

2006 ASP Meeting Rio Grande, Puerto Rico July 8-12, 2006

The 33rd Meeting of the ASP will be held July 8-12, 2006 at the Westin Rio Mar Resort in Rio Grande, Puerto Rico. The group for the *Photostability of Drugs and Drug Products* will join us in Puerto Rico. This will be the first meeting in our new biennial schedule.

The keynote speaker will be **Robert Corell**, Chair of the *Arctic Climate Impact Assessment*. Dr. Corell will speak about global climate change, which is also the theme of the joint ASP/ESP Symposium. A series of plenary lectures, endowed by **Kendric Smith** (founder of the ASP and past editor of *Photochem Photobiol*) will be inaugurated in Puerto Rico. The series is charged with presenting work that cuts across disciplinary boundaries in photobiology and that will inspire innovation.

Our meeting will feature symposia on photochemistry (including the photochemistry of UV effects on DNA), Green Fluorescent Protein, Light-Oxygen-Voltage protein domains, carotenoids, phytochrome, photoimmunology, photocarcinogenesis, vitamin-D, photodynamic therapy, aquatic effects of ultraviolet radiation, personal dosimetry, and the mechanisms of phototherapy. Several additional symposia are in the planning stages. The PPS group will run a course on Saturday, July 8 and several symposia throughout the meeting on phototoxicity, photostability, drug photochemistry, and photostabilization. Twelve sessions have been scheduled for submitted papers. We all look forward to submissions from ASP members, especially associate members!



El Yunque, the Caribbean National Forest.

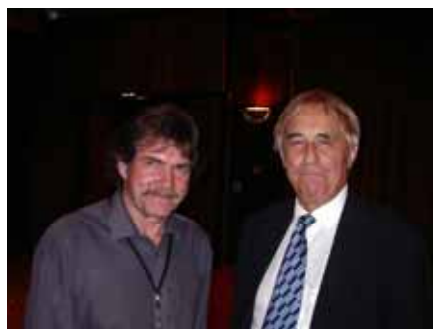
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Our meeting will be next to the El Yunque rainforest and will have easy access to Bioluminescent Bay. We plan excursions for the afternoon and evening of Tuesday Dec 11, when there will be no sessions. Transportation will be available to and from San Juan. The biennial dinner, included in the registration fee, will be held on the patio overlooking the ocean. We look forward to ASP members and their families joining us in Puerto Rico. The Westin has excellent childcare facilities available.

Frances Noonan

2005 ESP Congress Aix-les-Bains, France



Jean Cadet (right) was the Chairman of the 2005 ESP Congress, held in Aix-les-Bains, France from September 3-8. **Rex Tyrrell** (left) will be the Local Chairman

of the next ESP Congress, held in Bath, United Kingdom from September 1-6, 2007. Photo courtesy of Francesco Ghetti.

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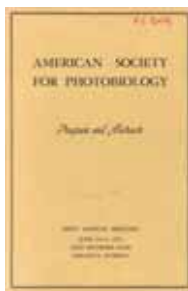
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From the left: **Jean-Yves Matroule** (Laboratory of Virology and Immunology, University of Liège, Belgium) received the Young Scientist Award for outstanding research

in the field of photobiology and gave the opening lecture at the 2005 ESP Congress. **Roy Pottier** and **Jean Cadet** each received the ESP Award for Excellence in Photobiological Research, given to two distinguished scientists whose research achievements in photobiology are internationally acknowledged as outstanding and who have made crucial contributions to ESP activities. Photo courtesy of Francesco Ghetti.

In the Beginning ...



"A long time ago in a galaxy far, far away..." Well, it was actually in Sarasota Florida in 1973 that the ASP met for the first time. A historical artifact from that meeting, **Kendric Smith's** personal copy of the ASP meeting *Program and Abstracts*, is now available for your viewing.

You'll find the hot topics in photobiology and who said what in 1973.

Enjoy reading about the first ASP meeting at: www.pol-us.net/ASP_Home/asp_history.html

Irene Kochevar

Wolfgang Haupt (1921-2005)



Professor **Wolfgang Haupt**, a long-time member of the ASP, passed away on October 16, 2005, three months before his 85th birthday. It was a form of relief after three years of suffering from a stroke that restricted his mobility and made him require full time nursing care.

Born on January 24, 1921 in Bonn (Germany), he became fascinated by arts and nature during his military service in Holland, Memel, and Norway. He liked plants, birds, stars, and music.

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Letter From the Editor

The upcoming ASP meeting, in Rio Grande Puerto Rico, is just a few miles from some great places for your cultural and scientific journeys. In addition to the exciting scientific program, outlined by **Frances Noonan** (Program co-Chair with **Tom Moore**) on page one, there are many other offerings near our hotel.

