



NEWSLETTER

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

Editor: Dennis Paul Valenzano, Department of Physiology, University of Kansas
Medical Center, 39th and Rainbow Boulevard, Kansas City, KS Tel: (913) 588-7416

• • • • No. 114 Apr/May 1988 • • • •

Journal to Expand in '89?

Report from the Publications Committee on *Photochemistry and Photobiology*

Over a year ago ASP was approached by representatives of international photochemistry societies (Inter-American, European, and Japanese) who proposed a formal association with *Photochemistry and Photobiology*. The photochemists feel the need to be associated with a journal that would be the major organ for publishing mainstream photochemical papers. The perceived long term goal is that *P&P* could become the recognized international journal for high quality papers that encompass the range from photophysics, through photochemistry, photobiology and photomedicine. Many of us believe that this is a goal worth pursuing. The idea has scholarly merit and a broader-based journal may be more attractive to libraries.

In 1987, at the Bal Harbor meeting, then President Grossweiner charged the Publications Committee with the matter. We suggested a 2-year feasibility study in which *P&P* would expand to include extra pages of photochemical content. Council affirmed their interest in these proceedings at the 43rd meeting in November 1987 and President Grossweiner formed an *ad hoc* committee, chaired by this author, to ne-

gotiate with the photochemists and Pergamon Journals, Inc. (PJI) to bring about the proposed two-year expansion (Phase I). Subsequent discussions with all concerned parties produced the following seven guidelines which were approved by Council at the 44th meeting in March 1988 at Broadmoor.

(i) Phase I will be a two year feasibility assessment. Towards the end of the period all parties will meet to ascertain whether Phase I should move to Phase II (a permanent, negotiated, full expansion), whether the whole idea should be dropped, or whether Phase I should be extended to allow further evaluation.

(ii) The expansion of *P&P* during Phase I would be restricted to 300 pp/year over the already contracted page allotment. Costs incurred in producing these extra pages will be borne by PJI and the photochemists. ASP would not pay any of these costs, directly or indirectly. The library rates for *P&P* would not be affected in Phase I.

(iii) Editorial control of the expanded *P&P* would remain in Dr. Song's office during Phase I. In this way ASP will have editorial oversight. If necessary Dr. Song will appoint an extra associate editor chosen from a list provided by the photochemists. Additional editorial costs would be provided by ASP.

(iv) The current page charge rate of \$35 per page would apply to all papers accepted for publication. This would remain voluntary. Page charges will be collected by the editorial office as now, but those monies collected on designated photochemical papers will be passed onto PJI.

(v) The 300 extra pages would be distributed in alternate issues of *P&P*, i.e. six issues per year would contain the additional photochemical material.

(vi) The members of the photochemistry societies would (as now) pay \$15 membership dues plus either \$15 to receive the six issues per year with the extra pages, or \$30 per year to receive the full version of *P&P*. Money raised in this way would go to PJI to help offset their investment. This strategy would ensure that individual members of ASP and the photochemistry societies would pay the same for the full journal.

(vii) Phase I could begin in 1989 with the first expanded issue in February. After accepting these guidelines the 44th Council charged the *ad hoc* committee to draw up a draft agreement for initiating Phase I. This draft will be scrutinized by the Executive See "Journal" on page 4.

THE GUIDING LIGHT
From the President's Desk

Dear members,

I am honored to assume the Presidency of the ASP. The Society is strong and financially healthy at present. Nevertheless, a subject of considerable concern to me and also of concern to other ASP members is the fragmentation resulting from the success of the European Society for Photobiology (ESP) and the growth of the North American Photochemical Society and several other related organizations. These recent developments raise important questions such as: Is it time for a Federation of Photochemistry and Photobiology Societies? What form might such a federation take? How many journals can a small field such as ours support in a time of declining library subscriptions? What will happen to the Society's finances if the *Journal of Photochemistry and Photobiology* (ESP's journal) succeeds, and displaces *P&P* in many European and other libraries?

Such questions have led the Council to negotiate with the photochemists with the object of offering them an opportunity to affiliate with *P&P* as the official journal of their societies. Naturally, there will have to be some financial benefits to their societies for this plan to succeed. A tentative agreement has been devised and approved by Council, and is described elsewhere in this Newsletter. This experiment will cost the Society little, and could lead to considerable strengthening and expansion of the journal. Preliminary discussions with a few ESP members about possible forms of future collaboration have also taken place and will continue in the future. It is my hope that arrangements can be found that strengthen the Society, the science, and the Journal. I welcome the thoughts of the membership on how to accomplish these goals.

