

ASP 2008

Invitation from the President



On behalf of the American Society for Photobiology, I cordially invite you to attend the 34th ASP meeting, to be held at the Hyatt Regency in Burlingame, California on June 20-25, 2008.

Lisa Kelly and **Steve Ulrich** have planned a meeting that will emphasize the breadth and interdisciplinary nature of photobiology, with topics ranging from environmental photobiology to photomedicine. The informal venue, including several “Photobiology Schools”, will foster cross-disciplinary exchange of ideas among researchers in the biological, physical, medical, and radiation sciences. For the first time we will include a symposium on the new field of low-level light therapy. The program will highlight emerging optical methods in spectroscopy and imaging and will also feature an Interdisciplinary Symposium in Photobiology and an Innovations in Photobiology Lecture.

ASP Registration: www.pol-us.net/asp2008/registration.html

Hotel Reservation: To guarantee the reduced room rate, please call Mountain Destinations (our booking agent) direct: 888-995-3088. Contacting the hotel directly does not guarantee the reduced rate. Mountain Destinations will send your room confirmation information via e-mail.

Three special symposia are planned to encourage inter-society relationships and explore areas of common interest. We are pleased to co-sponsor special symposia with the **Radiation Research**

IN THIS ISSUE

ASP 2008	1
Protein Purification Course	2
Letter from the Editor	2
ASP Election Candidates	3
Limerick Contest	7
Research by ASP Members	7
ASP Homepage Usage Statistics	7
Upcoming Events	8

Society and the European Society for Photobiology. The **Photostability of Drugs and Drug Product Group** will present a symposium on pharmaceutical photochemistry. RRS, ESP and PPS members can register at ASP member rates.

ASP is pleased to offer a limited number of Associate Member Travel Awards, for which students and postdoctoral members of ASP are eligible. An eligible candidate must submit an abstract of a report suitable for presentation at the meeting and must be the presenting author of the abstract. If an award is granted, the recipient must present the report at the meeting. The ASP mentoring committee is planning several activities for associate members, including our traditional **Mentoring Lunch**. So please encourage your students and postdocs to attend the meeting!

Burlingame is conveniently located on San Francisco Bay between downtown San Francisco and the technology corridor of Silicon Valley. The variety of shops and restaurants are accessible by foot or via the free Burlingame Trolley. A free shuttle is available to bring you to the Hyatt Regency when you arrive at the San Francisco International Airport, or to take you to the Airport from the hotel. Downtown San Francisco is just a BART ride from the Airport.

The **deadline for online abstract submission is April 2, 2008**. Mark your calendar! We'll see you in Burlingame!

-Linda R. Jones
ASP President

Protein Purification: Principles and Practice

CREBB Course

Rutgers University and CREBB (Center for Research and Education in Bioluminescence and Biotechnology) recently announced the 2008 dates for their internationally renowned short course, *Protein Purification: Principles and Practice*. This is a 5½ day hands-on laboratory course in which participants learn to design separation and purification strategies for downstream processing. This course uses Green-Fluorescent Protein (GFP) as the source material but the techniques are applicable to other proteins.

Protein Purification has been offered more than 45 times over the past 18 years and there have been more than 1,200 participants. The course is designed for experienced scientists as well as beginners. It integrates lecture and laboratory sessions for a comprehensive learning experience. Previous participants have included bench scientists, professors, undergraduate and graduate students, professionals in management, marketing, sales & administration in the life sciences industries, and others who are new to life sciences and wish to broaden their knowledge and skills.

CREBB also offers 3-day short courses designed to acquaint participants with the wide range of modern techniques available for separating and purifying biomolecules. *Biochemical Separations* is an introductory-level lecture/demonstration course and *Tutorials in Protein Purification* is an intimate hands-on tutorial in which **William Ward** leads you through the step-by-step purification of a model protein.

For more information on *Protein Purification* and our other courses, please visit our web site or contact us by phone or e-mail.

