



## PRESS RELEASE - FOR IMMEDIATE RELEASE

June 10, 2011 - The [International Ultraviolet Association](#) (IUVA) announced its 2011 awards at the [6<sup>th</sup> Biannual IUVA World Congress in Paris, France](#). This Congress is hosted jointly by the IUVA and the International Ozone Association and is the venue for technology exchange and networking among professionals in this field.

Awards were given in the following areas:

- Best UV Engineering Project: 2010
- Innovations in UV - Green Award
- Lifetime Achievement Award in UV Science and Engineering
- Classic UV Paper Awarded in 2011
- Best UV paper of the year 2009-2010
- UV Light Award for Volunteer Recognition
- Best Student UV Paper and Poster Awards at IUVA World Congress

### **Best UV Engineering Project: 2010**

*Winner: Tianjin, China TEDA Municipal Drinking Water Plant UV Disinfection Project*

This award recognizes an exemplary engineering project involving UV applications in operation and is reviewed for innovation and excellence and its impact on society. The winning entry is the Tianjin, China TEDA Municipal Drinking Water Plant UV Disinfection Project. This project was a collaboration by Universities ([Tsinghua](#): Professor Wenjun Liu), Engineering design institutes (BEMEDI: Ms. Yanqie Qie) and water utilities (Teda: Mr. Ziyi Fang). This system in Tianjin, China is the first large-scale municipal drinking water UV disinfection project in China and the first UV water disinfection system designed and implemented by local Chinese engineers. Four [TrojanUVSwift™](#) systems were installed at the plant and have been in operation since July 2009. It is a novel treatment process using UV as primary disinfectant to meet stringent new Chinese water quality standards, including DBPs, Giardia and Cryptosporidium and represents effective collaboration among university researchers, design engineers, and end users.

### **Innovations in UV - Green Award**

*Winner: [TrojanUVTorrent™ System with the Revolutionary Solo Lamp™ Technology](#)*

This award recognizes an exemplary product or process improving the Green image of UV applications. Each nominated UV-based product, process, or application is reviewed for its Green design and engineering attributes. The winning entry is the [TrojanUVTorrent™ System with the Revolutionary Solo Lamp™ Technology](#). The TrojanUV Solo Lamp™ – offers the advantages of both existing medium pressure and low pressure high output lamp technologies. Incorporated into the TrojanUVTorrent™, the advantages include lower life cycle costs, easy maintenance and reduced environmental impact. The Solo Lamp™ combines the low power consumption of a low pressure UV lamp with high output that is characteristic of a medium pressure UV lamp, leading to low lamp count. This combination allows the Solo Lamp™ to have a significantly lower environmental impact compared to other UV lamp technologies as measured by carbon footprint and lifecycle assessment. Scientists and engineers at TrojanUV have worked over the past 5 years to develop this green UV technology addition to UV disinfection systems.

### **Lifetime Achievement Award in UV Science and Engineering**

*Winner: Dr. William L. Cairns, Chief Scientist at Trojan Technologies*

This Award recognizes professional dedication and lifetime achievement in promoting UV and the mission of the IUVA. The winner is Dr. William L. Cairns, Chief Scientist at [Trojan Technologies](#) in London, ON, Canada. Dr. Cairns has a doctoral degree in biochemistry and biophysics, has been a professor and has served the Water Industry on numerous boards and committees as well as the IUVA. Dr. Cairns has dedicated himself to research for over 30 years and has globally contributed to the advancement and efficiency of ultraviolet water treatment at Trojan Technologies since 1989. He has been described as “One of the most collaborative and knowledgeable scientists in the water treatment field.” He is known to have quietly planted the seeds for many great research ideas that have come to fruition. Cairns is known to be a real gentleman, and is well-regarded for his expertise and knowledge.

### **Classic UV Paper Awarded in 2011**

*Winner: Bukhari, Z., T.M. Hargy, J.R. Bolton, B. Dussert, J.L. Clancy (1999) “Medium-Pressure UV Light for Oocyst Inactivation” [Journal AWWA](#), Vol. 91, No. 3, 86-94.*

This award recognizes a peer-reviewed journal article from any year, reviewed and evaluated for the impact of the paper on the development of UV research and technology. This year’s winner is Bukhari, Z., T.M. Hargy, J.R. Bolton, B. Dussert, J.L. Clancy (1999) “Medium-Pressure UV Light for Oocyst Inactivation” *Journal AWWA*, Vol. 91, No. 3, 86-94. This work was a collaboration of researchers from the lab of Jennifer [Clancy](#) and scientists from [Calgon Carbon](#). The research described in this paper definitively demonstrated the effectiveness of low levels of UV light for inactivating *Cryptosporidium* in water. Impacts of this discovery have been tremendous for the UV industry and for application of this technology in the drinking water industry. This work, along with subsequent studies it inspired, set the groundwork for the use of UV in disinfection of drinking water and allowed more robust regulations to be developed for the protection of public health, using UV light.

