



NEWSLETTER

Published by the American Society for Photobiology
8000 Westpark Drive, Suite 400 • McLean, Virginia 22102 • (703) 790-1745

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• • • • No. 113 Feb/Mar 1988 • • • •

SUSTAINING MEMBERS

Why Do Companies Join ASP?

Individuals generally have good reasons for ASP membership, but why do companies join? Obviously there must be substantial benefits since Avon Products, Dermalight Systems, Estee Lauder Inc., Oriel Corp., Ortho Pharmaceutical Corp., Proctor & Gamble Co., Therakos, Westwood Pharmaceuticals, and VanDyke & Co. have all recently joined. What kind of companies are these and what benefits do they see in membership? For an answer we turned to Robert Sayre, Chair of the ASP Membership Committee. It has been largely as a result of Bob's efforts that our sustaining membership has grown so dramatically.

The companies that become sustaining members have varied business interests, but share an interest in photobiology. Many times they employ photobiologists, or are actively involved in photobiological research. Frequently a company finds that a number of their employees are Society members. Manufacturers of equipment used by photobiologists, such as the Solar Light Co., have traditionally become corporate members, as well as cosmetic and photodermatology companies like Schering-Plough Corp. Testing labs and companies that have a special relationship with the Society, such as Pergamon, publisher of P & P, are also included among our corporate sponsors.

What is the motivation for a company to become a sustaining member of ASP? The reasons, of course, are varied. In addition to philanthropic intent, the success of ASP is important to the self-interests of many corporations. For example the Society serves as a reservoir of qualified photobiologists. When a company finds that its employees are Society members it comes to view the Society as a source of bright, prospective new employees. The annual meetings are an excellent place to develop contacts with scientists at the cutting edge of the various sub-specialties of photobiology, contacts which can serve as the basis to identify the best qualified consultants. Companies that find themselves involved in photobiological research have an interest in seeing the field of photobiology prosper because they realize that new breakthroughs are catalyzed by the interaction of scientists

working on similar problems. The solution to a research problem faced by a company may be facilitated because the ASP and its annual meeting were there as a forum for discussion.

The Society's annual meeting can indeed serve as a discussion forum in a very real sense. Like individual members, sustaining members can suggest topics for workshops, symposia, and courses. The program chair of the annual meeting is always looking for new ideas for these and is happy to entertain suggestions from our sustaining members. Encouraging involvement of sustaining members in Society affairs, in general, is a concern of the Council, and was a topic of discussion at the most recent fall meeting.

Where will our future sustaining members come from? As Bob notes, to discover future sustaining members, "We need to identify companies with a long-standing interest in photobiology." In addition to the traditional areas already mentioned, he sees fields in which photobiology is, or will be, important that are currently under-represented. Agriculture and aquaculture are two of these fields. Recruitment of new sustaining members in these, or any, areas is quite often facilitated by individual members who deal with such companies. Ask your corporate contacts if they would consider a sustaining membership in ASP. Then contact Bob. He'll do the rest.

BROADMOOR MEETING NOTICE

It is assumed that all designated presenters will be in attendance at their scheduled time. If, due to unforeseen circumstances, you cannot make a scheduled presentation, please notify your session chairperson or a member of the program committee as soon as possible.

THE GUIDING LIGHT
From the President's Desk

Dear members,

This is my concluding "President's Column". Chris Foote will assume the position of ASP President during the Annual Meeting in Colorado Springs and I wish him every success. As a charter member of ASP, this occasion has led me to reflect about the significant effect the Society had on my professional career. In retrospect, I observed that the thrust of my research activities during the past decade was strongly influenced by exciting new developments in photobiology which I learned about by regularly attending the Annual Meetings. For example, research in my laboratory on photosensitization by psoralens and porphyrins was motivated by the emphasis on PUVA and PDT phototherapies at ASP meetings and in the Journal. These new areas are attractive also to graduate students and post-doctoral associates for research projects because of their employment potential. ASP participation has kept me abreast of developments in the diverse areas of photobiology which, surprisingly often, are relevant to one's own work. This was definitely the case for tissue optics, whose implications for photosensitization are being investigated by research groups in several countries. I should like to make two suggestions. The active participation of additional members in Society affairs is most welcome. If you are interested in serving on a working committee please contact any councilor or officer. Finally, those of you who regularly read the Journal and seldom attend the Annual Meetings are missing a golden opportunity to follow the most recent advances as they develop and meet the scientists involved. After Colorado Springs, we will meet in Boston over July 4, 1989. I hope to see you there.

