

# NEWSLETTER

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• • • • No. 117 Oct/Nov 1988 • • • •

## Unbarring the Gates of Light

The Wellman Research Laboratory at Massachusetts General Hospital, a new sustaining member of ASP, is dedicated to the development of therapies and diagnostics based on the interaction of light with tissue. To accomplish this goal, research is performed on the many aspects of the interaction of UV and visible light with molecules of biological importance and with whole tissue. Recently, the interaction of pulsed laser light with tissue has been emphasized. The research includes studies of a) transmission of light, heat, and acoustic waves through tissue, b) photochemistry of biological molecules and photosensitizers, c) biochemistry of light-induced tissue changes, especially laser light, e) effects of light on the immune system, f) mechanical effects of high-peak-power lasers on tissue and g) methods for delivery of light-activated drugs to specific tissues.

Combining basic studies with clinical applications is a dominant theme of the research in the Wellman Laboratories, as basic research is a source of improved treatments. The laboratories began with the development of a treatment for psoriasis using psoralens and long-wavelength UV. Other treatments developed include pulsed laser radiation to selectively destroy microvessels in the

skin (which give the color to port wine stains) and laser endoscopy to cause controlled disintegration of kidney stones.

Current applications programs investigate photosensitized cell injury for treatment of malignant tumors and glaucoma, ablative laser microsurgery, laser endarterectomy, other cardiovascular applications, and selective thermal injury of microvessels and pigmented cells for treatment of skin, eye, and gastrointestinal problems.

Led by their director John Parrish, a charter member of ASP, the Wellman Laboratories consist of approximately 30 full-time researchers, 5 clinical research fellows, 6 students, and 30 support personnel. Multidisciplinary approaches to problems are possible because the investigators have expertise in

many areas including cutaneous photobiology, dermatology, photochemistry, spectroscopy, tissue optics, laser technology, experimental pathology, immunology, biophysics, cardiology, gastroenterology and others. The laboratories are divided into seven teams and projects are either focused on by one team or become multi-team projects. The laboratories also benefit greatly from interaction with the MIT Health Sciences and Technology Program, strong bioengineering groups at MGH, and individual scientists at MIT, Harvard, and other research institutions. Research is supported by peer-reviewed funding obtained by individual investigators, and by large grants and contracts obtained by the laboratories from government, foundation, and industrial sources.

### Inside this Issue

Society Business..... Page 2	Miscellaneous News..... Page 5
President's Column, 1987 P&P Report, Misc. Society News	Readers' Reflections cont'd, Erratum, Call for Nominations
Features..... Page 3	Positions, T. for G..... Page 6
History—Tadpoles & Red Rooms Focus on Margaret Kripke	Announcements..... Page 7
Miscellaneous News..... Page 4	Calendar..... Page 8
Readers' Reflections	

THE GUIDING LIGHT  
From the President's Desk

Dear members,

Library subscriptions to **Photochemistry and Photobiology** are the lifeblood of our Society. Over half our income derives from this source. As you are all aware, libraries are facing terrible cost pressures and are cancelling duplicate or poorly-used subscriptions at an increasing rate.

Although **Photochemistry and Photobiology** has been conservative in setting its library rate (the DM rate will remain constant for 1989 and the US\$ rate will go up only about 5% in spite of the deterioration of the dollar) we are not immune from cancellations. Each year for the past several years there has been an erosion of a few per cent in our library base (see Highlights, above right). While this has not yet caused serious problems, there are already some negative effects on our budget, and the future does not look rosy.

Members can help by pointing out to their library committees and librarians the importance of maintaining their subscription to the premiere journal of photobiology. Where libraries keep such statistics (and many do), it often helps to check out the journal occasionally or to have your students do so in order to maintain favorable use statistics. If your library does not take the journal, encourage them to do so.

Only through maintaining this important income source can the Society continue to provide services such as first-rate, inexpensive meetings with at least partial speaker and student travel support, as well as many other educational support activities.