CREBB Web: www.rci.rutgers.edu/~crebb/protein.html

Tel: (732) 932-9562 ext. 212

e-mail: crebb@rci.rutgers.edu

-Randy Ward

Letter From the Editor

Asp 2008

There will be many interesting presentations at the upcoming ASP meeting in California. Members who register by May 9 are entitled to reduced fees, so please visit www.asp2008.org and register online, by mail, or by fax.

You can catch up with old friends and colleagues at the “Welcome Reception” at 7:30 PM on Friday, June 20. I look forward to seeing you there!



On Saturday morning, the meeting opens with an Interdisciplinary Symposium in Photobiology. Later in the day there are sessions on bacterial phytochromes, vitamin D, optronics, and other topics. Midday Sunday, there will be presentations of our “New Investigator Award”, “Research Award”, and “Photon Award”. While senior members are enjoying

a free Sunday afternoon, associate members are encouraged to attend our free “Mentoring Lunch”, to be followed by a “Job Fair”.

After a busy day of sessions on Monday, you can relax on our Banquet Cruise on Monday evening. Finally, please be sure to attend our “Photoimmunology” session on Wednesday afternoon. This session honors the contributions **Margaret Kripke**, long-time ASP member and former President.

Please check the ASP2008 program and schedule in the coming weeks for updates: www.pol-us.net/asp2008/program.html. See you in Burlingame!

ASP News

Published quarterly by the American Society for
Photobiology

www.photobiology.org

Editor

Peter A. Ensminger, Ph.D.
256 Greenwood Place
Syracuse, NY 13210
Tel: 315-478-6024

E-mail: ensmingr@twcnny.rr.com

Layout

Tracy A. Newman
E-mail: tnewman@everestkc.net

ASP Election

The ASP Business Office will soon send e-mail ballots for the upcoming election for President, Secretary, and Councilors. Below, we provide candidate statements. Please support the ASP by voting!

Candidates for President



David Mitchell

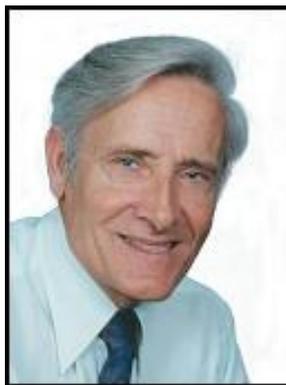
I am currently a Professor of Carcinogenesis at the University of Texas MD Anderson Cancer Center. I have been an active member of ASP since 1984, and have also served as associate editor for *Photochem Photobiol*. I have published 32 abstracts, organized 9 symposia, and published 31 papers in

Photochem Photobiol in diverse areas such as DNA damage and repair, photocarcinogenesis, and environmental photobiology. I have strong European ties and have attended ESP meetings for the past 14 years, with 10 published abstracts.

My primary goal as ASP President will be to strengthen our society by increasing membership. To accomplish this, I will encourage continued interactions with other societies that have similar interests (such as ESP and RRS), support joint symposia at meetings and in-print, and work with organizers to invite participation from outside the ASP. As societies begin to interact, new collaborations will arise and submissions to *Photochem Photobiol* and ASP membership should increase.

I would also like to analyze the types of papers that have been published in *Photochem Photobiol* and related journals over the past 5-10 years to determine what areas of research are currently most prevalent. Such demographics can be used to modify the current group structure of the ASP, help us to organize meetings and symposia-in-print, and allow us to identify scientists in diverse fields who should be included in the ASP. My long-term goal will emphasize and expand the educational component of ASP. Over the past year, the Education Committee reviewed the status of the Digital Photobiology Compendium (DPC), an online photobiology textbook. We decided that the DPC was well worth resurrecting. The completed DPC would be a bountiful resource for teach-

ers preparing lectures on various topics for different age groups. By planting photobiology in the minds of students of all ages, we will create photobiologists for the future.