- Len Grossweiner

SOCIETY HIGHLIGHTS

The election results are now in and the ASP has a brand new slate of officers for the coming year. Council was quite pleased with the individuals nominated. The sentiment expressed at the fall Council Meeting was that all of the candidates were well qualified and that the Society would win no matter who was elected. The new Councilors, who will take office at the Annual Meeting in Colorado Springs are the following.

**John Hearst
Margaret Kripke
Roy Pottier
Michael Wasielewski**

Our president-elect is

Thomas P. Coohill.

Congratulations, and good luck in your coming years in office.

Election Results and More

Fred Urbach, Chairman of the Public Affairs Committee, reports that Stan Rupert has been selected as the next Sigma Xi lecturer for ASP, succeeding Kendrick Smith. In other activities the Committee reviewed a poster on the hazards of tanning which the ASP was asked to endorse. As a result of the Committee's recommendation, Council decided that ASP would not allow its name to be used in connection with the poster.

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The Society is optimistic that it will be able to provide some degree of travel assistance for students to attend the International Photobiology Meeting in Jerusalem this fall. The exact status of these grants and the possibility of assistance for regular members awaits the outcome of several travel grant proposals the Society has submitted. We'll keep you posted.

SIDELIGHTS

The More, The Merrier

The membership ranks continue to grow. We welcome the following new members to our Society. They have become members in the Oct to Feb period.

Full Members

William E. Acree, Jr.
Frank J. Akin
Uma Bai
May R. Berenbaum
Marvin C. Brummel
Mary R. Buchness
Kim S. Dammers
Anny Marie Fourtanier
G. Frank Gerberick
Varda Gouffied
Rosemarie F. Hartman
Niels-Henrik Jenson
Lawrence W. Johnson
Byoung-Deuk Jun
Atsuko Kadoya
John Katzenellenbogen
Jean T. Krutmann
Jerome Lavergne
Nicholas Leventis
Donald J. Levine
Chi-Wei Line
Frederick P. McIntyre

Elsa Melloni
Koichi Nakagawa
Katsuichi Nakamura
William C. Neely
Jens Overgaard
Nicholas J. Pelliccione
Rafael Picorel
Kevin J. Renskers
Jae-Seong Rhee
David W. Rogers
Ionel Rosenthal
Leo Francis Salter
Gwendolyn Sancar
Anil Kumar Singh
Jose Pinto de Siqueira, Jr.
T. S. Srivastava
Willem M. Star
Catherine L. Tanser
Elisabeth N. Vocks

Students

Gary J. Bachowski
Catherine F. Borland

David T. Croke
Stephen J. Foster
Yoshiya Furusaw
Randall L. Heald
Kellie Hom
Tamara A. Hrynko
Laura J. Juszczak
Jae-Ho Kim
Keywan Lee
Sylvie Lemieux
John Francis Marshall
Gaston Mercier
Luc Morin
Benoit Paquette
Patricia E. Paterson
Ray Reba
Christopher A. Rhodes
Guy Samson
Munna Sarkar
Johanne Scott
Abha Sharma
Noriko Usami
Marnix Van Gurp
Nozomi Ytow

In the Beginning, there was light...

With the ASP healthy and active, and P&P a large and respected journal, photobiology appears to have "arrived". But one may wonder how things got going. Our Newsletter editor, Dennis Valenzano, has asked me, as ASP historian, to write a few short columns on the "origins" of ASP.

