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NEWS REPORT

Four young research investigators were honored at the 2006 Gordon Research Conference on Photosynthesis

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Four Young investigators received Awards at the Gordon Research Conference on Photosynthesis, held July 2–7, 2006, at Bryant University, Smithfield, Rhode Island, USA. They were (in alphabetical order) Rachel O. Cohen (DuPont), Richard Kelley (Northwestern University), Johnna Roose (Washington University, St. Louis), and Yulia Pushkar (University of California, Berkeley). The honored four were selected by one of us (AWR) and his top secret committee of experts (Johannes Messinger and Neal Woodbury), based on a range of criteria including the novelty and quality of work, technical and artistic impression and whether the committee (or at least the chairman) could remember anything about the work in question (or for that matter anything at all) by the end of the conference. One of us (RDB) was the Chair of this Conference, with Wim Vermaas as the Vice Chair. Each awardee received a check of $500 (donated by Agouron Foundation). In addition, one of us (G, Series Editor of Advances in Photosynthesis and Respiration, Springer, and Editor of Historical Corner of Photosynthesis Research) has donated an additional gift of one of the current volumes of his Series to each winner in recognition of their exceptional talents.

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The winners

Rachel O. Cohen is currently employed at the DuPont, where she also worked as a postdoctoral research scientist in the field of photosynthesis in Bruce Diner's laboratory for two years (2005–2006). One of her projects dealt with the identification of residues involved in the early ligation and assembly of the Mn cluster in Photosystem II (PSII). This research utilizes the technique of optical spectroscopy to study mutagenesis constructs with the intention of establishing a mechanism for Mn cluster coordination and assembly. She also has extensive research experience in Photosystem I. Her Ph.D. work (finished in 2004) was done in John Golbeck's laboratory at the Pennsylvania State University on the much debated topic of directionality of electron transfer. This work involved the construction of specific site directed mutations and their functional characterization by both optical and Electron Paramagnetic Resonance (EPR) spectroscopic methods.

Richard Kelley received his B.A. in Chemistry from Cornell University in 2002. He is currently a graduate student, studying Biomimetic electron transfer in the research group of Mike Wasielewski at Northwestern University. His research is devoted to the synthesis and photophysical characterization of photonic materials based on Chlorophyll a. The ability of chlorophylls to act as both donors and acceptors for energy and charge in natural photosynthetic systems and self-assemble outside of the natural environment makes the incorporation of these chromophore/redox centers into artificial photosystems

highly desirable. Richard is using a variety of physical techniques to study both energy and charge transfer in several multichromophoric, self-assembled arrays.

Yulia Pushkar graduated from Moscow State University in 1999 with a M.S. in Physical Chemistry. Then she did her Ph.D. at the Free University in Berlin with Dietmar Stehlik. Her thesis work (entitled ''How do proteins control cofactor function?'') involved the use of multifrequency time-resolved ESR on modified Photosystem I complexes. To continue her research in the field of photosynthesis, she moved to the University of California at Berkeley in 2004 to do postdoctoral research in the group of Vittal Yachandra and Ken Sauer. At present she is interested in the elucidation of the structure and mechanism of catalytic activity of the Oxygen Evolving Complex of PSII. She is using EPR technique and method of the X-ray Absorption Spectroscopy for this work.

Johnna Roose graduated with a B.S. in Biochemistry from Louisiana State University in 2001, working with Terry Bricker. Currently she is a graduate student in Himadri Pakrasi's laboratory at Washington University in St. Louis. She is interested in the PSII assembly pathway, specifically the proteins associated with the lumenal side of the complex in cyanobacteria. While the PsbQ protein is an established PSII component in plants, less is known about its cyanobacterial homolog. Her current research demonstrates that PsbQ is in fact a component of cyanobacterial PSII, and PSII complexes containing this protein are highly active and particularly stable.

Figure 1 is a photograph of the four winners with two of us (G and RDB), whereas Fig. 2 shows a photograph of the chair of the selection committee (AWR) not reading the posters but playing blues harmonica instead (concerts, weddings, bar mitzvahs, International Photosynthesis Conferences at reasonable rates: please contact alfred.rutherford@cea.fr).

Photographs and a slide show of many of the participants at this Gordon Conference have been made available by one of us (G) at <http://www.life.uiuc.edu/govindjee/newbook/album.htm>. Enjoy it.

We wish success to Wim Vermaas, and Doug Bruce, who will be the Chair and Vice Chair of the next Gordon Conference on Photosynthesis to be held in 2008. In 2007, however, we hope to see everyone at the 14th International Photosynthesis Congress to be held in Glasgow, Scotland, UK, from 22 to 27 July (see Govindjee and Knaff [1] and Foyer [2] for further information on these congresses, and Aro et al. [3] for information on the International Society of Photosynthesis Research (ISPR), the sponsor of these international congresses).

Fig. 1 From left to right: Govindjee, Rachel Cohen, Richard Kelley, Johnna Roose, David Britt, and Yulia Pushkar

Fig. 2 A. William (Bill) Rutherford

References

1. Govindjee, Knaff D (2006) International photosynthesis congresses (1968–2007). Photosynth Res 89:1–2
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3. Aro E-M, Golbeck JH, Osmond B (2006) A message from the International Society of Photosynthsis Research (ISPR). Photosynth Res 89:7–9