Bodo Diehn

Having left my career as photosensory biochemist some years ago, I am not your standard candidate for office in the Society (though if you wish to see my contributions to our science, you can find me on "Google Scholar"). I am an ASP charter member in my second term as councilor, also having served in the previous millennium.

What I could bring to the Society is experience in making things work. I have, since leaving academia, been in private enterprise and government service. I was the CEO of two for-profit companies before being recruited into my current position with the Arizona Department of Environmental Quality. There, I serve as a troubleshooter with the title of "Special Projects Coordinator". Specifically, I adjust procedures and streamline operations of failing or neglected programs so they can function properly and efficiently. Most recently, I reorganized the Pesticide Pollution Prevention Program which, in its herbicide evaluation function, has a photobiology component.

The ASP has been living at the financial edge. It would be my intent to put us firmly in the black so we can prosper and pursue our scientific goals. This would include a general streamlining of operations, with no increase in workloads, which I believe can be accomplished from my extensive contacts in the herbicide industry. I have no specific lofty goals. I believe that a President's job is to appoint good committees and to gently but firmly see that they do the best possible job of advancing the Society's aims. It is the membership that makes an organization. A President can only guide and cajole where appropriate.

You can see the results of my recent work for the ASP by looking at our web site, the committee which I chair. The "look and feel" of our Business Site is now identical to that of our ASP Site, all links (with a very few exceptions) are working, we have installed "widgets" that capture forthcoming *Photochem Photobiol* publications, the Member Directory is now

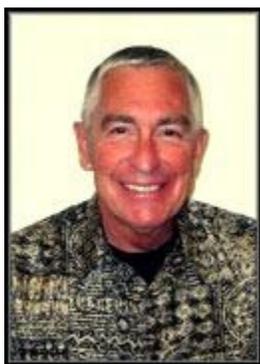
(Continued on page 4)

(Continued from page 3)

being updated regularly, etc. etc. On the Council, I have been instrumental in seeing to it that summaries of Council Meetings are made available to the membership within 30 days, instead of the usual 6 months. I am now compiling a "Policies and Procedures Manual" so that we do not have to rely on institutional memory when questions come up such as "Are Past Presidents entitled to a complimentary subscription to P&P?" (The answer is "No").

I am looking forward to serving the ASP with all my energy, as President or continuing as Councilor.

Candidates for Secretary



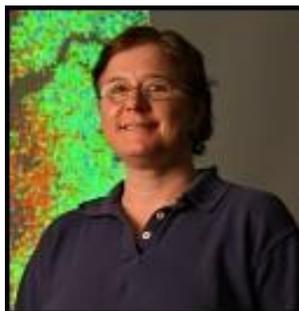
Don Forbes

Don Forbes has dual responsibilities: scientific advisory activity at Charles River Laboratories (www.CRL.com) and regulatory consulting work for Aclairo Pharmaceutical Development Group (www.Aclairo.com). Previously, Dr. Forbes was Professor of Dermatology at Temple Uni-

versity, helped build and manage CRL's Center for Photobiology for more than a decade, and also consulted on an independent basis in photobiology for about 20 years. In 1998, as acknowledgement of his experience and contributions to the field of toxicology, Dr. Forbes was admitted as a Fellow to the Academy of Toxicological Sciences.

Dr. Forbes has extensive experience with topical dermal and systemic pharmaceuticals, including psoralens, fluoroquinolones, porphyrins, photodynamic therapy drugs, sunscreens, immunosuppressive compounds, melanogenic products, retinoids, peroxides, Vitamin D derivatives, sunscreen formulations, and corticosteroids, along with numerous photobiologically important devices. He continues to be one of the central figures in expanding the pharmaceutical industry's understanding of photobiology through his pioneering work on animal models and through his publication of more than 100 peer-reviewed papers. Furthermore, he has advanced the development of comparative (clinical and preclinical) phototoxicity testing; developed standardized protocols for photocarcinogenesis testing; and chaired the committee responsible for the new international Standard Action Spectrum for Photocarcinogenesis (non-melanoma skin cancer).