- Chris Foote

SOCIETY HIGHLIGHTS

A call from the *New York Times* punctuated the 45th ASP Council Meeting in Colorado Springs. Needing information on the biological effects of reductions in atmospheric ozone, Jim Glick of the *Times* had tapped into the best collection of photobiological expertise available, the ASP XVIth Annual Meeting. That call, and a similar one from the *San Francisco Examiner* the preceding day, were prompted by a NASA report that a 3% ozone depletion had been detected over U.S. cities and as much as a 6% depletion had occurred over Alaska and Scandinavia.

The *Examiner* questions were fielded by President-Elect Tom Coohill and Councilor Fred Urbach. They indicated that a good rule of thumb is that a 4-fold increase in skin cancer results from a 1% depletion in ozone. However, the relationship is not linear, so that a 6% ozone reduction may produce more than a 24-fold effect on skin malignancy. Coohill emphasized that many other aspects of our ecosystem might also be affected.

The *Times* call to Coohill was handled by new Councilor Margaret

Kripke, speaking to the photomedical aspects, and by Donat-Peter Hader, who addressed the effects of increased UV on plants.

As a result of these interviews the ASP was mentioned on the front page of the March 16th edition of the *Examiner*. The Society also appeared in a front page story of the March 20th *Times*. The *Orange County Register*, 2nd largest newspaper in Los Angeles, picked up the story and ran it on March 24th. This spate of prominence for the ASP later prompted a call to Tom Coohill from NBC Television concerning the greenhouse effect. Tom and the ASP had been identified through the *Times* article.

This kind of publicity is obviously beneficial to the Society and, as described, can have a snowball effect. Few of us may ever have the opportunity to be interviewed by a news service. But, be prepared if the situation arises. As Tom suggests, when asked to provide photobiological expertise, indicate that, in addition to your salaried position, you are an ASP member. In fact insist that ASP be mentioned as one of your credentials.

SIDELIGHTS

Terms of Office End for Councilors, Past President

Five Society officials completed their terms of office at the XVIth Annual Meeting in Colorado Springs this past March. Irene Kochevar completed her term as Past-President, completing a 3-year period of service. ASP presidents serve a one year training period as president elect, one year as president, and a final year as immediate past president, serving on Council and a variety of committees throughout.

Councilors, similarly, serve a 3-year term chairing and/or serving on

committees as appointed by the president. Council meetings alone independent of committee assignments, may occupy 10 to 15 hours per year. Retiring Councilors include Micheline Mathews-Roth, Meyrick Peak, T. George Truscott, and Frederick Urbach.

These individuals deserve our thanks for their hours of work on behalf of us all. Our Society continues to prosper and grow due in large part to their efforts.

...and the light shone in the darkness...

Organized photobiology began at the international level, with emphasis on photophysics and photomedicine. The Comite International de la Lumiere was organized in 1928, and sponsored the First International Congress on Light in Paris in 1929. At the next conference in Copenhagen (1932), Niels Bohr lectured on "Light and Life". National committees or groups also arose in Europe and the U.S. in the '30's and '40's. After World War II, the rapid growth of molecular biology intensified interest in photobiology. The international organization changed its name in 1951 to Comite International de Photobiologie (CIP) and in 1976 to Association International de Photobiologie (AIP). It sponsored the First International Congress in Amsterdam in 1954. These congresses were repeated, first at three, and then at four year intervals, our upcoming meeting in Jerusalem being the Xth in the series (Vince-Prue & Hall, *P&P* 22, 77).

I became a grad student in biophysics at Yale in the early 50's. We worked in the Sloan Physics Lab attic (whose slate tiles made it hotter than Hades in summer!), where Ernie Pollard was rocking the stolid ship of physics, steering it towards biology. Dick Setlow had built a large-aperture water prism monochromator, with which he and Don Fluke were irradiating enzymes and viruses, spurred on, no doubt, by the demonstrations by Hollaender and others in the '30's that UV killing and mutation were caused by absorption in nucleic acid. I did my own research with fast charged particles from the Yale cyclotron that Ernie had built, from his and E.D. Lawrence's design, after Lawrence went to Berkeley and became famous.

