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NEWS REPORT

Govindjee was honored with the First Lifetime Achievement Award, and Britta Förster and coworkers, with the First Annual Paper Prize of the Rebeiz Foundation for Basic Research

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Professor Emeritus **Govindjee**, of the University of Illinois, Urbana, who had been earlier selected by the Board of Directors of the Rebeiz Foundation for Basic Research (to be referred also as the RFFBR Foundation), to receive the first RFFBR Lifetime Achievement Award, was honored during a ceremony on June 16, 2007, at the Foundation headquarters in Champaign, Illinois. Over 60 guests including the authors (Christoph Benning, Hans Bohnert, Ken Hoober, Archie Portis and C. A. (Tino) Rebeiz), and Carole Rebeiz, attended the ceremony which included a buffet style dinner, testimonials by C. A. Rebeiz (RFFBR), Robert Blankenship (Washington University, St. Louis), Fred Delcomyn and Braj Kachru (both of the University of Illinois), a recognition plaque and a monetary award to Govindjee.

Govindjee was recognized for his devoted and distinguished carrier centered on the promotion of photosynthesis research at the national and international levels, and his continued efforts after retirement, as an editor par-excellence of chloroplast and photosynthesis books.

Govindjee's plaque reads:

> *For his scientific achievements, original research in the field of Photosynthesis, promotion of Photosynthesis Research in Books and at International Conferences and his continuing efforts to document the History of Photosynthetic Research as an Editor par excellence.*

Also, on June 16, 2007, the First Rebeiz Foundation for Basic Research 2006 Paper Prize was awarded to Drs. **Britta Förster**, **Ulrike Mathesius** and **Barry J. Pogson** for their paper on the "Comparative Proteomics of High-Light Stress in the Model Alga *Chlamydomonas reinhardtii* (Proteomics **6**:4309-4320, 2006)." Since **Förster** and her two coworkers could not attend the ceremony, three recognition certificates and the award were mailed to the recipients at the Australian National University, Canberra, and were received there on June 21, 2007.

Britta Förster has been a postdoctoral fellow, funded by the Australian Research Council (ARC), since 2001. She obtained her PhD from the Humboldt-University in Berlin, Germany, with collaborative research at Duke University in North Carolina, USA. In Australia, she is one of the first to establish research on high-light and oxidative

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stress tolerance in the green alga *Chlamydomonas reinhardtii*, using molecular genetics, physiological and proteomics approaches. Together with her co-workers, **Ulrike Mathesius**, Senior lecturer and Chief Investigator in the ARC Center of Excellence for Integrative Legume Research, and **Barry J. Pogson**, Associate Professor and Chief investigator in the ARC Center of Excellence in Plant Energy Biology, expertise in proteomics, plant stress and chloroplast biology was combined to explore the proteome alterations in high light stress tolerant Chlamydomonas mutants. Their work shows that our understanding of the physiological phenomena in plants needs to take a holistic approach. The changes at the level of the whole cell proteome in the high light stress resistant algae are distinct but affect diverse cellular processes at the same time. Combined with extensive physiological investigations, their work suggests that there are genetic master switches that co-ordinate and balance the various biological processes contributing to enhanced photo-tolerance. Their work explores the basics underlying the complexity of communication within cells, facilitated through protein networks. It is one of many necessary steps that will eventually enable us to improve specific traits in our crop plants. See Fig. 1 for the photographs of Förster, Mathesius and Pogson.

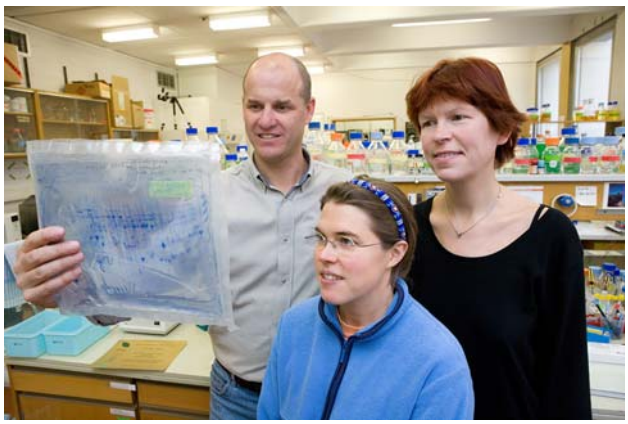

Fig. 1 Left to right: Barry Pogson, Ulrike Mathesius, and Britta Förster in their laboratory in Australia (2007). The photograph is a courtesy of Britta Förster

