

29th ASP Meeting

Chuck Gomer,

Program Chair for 29th Annual ASP



The 29th Annual Scientific Meeting of the American Society for Photobiology is now history. As Program Chair, I would like to take this opportunity to thank all those members of ASP who worked so hard during this past year to make this meeting a success. We had 20 scientific symposia, 5 school lectures, 5 plenary lectures, 8 platform sessions and 2 separate poster sessions with over 130 posters during our 5-day meeting. All in all it was a positive, interactive, and scientifically stimulating event.

There were many highlights. **Thomas Moore** and **Paola Taroni** delivered outstanding ASP Award and ASP New Investigator lectures. **Tom Dougherty** was presented with the ASP Lifetime Achievement Award for his global and pioneering contributions to the development of Photodynamic Therapy. Nobel laureate **Robert Furchgott** actively participated in the symposium on Nitric Oxide organized by **Garry Buettner**.

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Due in large part to the efforts of our symposium organizers, we were able to raise a record \$57,000 in contributions to help cover the costs for our meeting. Our Society also owes significant thanks to **Don Forbes** from Charles Rivers Laboratories as well as **Tom Dougherty** and **Barbara Henderson** and the Oncologic Foundation of Buffalo for providing \$14,000 for student travel grants. We also successfully implemented a partnership with Allen Press for online abstract submissions. This should provide ongoing organizational and financial benefits for future meeting organizers.

I hope that those of you who attended the Chicago meeting had a positive experience and left knowing a little more photobiology than when you arrived. I look forward to seeing all of you next year in Quebec City.

30th ASP Meeting

July 13 – 17, 2002

Le Chateau Frontenac
Quebec City, Canada

Woody Hastings, *President*

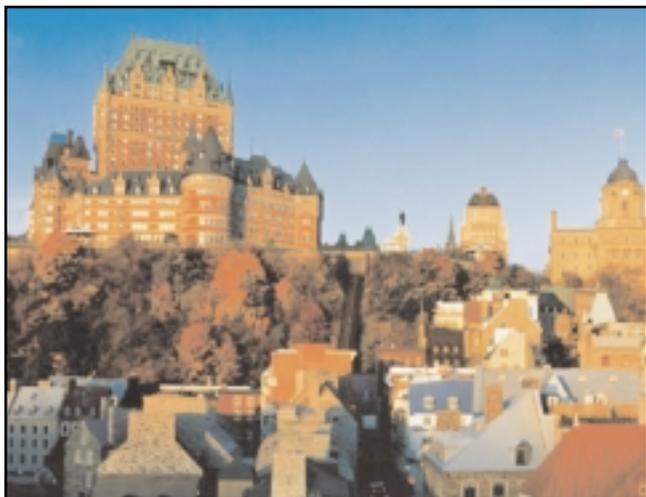
Polish up your French! Sharpen your taste buds. Be prepared for an exciting experience.

The renowned and historic Le Chateau Frontenac, situated on a commanding site overlooking the city and the St. Lawrence river, will be the site of next year's ASP meeting, so plan now for outstanding scientific sessions in a glorious setting. Numerous tours of the city and the surrounding region will also be available.

Past President **Woody Hastings**, Chair of the scientific program, plans to have several multi-session symposia, devoting one, two or even three days to sessions reporting new developments in a major area of Photobiology. Well along in planning are symposia on Photodynamic Action (PDA) organized by **Dr. David Kessel** (Detroit, MI), which will be broad in its coverage and include presentations on apoptosis. Another multi-session program will focus on Biophotonics, organized by **Dr. Gerard Marriott** (Madison, WI). This an emerging new area of Photobiology, and can be expected to be an outstanding part of the meeting.

Chairman Woody Hastings welcomes other ideas and specific proposals for the meeting, and hopes to hear from you by email, phone or fax.

Hastings@FAS.Harvard.edu; 617-495-3714;
FAX: 617-496-8726.



Built in 1893, Le Chateau Frontenac is a distinctive Quebec City landmark.

Letter From the Editor

Peter A. Ensminger

This begins my first issue as editor of *ASP News*. **John Connolly**, a charter member of the ASP, served as *ASP News* editor for more than three years but had to bow out because of health problems. We wish John the best of health and hope he will soon be able to participate in ASP activities again.