- Chris Foote

SOCIETY HIGHLIGHTS

Editor Pill-Soon Song has submitted the 1987 annual report on P&P which indicates that our journal is strong and healthy, despite the continuing and alarming decrease in library subscriptions (see President's column at left). P&P received 428 manuscripts in 1987 and accepted 54% of them. This represents an increase in manuscripts received over any of the previous 3 years. Published manuscripts were predominately articles (243) along with research notes (25), yearly reviews (15), technical notes (8), and other review articles (4). The new category of rapid communications included four publications. The Americas accounted for 57% of the publications, about the same as their percentage of ASP membership.

## Annual Report on P & P

Europe contributed 32%, while 10% came from Asia. Total publication time decreased slightly in 1987 to 8.5 months which resulted from a 0.8 month decrease in editorial review time, but a 0.7 month *increase* in publishers time. Reimbursable expenses of associate editors amounted to about \$20 per manuscript. Total subscriptions numbered 2231 last year, including members subscriptions. On a more sober note, library subscriptions decreased to 876 from 881 in 1986 and 909 in 1985. If your library doesn't subscribe please consider asking them to do so. We can largely thank our successful journal for our low Society dues. So, it is in the interest of each of us to have our libraries subscribe.

SIDELIGHTS

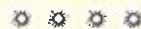
## This and That Contract with Photochemists, C.I.E. membership, & Council Meeting

At the XIIth IUPAC Symposium on Photochemistry in Bologna, Italy this past July, representatives of the photochemical societies that are seeking inclusion in an expanded format of P&P (see Apr/May Newsletter #114) met with ASP representative Mike Rodgers. Mike chairs both the ASP Publications Committee and the *ad hoc* committee appointed to conduct negotiations on journal expansion. At the meeting the photochemists signed the agreement for P&P expansion which had been written at the direction of the ASP Council. The proposal for journal expansion was approved by the ASP Executive Committee at their most recent meeting on September 11th.



The ASP is considering society membership in the Comité Interna-

tionale de la Clariage, an international organization concerned with lighting in the environment. Look for a more complete description of the C.I.E. in a future Newsletter.



The fall ASP Council meeting is slated for the weekend of November 19-20 at Chicago's O'Hare Airport Hilton Inn.

DON'T MISS THE "CALL  
FOR NOMINATIONS" ON

PAGE 5.

## Niels Rydberg Finsen

### Part I – Of Tadpoles and Red Rooms

What do you do with a boy who is dismissed from prep school for "small ability and total lack of energy"? Of what utility to society is a man whose health begins to fail at 23 and who is almost completely incapacitated by the age of 30? ..... You have the makings of the man who is generally regarded as the founder of modern phototherapy, Niels Rydberg Finsen. In his brief 44 years, Finsen employed his knowledge of light to relieve countless people from terrible disfigurement from smallpox and lupus vulgaris. All of this was accomplished despite rejection by the established research community and failing health. Finsen was relegated to a wheel chair as he accepted the 1903 Nobel Prize in physiology and medicine. His death occurred the following year.

A descendant of Viking Icelanders and the son of the governor of the Faeroe Islands, Finsen was educated in Reykjavik, Iceland, and subsequently obtained his M.D. at the University of Copenhagen in 1891. Though tempted by a career in surgery, he chose instead to pursue his interest in sunlight as a therapeutic force. His earliest experiments were performed with the simplest of devices. His own skin, the earlobes of his young wife, and assorted tadpoles convinced Finsen that sunlight could produce inflammation, similar to that known to be produced by microbes. This, he reasoned, could be the cause of inflammation in sun-exposed smallpox blisters. Infection and blood poisoning might be avoided if the inflammatory response to light could be prevented. Finsen demonstrated that it was the violet end of the spectrum that produced the inflammation and that the red end had a healing effect. His exposition of this proposal to the chief physician of the Blegdam Hospital in Copenhagen was rejected with such little respect that it prompted Finsen to retort, "You might at least try not to laugh at me!" It remained for two doctors in Bergen, Norway to sequester newly diagnosed smallpox patients for two weeks in "red rooms" to validate Finsen's hypothesis. Every patient emerged with no fever, free of blood poisoning and scarless! A similar report of success from Gothenburg, Sweden gained Finsen an international reputation and launched his career and the field of phototherapy.