### **Best UV paper of the year 2009-2010**

*Winner: Eischeid, A.C., J. Meyer, K.G. Linden (2009) “UV Disinfection of Adenoviruses: Molecular Indications of DNA Damage Efficiency” [Applied and Environmental Microbiology](#) Vol. 75, No. 1, 23-28.*

This award recognizes a peer-reviewed journal article from 2009-2010, reviewed and evaluated for the impact of the paper on the development of UV research and technology. The winner this year is Eischeid, A.C., J. Meyer, [K.G. Linden](#) (2009) “UV Disinfection of Adenoviruses: Molecular Indications of DNA Damage Efficiency” *Applied and Environmental Microbiology* Vol. 75, No. 1, 23-28. This paper, coupled with a subsequent one published in 2011, sets the foundation for understanding fundamental processes occurring at the molecular level in the inactivation of adenovirus at 253.7 nm (LP) and at shorter wavelengths as emitted by polychromatic light sources. The paper provides a sound scientific approach to a complex problem, utilizing innovative methods and tools. This work advances the science in UV disinfection and solves the mystery around the difficulty of inactivating adenovirus. The paper is published in a high impact factor, and highly reputable Microbiology journal.

### **UV Light Award for Volunteer Recognition**

*Winner: Dr. Rongjing Xie, [Singapore Public Utilities Board](#)*

This Award recognizes the most dedicated volunteer (individual or organization) to support the mission of the IUVA. The recipient is Dr. Rongjing Xie, Singapore Public Utilities Board. Dr. Xie volunteers his time, energy and resources to furthering UV education and the goals of the association as a whole. In the past few years he has personally spearheaded growing IUVA involvement in Asian markets, identified event opportunities, secured funding for invited keynote (IUVA member) international

speakers to come to Asian events, as well as securing sponsorship and event partnership funding. He successfully coordinated 2009 & 2010 UV conferences at the Singapore International Water Week.

#### **Best Student UV Paper and Poster Awards at IUVA World Congress**

Two cash awards were given out at the 2011 IUVA World Congress for the student paper and poster that was best presented. The winners were: Miguel Pelaez, [University of Cincinnati](#) and Nalan Bilgin Öncü, [Bogazici University-Institute of Environmental Sciences](#) in Turkey.

Best Paper: "TiO<sub>2</sub>-based enhanced photocatalytic degradation and disinfection in water under solar light irradiation" Lead student author: Miguel Pelaez. Advisor: Prof. Dionysios D. Dionysiou

Miguel Pelaez is a Ph.D. candidate in the Environmental Engineering and Science Program at the University of Cincinnati. His research interests are in the field of water treatment using advanced oxidation processes and advanced oxidation nanotechnologies. His recent research includes emerging solar-driven technologies for the degradation of deleterious organic pollutants in water.

Best Poster: "Antimicrobial Pollution Removal from Environmentally Relevant Matrices by Advanced Oxidation Processes" Lead student author: Nalan Bilgin Öncü. Advisor: Prof. Isil Balcioglu

Nalan Bilgin Öncü received her B.S. in Chemistry from Koc University and her M.S. in Materials Science and Engineering from Sabanci University. She is currently continuing her Ph.D. at Bogazici University-Institute of Environmental Sciences with a focus on Advanced Oxidation Processes (AOPs). Her research under the supervision of Prof. Isil Balcioglu involves ozonation of sludge, targeting destruction of persistent antibiotics and investigation of the effect of AOPs on antibiotic resistance carriers during drinking water disinfection.

About the IUVA:

IUVA's mission is to provide a forum for the discussion of all scientific and technological issues that relate to the use of ultraviolet light; To provide a common voice for the interests of companies using ultraviolet technologies and manufacturing ultraviolet lamps or equipment; To organize periodic international and national conferences focused on ultraviolet technologies; To publish a regular Newsletter (IUVA News) to keep members informed of new developments in the applications of ultraviolet technology; To encourage the establishment of rational terms, units and nomenclature in the fields of ultraviolet technology; To encourage research into the advancement of the applications of ultraviolet technologies; To encourage the adoption of rational environmental regulations that would encourage the use of ultraviolet technologies.

#### **For more information, please contact:**

IUVA Award Committee Chair:

Karl Linden

303-492-4798

[karl.linden@colorado.edu](mailto:karl.linden@colorado.edu)

IUVA Executive Director:

Deborah Martinez

202-422-2445

[deb.martinez@iuva.org](mailto:deb.martinez@iuva.org)