San Juan lies about 10 miles west of Rio Grande. Old San Juan, founded in 1521, was originally built as a military stronghold. It is now a vibrant commercial and residential area. There are more than 400 restored Spanish colonial buildings as well as museums, casinos, and beaches.

El Yunque, the Caribbean National Forest, lies just a few miles south of Rio Grande. El Yunque Peak (3494 feet – See you on the top!) dominates this 28,000 acre rain forest. The rainforest has a trail system so that you can visit the hundreds of species of trees, ferns, and orchids. It also features more than 77 bird species, including the endangered Puerto Rican Parrot (*Amazona vittata*). There are five or six species of snakes, but none are poisonous.

Finally, for your nighttime excursions consider a visit to Bioluminescent Bay, which lies just off the nearby island of Vieques. This famous bay glows with the blue light of bioluminescence from the dinoflagellate, *Pyrodinium bahamense*.



ASP News

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He first studied biology, chemistry, and physics in a prisoner-of-war camp in France (1946-47) and continued his studies at the Universities of Erlangen and Tübingen. In 1952 he earned his doctorate in botany (Dr. rer. nat.) with **Erwin Bünning**, and qualified as a university lecturer there in 1957. In 1962 he was appointed Chair of Botany at the University Erlangen-Nuernberg. In 1966 and 1970 he declined offers of professorships at Heidelberg and Tübingen, respectively. He retired in 1988 but, as an enthusiastic and positive person, he was still engaged in scientific work and communication until autumn 2002.

His research activities in plant physiology concentrated on the initiation of flowering (1951-1965), induction of polarity by light (1957-1962), chloroplast orientation to light (1958-1984), phytochrome research (1960-1992), and light control of fern-spore germination (1983-1994). He was known world-wide and his co-operation with colleagues extended as far as Croatia, Denmark, France, Greece, Israel, Italy, Japan, Pakistan, Poland, Romania, Sweden, and the United States.

Many of Haupt's research papers were published in *Planta* and *Zeitschrift für Pflanzenphysiologie*. A special issue of *Zeitschrift für Pflanzenphysiologie* (vol. 138/3, 1991) was dedicated to him on the occasion of his 70th birthday. Besides his research papers, he contributed chapters to textbooks, proceedings, and monographs. Among his publications there are 22 reviews on the physiology of movements, as printed in *Fortschritte der Botanik/Progress in Botany* (1958-1998). He published *Bewegungsphysiologie der Pflanzen* in 1977 and, with **Martin E. Feinleib**, was co-editor of *Encyclopedia of Plant Physiology, new series vol. VII, Physiology of Movements* (1985). He also served on editorial boards of six international journals.

Wolfgang Haupt completely committed himself to local, regional and national science committees, especially the "Deutsche Forschungsgemeinschaft" and the "Alexander-von-Humboldt Stiftung". Due to his friendly open-minded personality, he had numerous friends world-wide and was elected president of the "Verband Deutscher Biologen" (1969-1976) and of the "Deutsche Botanische Gesellschaft" (1979-1985); he was elected honorary member of both societies. Hence, he became a member in the organisation and program committees for the "XIV International Botanical Congress Berlin" (1987) and was a founding member of the "European Communities Biologists Association" (1975). In 1975 he was

elected member of the "Deutsche Akademie der Naturforscher Leopoldina" (Halle), and in 1984 of the "Royal Physiographic Society", Lund (Sweden).

Wolfgang Haupt was one of the pioneers in the study of chloroplast movements. He critically reviewed the field, from the phenomenology to the molecular level in *Progress in Botany* (1999, 60: 3-36). He was a great scientist and a wonderful all around person, forming many fruitful relationships in science. For his contributions to photobiology, he was awarded the "Finsen-Medal" during the "International Photobiology Congress" in 1984 in Philadelphia. Six of his former students have gained German professorships and are continuing his research tradition in international co-operation. What a pity that he just missed the recent identification of "Neochrome". Neochrome is the photoreceptive pigment that regulates chloroplast movement in *Mougeotia* that Haupt was hoping to find for over 50 years! This coincidence will keep him alive in the world of photobiology.

Haupt's continuous activities for more than half a century were possible thanks to his good fortune in marrying **Gerda** (née Rohde). As a counterpoise to his scientific specialisation, she and their four children enriched his life with a broad cultural background and thus stimulated his creativity.

Karl Hartmann

Lightness Constancy



Our visual systems do not act as simple photometers that measure luminance. Instead, we can readily distinguish a white surface in dim

light from a black surface in bright light. This is known as "lightness constancy".