## Margaret L. Kripke

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They're off and running! Margaret L. Kripke, who assumed office as an ASP Councilor in March of this year, hopes to see her "baby" race horse responding to that call in the near future. An owner of 2-1/2 race horses (by her tally), in her "spare time" she holds the Vivian L. Smith Chair in Immunology and is Professor and Chairman, Department of Immunology, University of

Texas System Cancer Center, M.D. Anderson Hospital and Tumor Institute, in Houston, Texas.



A native of California, Margaret received her bachelor's degree in 1965, her master's degree in 1967 in bacteriology, and a doctorate in immunology in 1970 from Berkeley. She completed her postdoctoral work at Ohio State in 1972. She joined the faculty of the University of

Utah as an assistant professor in the Department of Pathology until her appointment at the NCI Frederick Cancer Research Center in 1975 as head of the Immunobiology of Carcinogenesis Section of the Cancer Biology Program. She went on to become associate director and then director of the Cancer Biology Program in 1979. In 1983 she joined the U.T. Cancer Center staff. "I never dreamed I'd actually use my college physics as an immunologist!", she muses. Expectations notwithstanding, she's become a full-fledged photobiologist, having joined ASP in 1975.

Margaret has authored and co-authored more than 200 scientific publications. She is a member of several professional organizations and has given guest lectures at many international assemblies, including the Edna Roe Memorial Lecture at the VIIIth International Congress on Photobiology in Strassbourg, France in 1980. She was also awarded the Chancellors' Distinguished Lectureship at Berkeley in 1980, the Lila Gruber Honor Award for Cancer Research from the American Academy of Dermatology in 1984, and the Pharma-Medica Lectureship from the Danish Dermatological Society in 1987.

Her current areas of research interest concern the immunology of UV carcinogenesis, the role of UV in malignant melanoma, and the effects of UV radiation on the immune system.

And when all of the above doesn't keep her busy, she enjoys finding a moment or two to play the piano.

## Reflections from our Readers .....

The Jun/Jul issue of the Newsletter contained an editorial suggesting that 1) it might be appropriate for ASP to drop the word American from its name, 2) ASP (or SP) should assume a leadership role as an international photobiology organization, and 3) more than one quality photobiology journal may be difficult to sustain. Receiving no spontaneous responses, the editor sent letters to 42 ASP members selected from the 1986 membership directory with a view toward balance among younger and older members and particularly toward a fair representation of geographical membership. The following is the first installment of the responses received.

I am in full agreement with dropping the word "American" from the title of the American Society for Photobiology. I think many people that belong to our Society do so because the dues are low, the meetings are not too expensive, and members receive **Photochemistry and Photobiology** without extra cost. If this society becomes more international and holds meetings in Europe or Asia, most "American" members probably won't go. So we "Americans" would lose something.

What would we gain? Many libraries in Florida are not now subscribing to many of the new and specialized science journals. And the prospects are not good that they will. So I don't expect to be able to read the **Journal of Photochemistry and Photobiology**, like I don't see **Photobiochemistry and Photobiophysics**. It would help me, and therefore I believe others also, if these journals would be combined with **Photochemistry and Photobiology**, or if they would just stop publishing.

I hope these comments are of some use to you.

Florida, USA

The editorial in the Newsletter was most interesting. The presence of the large foreign membership of the ASP might reasonably argue for removing "American" from the organization's title. However I would not make such a change precipitously. It might be well to see what happens with the European Society and journal and what influence they have on the ASP membership. I don't think that changing our name will make any difference in that respect. Also, since I believe that the structure and function of the ASP are based in the USA (including annual meetings) the name doesn't seem inappropriate. Also, the name indicates where it was born.

In general I don't have any strenuous objections to removing the word American from our Society's name. However, I am not sure that there is any advantage in doing so.

