

## 2006 ASP Meeting July 8-12, 2006



*Westin Rio Mar Resort in Rio Grande, Puerto Rico.*

### **Preliminary Program**

(schedule is subject to change—please check website for corrections)

#### **Sat, July 8**

- 8AM - 6PM Registration
- 9AM - 5PM Photostability (*PPS* Course)
- 2PM - 6PM ASP Council Meeting

#### **Sun, July 9**

##### **Morning**

- Poster Set up
- Photobiology School: FELLS Laser Applications to Photobiology
- Kendric C Smith Symposium
- The Family of GFP-like Proteins
- Pre-Clinical & Clinical Imaging in PDT
- Phototoxicity-I
- Chromophore-protein interactions in open-chain tetrapyrrol chromoproteins

##### **Afternoon**

- Keynote Speaker
- ASP/ESP Joint Symposium: Global Climate Change and Photobiology
- Cellular & Molecular Mechanisms of Action in PDT
- Phototoxicity-II

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- Photobiology of the Eye
- Poster Session

#### **Mon, July 10**

##### **Morning**

- Posters and Exhibits
- Photobiology School: Update on Stratospheric Ozone depletion
- Presidents' and Awardees' Lectures
- Vitamin D
- UV Effects in Aquatic and Terrestrial Environments-I
- Carotenoids
- Photochemistry Mechanisms: Case Studies

##### **Afternoon**

- Inflammation and Immunity
- UV Effects in Aquatic and Terrestrial Environments-II
- Photostability Testing: Case Studies
- Interesting Applications of Psoralens
- Offered Papers

#### **Tues, July 11**

##### **Morning**

- Posters and Exhibits
- Photobiology School

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- UV/DNA Photochemistry: Early Events in Photochemistry and Photobiology I & II
- Analytical Aspects of Phototesting
- Advances in the Mechanisms of Action of Photophoresis
- Photoimmunotherapy
- Photosynthesis
- Patient in use Photostability
- UV/DNA Photochemistry-II
- Photoimmunology
- Offered Papers
- Undergrad Poster Session

### Afternoon

Free from 1:30 PM

### Wed, July 12

#### Morning

- Posters and Exhibits
- Photobiology School; Photodermatology
- Organic Photochemistry: A Tribute to Chris Foote
- Photoreception and DNA repair by flavoproteins
- Personal Dosimetry
- Photostabilization and impact of excipients and packaging on drug photostability.
- Offered Papers

### ASP Business Meeting (12:30 – 1 PM)

#### Afternoon

- Photocarcinogenesis
- Photostability of Non Standard Dosage Forms
- Pre-Clinical and Clinical Modulation of PDT

### Social Events

Sat, July 8 (7-9PM) Welcome Reception

Sun, July 9 (12:30-1.30 PM) Past President's Lunch

Mon, July 10 (12:30-1.30 PM) Mentoring Lunch

Mon, July 10 (7:30-10PM) Banquet

Tues, July 11 (1.30- ) Afternoon Tours of Puerto Rico

### Important Deadlines

- Urbach Travel Award: Applications due **April 15**
- New Investigator Award: Nominations due **April 15**
- ASP Research Award: Nominations due **April 15**
- Early Registration: Reduced rate until **April 28**
- Abstracts: Submission by **May 15**
- Exhibitors: Applications due **May 31**

### Web site

[www.photobiology.org](http://www.photobiology.org) >> click "33<sup>rd</sup> ASP Meeting"

## Letter from the Editor

### 33<sup>rd</sup> ASP Meeting

There will be many exciting presentations at this year's ASP meeting in Puerto Rico. Please make every effort to attend the "Inter-Disciplinary Symposium on Photobiology" on Sunday, July 9 (8-10 AM). This will be a regular event at ASP meetings. This symposium is supported by a very generous endowment from founding ASP President, **Kendric C Smith**.

Another event that should be attended by all associate members is the "Mentoring Lunch" on Monday July 10 (12:30-2 PM). The luncheon is free to all associate members. This will be a great opportunity to meet established members of the ASP. You can ask them about the paths their careers have taken or how they chose their specialties within photobiology. This event also encourages the attendance of established members of the ASP who are interested in mentoring associate members. Established ASP members will be open in sharing their career experiences and discussing how they chose to become photobiologists.

Finally, there is a free afternoon on Tuesday July 11 so you can tour Puerto Rico. One of the many beautiful



places to visit is the El Yunque National Forest, which lies just a few miles from our hotel. If you're lucky you may even get to see the endangered Puerto Rican parrot.