Dr. Forbes has served on various expert committees, including those responsible for the Psoralen-UVA (PUVA) consensus document; the IARC monograph on UVR; and prevention of cancer with sunscreens. These and other documents provide the basis for the latest thinking on the scientific and public health issues associated with exposure to sunlight. Dr. Forbes is a charter member of the ASP and ESP and has served on the ASP Council.



Beth Gaillard

Elizabeth R. Gaillard received her B.S. in Chemistry from the Florida State University and her Ph.D. in Chemistry from the University of Texas at Austin. Her Ph.D. work involved the use of photochemical and radiation chemical

techniques to study organic reaction mechanisms. She carried out the majority of her graduate work and one year of postdoctoral work at the Center for Fast Kinetics Research, an NIH Research Resource that was at the forefront of developing spectroscopic methods to study problems of biological interest. Her postdoctoral work at the Center for Fast Kinetics Research primarily involved the application of these spectroscopic methods to study chemical mechanisms in cataract development. She carried out further postdoctoral studies at the Center for Photoinduced Charge Transfer at the University of Rochester, working on projects involving numerous aspects of materials and biological electron transfer reactions.

In 1996, she joined the faculty of the Department of Chemistry and Biochemistry at Northern Illinois University. In 2002, she received a joint appointment in the Department of Biological Sciences as an Associate Professor. She has graduated 4 Ph.D. and 4 M.S. students and is currently research advisor to 3 Ph.D. and 5 M.S. students.

Her current research interests are the molecular basis of human eye diseases, particularly contributions from photochemistry and photobiology, and diagnostic spectroscopy and imaging of the human eye. She has over 70 publications in these areas. She is currently a Councilor for the ASP, chair of the ASP Mentoring Committee, and an associate editor for *Photochem Photobiol.*

(Continued on page 5)

(Continued from page 4)

Currently, she is also Adjunct Associate Professor of Ophthalmic Science in the Department of Ophthalmology at Columbia University, New York.

Candidates for Council



Robert Sayre

Robert M. Sayre, Ph.D. is owner and president of Rapid Precision Testing Laboratories in Cordova TN 38016. After spending 18 years at Coppertone (Schering-Plough) developing sunscreen efficacy tests and instrumentation, Dr.

Sayre established the Rapid Precision Testing Laboratory. This laboratory provides precision spectroradiometric measurements and certification of light sources for use in testing of cosmetic and drug efficacy, safety, and stability testing. Dr. Sayre has published more than 100 research papers and book chapters about human risk and responses to UV radiation and sunlight exposure. Current research interests include human pigmentation, vitamin D, sunscreen photostability, and improved testing methodologies.



Bruce Branchini

Bruce Branchini received his B.S. in Chemistry from Lehigh University and an M.A. and Ph.D. from the Johns Hopkins University. At Hopkins, he worked with Emil White in the Department of Chemistry on the modification of firefly luciferase with substrate analogs. He did postdoctoral work on mechanism-based inhibition of enzymes with Konrad Bloch in the Department of Chemistry at Harvard University. Before joining the Chemistry Department at Connecticut College in New London in 1986, he held academic appointments as Associate Professor at the University of Wisconsin-Parkside and as a visiting Associate Professor at the Johns Hopkins University. He was the Chemistry Department Chair at Connecticut College for 20 years.

He has worked with undergraduates, research assistants, and research scientists for approximately 30 years investigating the basic biochemistry of light

emission by the firefly and applications of bioluminescence, some of which are relevant to medical and pharmaceutical science. Long-time research collaboration with Professor Roda (University of Bologna) has provided the basis for international undergraduate research programs he has conducted there. He was a contributor to the Digital Photobiology Compendium and won the Nancy Batson Nisbet Rash Faculty Research Award at Connecticut College in 2002. He continues to conduct bioluminescence research which is funded by the National Science Foundation and the Air Force Office of Scientific Research at Connecticut College. He is currently the Hans and Ella McCollum '21 Vahlteich Professor of Chemistry at Connecticut College and President of the International Society for Bio- and Chemiluminescence.