I could deal with how the Society got started, but this has been meticulously and very interestingly described by Ken Smith in his "History of the ASP" (P&P 35, 597). I recommend this article to all Society members: it's good reading.

Instead, I present some personal musings on the origins and development of photobiology, and where we, the ASP, fit into the picture. In this first of three parts, I deal with studies of light before photobiology became an organized subject.

We, of course, did not invent photobiology. In the fifth century B.C., Empedocles proposed that all objects emit effluvia or images of themselves. These tenuous, but quite material, effluvia, if they are the right shape and size, he said, would fit into appropriate pores of the sense organs, and be perceived by them. Substitute photons for effluvia, wavelength for shape, and chromophore for pore, and we have a theory of vision that is quite familiar. This is a good example of how the Greeks, through pure reason, were often able to develop remarkably accurate views of nature (e.g. the atomic theory of Democritus).

Other Greeks who studied light included Empedocles' contemporary, Anaxagoras who was banished from Athens for holding that the Sun was a red-hot stone and the Moon simply "earth"! We all know how Archimedes played with lenses; Ptolemy gave, in degrees, relative values of angles of incidence and refraction for air-water, air-glass, and water-glass interfaces. The most spectacular use of light in the ancient world was the calculation of the Earth's circumference by Eratosthenes (~ 200 B.C.) by observing that the Sun was reflected from water in a deep well in Aswan (and therefore directly overhead) at the same time that it was 7.5 degrees from the zenith at Alexandria, some 500 miles farther north.

Little more happened until after the Renaissance, when Newton and others propounded serious, and experimentally verifiable, theories of light and of light perception. Around 1800, UV and IR light were discovered, as well as the role of light in the "freshening of air" by plants. Chlorophyll was named. By the end of the last century, action spectra had identified chlorophyll as the chromophore for photosynthesis, UV had been found to kill bacteria, and the Dane, Niels Finsen (for whom our AIP medals are named) began his famous use of UV in the treatment of skin diseases. Many people date photobiology as a discipline from about that time, making us only 100 years old.

A veritable upstart!

—John Jagger
ASP Historian

Frederick Urbach

It is fitting that the last of our four new council members to be profiled in this space is the senior member of the group, Fred Urbach. Last Year Fred was appointed to serve the remaining year of the term vacated when David Kessel became treasurer. Thus at this writing he is about to retire from the Council for the second time. A founding member of the Society, he was also a Councilor from 1973 to 1976 and held the office of President in 1977. He has also been a member of the U. S. National Committee for Photobiology (1973-82) and has served as Vice-President (1976-80) and President (1980-84) of the Association Internationale de Photobiologie.



Few, who have met Fred, can fail to be engaged by his gregarious personality. Born in Vienna, Austria on September 6, 1922 he earned his A.B. *cum laude* from the University of Pennsylvania (1943), and his M.D. from Jefferson Medical College (1946). Following a fellowship in dermatology at the University of Pennsylvania (1949-52) which culminated in his Certification in Dermatology (1953), he held appointments in physiology or dermatology at Roswell Park, the University of Buffalo, and Temple University. Since 1967 he has been Professor and Chairman of Dermatology. For the past eleven years he has also been Director of the Center for Photobiology at the Skin and Cancer Hospital in Philadelphia.

Fred's research interests include experimental photocarcinogenesis, epidemiology of human skin cancer, and action spectra of skin erythema and photocarcinogenesis. His publications exceed 170, including editorship of 4 monographs dealing with cutaneous photobiology.

Terms Ending for Committee Members

In the Aug/Sep Newsletter (#110) we published a partial listing of the Society's committee members. The remainder of that listing follows. All these individuals deserve our thanks for their efforts on our behalf during the past year.