But the siren call of non-ionizing radiation rang in my unconscious, so I went off to a UV post-doc with Raymond Latarjet at the Radium Institute in Paris. Latarjet had probably the best large-aperture double-prism quartz monochromator in the world, with which we determined action spectra for photoreactivation in bacteria and phage. [For a great story about this monochromator, see *Photobiology 1984* (Praeger)]. During this period, I had the good fortune to meet many pioneers of English radiation biology, such as L.H. Gray, Edna Roe, Tikvah Alper, Alma Howard, and Michael Ebert, only one of whom (Tikki Alper) is still living.

I then moved on to Oak Ridge, where the Setlows soon arrived and made their seminal discoveries that pyrimidine dimers were the lesions responsible for cell killing by UV, and that photoreactivation involved the splitting of such dimers.

In 1964, Mike Kasha and Henry Linschitz, under the auspices of the Committee on Photobiology of the NAS/NRC, organized a meeting at Wakulla Springs, near Tallahassee FL. About 40 people talked and lived in glorious isolation for a week with the turtles and the alligators. This was one of the first catholic photobiology groups to assemble in the U.S. Perhaps for the first time in this country, we photobiologists sensed a community in this collection of researchers with widely different, but nonetheless overlapping, interests.

— John Jagger
ASP Past Historian

Chris Foote

Chris Foote became President of ASP at the Colorado Springs meeting in March. The following is his autobiographical sketch.

I was born in Hartford, Conn. in 1935. My father was a newspaperman, but his father and my mother's grandfather, great-grandfather, and great-great grandfather were Yale science professors. It was, therefore, natural that when people saw me taking apart alarm clocks, they remarked, "That child has a scientific mind."



I majored in Chemistry at Yale and had Prof. Werner Bergmann for an advanced organic course and a very special senior seminar. I was interested in Germany, and Bergmann (a German) prompted me to apply for a Fulbright Scholarship. He also suggested the names of several German

chemists then (1957) doing exciting work. One of these was G. O. Schenck, in Göttingen. Schenck and his school had developed dye-sensitized photooxygenation as a preparative tool, and had carried out many mechanistic studies. This was my first exposure to photochemistry, studying photooxidation of menthofuran.

The following year, I began graduate school at Harvard, working for the great synthetic chemist R. B. Woodward on an uncharacteristic (for him) physical-organic project. On completion of my Ph. D. in 1961, I got an offer (as instructor!) at UCLA, where I've been since.

About this time, energy transfer was a hot topic in organic chemistry. George Hammond gave a seminar at UCLA and suggested that some photooxidation reactions might go by way of singlet oxygen. Coincidentally, that week a colleague informed me that Khan and Kasha had just assigned the chemiluminescence from the reaction of hypochlorite and H_2O_2 to emission from singlet oxygen. It was a day's work to show that the product of this reaction could be trapped by photooxidation substrates, and that started my interest in singlet oxygen, which has continued to the present. It was also natural that I became interested in the biological occurrence and reactivity of intermediates in photosensitized reactions, and that started my interest in Photobiology. I joined the ASP in the year of its formation, and have enjoyed its broadening influence ever since.

Photopheresis Approved for T-Cell Leukemia

New Brunswick, N.J. — A unique, patented method for drug therapy that takes place outside the body has been approved by the U.S. Food and Drug Administration for use in treating cutaneous T-cell lymphoma, a form of leukemia. Called "photopheresis," the new method inactivates harmful cells in the bloodstream while sparing cells of other tissues.

The new treatment concept was originated by Dr. Richard Edelson, Chairman of the Department of Dermatology at Yale University, under a grant from Therakos, a sustaining member of ASP and a Johnson & Johnson company based in King of Prussia, Pennsylvania. Therakos has supported Dr. Edelson's studies for 5 years and has developed the UVAR Photopheresis System, an instrument and disposable components, for administering the treatment. Dr. Edelson's study of photopheresis in treating T-cell leukemia was reported in the February 5, 1987 issue of *The New England Journal of Medicine*.

Patients are treated for T-cell leukemia using oral psoralen. After the psoralen is absorbed and circulating in the patient's bloodstream, approximately one pint of blood is withdrawn for each treatment and is centrifuged to separate red and white cells. The white (T) cells are then exposed to UV light, which activates the psoralen to attack the T-cells.