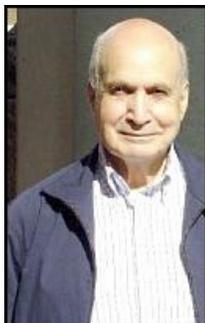


Evelyne Sage

Evelyne Sage received her M.S. in Biophysics and her Ph.D. in 1981 at the University of Orleans (France). Her post-doctoral training was on DNA damage and repair with Dr. W.A. Haseltine at Dana-Farber Cancer Institute/Harvard Medical School. Since 1977 she has had a research position at the CNRS (France). She joined the Institut Curie in Paris in 1984. Since then, she has been engaged in the field of photobiology and active in the field of DNA damage, repair, and mutagenesis induced by psoralen derivatives plus UVA, various components of solar UV radiation, as well as by ionizing radiation, as a leader of a research team at the Institut Curie in Orsay (www.curie.fr/recherche/themes/detail_equipe.cfm/lang/_fr/id_equipe/45.htm).

She joined the European Society for Photobiology at its creation in 1986 and has co-organized a number of symposia at ESP and ICP congresses. She is the secretary of the French Society for Photobiology and associate editor of ESP's journal, *Photochemical & Photobiological Sciences*. She has been a member of ASP since 2000 and is eager to actively contribute to the ASP council.

(Continued on page 6)



Mário Fragata

Mário Fragata was born on September 16, 1929, in Ponta Delgada, São Miguel Island, Azores. He entered the Faculty of Science of the University of Lisboa (Portugal) in 1955 and received a B.Sc. (L. ès Sc.) in biology in 1960. During this period, he was a research assistant in the Mycology Laboratory of the Institute of Botany. Then, he spent a year in Israel as research assistant at the Department of Botany of the Hebrew University of Jerusalem (1961-1962). While there, he studied the survival mechanisms of drought-resistant plants of the Negev desert, focusing on the photosynthetic aspects of this problem. Then, he went to the University of Lausanne in Switzerland, where he studied the physiology and biochemistry of plant hormones and earned a Ph.D. (D. ès Sc.) in 1967 from the Faculty of Science. From Lausanne, he moved to the other side of the Atlantic and did postdoctoral studies on plant embryo development at the Department of Plant Science of the University of Manitoba in Winnipeg, Canada (1967-1969).

He then was appointed to a teaching and research position (Assistant Professor) at the Department of Chemistry and Biology of the University of Québec in Trois-Rivières, Canada (1970). He was appointed full Professor there in 1975. He is now a Professor of Biophysics and Biochemistry in the Chemistry and Biochemistry Section of the same department. The present research interests of Mário Fragata are the structure-function relationships of biological electron transfer in photosynthetic membranes. In particular, he is interested in (i) fundamental aspects of photosynthetic pigment spectroscopy, (ii) lipid-protein and protein-protein interactions in photosystem II, and (iii) mathematical formulation of biological electron transfer reactions with the aim of predicting photosynthetic events.

Mário Fragata believes that study of the molecular and atomic aspects of solar energy capture and electron transfer in photosynthesis is of utmost importance for the discovery and improvement of novel high-efficiency solar energy capturing devices.

Mário Fragata believes that study of the molecular and atomic aspects of solar energy capture and electron transfer in photosynthesis is of utmost importance for the discovery and improvement of novel high-efficiency solar energy capturing devices.