California, USA

The ESP is just two years old and I am a charter member of ESP and ASP. I prefer to retain the present name. ASP does have "international meetings" and international membership, but I don't believe the name puts off non-American candidates for membership. I fear that going international via a name change may unnecessarily cause some negative responses in the leaders of ESP. The organizers of the international congresses serve as an adequate international group. Both ESP and ASP adjust their meeting schedules to the International Congress. Apparently the ESP has caused some apprehension in ASP leaders because ESP started a journal. I think we need not make a symbolic move that stimulates more dissension. What I fear in the long run is an international society that is obligated to meet in far off countries where many of our USA members and students cannot afford to attend.

Iowa, USA

Growing interest in photobiology causes the present development, which expresses itself in more intensive contacts between researchers. (It is even possible now to find sufficient photobiologists very nearby, even in your own country or continent.) On the other hand there is also a growing need for world-wide contacts to maintain a high scientific level. Both needs for nearby and world-wide contacts can be fulfilled if the "Association Internationale de Photobiologie" would organize every two years their congress and the "national" organizations would do the same, (naturally not in the same year)!

The Netherlands

I would be in favor of recognizing the international nature of the organization by dropping the "American". However, regular meetings should be in the US.

Maryland, USA

## ..... and Still More

We agree with you that the multiplication of photobiological societies poses a problem. At the time being, we are members of the French Society, the European Society and, last but not least, the American Society for Photobiology! We would be in favor of an International Society with a representative journal. This Society would be a federation of national societies. In fact, we believe that a certain national specificity exists with the double barrier of language and distance.

P.S. We have shown your letter to a third ASP member who fully agrees with our position.

Two members in Paris, France

As an immigrant of 28 years ago, I think that being a member of the American S.P. adds to the prestige of foreign members rather than turning them off. Personally, I believe that International S. for P. would be a more appropriate name for the organization I helped found.

Arizona, USA

### Oops!

To err is human. To really foul up takes a computer. But here at the Newsletter we try to do our part as best we can. Last issue we reproduced the new membership brochure published under the direction of Madhu Pathak's Public Relations Committee. Unfortunately, we neglected to acknowledge the roles played by Madhu's predecessors. To set the record straight we must acknowledge that the basic ideas for the brochure were gathered by the ASP Membership Committee chaired by Patricia Poh-Agin a number of years ago. When Al Girotti succeeded to the chair of that committee he led the development of those basic ideas, settling on the 3 page fold-out with an easily clipped response form, the publications photo and the logo on the cover. With this basic work completed, the charge to produce the brochure was shifted to the Public Relations Committee with the final layout and printing responsibilities being handled by the current Newsletter editor. I hope that this brief synopsis has included all key players.

You asked for my opinion about the recent editorial and here it is. I vehemently oppose any change in our Society name. The Europeans have opted to form their own group and a good number of them have undoubtedly dropped out of ASP in favor of ESP. So why should we do this now? What practical good could it possibly accomplish? Those non-Americans who remain, or the vast majority of Americans for that matter, don't find "ASP" the least bit objectional. This is my opinion, anyway. I, for one, am proud that the Society was founded by Americans and that it happens to have a relatively large European contingent. However, American membership has been the major driving force behind the Society's success. How many Europeans have been Council members? Very few! There are many more substantive issues facing our Society: education, membership expansion, future solvency, etc. Let's focus on the questions that really matter. Besides, who's ever going to accept "SP" in place of "ASP"???

Wisconsin, USA

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### \* \* Call for Nominations \* \*

The Nominating Committee of the ASP, chaired by Leonard Grossweiner, is soliciting nominations for President-Elect and Councilors. Nominations can be made by the Committee and also by a signed petition or letters from the membership. Nominations for President-Elect may be made by 10 members in the form of a signed petition or letters. A written statement by the nominee of willingness to serve must be received.

Nominations for Councilor may be made by 5 members in the form of a signed petition or letters. A written statement by the nominee of willingness to serve must also be received.

