

33rd ASP Meeting July 8-12, 2006 Westin Rio Mar Resoirt

The 33rd ASP Meeting & 6th International Meeting on the Photostability of Drugs and Drug Products will be in beautiful Rio Grande Puerto Rico. An overview of the Scientific Program and the schedule are listed on the ASP web site, www.pol-us.net/ASP_Home/program-june-14.pdf. The theme of this year's meeting is "global climate change and photobiology" and is addressed by our keynote speaker, Dr Robert Corell; by the ASP/ESP Joint Symposium; and by two Symposia on UV effects in aquatic and terrestrial environments.



*Sentry box at El Morro, San Juan, Puerto Rico
(Photo courtesy of Spencer Thomas)*

This year we have a new interdisciplinary symposium aimed at stimulating interactions and collaborations between scientific divisions of the ASP. There are three "Photobiology Schools": one on free-electron lasers (FELs); one on bio-solutions for sustainable energy; and one on optimization of light sources for phototherapy. We have 27 Symposia spanning the scientific interests of society members. We want to particularly thank the Symposia chairs for their efforts in recruiting speakers for an exciting program. Social events include a welcome reception on Saturday July 8th, a wine and cheese reception on Sunday 9th, and the banquet on Monday 10th. All these are included with your registration fee.

Our venue this year is the beautiful Westin Rio Mar,

IN THIS ISSUE

33rd ASP Meeting	1
Contributors to Urbach Travel Award	1
Message from the President	2
Letter from the Editor	2
ASP Election Results	3
Associate Members	3
Urbach Travel Award winners	4
Research by ASP Members	6
ASP Homepage Statistics	7
Obituaries	7
Upcoming Events	8

which features spectacular ocean views and proximity to the renowned El Yunque rainforest, home to unique bird species. Also close by - and of particular interest to photobiologists - is the fascinating **Bioluminescent Bay**. Access within the hotel is available to a program with many activities for children with special emphasis on the local flora and fauna. We sincerely hope that you will take the opportunity to join us and participate in this exciting and timely scientific meeting.

Frances Noonan

Contributors to Urbach Travel Awards

The ASP would like to thank **AGI-Dermatics** and **Charles Rivers Laboratories** for their generous contributions to the "Urbach Memorial Endowment for Student Travel". Their contributions helped to support the attendance of 23 associate members at the 33rd ASP Meeting (July 8-12, 2006, Westin Rio Mar Resort, Rio Grande, Puerto Rico). We look forward to their continued support in the coming years.

Miguel Miranda

Message from the President



Steve Ullrich, ASP
President (2006-07)

I want to start by telling you how honored I am to be the next President of the ASP. Also I want to thank **Lisa Kelly** for her year of leadership. I also look forward to working with the President-elect, **Linda Jones**, and all the new and returning members of council during the coming year.

During my year as President-elect, I realized that there is a perception among some of our

members and friends that the ASP is in financial trouble. I want to assure all that the society is healthy. We have, as have all small societies that depend on the publication of a scientific journal for the majority of their income, faced some difficult times recently. The journal was once a “cash cow” and the profits from its publication funded all aspects of the society. Electronic publishing and the move to “open access” have changed the way the ASP and other scientific societies do business. I am happy to report that the journal is making money, and the upcoming move to Blackwell, our new publisher, should generate a positive margin for the length of the contract. But things will never return to the way that they were, so we need to be careful with our spending. Believe me, council spends every penny as if it was our last. Fortunately, due in large part to the outstanding job of our treasurer, **John Streicher**, we have money in the bank and our investments are doing well.

Back in October, **David Brooks**, a columnist for *The New York Times* stated, “The first job of any association president is to not offend his/her members”. I think that this is good advice, and I certainly will try to adhere to this wise council. But I do want to challenge the membership, which may make some uncomfortable (close to offending but not there yet?). We still face some formidable problems. What I have always loved about ASP is the scientific meetings: small, multi-disciplined, with a critical mass of first-rate scientists in their respective fields, so that attending the meeting has real impact. I know that many of you feel the same way. Yet we lost money at the last two meetings, in part because of low

(Continued on page 3)

Letter from the Editor

If you haven't noticed, several months ago I unveiled the newly designed ASP web site (www.photobiology.org). In addition to the improved appearance, the coding underneath our pages are now compliant with W3C standards for XHTML version 1.1-strict and CSS (XHTML: “extensible hypertext markup language”; CSS: “cascading style sheets”). The W3C (www.w3c.org) is an international consortium headed by **Tim Berners-Lee**, inventor of the web, that develops web standards and guidelines. If all this seems like gibberish, be assured that compliance with W3C standards has many benefits. These include: better forward and backward compatibility; reduction of maintenance problems and facilitation of updates; device independence; and improved accessibility. Our pages are also fully compliant with Section 508 standards, which means that we meet US government standards for accessibility by people with disabilities.