I look forward to serving the ASP as newsletter editor and to meeting you all at the 2002 meeting in Quebec City. In the meantime, I should introduce myself. My long-standing interest in photobiology began in graduate school nearly 20 years ago, where I performed my first experiments in plant photomorphogenesis. With Ph.D. in hand, I went on to study phototropism and blue light effects in *Phycomyces*, light-induced flavonoid synthesis in cultured plant cells, and then retinoid metabolism in bovine eyes. In 1992, I moved out of the laboratory and began my own business as a biomedical writer and editor. Shortly afterward, I began writing a photobiology book, *Life Under the Sun*, which was recently published by Yale University Press (see: <http://www.yale.edu/yup/lifesun>).

You will notice some changes in the appearance of the online version of *ASP News*. This and subsequent issues will be available as tagged PDF files that are downloadable from the ASP web site (http://www.kumc.edu/POL/ASP_Home/Newsltr/asp_nls.html) for reading on-line with the Adobe Acrobat Reader, which is available for free at <http://www.adobe.com/>. These PDF files can be viewed across multiple platforms and media. If you're on the run, you can even read the newsletter on your Palm OS device by downloading a free plug-in from the Adobe web site (<http://www.adobe.com/products/acrobat/readerforpalm.html>).

I encourage all ASP members to send me items for publication in *ASP News*. This may include position changes, promotions, celebratory gatherings, retirements, obituaries, photographs, cartoons, and more. Please also feel free to contribute letters, editorials, or articles. I look forward to hearing from you!

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Gordon Research Conference

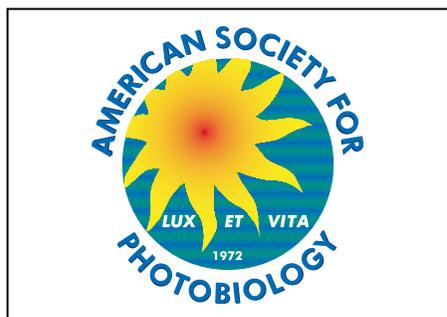
May 19-24/Tuscany, Italy

The Gordon Research Conference on Photosensory Receptors and Signal Transduction will be held May 19-24, 2002, at Il Ciocco, a resort hotel in Barga, Italy (Tuscany). The conference will focus on current research on photosensory receptors in microbes, higher plants, and animals, covering their mechanisms of photoactivation and downstream elements of their signal transduction pathways. Those interested in attending the meeting can apply through the Gordon Research Conference site at <http://www.grc.uri.edu/> or for inquiries send an email to the conference chair **John Spudich** at John.L.Spudich@uth.tmc.edu, or vice-chair **Pill Soon-Song** at pssong@ksc.kumho.co.kr.

Photochemistry and Beer

An article on the photochemistry of beer by **Denis De Keukeleire** (Ghent University, Belgium) was recently published in *The Spectrum*, a quarterly scientific publication of the Center for Photochemical Sciences at Bowling Green State University. *The Spectrum* has a circulation of over 7000 and is also available online. This new article is an update of Dr. De Keukeleire's previous *Spectrum* article on the photochemistry of beer that was published 10 years ago. That article generated more requests for reprints than any other article published during the 14 years of *The Spectrum*. The Spring 2001 issue of *The Spectrum* is available at <http://www.bgsu.edu/departments/photochem/Spring2001Spectrum.pdf>. **A warning:** beware of the 33 MB size of this file if you use dial up internet access.

- PAE



ASP Archives

We Need Your Help!

Archivist **Irene Kochevar** (Kochevar@helix.mgh.harvard.edu) and assistant **Woody Hastings** (Hastings@FAS.harvard.edu) are assembling materials for deposition at the University of Tennessee library in Knoxville, where they will be inventoried and catalogued in the Special Collections section.

Clean out your files and send us material of archival interest. This could be letters, symposia records or whatever. In doing so it will make the job of the Archivist much easier if you will explain and catalog the material. Photographs are also welcome, but be sure to identify the persons pictured, preferably by writing on the back of the photo.

A complete set of *Photochemistry & Photobiology* will also be located there. The following issues are missing from the set we now have. We will be grateful to anyone who can contribute these issues:

volumes 1-16 (published prior to the time it became the official journal of the Society)

1974: vol. 20, issues 1, 3, 4, 5

1975: vol. 21, issue 6

1976: vol. 23, issue 6

1985: vol. 42, issue 5

1987: vol. 45, issue 2

1990: vol. 51, issue 5

1990: vol. 52, issues 1, 3, 4

1991: vol. 53, issues 3, 6

1991: vol. 54, issues 2, 3

Search for Editor

Photochemistry & Photobiology

Prof. J.C. (Tito) Scaiano has announced that he will step down as Editor of *Photochemistry & Photobiology* effective January 2004. To facilitate an orderly transition for the leadership of the journal, a search for Tito's successor is being initiated now. Expressions of interest in, or nominations for the position should be sent to the Chair of the Search Committee for *Photochemistry & Photobiology* Editor, **Prof. Irene Kochevar** at kochevar@helix.mgh.harvard.edu.