For the names of persons so nominated to appear on the ballot, petitions or letters must be received by 18 November 1988. Please address all petitions/letters and nominees' statements to:

Leonard I. Grossweiner  
Biophysics Laboratory  
Physics Department  
Illinois Institute of Technology  
Chicago, IL 60616

### POSTDOCTORAL POSITION

A postdoctoral position is available after January 1, 1989 for a person with interests in the molecular and cellular aspects of therapeutic photosensitization. This individual will be a member of a program project team studying the mechanisms of action of merocyanine-540 and related dyes. A Ph.D. or equivalent degree is necessary, along with a solid background in chemistry and/or biochemistry. Experience in the separation and characterization of photooxidation products, e.g., lipid hydroperoxides, is highly desirable. A 3-year appointment is offered (renewable yearly), with salary based on experience. Please submit a C.V. and at least three references to:

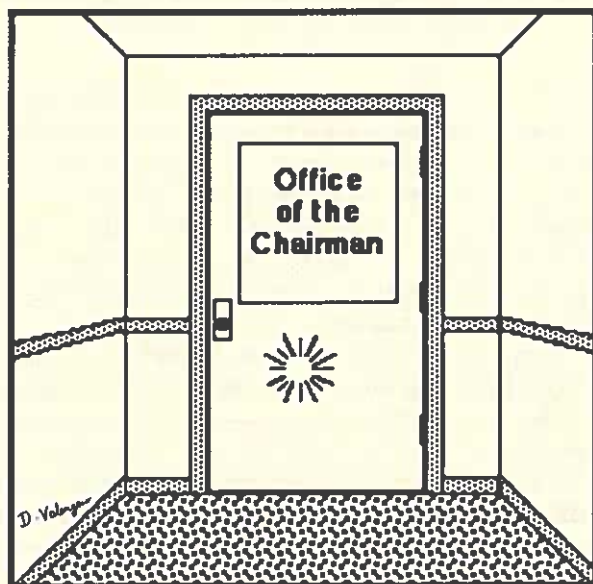
Albert W. Girotti, Ph.D.  
 Department of Biochemistry  
 Medical College of Wisconsin  
 Milwaukee, WI 53226

### CHAIRPERSON - BOTANY

The Department of Botany, University of Maryland at College Park (Main Campus) is seeking nominations and applications of scientists qualified to serve as departmental chairperson. The Department currently consists of 29 faculty and 52 graduate students. A substantial number of faculty hold appointments in the Maryland Agricultural Experiment Station and the Cooperative Extension Service. Research programs range from whole-plant to subcellular and molecular areas with emphasis in ecology and systematics, cellular and molecular biology, and plant pathology. The faculty actively collaborates with scientists at the Smithsonian Institution, USDA, and the University's Biotechnology Institute. Applicants must have a Ph.D. degree and have demonstrated outstanding abilities in research in some field of modern plant biology. Evidence of administrative ability is desirable. Appointment will be made at the professorial level (tenured) with appropriate salary and benefits, preferably starting July 1, 1989. For full consideration submit a letter of application, *curriculum vitae*, and the names, addresses and telephone numbers of 4 references by December 1, 1988 to:

Dr. A. Steinhauer  
 Botany Chair Search Committee  
 Department of Entomology  
 University of Maryland  
 College Park, MD 20742

### Taken for Granted



I knew my grant proposal was in trouble when the first line of the critique said, "I can take a joke as well as the next guy..."

### POSTDOCTORAL POSITION

A postdoctoral position is available to study merocyanine dyes with antineoplastic and virucidal properties. Ph.D. or equivalent degree required. Background in photobiology, biochemistry, virology, tumor cell biology, and/or experimental hematology an asset. Salary commensurate with experience. Please send *curriculum vitae* and three references to:

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

## Announcements

### **Photodynamic Therapy (PDT): Concepts and Methods**

Western Institute for Laser Treatment  
November 11-12, 1988  
Santa Barbara, CA

The course, designed for physicians, will cover concepts and applications of PDT utilizing HpD. Advantages, disadvantages, limitations and complications will be discussed by leaders in the field. Specific techniques, including hands-on experience, will be covered, as well as basic laser biophysics.

Contact: Western Institute for Laser Treatment  
5333 Hollister Avenue, Suite 233  
Santa Barbara, CA 93111  
Tel.: (805) 964-8432

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### **International Conference on the Health and Environmental Consequences of Ozone Depletion**

November 28-29, 1988  
London, U.K.

The conference will feature an international panel of scientific speakers and will bring together health experts, industrialists, environmentalists, consumer organizations, and politicians; and, all those concerned about the depletion of the ozone layer.