What future changes lie in store for our web site? While I have updated our “Jobs” page, which now has a prominent link near the top of the homepage, Associate Councilor **Jen Dashnau** (see her article on page 3) urges an expanded jobs page and a stronger mentoring section. Please see Jen or me at the upcoming ASP Meeting and let us know what you think! We will both be at the mentoring lunch, to which all associate members have been invited.



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@twcny.rr.com

Layout

Tracy A. Newman

E-mail: tnewman@everestkc.net

(Continued from page 2)

attendance. If you value our small, intimate, yet interesting meetings, you need to support the Puerto Rico meeting and attend.

I also want to hear from you (although Mr. Brooks did not say so, I think the job of the membership is to make the President uncomfortable, as it keeps him/her on their toes!). What can I do to make our society more successful? Please let me know. If you have an idea, question, or comment please e-mail me. The unique strength of a scientific society like the ASP is the intellectual power of its members. Please share that intellectual power with me and the rest of Council so that we can do a better job of serving you.

Steve Ullrich
sullrich@mdanderson.org

ASP Election Results



*Linda Jones, ASP
President-elect.*

slightly less than the previous (paper ballot) election and the ASP saved about \$3200 in printing and postage costs.

Linda Hardwick

Associate Members



*Jennifer Dashnau,
ASP Associate
Councilor.*

Have you taken full advantage of the opportunities provided you with membership in the American Society of Photobiology? If not, now is the time to experience the benefits of being a member. The upcoming ASP meeting (July 8-12) presents a great opportunity to share your research and to interact with leading researchers in photobiology and photochemistry.

Mentoring Lunch

The mentoring lunch (Monday, July 10 from 12:30 to 1:30 P.M.) provides an informal and intimate setting where associate members can converse with senior members on topics ranging from research interests to career advancement. A list of participating senior members, along with information about their research interests, will be available for perusal prior to the luncheon.

New Associate Councilor

For associate members looking to give back to the society, the position of Associate Councilor will be vacant. This position is an excellent way to influence the direction of the society. The Associate Councilor is a voting member of the ASP Council, represents the interests of associate members at meetings, and serves on committees within the society over the course of a two-year term. Candidates should be highly motivated and dedicated to serving the needs of this constituency. Associate members who are interested in serving in this position should contact me or another member of the council via e-mail or at the Puerto Rico meeting. Contact information can be found by clicking on "Councilors" at www.photobiology.org.

Progress and Future Plans

Now, I'd like to comment on progress made in improving the experience of associate members in the ASP. In the summer 2005 issue of *ASP News*, several objectives were presented related to the construction of an associate member presence on the ASP website. I am pleased to announce that in the past year, a web page devoted to associate members has been added to the site. Additionally, a "Jobs" section has been added at the top of the ASP homepage, www.photobiology.org.

While this progress is a step in the right direction, I believe that several tasks must still be addressed. With regards to the web site, I suggest:

- The **Mentoring Section** should be developed further to promote networking between members and associate members.
- The **Jobs Section** should be converted to an automated posting system to further simplify the process of posting and searching for available positions.
- An **Archivable Discussion Board** should be

(Continued on page 4)

(Continued from page 3)

added to facilitate discussion on topics such as writing and presenting posters, presentations, scientific publications and dissertations, searching for positions, and tips for job interviews.

As always, your feedback and suggestions are highly

encouraged! The benefits of membership will only increase as your participation in the ASP increases. I look forward to hearing from you.

Jennifer Dashnau

Associate Member Representative

Urbach Travel Award Winners

The ASP is pleased to announce the winners of the **Frederick Urbach Memorial Travel Award**. This award supports the travel of Associate Members to the 33rd ASP Meeting (July 8-12, 2006; Westin Rio Mar Resort; Rio Grande, Puerto Rico).