Is Sun Exposure Beneficial?

An alternative view from *Nine Crazy Ideas in Science: A Few Might Even Be True*

Robert Ehrlich*,†

Have the harmful effects of sun exposure been over-dramatized and the beneficial effects unappreciated by the general public and the medical community?

Although sun exposure is a contributing factor to a variety of health problems, including cataracts and retinosis, skin aging, sunburn, and conceivably non-Hodgkins lymphoma, the most serious worry surrounding sun exposure is skin cancer. Sun exposure is generally acknowledged as the main cause of skin cancer by reputable medical organizations, such as the International Association for Research on Cancer¹. However, some medical societies have been fairly cautious in their assessment of the relationship between skin cancer and sun exposure. For example, in discussing malignant melanoma, the Family Medical Guide of the American Medical Association notes that "Many years of

...most significant is the possible beneficial effect of sunshine in reducing the risk of coronary heart disease, the leading killer of Americans...

exposure to strong sunlight *seem to play a part* in the development of the disease" (emphasis added).² This note of caution in assessing the sunshine-skin cancer link seems to be warranted in view of the "weak and conflicting evidence" many researchers find between melanoma and sun exposure³.

What about the benefits of sun exposure, and do they outweigh the possible harm? There are many well-established benefits linked with sun exposure, including therapeutic effects associated with tuberculosis, the skin conditions of dermatitis, psoriasis, and dandruff, the childhood disease rickets, osteomalacia, some psychological disorders, and possibly even multiple sclerosis. But, most significant is the possible beneficial effect of sunshine in reducing the risk of coronary heart disease (CHD), the leading killer of Americans.

Coronary heart disease, which is the progressive blockage of the coronary arteries, is the most common form of heart disease. It is interesting to note that the death rate from CHD in the U.S. is approximately 100 times that due to skin cancer, although any given individual might have a greater or lesser risk of the two diseases. As a result, even in the highly unlikely event that heavy sun exposure were found to double the mortality due to skin cancer, that harm would be offset by a mere one percent decrease in CHD mortality due to the exposure. In fact, some studies have shown that it is possible that the protective effect of sunshine in reducing CHD mortality could be far in excess of that hypothetical one percent "break even" point.

Evidence for the protective effect of sunshine on coronary

... heart disease death rates in various countries and regions seem to be strongly correlated with latitude...

heart disease starts with the interesting observation that CHD death rates in various countries and regions seem to be strongly correlated with latitude, which is a rough measure of the amount of sunshine averaged over the year. For example, in one study comparing the CHD death rates in Belfast, Northern Ireland and Toulouse, France, it was found that the CHD death rate among men 55-64 was a remarkable 4.3 times higher in Belfast⁴. It is particularly interesting to note that when all the non-dietary risk factors were compared for the two populations including smoking, obesity, high blood pressure, etc., there were almost identical overall risks of CHD between them. Moreover, even the diets in the two locations were remarkably similar, although there was more cholesterol and red wine intake in Toulouse and more saturated fat intake in Belfast.

Grimes and Dyer have investigated the relationship between sun exposure and CHD, and claimed that sun exposure is protective against heart disease⁵. They believe that the underlying mechanism is based on the production of vitamin D in a person's skin as a result of sun exposure. The theory is that since cholesterol and vitamin D are both made from the same precursor compound (squalene), then if your body makes vitamin D it uses up the squalene, leaving less to make cholesterol — a well known risk factor for CHD.

In summary, it would seem that a plausible but not yet convincing case has been made for the idea that sun exposure is protective in reducing coronary heart disease, in which case the benefits of sun exposure probably do outweigh the risks for many individuals.

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†This article was adapted from the author's recent book: *Nine Crazy Ideas in Science: A Few Might Even Be True*, Princeton University Press, 2001; see: <http://mason.gmu.edu/~rehrlich/crazy.htm>.