Contact: Ozone Depletion Conference  
2 Marylebone Road  
London, NW1 4DX

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### **Ph.D. in Photochemical Sciences**

Bowling Green State University  
Bowling Green, OH

A new Ph.D. program in photochemical sciences is now available at BGSU. This uniquely focused program will educate graduates in the basic fundamentals of photochemistry and photophysics as well as basic knowledge in chemistry, biological sciences, physics, or photopolymer sciences depending on career goals. The program is open to students with bachelors or masters degrees in chemistry, physics or biological sciences beginning in 1989.

Contact: Dr. Douglas C. Neckers  
Center for Photochemical Sciences  
Bowling Green State University  
Bowling Green, OH 43403

### **Towards a Molecular Basis of Skin Photobiology**

December 16-17, 1988  
London, U.K.

This meeting is a Harden Satellite meeting (supported by the Biochemical Society and the British Photobiology Society) of a one day (Dec 19) meeting on Free Radicals and Disease. Speakers include; Chedekel, Tyrell, Dubbelman, Truscott, Roza and Gange.

Contact: Dr. Antony Young  
Photobiology Unit  
Institute of Dermatology  
University of London  
Renfrew Road  
London, SE11 4TH, U.K.  
Tel.: 01 793 0387

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### **Joint Meeting of the American Society for Biochemistry and Molecular Biology and the American Society for Cell Biology**

January 29 - February 2, 1989  
San Francisco, CA

This meeting includes symposia on Free Radical Enzymology and on Molecular Dynamics in Biology which may be of interest to photobiologists.

Contact: ASCB/ASBMB Meeting Office  
Room L3111  
9650 Rockville Pike  
Bethesda, MD 20814  
Tel.: ASCB (301) 530-7153  
ASBMB (301) 530-7145

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### **Lasers in Surgery and Medicine CME Series**

The Laser Institute of America  
Varied dates and locations throughout the year

The Laser Institute of America sponsors a variety of courses covering the use of lasers in various aspects of medical science. These include urology, general surgery, and gastroenterology. The 2-day courses are taught by experts in the field and include hands-on experience.

Contact: Laser Institute of America  
5151 Monroe St.  
Toledo, OH  
Tel.: (419) 882-8706

## CALENDAR OF EVENTS

**1988**

- Oct 20-21 Lasers in General Surgery –  
Chicago, IL [117]
- Oct 23-25 1988 Annual Meeting, USNC/CIE –  
Salem, MA [116]
- Oct 24-30 21st Annual Meeting, European Society  
for Radiation Biology – Tel Aviv, Israel  
[116]
- Oct 30-Nov 4 OPTICON '88 – Santa Clara, CA [116]
- Oct 30-Nov 6 10th International Congress on Photo-  
biology – Jerusalem, Israel [113-115]
- Nov 3-4 Lasers in Urology – Toledo, OH [117]
- Nov 10-11 Lasers in Pulmonary Medicine –  
Greenville, NC [117]
- Nov 18 **Deadline for ASP Nominations**
- Nov 19-20 **Fall ASP Council Meeting –**  
Chicago, IL [117]

- Nov 28-29 **Health & Environmental Consequences**  
**of Ozone Depletion – London, U.K.**  
[117]
- Dec 1-3 **Lasers in General Surgery –**  
Denver, CO [117]
- Dec 16-17 **Towards a Molecular Basis of Skin**  
**Photobiology – London, U.K.** [117]

**1989**

- Jan 29-Feb 2 **Amer. Soc. for Cell Biochem. & Molec.**  
**Biol. and Amer. Soc. for Cell Biol. –**  
San Francisco, CA [117]
- March 6-10 **40th Pittsburgh Conference and**  
**Exposition– Atlanta, GA**
- June 27-30 **Internat. Symposium on Photobiology**  
**and Biotechnology – Poznan, Poland**
- July 1-2 **Photosensitization Workshop – Boston,**  
**MA**
- July 2-6 **XVIIth ASP Annual Meeting –**  
**Boston, MA**

PAGE 8

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