Award Winner	Institution	Mentor	Abstract title
Ahmet Altiner	Dermatology Branch, National Cancer Institute Bethesda, MD	Jonathan Vogel	Identifying biosensor genes that quantify human epidermal response to UV radiation
Cara L Benjamin	Immunology, MD Anderson Cancer Center Houston, TX	HN Ananthaswamy	A Specific Codon 172 Mutation in the p53 Gene Results in increased UV Sensitivity
Scott Byrne	Immunology, MD Anderson Cancer Center Houston, TX	Stephen E Ullrich	UV-induced activation of suppressor B cells is activated by both PAF and serotonin receptors
Yeissa Chabrier-Rosello	Microbiology & Immunology, University of Rochester Medical Center Rochester, NY	Thomas Foster	Differential susceptibility of <i>Candida albicans</i> and <i>Candida glabrata</i> to hydrophobic and cationic photosensitizers
Sergio G Coelho	Laboratory of Cell Biology, NIH Bethesda, MD	Janusz Z Beer	Analysis of UV-induced Pigmentation from Repeated Exposures and Evaluation of Melanin Redistribution
Monica Davis	College of Charleston Charleston, SC	Linda R Jones	An MRP2 transport model from the Malpighian tubules of the cricket, <i>Acheta domesticus</i>
Diana Dregoes	McMaster University Hamilton, ONT CA	Andrew J Rainbow	Increased expression of p53 enhances transcription-coupled repair of UVC-induced DNA damage in human cells
Joshua Fuller	Department of Cell Biology, Medical University of South Carolina Charleston, SC	Linda Jones	Investigation of the mechanism of resistance of A549 lung cancer cells to light-independent merocyanine 540 uptake

Agnieszka Wolnicka-Glubisz	Dermatology, George Washington University Washington, DC	Frances Noonan	Deficient inflammatory response to UVB in neonatal mice
Jennifer Green	Department of Biochemistry and Biophysics, University of Pennsylvania Philadelphia, PA	Jane Vanderkooi	Examination of the fluorescence yield in mutant glucokinase by use of computer modeling
Yu-Ying HE	Laboratory of Pharmacology and Chemistry, NIEHS Research Triangle Park, NC	Colin F Chignell	Chronic UVA irradiation of human HaCaT keratinocytes induces malignant transformation associated with acquired apoptotic resistance
Virginie Lhiaubet-Vallet	Instituto de Tecnología Química UPV-CSIC Valencia, Spain	Miguel Angel Miranda	The triplet energy of thymine in DNA
Wesley C Jackson	Medical College of South Carolina Charleston, SC	Rosalie Crouch	Palmitate removal by hydroxylamine in bovine rhodopsin
Jennifer Dashnau	Department of Biochemistry and Biophysics University of Pennsylvania Philadelphia, PA	Jane Vanderkooi	The influence of glycerol concentration on the hydrogen bonding network in glycerol/water mixtures
Frederique Kandel	Department of Zoology University of Hawaii Kaneohe, HI	Robert Kinzie	Potential transfer of UVR protection from coral to fish
Kazuyo Kaneko	Department of Dermatology, Kings College London London, England	Antony Young	Cis-urocanic acid initiates gene transcription in primary human keratinocytes
George Khouri	Department of Cell Biology, Medical University of South Carolina Charleston, SC	Linda Jones	Photosensitizer Quantification in the Rat Esophagus
Colleen Trevithick-Sutton	Department of Chemistry, University of Ottawa Ottawa, CA	JC Scaiano	Effects of UVC- and UVB-Induced Photooxidation of DNA on the Intercalation of Thiazole Orange Dye: A Highly Sensitive Reporter for Oxidative Damage
Pawel Mroz	Wellman Center for Photomedicine, Massachusetts General Hospital Boston, MA	Michael R Hamblin	Photodynamic therapy generates anti-tumor immunity against a β -galactosidase expressing tumor but not its wild-type counterpart

Andrew Pye	Dermatology Research, Peninsula Medical School Royal Cornwall Hospital Cornwall, UK	Alison Curnow	The Hydroxypyridinone Iron Chelator CP94 is Superior to Desferrioxamine at Increasing PpIX Fluorescence in Cultured Human Cells for Photodynamic Therapy
Sarika Verma	Wellman Center for Photomedicine, Massachusetts General Hospital Boston, MA	Tayyaba Hasan	Enzyme activated Photosensitizers for use in antimicrobial Photodynamic therapy
Albert Wielgus	Department of Natural Sciences, Fordham University New York, NY	Joan Roberts	Blue light induces A2E oxidation in the rat eye
Caradee Wright	Department of Preventive & Social Medicine, University of Otago Dunedin, New Zealand.	Anthony I Reeder	Youth Solar UV Radiation Exposure, Concurrent Activities and Sun Protection Practices: A Review

