department, The Johns Hopkins University, Baltimore, MD 21218.

Topic - Optimization of Vision and Bioluminescence in Fireflies. Plankton Transport Mechanisms in an Estuary.

As the inaugural lecturer in the new ASP-Sigma Xi program, the American Society for Photobiology has nominated its President in 1980-81. Dr. Seliger was educated at the City College of New York, Purdue University, and the University of Maryland (Ph.D. 1954). He was a supervisory physicist at the National Bureau of Standards 1948-62; he has taught at Johns Hopkins since 1962. His research involves the physical and biological action of light, bioluminescence, and phytoplankton ecology.

1985-86 - The Grants Committee and the Executive Committee have both approved a selection of Dr. James W. Longworth to be the 1985 Sigma Xi Lecturer. Dr. Longworth would talk about the use of lasers in photobiology.

### New Committee

The Executive Committee has appointed Dr. John Epstein as the Chairman of a new Committee on Public Relations. Other members of the committee will be Fred Urbach and Thomas Coohill (ex-officio). Dr. Epstein may select one or two other members of the committee if he so desires. Appointment of the full committee should be approved at the July Council Meeting. In the meantime, the committee will begin functioning as if it had approval, since it is necessary for it to do some work with respect to the Philadelphia Congress.

The charge of the Committee on Public Relations is "to carry out the usual functions of transmitting information to the public about photobiology and ASP activities". In contrast, the Handbook indicates that the Public Affairs Committee "has the responsibility of identifying issues of public importance in which the discipline of photobiology is or may become a significant factor". Thus the Public Relations Committee is concerned with publicity for ASP, while the Public Affairs Committee is concerned with scientific matters of public importance.

Members with information of a public relations nature should contact Dr. Epstein at 450 Sutter Street, #1306, San Francisco, CA 94108. Phone (415)781-4083.

### Future Meeting Sites - ASP

The 1985 Meeting is already scheduled for New Orleans. For 1986, three sites are still under consideration - Flagstaff, AZ; Asilomar, CA; and Ventura, CA, in that order of preference. The 1987 Meeting is recommended to be east of the Mississippi and south of Philadelphia. Some preliminary suggestions are Sarasota, FL and Puerto Rico. Since 1988 is an International Congress year, the ASP Annual Meeting will be in the winter. The Broadmoor in Colorado Springs is a suggested site.

## WORKSHOP

The Society for Industrial Microbiology will offer a two-day intensive workshop on "Plasmids in Biotechnology: Isolation and Applications" on 11-12 August 1984, at Colorado State University in Fort Collins, preceding the SIM Annual Meeting. The workshop is being organized by Dr. George A. Somkuti (Eastern Regional Research Center-USDA, Philadelphia, PA - phone: 215/233-6474). The teaching faculty, Drs. B. Chassy (NIH) D. Cork (Illinois Institute of Technology), P. Evans (Purdue University), K. Kasweck (Florida Institute of Technology), G. Pierce (Battelle Memorial Institute), and George Somkuti (ERRC), will conduct procedures on plasmid isolation from different sources, electrophoretic analysis, cloning with plasmid vectors, and nick translation and hybridization procedures. Registration is limited to 80 participants. For additional information and registration forms, contact: Ann Kulback, SIM, c/o AIBS, 1401 Wilson Boulevard, Arlington, VA 22209. Phone: 703/256-0337.

## NATO ADVANCED STUDY INSTITUTE

Sensory Perception and Transduction in Aneural Organisms - An advanced study institute sponsored by the NATO Scientific Affairs Division with contributions from Cassa di Risparmio di Volterra and Istituto di Biofisica C.N.R. - Pisa is to be held at Volterra (Pisa, Italy) September 3-14, 1984.

Director - Giuliano Colombetti (Pisa, I)

Co-Director - Francesco Lenci (Pisa, I)

Scientific Committee - Donat P. Hader (Marburg/Lahn, FRG)

Pill-Soon Song (Lubbock, TX, USA)

The course will start with introductory lectures aimed to give the students a general view of the field of sensory responses in aneural organisms. A series of lectures will follow dealing with excitable membranes, mechanoreponses, chemosensing, phototropism, primary photoreactions, photobehaviors, photomorphogenesis, chloroplast movement, computer utilization in mathematical modelling and microspectroscopy. The tutorial activity will include panel discussions and seminars. Invited lecturers include: P. A. Benedetti (Pisa, I), H. C. Berg (Pasadena, USA), W. R. Briggs (Stanford, USA), M. Chabre (Grenoble, F), G. Colombetti (Pisa, I), B. Diehn (Ann Arbor, USA), M. E. Feinleib (Medford, USA), D. P. Haeder (Marburg/Lahn, FRG), W. Haupt (Erlangen, FRG), E. Hildebrand (Julich, FRG), F. Lenci (Pisa, I), H. Machemer (Bochum, FRG), R. M. McNab (New Haven, USA), Y. Naitoh (Ibaraki, J), W. Nultsch (Marburg/Lahn, FRG), K. L. Poff (East Lansing, USA), V. E. A. Russo (West Berlin), W. Shropshire, Jr. (Rockville, USA), P-S. Song (Lubbock, USA), J. L. Spudich (Bronx, USA), T. G. Truscott (Paisley, UK), G. Wagner (Giessen, FRG).

The number of students of the A.S.I. will be limited to approximately 50. Board and lodging expenses will amount to 330 US Dollars. All accepted students will receive a contribution of 150 US Dollars from the A.S.I. A few travel grants might be available.

Applications, accompanied by a curriculum vitae and a list of publications, must be sent to the Director of the A.S.I., Dr. Giuliano Colombetti, Istituto di Biofisica del C.N.R., via San Lorenzo 26, 56100 PISA (Italy) tel. 050/501.501. Deadline for applications is May 1, 1984. Applications arriving after this date will not be considered.

## MEETING

1985 Oct. 27- Nov. 2 First International Congress of Plant Molecular Biology, Savannah, Georgia.  
Contact: Congress Secretary, 1st ICPMB, The Georgia Center, Athens, GA 30602. Preliminary Notice.

## **AMERICAN SOCIETY FOR PHOTOBIOLOGY**

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