NOMINATING

I. Kochevar - chair
D. Kessel
J. Spikes
F. Urbach

PROGRAM COMMITTEE

C. Foote - chair
All Council

PUBLIC AFFAIRS

F. Urbach - chair
E. DeFabo
N. Geacintov
R. Ley
M. Mathews-Roth

LONG RANGE

A. Lamola - chair
W. Briggs
G. Fehrer

PUBLICATIONS

M. Rodgers - chair
T. Coohill
I. Kochevar
M. Mathews-Roth
P. Song (ex officio)
D. Valzeno (ex officio)

REPRESENTATIVES

AIBS H. Seliger
NAS/NRC D. Kessel

PUBLIC RELATIONS

M. Pathak - chair
T. Coohill
T. Ito
D. Kessel
D. Valzeno (ex officio)

SASC PERFORMANCE

I. Kochevar - chair
C. Foote
L. Grossweiner
D. Kessel
P. Song

HISTORIAN

J. Jagger ('82-'87)

MEETING REPORT

New Directions in PDT

The International Society for Optical Engineering held a conference on "New Directions in Photodynamic Therapy" on Oct 28-29 in Cambridge, MA. It was chaired by Doug Neckers from Bowling Green State University. Thirty one platform talks and four posters were presented covering many aspects of the field. Anthony Russo introduced the conference by pointing out the quick response and specificity of photodynamic therapy relative to chemotherapy and ionizing radiation that are so toxic to the whole body. Highlights included reports of lipophilic cationic dyes that accumulate in mitochondria up to 10 times the extracellular concentration, driven by the mitochondrial and plasma membrane voltages. Other authors described porphyrins, prophyrin-like sensitizers with major absorbance bands that can be manipulated to lie almost anywhere in the red. Paul Schaap described an oxamine-rubrene chemiluminescent system that can be injected into tumors to generate light absorbed by photosensitizing porphyrins. Other speakers described synergism between photodynamic treatment and hyperthermia. In work describing *in situ* damage much tumor necrosis still seems to be associated with vascular damage. A second conference is projected for Sep 7-8, 1988.

- John Pooler

ERRATUM

The report on the NATO Advanced Study Institute on Photosensitization which appeared in the last Newsletter (#112) was written by Roy Pottier. Apologies to Roy for omitting his by-line.

Neckers Honored by BGSU

ASP member Douglas C. Neckers is the third winner of the Paul and Ruth Olscamp Research Award. The award is given annually to a member of the Bowling Green State University faculty for outstanding scholarly or creative accomplishments during the previous three-year period. Doug is the founder and executive director of the Center for Photochemical Sciences, the only institute of its kind for the study of chemical reactions caused by light.

Undergrad Science Awards

The Pittsburgh Conference on Analytical Chemistry and Applied Spectroscopy and its cosponsoring technical societies (the Spectroscopy Society of Pittsburgh and the Society for Analytical Chemists of Pittsburgh) have announced the 15th annual Pittsburgh Conference Memorial National College Grants Award Program. At least eight colleges will be awarded grants (\$2500 maximum) to purchase scientific equipment, teaching aids, and library materials for teaching science at the undergraduate level. Faculty members interested in obtaining an application should contact Richard S. Danchik, The Pittsburgh Conference, Inc., 12 Federal Drive, Suite 322, Pittsburgh, PA 15235. Applications are due by Apr 1, 1988; winners will be announced by May 1.

Announcements

Radiation Measurement in Photobiology
British Photobiology Society
March 25, 1988
The Royal Institution, London, U.K.

Contact: Dr. J. M. Boyle
Paterson Laboratories
Christie Hospital and Holt Radium Institute
Manchester M20 9BX, U.K.

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**195th ACS National Meeting
and
3rd Chemical Congress of North America**
June 5-10, 1988
Toronto, Quebec, Canada

Contact: Meeting Department
American Chemical Society
1155 16th Street NW
Washington, D.C. 20036

**Course on: Crosslinked Polymers: Chemistry,
Properties and Applications**
May 9-11, 1988
Hotel Thayer, West Point, New York

To acquaint scientists with the latest developments in the chemistry, processes, applications and fundamental principles unique to network polymers. Designed for scientists and engineers already involved in the formulation or use of thermosetting systems.

