

# ASP NEWS



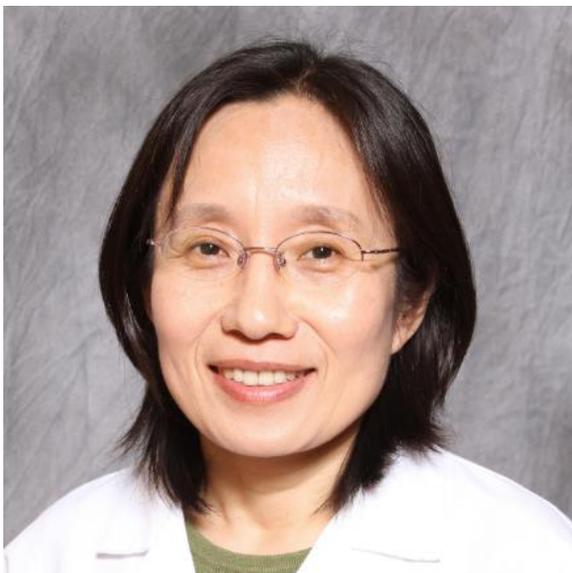
Spring/Summer 2020

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### President's Note



Dear ASP colleagues and friends,

I wish you all are stay well and healthy! On behalf of the executive committee (EC), I would like to give you a couple of important updates.

The 40th ASP 2020 **in-person** meeting in Chicago is cancelled due to COVID-19 pandemic.

The ASP has been closely monitoring the situation in recent months, based on the scientific data available and the recommendations from government and the CDC. Considering the safety for our attendees, staff, vendors, and the Chicago community as our top priority, which makes the face-to-face meeting unlikely, the ASP has decided to cancel the ASP 2020 in-person meeting in Chicago, June 27-30, 2020.

**The ASP leadership is considering a virtual meeting for this summer.** A survey has been sent out to the members. If you have not had a chance to complete it, please take a few minutes to complete the survey. We look forward to hearing your ideas and suggestions. Link for the survey: <https://docs.google.com/forms/d/e/1FAIpQLSca77uL7Q6a4s18vxcSuj82w7dtEZpQSwUH3oITzlVqlUoXjw/viewform>. For additional information and future update, please visit our meeting website:

<http://burkclients.com/ASP/meetings/2020/site/>.

It is time for ASP leadership transition. I would like to thank Georg Wondrak for his dedication and leadership over the past two years as the Immediate Past President for the ASP. Alexander Greer is excited and eager to begin his term as ASP President right after the summer council meeting. Furthermore, I would like to thank Doug Learn, our secretary, for his dedication and service over the past few years. We will miss his deep knowledge and understanding of the ASP history and bylaws. Lastly I would like to thank the following councilors who will rotate off the council for their dedication and efforts, we will miss you but look forward to working with all of you in a new capacity. Thank you to:

- Carlos Crespo
- Scott Davis
- Thierry Douki
- Imran Rizvi
- Sherri McFarland
- Bryan Spring
- Shiyong Wu

New officers and councilors have been elected. Thanks to the hard work from Georg Wondrak, the nomination committee, and all of you, our members, we have successfully elected the following ASP members to serve in the ASP EC, and council:

**President-Elect:** Shiyong Wu

**Secretary:** Sherri McFarland

**Council:**

Mauricio Baptista  
Shobhan Gaddameedhi  
Huang Chiao Huang  
Masaoki Kawasumi  
Caradee Wright  
Youngjae You

In addition, Jonathan Lovell and Xiaojing Yang are the candidates for the council to consider and to appoint for interim election during the upcoming summer council meeting, due to the move of Shiyong Wu and Sherri McFarland from the council to the EC.

Congratulations. We look forward to working with all of you.

We also look forward to seeing all of you at the next ASP meeting, and more information will be provided soon about that.

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**We need YOU!**

Please submit content (science highlights, suggested links, personal stories, etc.) to ASP News.  
Email: [jflovell@buffalo.edu](mailto:jflovell@buffalo.edu)

## New ASP Leadership

We welcome these elected members to the ASP leadership:

### President-Elect: Shiyong Wu

Dr. Shiyong Wu is the Director of the Edison Biotechnology Institute and a Professor of Chemistry and Biochemistry at Ohio University. He is an associate editor for Photochem.



& Photobiol. He loves this friendly society and would like to work with other council members to better serve all the members in the society. His research expertise is in photobiology, cancer biology and redox biology. His current research interests are on chemoprevention and treatment of various cancers as well as skin photo pigmentation and aging.

### Secretary: Sherri McFarland

Dr. McFarland's is a Professor of Chemistry at University at Texas, Arlington. Her research aims to develop new photoactive drugs as anticancer agents and antibiotics, using inorganic photochemistry and photochemistry. Her research group developed a ruthenium (Ru) PDT agent that has advanced to clinical trials for treating bladder cancer.