References

1. International Agency for Research on Cancer, 1992, *IARC monographs on the evaluation of carcinogenic risks to humans: ultraviolet radiation* vol. 55, IARC, Lyon.
2. Kunz JRM, Finkel AJ (eds.), 1987, *The Family Medical Guide of the American Medical Association* Random House, NY.
3. Elwood, JM, Jopson, J, 1997, Melanoma and sun exposure: an overview of published studies, *Int J Cancer* 73, 198-203.
4. Evans AE, et al., 1995, Autres pays, autres coeurs? Dietary patterns, risk factors and ischaemic heart disease in Belfast and Toulouse (WHO MONICA project), *Q J Med* 88, 469-77.
5. Grimes, DS, Hindle E, Dyer T, 1996, Sunlight, cholesterol and coronary heart disease, *Q J Med* 89, 579-589.

Is Sun Exposure Beneficial?

Response to Robert Ehrlich's Article

Henry Lim*

The above article brought up a provocative concept of a possible beneficial link of sun exposure and reduction of coronary heart disease. However, it should be noted that while the two articles cited were published in 1995 and 1996 respectively, as of August 2001, this concept has not been embraced by the general cardiology community. On the other hand, the association of sun exposure with the development of squamous cell carcinoma, a type of skin cancer, is well established. The most common form of cancer in humans, basal cell carcinoma, also frequently occurs

...the concept of a beneficial link of sun exposure and coronary heart disease has not been embraced by the general cardiology community...

on the sun-exposed area of the skin. While the association of sun exposure with malignant melanoma, the deadliest form of skin cancer, has not been as firmly established, it is known that sun exposure is directly associated with the number of moles occurring on the skin, and the development of moles associated with sun exposure could be

decreased by the application of broad-spectrum sunscreen.¹ The American Cancer Society has estimated that more than 1 million new cases of skin cancer, including 51,400 new cases of melanoma, will be diagnosed in the United States this year. At the current rates, 1 in 71 Americans have a lifetime risk of developing melanoma. In addition, sun exposure is known to cause many other cutaneous skin changes, including the development of actinic keratoses, a precancerous form of skin lesions, and marked premature aging of the skin.

Therefore, one must carefully balance the advocacy of increasing sun exposure to reduce the risk of coronary heart disease, which is supported only by circumstantial evidence, and the well-established deleterious effects of sun exposure on the skin. Therefore, at present, this is at best an interesting concept that warrants further careful and critical study before it could be advocated as a public health policy.

*Chairman and Clarence S. Livingood Chair, Department of Dermatology, Henry Ford Health System, 2799 West Grand Blvd., Detroit MI 48202-2689; hlim1@hfhs.org

Reference

1. Gallagher RP, Rivers, JK, Lee TK, Bajdik, CD, McLean DI, Coldman AJ, 2000, Broad-spectrum sunscreen use and the development of new nevi in white children: A randomized controlled trial. *JAMA* 283, 2955-60.

Feeling the Burn

"Feeling the Burn", an article in the July/August 2001 issue of *Natural History* by Jay Withgott, discusses some of the ecological effects of the global increase in ultraviolet radiation. The article covers studies of Antarctic algae, whose productivity is apparently declining because of the increase in UV, as well as studies conducted on the other side of the world — in Sweden's Abiska Scientific Research Station, which lies near the Arctic Circle.

Among other topics, the article discusses the role of mycosporine-like amino acids (MAAs) in protecting diverse microorganisms from increased UV radiation. These compounds apparently function by screening out harmful UV radiation, similar to the role of melanin in human skin. The author briefly describes the new theory that human skin pigmentation evolved not to protect against skin cancers, which rarely cause mortality during the reproductive years, but to protect against the UV-induced photolysis of folate¹. Folate is essential for normal development of the embryonic neural tube and spermatogenesis.

The author concludes, "... although the impacts detected so far do not seem drastic, we may be unaware that profound changes have already occurred". — PAE

Reference

1. Jablonski NG, Chaplin G, 2000, The evolution of human skin coloration. *J Hum Evol* 39, 57-106.

Upcoming Events

August 27 – 30, 2001

14th World Congress of the International Society for Laser Surgery and Medicine
Chennai, (Madras), India

Contact:

Department of Surgery - D2 Ward
Sri Ramachandra Medical College & Research Institute

Porur, Chennai (Madras) - 600 116
INDIA

Tel: 91-44-4765856 / 91-44-4768027-28

Fax: 91-44-4767008 / 91-44-8594578

E-mail: krishnar@giasmd01.vsnl.net.in

Sept 3-8, 2001

9th European Society for Photobiology Congress

Lillehammer, Norway

Contact: <http://esp.nrpa.no/>

September 4 – 6, 2001

Symposium on Asymmetric Photochemistry

Osaka, Japan

Contact:

Yoshihisa Inoue

Photochirogenesis 2001

Inoue Photochirogenesis Project

ERATO, JST, 4-6-3 Kamishinden

Toyonaka 560-0085, JAPAN

Tel: +81-6-6836-1635

Fax: +81-6-6836-1636

E-mail: isap@chem.eng.osaka-u.ac.jp

September 26 – 29, 2001

10th Meeting of the European Society for Pigment Cell Research

Rome, Italy

Contact:

Meeting Secretariat

Triumph P.R. S.r.l.