Contact: Dr. A.V. Patsis
Chemistry Department
State University of New York
New Paltz, New York 12561
Tel.: (914) 257-2175

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Photosensitization Workshop
1989 ASP Meeting
Details to follow.

New Titles



Phytochrome and Photoregulation in Plants
edited by M. Furuya
Academic Press Japan, Inc., 1987
\$55.00, 370 pp.

Photosynthesis, 1st Edition
by Jan Amesz
Elsevier Press, 1987
New Comprehensive Biochemistry, Vol. 15
\$90.75, 355 pp.

**Spectrophotometry and Spectrofluorimetry:
A Practical Approach**
edited by D.A. Harris and C.L. Bashford
IRL Press Inc., 1987
\$45.00, softbound \$35.00, 192 pp.

Light Emission by Plants and Bacteria
edited by J.A. Govindjee and D.C. Fork
Cell Biology Series
Academic Press, 1986
\$85.00, 638 pp.

The Retina. 1: A Model for Cell Biology Studies
edited by R. Adler and D. Farber
Academic Press, 1986
\$62.50, 363 pp.

THE LIGHT AT THE END OF THE TUNNEL

Positions Available

RESEARCH ECOLOGIST

The U.S. Environmental Protection Agency has an opening for a research ecologist at its Corvallis, Oregon Research Laboratory. The incumbent will perform research on the effects of enhanced levels of solar UV-B radiation on crops and forests. Applicants must possess a doctorate or its equivalent in biology or a related field of science underlying ecological research. Salary range is \$38,727 - \$50,346. Applicants must be U.S. citizens. Applications must be received by April 15, 1988. The U.S. Environmental Protection Agency is an equal opportunity employer.

Contact: EPA Personnel Office
P.O. Box 98516
Las Vegas, NV 89193-8516

Or phone: Dr. Robert T. Lackey
(503) 757-4634/4600

Words of Enlightenment

The tragedy of scientific inquiry is the slaying of a beautiful hypothesis by an ugly fact.

- T.H. Huxley

CALENDAR OF EVENTS

1988

- Mar 13-18 16th A S P Annual Meeting
Colorado Springs, CO [111]
- Mar 25 Radiation Measurement in Photobiology -
London, U.K. [113]
- May 1-6 FASEB Meeting - Las Vegas, NV
- May 19-20 Laser Bronchoscopy Update: Latest
Techniques and Equipment - Marseille, France
[111]
- Jun 5-10 195th ACS National Meeting & 3rd Chemistry
Congress of No. America - Toronto, Canada
[113]
- Jul 17-23 XIIth IUPAC Symposium on Photo-
chemistry - Bologna, Italy
- Jul 19-21 Internat. Photodynamic Assoc., European
Laser Assoc. & Brit. Med. Laser Assoc. -
London, U.K.
- Aug 7-11 Illuminating Engineering Society of North
America Annual Meeting - Minneapolis,
MN [111]
- Sep 25-29 5th Internat. Symp. on Bioluminescence &
Chemiluminescence, Florence-Bologna, Italy
- Sep 25-30 Symposium on Site-specific Photolabeling of
Biomolecules - Los Angeles, CA
- Oct 30-Nov 6 10th International Congress on Photo-
biology - Jerusalem, Israel
- Dec 16-17 Towards a Molecular Basis of Skin
Photobiology - London, U.K.

[] -- Square brackets denote the Newsletter issue in
which additional information may be found.

FYM*

For those of us who are parents, motivating our prospective young photobiologists can be a treacherous experience, fraught with peril. One of our members, attempting to drive home a point to his eight year old son was heard to say, "Do you know what Abraham Lincoln was doing by the time he was your age?"

"No," admitted his son after some thought. "But I know what he was doing by the time he was *your* age."

The editor, the Secretariat, and the ASP assume no responsibility concerning the veracity of this claim.

* For Your Misinformation

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