Theresa Busch

Theresa Busch received a B.S. degree in Biophysics from the University of Scranton and a Ph.D. in Biophysics from the State University of New York at Buffalo, Roswell Park Cancer Institute Graduate Division. From 1998-2001, she studied as a postdoctoral fellow in the Department of Radiation Oncology, University of Pennsylvania, where she is currently Research Assistant Professor. Dr. Busch's research focuses on the biological effects of photodynamic therapy (PDT) in malignant and normal tissues. Her particular research interests include the study of PDT effects on tumor oxygenation and blood flow, as well as methods of modifying pre-existing or PDT-altered tumor microenvironment so as to improve long-term therapeutic outcomes. These interests extend to the clinic, where she has performed studies on photosensitizer uptake and the presence of hypoxia in the tumors and normal tissues of patients who are to receive PDT. She has a long-standing publication record in these areas, which includes manuscripts that have appeared as featured articles in *Cancer Research* and *Clinical Cancer Research*.

Dr. Busch was the recipient of the Dietrich Lubbers Award to a young investigator, presented by The International Society on Oxygen Transport to Tissues. She has served as an *ad hoc* reviewer on special emphasis panels in Radiation, Radiation Biology, and Medical Physics at the NIH. From 2001-2006, she also served as the director of the University of Pennsylvania Radiation Oncology Research Seminar Series. In this role, she was responsible for the selection, invitation, and coordination of visits from locally, nationally, and internationally renowned guest lecturers in radiation biology and related fields.

Currently, she is the director of *Cancer Biology*, a lecture series for medical residents in radiation oncology at the University of Pennsylvania. She also currently serves on the Membership Committee of the ASP.

Currently, she is the director of *Cancer Biology*, a lecture series for medical residents in radiation oncology at the University of Pennsylvania. She also currently serves on the Membership Committee of the ASP.

Photobiology Limericks

There were three submissions to the photobiology poetry contest announced by **Bodo Diehn** in the previous issue of *ASP News*.

The sun-worshipping folks of this nation,
All have thymidine dimerization.
 Despite warnings galore,
 They keep tanning for more,
Thus insuring their extermination!

-*Stuart L. Marcus*

There once was a Doktor named Finsen
Whose wife said "Niels, What are you thinkin'?"
 Said Niels "It is lupus,
 A disease quite dang'rous,
That's why the Nobel I'll be winnin'."

-*Anonymous*

A butterfly called *Papilio*
Sees light with its genitalia.
 Shine UV on the male,
 His organ goes upscale,
And then it's insect kama sutria*.

-*Peter A. Ensminger*

*Arikawa et al (1980) Multiple extraocular photoreceptive areas on genitalia of the butterfly, *Papilio xuthus*. *Nature* 288: 700-702.

ASP Homepage

Usage Statistics

Counter Dates: Dec 18, 2007 to March 11, 2008
(82 days)

Total page views: 4305 (avg of 70 per day)

Total unique visits: 2351 (avg of 32 per day)

Continent Share:

North America	52%
Europe	22%
Asia	19%
South America	3%
Australia/Oceania	3%
Unknown	1%

Publications by ASP Members

Symposium-in-Print Honoring Professor Margaret L. Kripke

The January-February issue of *Photochemistry and Photobiology* features a Symposium-in-Print that honors long-time ASP member **Margaret Kripke** for her many contributions to photoimmunology. This series features an "Introduction" by **Steve Ullrich** and nine additional contributions in the field of photocarcinogenesis and photoimmunology. These papers cover the molecular and cellular mechanisms of photocarcinogenesis, the role of the p53 tumor suppressor gene in the induction and prevention of skin cancer, the UV-induced degradation of collagen, and other topics.

Dr. Kripke has made many contributions to the field of immunology and has taken active roles in the ASP and other scientific societies. She is a former associate editor for *Photochemistry and Photobiology* and served as ASP President from 1997 to 1998. At the 32nd ASP meeting in Seattle (July, 2004), Dr. Kripke was awarded the ASP Lifetime Achievement award.