Research by ASP Members

Review of Photomovement Responses in Cryptogams

In a forthcoming issue of *Photochemistry and Photobiology*, **Noriyuki Suetsugu** and ASP member **Masamitsu Wada** (National Institute for Basic Biology, Okazaki, Japan) review the regulation of photomovement responses in cryptogams (spore-producing plants). These photomovement responses include phototropism, chloroplast movement, and stomatal opening. The sensory pigments of cryptogams detect red and blue light and presumably allow more efficient capture of light by photosynthetic pigments. The recently discovered neochrome (a chimeric phytochrome/phototropin photoreceptor) has arisen independently in ferns and green algae. The full text of this review article is available online at phot.allenpress.com.

Dissipation of Excess Energy in Photosynthesis

Excess illumination can damage the photosynthetic apparatus of plants, but a process known as "non-photochemical quenching" can harmlessly dissipate this excess energy. In a recent issue of *Proceedings of the National Academy of Sciences* (vol 103: 5343-8), ASP members **Devens Gust**, **Ana Moore**, **Tom Moore** (Arizona State University) and colleagues

report their investigation of the mechanism of non-photochemical quenching in photosynthesis. In their model system, a carotenoid accepted and harmlessly dissipated excess excitation energy. Interestingly, the addition of a single double bond to a carotenoid transformed it from a non-quencher into an effective quencher. A similar mechanism presumably occurs in plants, where zeaxanthin (a carotenoid that accumulates under high light levels) may quench excess photochemical energy.

(reprinted with modification from the ASP web site)



Waterfall in El Yunque National Rainforest, Puerto Rico (Photo courtesy of Spencer Thomas)

John Spikes

Rest in Peace

It is with sadness that we inform our colleagues of the passing of John Spikes on Wednesday, June 14. John was Professor Emeritus at the University of Utah since 1989 and former ASP President (1974-75) and recipient of the ASP Lifetime Achievement Award (1992). John was the first researcher to perceive and demonstrate the important role of proteins in cell photosensitisation, a discovery that has important implications for research in photodynamic therapy. We extend our sympathy to his family, colleagues and friends. A full obituary will appear in the next issue of the newsletter.

PAE

ASP Homepage

Usage Statistics

Visits to the ASP homepage, www.photobiology.org, are being monitored by bravenet.com. A "page view" (or "hit") is recorded every time there is a visit to the homepage. A "unique visit" is recorded every time a visitor has not viewed the homepage in the previous 24 hours. Visits by the webmaster (PAE) were excluded from all statistics.

Counter Dates: Mar 13-June 14, 2006 (93 days)

Total page views: 5750 (avg of 61.8 per day)

- Avg of 75.3 on each weekday
- Avg of 25.2 on each weekend day

Total unique visits: 3743 (avg of 40.2 per day)

- Avg of 49.0 on each weekday
- Avg of 16.4 on each weekend day

Donald Robertson

(1914-2006)

On January 18, Dr. Donald Fyfe Robertson passed away in Brisbane, Australia. Throughout the years, Dr. Robertson made numerous presentations at ASP meetings and collaborated with many ASP members, including **Fred Urbach** (ASP President, 1977-78), **Daniel Berger**, and **Ronald E. Davies**. He also taught physics at the University of Queensland. Following a long career in photobiology, Dr Robertson became senior physicist at the Queensland Radium Institute in Brisbane, from which he retired in July 1981.

Dr. Robertson began his studies of the biological effects of sunlight on human skin in the early 1950's. At that time, skin cancer was a very serious problem in northern Queensland, but the exact role of ultraviolet radiation was not clear. His PhD dissertation, completed in 1972, was entitled *Solar Ultraviolet Radiation in Relation to Sunburn and Skin Cancer*. The research in his dissertation and his subsequent research, led to the development of the "sun protection factor" (SPF) used to classify sunscreens.