Blood, including the damaged T-cells, is returned to the patient, where the damaged cells are removed by the spleen, decreasing the number of cancerous cells. The body appears to respond immunologically to the damaged cells in a way that enhances response to the treatment. Twenty-seven of 37 patients who received photopheresis treatments were significantly improved by the therapy, including 20 who had not improved with systemic chemotherapy.

International clinical studies that resulted in approval of the photopheresis method for treating T-cell leukemia were conducted at Columbia Presbyterian Medical Center, New York; Hospital of the University of Pennsylvania, Philadelphia; University of California, San Francisco; University of Dusseldorf, West Germany; and the University of Vienna, Austria.

Jerusalem Program Takes Form



The 1988 International Photobiology Congress is shaping up well according to Emanuel Riklis, Chairman of the Congress. The program kicks off with a reception Sunday evening, followed by scientific sessions Monday through Friday. Twenty-four symposia are planned,

with about 80% of the symposia speakers already firmly committed. There will be sessions for contributed presentations during the week. Saturday and Sunday are expected to be occupied with tours, satellite symposia, and/or visits to scientific institutions. A number of organizations are taking advantage of this gathering of photobiologists to hold meetings. In addition to the A.I.P. Board and Council meetings, there will be an ESP Council Meeting as well as a meeting of the P&P Editorial Board.

The social program plans to be equally gratifying. Evenings already include a second reception by the Mayor at the Israel Museum as well as performances by the Israel Young Philharmonic and a folk dance group. Emanuel hopes to keep Wednesday afternoon open for sight-seeing, and he's arranged for tours for spouses, family, or others accompanying participants.

The weather promises to be dry and sunny at the start of the rainy season with temperatures from 50 to 75 degrees. A jacket is recommended. For students and those on a tight budget youth hostels and less expensive hotels are available nearby.

Continued from page 1.

Journal

Committee at their next meeting (July/August 1988) and thence, if satisfactory, proceed to the signature process.

This activity was presented at the Business Meeting of the Society at the Broadmoor. Members present showed considerable interest and many useful suggestions were received. It is perhaps useful to emphasize that any agreement entered into in the next year will relate only to Phase I — new and distinct negotiations will be initiated concerning a possible Phase II. The ASP representatives who are negotiating are very aware of the need to protect the Society from any lowering of standards or loss of revenue. The *ad hoc* committee — Chris Foote, Irene Kochevar, Pill-Soon Song and myself welcome comments, criticisms or suggestions that members may have.

— Michael A.J. Rodgers, Chairman
Publications Committee

E.S.P. Newsletters Available

The Editor has a supply of European Society for Photobiology Newsletters. If you'd like one, simply send a stamped self-addressed envelope to the Editor at the address shown just below the banner of this Newsletter.

POSTDOCTORAL POSITION

Anyone with an interest in photodynamic therapy will be considered. Experience in organic synthesis or spectroscopy is desirable. This is a unique opportunity to join a multi-disciplinary team studying porphyrins and their derivatives as sensitizers in photodynamic therapy.

The Department of Chemistry at the University of Toledo is equipped with 90, 200 and 400 MHz NMR spectrometers, GC-MS, FT-IR, X-ray diffractometer and an array of UV/vis spectrophotometers, HPLC's and other assorted goodies.

Minimum salary: \$18,000/year with full medical & fringe benefits. An equal opportunity, affirmative action employer.

Contact: Dr. Alan R. Morgan
Department of Chemistry
University of Toledo
Toledo, Ohio 43606



POSTDOCTORAL POSITION

A postdoctoral position is available to study merocyanine dyes with antineoplastic and antiviral properties. PhD, MD or equivalent degree is required; a background in photobiology, biochemistry, virology, tumor cell biology and/or experimental hematology is desirable. Initial appointment will be for 1 year, renewable for up to 3 years. Salary commensurate with experience. Please send C.V. and 3 references to:

Dr. Fritz Sieber
Midwest Children's Cancer Center
Department of Pediatrics
Medical College of Wisconsin
P.O. Box 1997
Milwaukee, WI 53201

New Titles



Hazards of Light – Myths & Realities: Eye & Skin
edited by J. Cronly-Dillon
Proceedings of the First International Symposium of the Northern Eye Institute, U. Manchester, 10-13 July, 1985
Pergamon Press, 1986
\$74.00, 250 pp., 68 illus., 617 lit. refs.