*Amazona vittata, the endangered Puerto Rican parrot. This rare species (about 40 individuals in the wild), is only found in the El Yunque National Forest. Photo from the USGS.*

### ASP News

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[www.photobiology.org](http://www.photobiology.org)

#### Editor

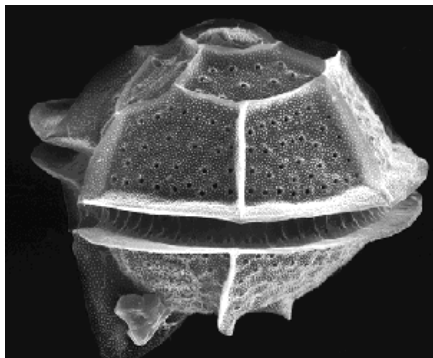
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## Bioluminescent Bays An Exciting Experience



*Pyrodinium bahamense* (Greek for “whirling fire”), a bioluminescent dinoflagellate that is abundant in the waters off Puerto Rico.

As mentioned in the last Newsletter, there are standing populations of bioluminescent dinoflagellates in several locations in Puerto Rico, two of which are quite spectacular. I feel sure that many of you will appreciate seeing such a display during the time of the upcoming ASP meeting.

One is a bay called La Parguera on Puerto Rico’s southwestern coast near Guánica. There is a small marine biology lab nearby and one can sometimes find locals who will take you on a boat to the bay about a mile or two away. The other Bioluminescent Bay is tucked into a quiet cove on the small island of Vieques (east of the main island). There are commercial tours for visiting there, well advertised on web sites. Just search Google for <bioluminescence AND Puerto Rico> or go directly to [www.npca.org/explore\\_the\\_parks/new\\_parks/bioluminescent.asp](http://www.npca.org/explore_the_parks/new_parks/bioluminescent.asp).

These displays have to be seen at night, of course, preferably when moonless or overcast. The light emission by these single celled organisms occurs as brilliant individual flashes in response to mechanical stimulation, such as the wake of a boat or a paddle in the water. A fish swimming in the water will be brilliantly outlined by the luminescence, as you will be if you dive in, as you can and should!

The *Digital Photobiology Compendium*, [www.photobiology.info](http://www.photobiology.info), created by **Dennis Valenzano**, has numerous articles on bioluminescence that are edited by **John Lee**. For some basic information about dinoflagellate biology, biochemistry, and luciferase genes see:

Hastings JW, Liu L, Schultz W (2005) Dinoflagellate Bioluminescence and its Circadian Regulation. In: Bioluminescence (John Lee, Editor), *The Digital Photobiology Compendium*.

**-Woody Hastings**

## Research by ASP Members

### Sensitivity to UV Radiation in Freshwater Fishes

Organisms use two main mechanisms to repair DNA that is damaged by UV radiation: nucleotide excision repair and photoenzymatic repair. Little is known about which of these is used by freshwater fishes. In a forthcoming issue of Photochemistry and Photobiology, Mark Olson and ASP member David L Mitchell (M.D. Anderson Cancer Center, University of Texas) present laboratory experiments that compare the UV repair mechanisms of five freshwater fish species that are from four taxonomic families and three taxonomic orders. Their results show that all species used nucleotide excision repair but only two species used photoenzymatic repair.

### Modulation of Bioluminescence Color in *Vibrio fischeri*

*Vibrio fischeri* is a bioluminescent bacterium that is a well-known symbiont of the light-emitting organs of sepiolid squids and monocentrid fishes. *V. fischeri* bioluminescence is unusual among marine bacteria because it is yellow ( $\lambda_{max}$  535 nm), due to the presence of a secondary emitter, Yellow Fluorescent Protein (YFP). Furthermore, the bioluminescence color of *V. fischeri* can be reversibly and rapidly altered between blue and yellow, a phenomenon known as “bioluminescence modulation”. In a forthcoming issue of Photochemistry and Photobiology, ASP member Hajime Karatani (Kyoto Institute of Technology) and colleagues report their study of *V. fischeri* using bioluminescence spectroscopy, fluorescence spectroscopy, and 2-D protein gel electrophoresis. They show that bioluminescence modulation occurs near the cell membrane and that the level of YFP is a critical factor in determining the level of yellow bioluminescence.

### Improving Antimicrobial Photodynamic Therapy

Antimicrobial photodynamic therapy (PDT) entails use of a photosensitizing dye and light to kill microbial cells. Phenothiazinium compounds are the only dyes currently used for clinical antimicrobial PDT. In the January 2006 issue of Antimicrobial Agents and Chemotherapy, George Tegos and ASP member Michael Hamblin (Wellman Center for Photomedicine,

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Massachusetts General Hospital) present experiments showing that bacterial mutants that are deficient in the multidrug resistance (MDR) pump are 100 to 10,000-fold more sensitive to phenothiazinium-mediated PDT. They suggest that specific MDR pump inhibitors may be effective in enhancing the effectiveness of clinical antimicrobial PDT.

(reprinted with modification from the ASP web site)



## POL Update

We have made substantial updates to Photobiology Online (POL), [www.pol-us.net](http://www.pol-us.net). Currently, POL focuses on topics that are related to the integration, cooperation, and coordination of the ASP, ESP, and other photobiology societies. These include four major areas: **Societies**, **Meetings**, **Publications**, and **Jobs**. Please send announcements of photobiology job openings and photobiology meetings to [ensmingr@twcny.rr.com](mailto:ensmingr@twcny.rr.com).