Another notable accomplishment was Dr. Robertson's development of a meter that measured the ultraviolet component of sunlight. These UV meters, developed in the 1950's, were initially positioned in Brisbane, Townsville, Mount Isa, Papua New Guinea, and Melbourne. Later in the 1960's, he made improvements in the UV meter in collaboration with several American researchers, including **Daniel Berger**. The meter eventually was named the "Robertson-Berger Meter". Today, hundreds of UV meters that were derived from the initial Robertson-Berger meter are in use throughout the world.

Dermatologists and photobiologists will remember Dr. Robertson's research for many years to come.

PAE



Upcoming Events

June 11-16, 2006

17th Inter-American Photochemistry Society Conference
Salvador, Brazil
Web site: www.i-aps.org/17th_iaps_conf-1st.html

June 22-25, 2006

Symposium on Plant Receptor Signaling
Iowa State University
Ames, Iowa
Web site: www.bb.iastate.edu/~gfst/PSIframeset.html

June 22-24, 2006

5th International Workshop on Photodynamic Therapy and Photodetection with Porphyrin Precursors
Buenos Aires, Argentina.
Contact: Qian Peng
Department of Pathology
The National Hospital-The Norwegian Radium Hospital
University of Oslo, Oslo Norway
E-mail: qian.peng@labmed.uio.no

July 2-7, 2006

Gordon Research Conference Photosynthesis
Bryant University
Smithfield, RI
Website: www.grc.org/programs/2006/photosyn.htm

July 2-7, 2006

ICPP-4 International Conference on Porphyrins and Phthalocyanines
Angelicum Pontifical University of St. Thomas
Rome, Italy
Web site: icpp.uniroma2.it/cgi-bin/WebObjects/icppweb

July 8-12, 2006

33rd ASP Meeting
Westin Rio Mar Resort
Rio Grande, Puerto Rico
Website: www.photobiology.org

August 5-9, 2006

Plant Biology 2006
American Society for Plant Biology
Canadian Society of Plant Physiologists
Hynes Convention Center
Boston, MA
E-mail: info@aspb.org
Tel: (301) 251-0560 Web site: www.aspb.org/meetings/pb-2006/pb06flyer.pdf

August 7-11, 2006

BioCD-2006 Short Course in Circular Dichroism Spectroscopy of Proteins and Nucleic Acids
National Synchrotron Light Source
Brookhaven National Laboratory
Upton, NY
Web site: www.nsls.bnl.gov/newsroom/events/workshops/2006/biocd/

August 20-26, 2006

Photosynthesis in the Post-Genomic Era: Structure and Function of Photosystems
Pushchino (Moscow Region), Russia
Web site: psmeeting.ibbp.psn.ru

September 18-22, 2006

14th International School on Quantum Electronics: Laser Physics and Applications
Sunny Beach, Bulgaria.
Web site: www.sqe2006.dir.bg/

October 10-14, 2006

6th International Symposium on Photodynamic Diagnosis and Therapy in Clinical Practice
Brixen/Bressanone, Italy
Web site: www.uibk.ac.at/neurochirurgie/PDT2006.html

October 15-19, 2006

14th International Symposium on Bioluminescence and Chemiluminescence
Paradise Point Resort and Spa
San Diego, CA
Web site: www.blcl14.org/

November 17-20, 2006

3rd Asia and Oceania Conference on Photobiology
Beijing, China
Web site: www.aosp2006.org.cn/

March 3-7, 2007

2007 Biophysical Society Annual Meeting
Baltimore, MD
Web site: www.biophysics.org

March 28-31, 2007

11th World Congress of the International Photodynamic Association
Shanghai, China
Website: www.ipa2007-shanghai.com
E-mail: lasercenter@163.com

June 9-16, 2007

Graduate summer school: Biophotonics '07
The Island of Ven
Backafallsbyn, Sweden.
Web site: www.biop.dk/biophotonics07/

July 7-11, 2007

Plant Biology 2007
American Society for Plant Biology
Chicago, IL

Jul 8-13, 2007

Gordon Research Conference Photochemistry
Bryant University
Website: www.grc.org/07sched.htm

July 23-27, 2007

Photosynthesis 2007
Society for Experimental Biology
Glasgow, Scotland
Web site: www.sebiology.org/Meetings/pageview.asp?S=2&mid=84

September 1-6, 2007

12th ESP Congress
Bath, United Kingdom
Web site: www.esp-photobiology.it/congresses/conference2007.html

June 18-23, 2009

15th International Congress on Photobiology
Duesseldorf, Germany.