Photosensitization – Molecular, Cellular and Medical Aspects
edited by G. Moreno, R.H. Pottier and T.G. Truscott
NATO ASI Series H: Cell Biology, Vol. 15
Springer-Verlag, 1988
521 pp.

Announcements

**Toward a Broad Understanding of Photosynthesis
Multiple Approaches to a Common Goal**

honoring C. Stacy French

July 17-22, 1988

Carnegie Institution of Washington, Stanford, CA

Internationally recognized scientists will attempt to integrate their knowledge of photosynthesis from the biophysical, biochemical, physiological, ecological and global viewpoints. Participants may present posters. Attendance limit.

Contact: Dr. Winslow Briggs
Photosynthesis Symposium
Carnegie Institution
290 Panama Street
Stanford, CA 94305



XIIth IUPAC Symposium on Photochemistry

July 17-22, 1988

University of Bologna – Bologna, Italy

Plenary lectures, invited lectures, and panel discussions will cover fundamental and applicative photochemistry. Contributed papers will be accepted for poster presentation; a limited number will be selected for oral presentation.

Contact: XII IUPAC Symposium on Photochemistry
c/o Prof. F. Bolletta
Dipartimento di Chimica "G. Ciamician"
Via Selmi, 2
I 40126 Bologna (Italy)
Tel.: 051/244468-244267



Photodynamic Therapy & Medical Laser Applications

International Photodynamic Association

European Laser Association

British Medical Laser Association

July 19-21, 1988

London Hilton Hotel – London, U.K.

The conference will be a "state of the art" presentation of research, development and clinical applications of photodynamic therapy for the treatment of malignant tumours and other diseases and on all current medical laser applications.

Contact: Laser 88 Secretariat/Sales Plus
4 Hubbard Road
Houndmills
Basingstoke RG21 2UH
Hampshire, England

CALENDAR OF EVENTS

1988

- | | | | |
|--------------|---|--------------|--|
| May 19-20 | Laser Bronchoscopy Update: Latest Techniques and Equipment – Marseille, France [111] | Sep 25-29 | 5th Internat. Symp. on Bioluminescence & Chemiluminescence, Florence-Bologna, Italy |
| Jun 5-10 | 195th ACS National Meeting & 3rd Chemistry Congress of No. America – Toronto, Canada [113] | Sep 25-30 | Symposium on Site-specific Photolabeling of Biomolecules – Los Angeles, CA [114, encl] |
| Jun 15-18 | Canadian Federation of Biological Sciences – Quebec City, Quebec, Canada | Oct 1 | Frontiers in Photochemical Sciences – Bowling Green, OH |
| Jul 17-22 | Toward a Broad Understanding of Photosynthesis – Stanford, CA [114] | Oct 24-30 | 21st European Society for Radiation Biology Meeting – Tel Aviv, Israel |
| Jul 17-23 | XIIth IUPAC Symposium on Photochemistry – Bologna, Italy [114] | Oct 30-Nov 4 | Opticon '88 – Santa Clara, CA |
| Jul 19-21 | Internat. Photodynamic Assoc., European Laser Assoc. & Brit. Med. Laser Assoc. – London, U.K. [114] | Oct 30-Nov 6 | 10th International Congress on Photobiology – Jerusalem, Israel [113, 114] |
| Aug 7-11 | Illuminating Engineering Society of North America Annual Meeting – Minneapolis, MN [111] | | |
| Aug 15-18 | International Congress of Cell Biology – Montreal, Quebec, Canada | | |
| Aug 29-Sep 2 | 2nd International Conference on Laser Spectroscopy of Biological Objects – Pecs, Hungary | | |
| Sep 6-7 | Principles and Applications of Lasers in Medicine – Glasgow, U.K. | | |
| Sep 18-20 | Organic Free Radicals – Zurich, Switzerland | | |

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

EYM*

One of our members has requested that we run the following ad.

Lost– 1 mongrel dog. Blind in one eye. Torn left ear. Mange. Only 3 legs. Answers to the name of Lucky.

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

* For Your Misinformation

PAGE 6

AMERICAN SOCIETY FOR PHOTOBIOLOGY

100 Westpark Drive
Charlottesville, Virginia 22102

Non-Profit Org.
U.S. POSTAGE
PAID

Permit No. 5251

ASP 02788 F 1288

THOMAS P COOHILL
PHYSICS DEPARTMENT
WESTERN KENTUCKY UNIVERSITY
BOWLING GREEN KY 42101