-PAE

## ASP Homepage Usage Statistics

Visits to the ASP homepage, [www.photobiology.org](http://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:** Dec 2, 2005 – Mar 12, 2006 (101 days)

**Total page views:** 4047 (avg of 40.1 per day)

- Avg of 51.0 on each weekday
- Avg of 15.6 on each weekend day

**Total unique visits:** 2495 (avg of 24.7 per day)

- Avg of 31.4 on each weekday
- Avg of 9.61 on each weekend day

## Correction

There were two mistakes in the obituary of **Wolfgang Haupt** in the previous newsletter. On page 3 (left column, lower half) it should read **Mary E. Feinleib** (not Martin). Three lines lower, the year should read 1979 (not 1985).

-PAE

## ASP Membership Emeritus Members

Emeritus members of the ASP are entitled to free access to the on-line version of *Photochem Photobiol* at [www.aspjournals.com](http://www.aspjournals.com). A print version is available for only \$50.00 per year (to cover the cost of printing and mailing).

In addition, Emeritus members may attend ASP meetings at the regular membership discount. This year we have the special honor of hosting the inaugural "Inter-Disciplinary Symposium on Photobiology". This symposium will be a regular event at our biennial meetings and is supported by a very generous endowment from founding ASP President, **Kendric C Smith**.

## Lapsed Members

If you or a colleague has let his or her membership in the ASP lapse, now is an excellent time to renew. This is an exciting time for photobiology, as technological advances in optics, lasers, and photonics drive the development of new techniques. The ASP is a dynamic, proactive society that is working hard to promote the interests of the photobiology community.

The upcoming 33rd ASP meeting in San Juan, Puerto Rico promises to be an exceptional opportunity to participate in an international forum in an exciting venue. Unlike many other scientific meetings that can have an overwhelming number of attendees, approximately 400 individuals attend ASP meetings, so speakers and other presenters are easily approachable by participants.

ASP members also receive:

- The bimonthly journal, *Photochemistry and Photobiology*, in print and electronic format
- Access to the online archives and other databases maintained by ASP
- Discounted registration rates at annual ASP and ESP meetings

In addition, students and post-docs can become Associate members at a discounted price and are eligible for travel awards and other opportunities.

-Miguel Miranda



## Upcoming Events

### April 2-7, 2006

*21<sup>st</sup> IUPAC Symposium of Photochemistry*  
Kyoto, Japan  
Contact: Masahiro Irie  
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Web site: [www.pac.ne.jp/photoiupac2006](http://www.pac.ne.jp/photoiupac2006)

### April 3-7, 2006

*Photonics Europe 2006*  
Palais de la Musique et des Congrès  
Strasbourg, France  
Web site: [spie.org/conferences/calls/06/epe/](http://spie.org/conferences/calls/06/epe/)

### April 30 - May 5, 2006

*Gordon Conference  
Photosensory Receptors & Signal Transduction*  
Il Ciocco, Barga, Italy  
Web site: [www.grc.uri.edu/programs/2006/photosen.htm](http://www.grc.uri.edu/programs/2006/photosen.htm)

### June 4-8, 2006

*International Conference on Retinal Proteins*  
Awaji International Conference Center  
Hyogo, Japan  
Web site: [www.pac.ne.jp/12icrp/](http://www.pac.ne.jp/12icrp/)

### June 11-16, 2006

*17th Inter-American Photochemistry Society Conference*  
Salvador, Brazil  
Web site: [www.iaps.org/17th\\_iaps\\_conf-1st.html](http://www.iaps.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](http://www.bb.iastate.edu/~gfst/PSIframeset.html)

### June 22-25, 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](mailto: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](http://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](http://icpp.uniroma2.it/cgi-bin/WebObjects/icppweb)

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Westin Rio Mar Resort  
Rio Grande, Puerto Rico  
Website: [www.photobiology.org](http://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](mailto:info@aspb.org)  
Tel: (301) 251-0560 Web site: [www.aspb.org/meetings/pb-2006/pb06flyer.pdf](http://www.aspb.org/meetings/pb-2006/pb06flyer.pdf)

### March 9-12, 2007

*11th World Congress of the International Photodynamic Association*  
Shanghai, China.  
Website: [www.ipa2007-shanghai.com](http://www.ipa2007-shanghai.com)  
E-mail: [lasercenter@163.com](mailto:lasercenter@163.com)

### 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](http://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](http://www.sebiology.org/Meetings/pageview.asp?S=2&mid=84)

### September 1-6, 2007

*12<sup>th</sup> ESP Congress*  
Bath, United Kingdom  
Web site: [www.esp-photobiology.it/congresses/conference2007.html](http://www.esp-photobiology.it/congresses/conference2007.html)

### June 18-23, 2009

*15th International Congress on Photobiology*  
Duesseldorf, Germany.



*Westin Rio Mar Resort in Rio Grande, Puerto Rico.*