In the image above, the inner gray squares (which are identical) appear different because they are set against different backgrounds. One explanation is that lateral inhibition in the retina ("competitive interaction" within the receptive field) enhances the contrast between each inner square and its background. A recent study shows that optical illusions that fool most people do not easily fool people with schizophrenia, possibly because schizophrenics have abnormal low-level contextual suppression (Dakin et al., 2005, *Current Biology* 15: R822-24).

Further information is available from the web site of **Edward H. Adelson**, web.mit.edu/persci/people/adelson/.

-PAE

Research by ASP members

UV Radiation, Vitamin D, and Health

The November/December issue of *Photochemistry and Photobiology* features a "Symposium in Print" on the controversy surrounding the role of UV radiation and vitamin D status on various aspects of human health. This series begins with an introduction by ASP member **Anthony Young** and **Susan Walker** (St Johns Institute of Dermatology, London). UV radiation is well known to promote cataracts, keratoses, and skin cancers. However numerous studies also indicate that UV radiation, by promoting vitamin D synthesis, may have a beneficial effect on the susceptibility or outcome for several forms of cancer, multiple sclerosis, type-I diabetes, and rheumatoid arthritis.

Cryptochrome Review

The November/December issue of *Photochemistry and Photobiology* also features a review article on the cryptochromes by **Carrie Partch** and ASP member **Aziz Sancar** (University of North Carolina). The cryptochromes are light-activated flavoproteins related to DNA photolyase that were first identified in the plant *Arabidopsis thaliana*. Subsequent studies have shown that cryptochromes regulate growth, development, and other responses in humans and other animals, plants, fungi, and bacteria. This review article covers genetics and *in vivo* studies, photochemistry and *in vitro* studies, and recent studies that implicate cryptochrome in the magnetoreception of birds and insects.

Phototherapy for Ulcers

The 2005 Nobel Prize in Medicine or Physiology was awarded to **Barry Marshall** and **Robin Warren**, who showed that *Helicobacter pylori* causes gastritis and peptic ulcer disease. Antibiotics can eradicate this bacterium, but are not always effective due to increasing bacterial resistance. In a recent issue of *Antimicrobial Agents and Chemotherapy* (vol 49: 2822-7), ASP member **Michael Hamblin** (Massachusetts General Hospital) and colleagues report their studies on the use of visible light for eradication of virulent and drug-resistant strains of cultured *H. pylori*. They show that this bacterium is remarkably sensitive to violet/blue light because it accumulates abundant porphyrins. This study demonstrates the potential of phototherapy for treatment of *H. pylori* infection.

(reprinted with modification from the ASP web site)

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: August 18, 2005 –December 1, 2005 (105 days).

Total page views: 2995 (avg of 28.5 per day)
Avg of 34.5 on each weekday
Avg of 13.6 on each weekend day

Total unique visits: 2219 (avg of 21.1 per day)
Avg of 25.6 on each weekday
Avg of 10.1 on each weekend day



Old San Juan, which was founded in 1521, was built as a military stronghold with massive walls and fortifications.



Upcoming Events

January 21-26, 2006

Photonics West: BIOS, OPTO, LASE, MOEMS-MEMS

San Jose Convention Center

San Jose, CA

E-mail: spie@spie.org

Web site: spie.org/app/conferences/index.cfm

February 18-26, 2006

Biophysical Society Annual Meeting

The Grand America Hotel

Salt Lake City, UT

Web site: www.biophysics.org/meetings/2006/

March 2, 2006

The Photomedicine Society Annual Meeting

San Francisco, CA

E-mail:

photomed@utsouthwestern.edu

Web site: www.photomedicine.org

March 3-7, 2006

American Academy of Dermatology Annual Meeting

The Moscone Center

San Francisco, CA

Web site: www.aad.org/professionals/MeetingsEvents/64annualintro.htm

March 24-25, 2006

6th Meeting of the European Society for Photodynamic Therapy (Euro-PDT Meeting)

Bern, Switzerland

Web site: <http://www.euro-pdt.com/meetings.html>

April 2-7, 2006

21st IUPAC Symposium of Photochemistry

Kyoto, Japan

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Biochemistry

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Web site: 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/

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

June 4-8, 2006

International Conference on Retinal Proteins

Awaji International Conference Center

Hyogo, Japan

Web site: 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

June 22-25, 2006

Symposium on Plant Receptor Signaling

Iowa State University

Ames, Iowa

Web site: www.bb.iastate.edu/~gfst/PSIframeset.html

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

August 5-9, 2006

Plant Biology 2006

American Society for Plant

Biology

Boston, MA

E-mail: info@aspb.org

Web site: www.aspb.org/meetings/pb-2006/pb06flyer.pdf

July 7-11, 2007

Plant Biology 2007

American Society for Plant

Biology

Chicago, IL

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.