Photophysical Properties of Moxifloxacin

The fluoroquinolones are large class antibiotics that have a fluoro group attached their central ring systems. They are effective against a broad spectrum of pathogens and are often administered following infection by intracellular pathogens, such as *Mycoplasma pneumoniae* or *Legionella pneumophila*. Moxifloxacin (brand name Avelox®) is a fourth generation fluoroquinolone. Unfortunately, moxifloxacin and other fluoroquinolones can produce phototoxic or photoallergic responses in patients who are exposed to sunlight.

In a forthcoming issue of *Photochemistry and Photobiology*, **Fernando Lorenzo** and colleagues report on the photophysical properties of moxifloxacin by use of laser flash photolysis and pulse radiolysis. They conclude that light excitation of moxifloxacin produces cation radicals that can potentially cause cellular damage. However, moxifloxacin is less phototoxic than other fluoroquinolones that have comparable singlet oxygen yields in air-saturated solutions.

-**PAE** (modified from ASP web site)

Registration Form

34th Meeting Of the American Society for Photobiology

Print or type name clearly as you wish it to appear on your name badge. Only one form per meeting attendee. A spouse/guest may be included on the same form. Pre-registration must be postmarked before May 16, 2008, or will be considered on-site.

FIRST NAME: _____ LAST NAME: _____

AFFILIATION: _____

STREET ADDRESS: _____

CITY: _____ STATE: _____ POSTAL CODE: _____

COUNTRY: _____ PHONE: _____ FAX: _____ E-MAIL: _____

SPOUSE/GUEST NAME: _____

(includes receptions and banquet)

BANQUET CRUISE (included in registration) WILL YOU ATTEND? YES: NO: NUMBER ATTENDING: _____

(additional tickets may be purchased in advance only—no on-site tickets will be available)

ATTENDING WITH: ASP Member RRS Member PPS Group ESP Member ISPR Member

2008 MEETING RATES

	<u>EARLY</u> (Until 05/09/08)	<u>ADVANCE</u> (5/10/08—06/01/08)	<u>ON-SITE</u>	<u>SUB-TOTAL</u>
FULL Member	\$480.00 <input type="checkbox"/>	\$505.00 <input type="checkbox"/>	\$530.00 <input type="checkbox"/>	\$ _____
NON-MEMBER	\$580.00 <input type="checkbox"/>	\$605.00 <input type="checkbox"/>	\$630.00 <input type="checkbox"/>	\$ _____
ASSOCIATE MEMBERS (STUDENTS)	\$255.00 <input type="checkbox"/>	\$255.00 <input type="checkbox"/>	\$255.00 <input type="checkbox"/>	\$ _____
GUEST (includes receptions and banquet only)	\$210.00 <input type="checkbox"/>	\$210.00 <input type="checkbox"/>	\$210.00 <input type="checkbox"/>	\$ _____
EMR/PAST PRESIDENT	\$410.00 <input type="checkbox"/>	\$425.00 <input type="checkbox"/>	\$450.00 <input type="checkbox"/>	\$ _____
BANQUET CRUISE (additional tickets only— 1 banquet ticket included w/ registration)	\$150.00 <input type="checkbox"/>	\$150.00 <input type="checkbox"/>	N/A	\$ _____
			TOTAL	\$ _____

PAYMENT (Do not send cash)

Please make check payable to: **ASP**. All fees must be paid in U.S. funds and drawn on U.S. banks.

MAIL OR FAX PAYMENTS TO:

Mountain Destinations
243 Pegasus Dr, Ste 2
Bozeman, MT 59718
Fax: 406-587-2451
Email: info@mountaindestinations.com

Cancellation Policy: Written notice of cancellation received on or before May 16, 2008, will be refunded, minus a \$75.00 processing fee and \$40.00 for Spouse/Guest (to be processed after the meeting). No refunds will be issued for cancellation after May 16, 2008.