### Mauricio Baptista (Council member)

Dr. Baptista is professor and Chair of the Department of Biochemistry, at the University of São Paulo. His research focuses on photochemistry, photobiology, membranes and mechanisms of cell death. He is particularly interested in improving the efficiency of PDT photosensitizers and in understanding the effects of visible light in skin and hair.



### Shobhan Gaddameedhi (Council member)

Dr. Gaddameedhi obtained his post-doctoral training in circadian clock and DNA repair fields under the guidance of Prof. Aziz Sancar at UNC Chapel Hill. Currently, he is an assistant professor of Pharmaceutical Sciences at Washington State University. His research addresses questions regarding the biological mechanisms involved in environmental factors of circadian rhythms, genomic instability, and photocarcinogenesis.



### Huang Chiao Huang (Council member)

Dr. Huang is an Assistant Professor of Bioengineering at the University of Maryland, College Park. He has experience in precision cancer nanomedicine, development of mechanism-based combination therapy, expertise in photodynamic therapy of cancer, and site-directed photochemistry and fluorescence diagnostics. He works on photoimmunotherapy, photodynamic priming, nanotechnology, biomedical optics, and molecular targeting in cancer.



### Masaoki Kawasumi (Council member)

Dr. Kawasumi is a photobiology and skin cancer researcher at the University of Washington in Seattle. Dr. Kawasumi has been conducting research in skin cancer biology, particularly addressing how cells respond to UV damage and how the DNA damage response can be harnessed to prevent UV-associated skin cancers, the most prevalent cancers in the U.S.



### Caradee Wright (Council member)

Dr. Wright is a Senior Specialist Scientist at the South African Medical Research Council leading the Climate and Health Research Programme. She holds a PhD in Public Health from the University of Otago. She is an Associate Editor for Photochem. & Photobiol.. Her research focuses on personal solar ultraviolet radiation exposure, personal dosimetry, health risk assessment and skin cancer prevention.



### Youngjae You (Council member)

Dr. You is a professor of Pharmaceutical Sciences at the University at Buffalo. His research interests include design of new photosensitizers for photodynamic therapy and new fluorescence dyes for fluorescence imaging, as well as multifunctional drug delivery systems for remote-controlled drug release.



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## Far UVC for Surface Disinfection

A particular type of ultraviolet light known as far-UVC could be safely used for air disinfection in public places without harming people, according to new research carried out jointly at the University of St Andrews and Ninewells Hospital in Dundee.

This research is very timely as the world looks for new ways to disinfect rooms and help eliminate the COVID-19 coronavirus.

In the research in the journal [\*Photodermatology, Photoimmunology and Photomedicine\*](#), the St Andrews-Ninewells team used computer simulations to study the impact of far-UVC lamps on human skin for the wavelengths that do not cause the kind of problems typically associated with ultraviolet light.

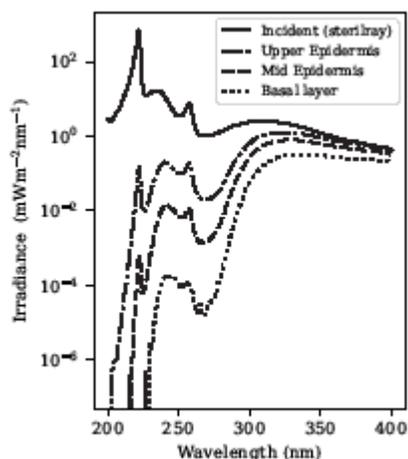
There are three types of ultraviolet light – UVA, UVB and UVC – all of which have the potential to damage human skin.

Isla Barnard, a medical physics PhD student at St Andrews, said: “The Earth’s atmosphere protects us by absorbing all the UVC from the Sun, and we must be very careful to protect ourselves from some existing UVC disinfectant lamps which are known to cause skin damage.

“Using our computer model, we have shown that longer UVC wavelengths can damage the skin whilst wavelengths shorter than 230nm had much more limited penetration in the skin.”

UVC light from special germicidal lamps with wavelengths in the range 200nm to 280nm kills germs such as bacteria and viruses and has been used as a means of disinfecting hospital wards and operating theatres for decades. However, the wards must be empty of people because the germicidal lamps operate mainly at a wavelength of 254nm that can penetrate the eyes and skin, causing inflammation and pain.

Far-UVC lamps that emit at wavelengths around 222 nm may be safer because proteins in the skin efficiently absorb this light and provide a natural protective barrier.



*Spectral irradiance of the 222 nm UVC source incident on the skin and the resulting spectral fluence incident on the upper and mid epidermis and on the basal layer. In this simulation, no radiation from the 222 nm peak reaches the basal layer.*

The computer codes at the heart of this work were originally developed by St Andrews astrophysicist Dr Kenny Wood and have been adapted to help treat patients.