Via Proba Petronia 3

00136 Rome, ITALY

Tel: +39.06.399631

Fax: +39.06.39735195

E-mail: espcr2001@triumph.it

October 10 – 13, 2001

The 4th International Photodynamic Diagnosis and Therapy in Clinic Practice

Brixen, South-Tyrol, Italy

Contact:

I.C.O. - Il Laboratorio via Selve, 2 31021

Mogliano Veneto (Tv)

Fax: +39.041.5906936

Tel: +39.041.5906939

Cellular: + 2012 216 95 84

E-mail: brixen@illaboratorio.com

November 7 – 11, 2001

Laser Florence 2001

Fortezza da Basso, Viale Strozzi,

Florence, Italy

Contact:

<http://www.laserflorence.org/contact.htm>

December 7-10, 2001

International PDT Conference

Hong Kong, China

Contact:

Prof. S. B. Brown

Centre for Photobiology and

Photodynamic Therapy

School of Biochemistry and Molecular

Biology

University of Leeds, Leeds

LS2 9JT, UNITED KINGDOM

Fax: (44) 133 233 3017

E-mail: s.b.brown@leeds.ac.uk

January 2-5, 2002

XIIIth Inter-American Photochemical Society Conference

Tempe, Arizona

Contacts:

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Biochemistry

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Tempe, AZ 85287-1604

Phone: (480) 965-7278

E-mail: igould@asu.edu

Peter C. Ford

Department of Chemistry

University of California, Santa Barbara

Santa Barbara, CA 93106

Phone: (805) 893-2443

E-mail: ford@chem.ucsb.edu

January 28 - February 2, 2002

Photosciencias 2002

Havana, Cuba

Contact:

Prof. Elena Vigil Santos

Facultad de Quimica

Universidad de La Havana

La Habana 10400, Cuba

E-mail: evigil@ff.oc.uh.cu

April 21 – 24, 2002

Biohydrogen 2002

Ede, Netherlands

Contact:

Marcel Janssen

Wageningen University

Department of Agrotechnology and Food Sciences

Food and Bioprocess Engineering Group

P.O. Box 8129

6700 EV Wageningen, THE NETHER-

LANDS

Tel: +31-317-483396

Fax: +31-317-482237

E-mail:

Biohydrogen.2002@algemeen.pk.wau.nl

June 26-28, 2002

1st Asian Conference on

Photobiology

Awaji Yumebutai International

Conference Center, Hyogo, Japan

Contact:

<http://www.cherry.bio.titech.ac.jp/paj2.htm>

July 13-17, 2002

30th American Society for Photobiology Annual Meeting

Le Chateau Frontenac

Quebec City, Canada

Contact: Woody Hastings

Chair of the Scientific Program

Hastings@FAS.Harvard.edu

Tel: 617-495-3714

Fax: 617-496-8726.

July 14-19, 2002

XIXth IUPAC Conference on Photochemistry

Budapest, Hungary

Contact:

Hungarian Chemical Society (MKE)

H-1027 Budapest, Fu u. 68. HUNGARY

Phone: 36-1-201-6886

Fax: 36-1-201-8056

E-mail: mail.mke@mtesz.hu

August 25 – 30, 2002

International Conference on Luminescence and Optical Spectroscopy of Condensed Matter (ICL '02)

Renaissance Hotel, Jerusalem, Israel

Contact:

ICL'02 Secretariat, c/o Unitours Israel Ltd.

P. O. Box 3190

Tel Aviv 61031, ISRAEL

Telephone: +972 3 5209999

Fax: +972 3 5239299

E-mail: Meetings@unitours.co.il

September 9 – 13, 2002

XVIIIth International Pigment Cell Conference

Kurhaus Hotel, Scheveningen, The Netherlands

Contact:

Mrs. Caroline M. van Battum

P.O. Box 2084, NL-2301 CB Leiden

THE NETHERLANDS

Telephone: +31(0)715276434

Fax: +31(0)715275262

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