Check Enclosed : Visa MasterCard American Express

Card Number: _____ Exp.Date: ____/____

Print Name as it appears on card: _____

Signature: _____

Upcoming Events

See: www.pol-us.net/meetings.html

March 28-30; May 16-18; Sept 19-21, 2008

Biochemical Separations: An Introduction to Laboratory Techniques in Biotechnology
New Brunswick, NJ
Web site: www.rci.rutgers.edu/~crebb/bioseph.html

April 6-9, 2008

OSEO 9th World Congress
World Organization for Specialized Studies on Diseases of the Esophagus
Monaco
Web site: www.oeso.org

May 28-June 1, 2008

International Plant Photobiology Meeting (25th Annual Missouri Plant Biology Symposium)
Columbia, MO
Web site: www.biosci.missouri.edu/liscum/IPPM08.html

May 31-June 4, 2008

Summer School in Photochemistry
Maastricht, The Netherlands
Web site: www.hrsmc.nl/schoolEPA08_announcement.html

June 9-13, 2008

16th Ultrafast Phenomena Conference
Stresa (Lago Maggiore), Italy
Web site: www.ultraphenomena.org

June 15-19, 2008

13th International Conference on Retinal Proteins
Barcelona, Spain
Web site: icrp13.uab.cat

June 15-19, 2008

17th World Hydrogen Energy Conference
Brisbane, Australia
E-mail: whec2008@icms.com.au
Web site: www.whec2008.com/

June 20-25, 2008

34th ASP Meeting (American Society for Photobiology)
Burlingame, CA
Web site: www.asp2008.org

June 22-27, 2008

GRC: Photosynthesis
South Hadley, MA
Web site: www.grc.org

June 22-27, 2008

15th International Symposium on Carotenoids
Okinawa, Japan
Web site: www.carotenoid.jp/ISC2008/toppage.html

June 27-July 2, 2008

ASPB-2008 (American Society for Plant Biology)
Merida Mexico
Web site: www.aspb.org/meetings/pb-2008/

July 7-11, 2008

5th International Conference on Porphyrins and Phthalocyanines
Moscow, Russia
Web site: www.u-bourgogne.fr/spp/icpp.htm

July 20-25, 2008

GRC: Lasers in Medicine & Biology
Holderness, NH
Web site: www.grc.org

July 20-25, 2008

GRC: Chemistry & Biology of Tetrapyrroles
Newport, RI
Web site: www.grc.org

July 27-August 1, 2008

17th International Photochemical Conversion and Storage of Solar Energy
New South Wales, Sydney Australia
Web site: www.ips17.com

July 28-Aug 1, 2008

XXII IUPAC Symposium on Photochemistry
Gothenburg, Sweden
Web site: photoscience.la.asu.edu/Goteborg2008/

Sept 7-11, 2008

XIII International Symposium on Luminescence Spectrometry
University of Bologna
Bologna, Italy
Web site: www.isls2008.unibo.it/

October 4-8, 2008

5th European Meeting on Solar Chemistry and Environmental Applications
Palermo, Italy
Web site: spea5.altervista.org/

October 18-20, 2008

IV Latin American Congress of Photobiology
Porto Alegre, Brazil
Web site: www.LSPP.net

June 11-15, 2009

2009 International Photodynamic Association World Congress
Seattle, WA
Web Site: www.pms.ac.uk/ipa/congress2009.php

June 18-23, 2009

15th International Congress on Photobiology
Duesseldorf, Germany.

July 18-22, 2009

ASPB-2009 (American Society for Plant Biology)
Honolulu, Hawaii

Upcoming Events for Plant Biologists, 2007-08

American Society for Plant Biology
Web site: <http://aspb.org/calendar/listall.cfm>

Upcoming Events for Chemists, 2007-2008

American Chemical Society
Web site: www.chemistry.org/portal/a/c/s/1/acdisplay.html?DOC=meetings/index.html