Dr Wood said: “Over the last decade we have built an interdisciplinary collaboration with photobiologists at Ninewells. Together, we have a strong track record in using computer simulations for testing optical and ultraviolet lamps and

optimising light-based therapies for skin cancer and other diseases.”

Dr Ewan Eadie of the Photobiology Unit at Ninewells Hospital said: “Our new simulations provide further support for existing laboratory research showing that the upper layers of the skin provide a natural protection against shorter-wavelength-UVC.

“Lamps that are engineered to filter out ultraviolet wavelengths longer than 230 nm are safer than existing germicidal lamps. We now require real-life in-person studies to support our computer simulations and the laboratory evidence.”

Lamps that emit at the shorter 222 nm wavelength are now being investigated worldwide as a means to help eliminate the virus responsible for the current Covid-19 global pandemic.

The St Andrews-Ninewells team is working with several other groups developing far-UVC lamps and their computer simulations are being used to ensure they are safe for human skin.

Source: St Andrews University

## Upcoming Photobiology Events

October 26-30, 2020, Nancy, France

**PDT2020**

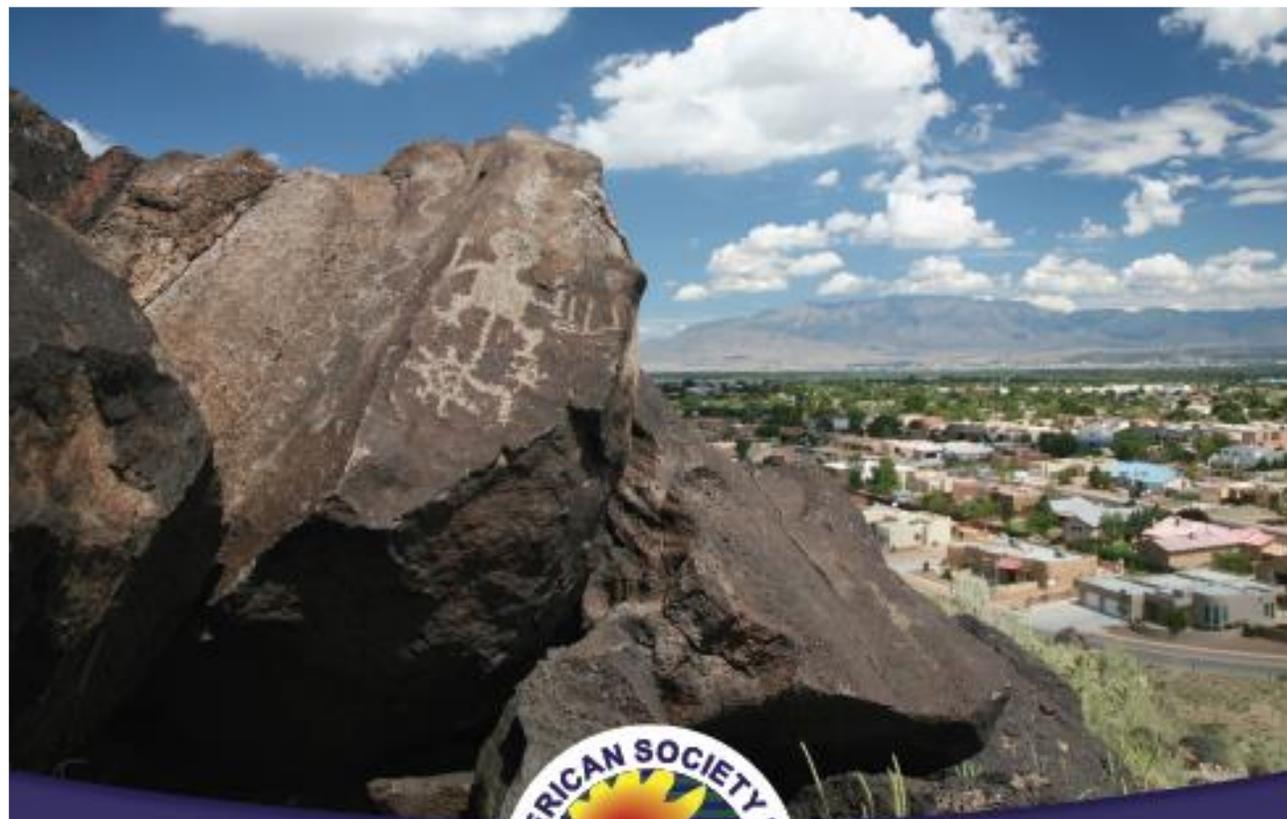
<http://www.pdt2020.com/>



**In person conference in Chicago is cancelled due to COVID-19.**

**Check the website for latest information**

<http://burkclients.com/ASP/meetings/2020/site/>



# SAVE THE DATE

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2022 American Society for  
Photobiology Biennial Meeting

9-12 April 2022 • Albuquerque, NM