The Foundation

The Rebeiz Foundation for Basic Research is a tax-exempt institution, located in Champaign, Illinois; it is dedicated to the promotion of Fundamental Research at the National and International levels. Among other things, the Foundation (www.vlpbp.org) sponsors national and international research on chloroplast chemistry, biochemistry and molecular biology. It features papers of the month and papers of the year to promote the best research on chloroplasts and delivers annual prizes for the best papers in the field.

The Foundation is run by a group of scientists that comprise a President of the Board (C. A. (Tino) Rebeiz, crebeiz@uiuc.edu) and ten (10) Board Directors that represent eight chloroplast research areas of interest, namely:

- Thomas Bach, University of Strasbourg, France, for Prenyllipids
- Hans Bohnert, University of Illinois, USA, for chloroplast stress
- Christoph Benning, Michigan State University, USA, for chloroplast lipids
- Henry Daniell, Central Florida University, USA, for chloroplast transformation
- Natalia Dudareva, Purdue University, USA, for chloroplast isoprenoids and terpenoids
- J. Kenneth Hoober, Arizona State University, USA, for pigment-protein interactions
- Archie Portis, University of Illinois and United States Department of Agriculture, USA, for Rubisco-photosynthesis
- Baishnab C. Tripathy, Jawaharlal Nehru University, India, for chloroplast tetrapyrroles

Fig. 2 Scenes from the *Lifetime Achievement Award* ceremony for Govindjee, held on June 16, 2007, at the Rebeiz Foundation for Basic Research. *First row*: (Left) *Standing*: Govindjee, receiving the Award plaque, Tino Rebeiz (President of the Foundation, presenting the Award), and Rajni Govindjee. *Sitting* in the foreground: Jaya Kumar, and Amita Sinha (University of Illinois), ready to clap. (Right) *Standing*: Govindjee, and Robert Blankenship (Professor of Chemistry and Biology, Washington University, St. Louis) talking about the scientific achievements of Govindjee. *Sitting* in the foreground: Amita Sinha. *Second row* (Left) Braj B. Kachru (Director Emeritus of the Center of Advanced Studies, University of Illinois, talking about the personal achievements of Govindjee and Rajni Govindjee). (Middle) Fred Delcomyn (Director of the School of Integrative Biology, University of Illinois, presenting the University's perspective on Govindjee). (Right) Left to right: Govindjee, Himadri Pakrasi, Maitryee Bhattacharya-Pakrasi, Christine Yerkes and Anthony Crofts. ▶ *Third Row* (Left) Liz Blankenship, Govindjee, Naomi Jakobsson (State Representative, Illinois), Eric Jakobsson, Carole Rebeiz (Board Director), Rajni Govindjee and Vidya Tripathy. (Right) P.R. Balgopal, May Berenbaum (standing), Sara Ort (standing), Kenneth Hoober (Board Director), Manfredo Seufferheld (standing) and Robert Clegg. *Fourth row*, (Left) Clockwise: Susanne Hoffman-Benning, Donald Ort, Diane Portis, Andrew Leaky, Lisa Ainsworth, Govindjee, Archie Portis (Board Director) and Christoph Benning (Board Director). (Right) Left to right: John Katzellenbogen, Harris Lewin, Rosane Oliveira, Benita Katzellenbogen, Govindjee and Hans Bohnert (Board Director). Photographs are courtesy of Rajni Govindjee and John Katzellenbogen; the photo plate was made by Hyungshim Yoo

- Julian Whitelegge, University of California at Los Angeles, USA, for chloroplast genomics and proteomics, and
- Carole Rebeiz, Secretary-Treasurer, Rebeiz Foundation for Basic Research.

The Award ceremony for Govindjee

Several guests unable to attend the ceremony sent testimonials. These were read by one of us (Tino).

Colin Wraight, a distinguished biochemist and biophysicist, currently Head of Biochemistry at the University of Illinois at Urbana-Champaign (UIUC), wrote:

> Apart from his own substantial research legacy, his contributions to the global community of photosynthesis research is remarkable, possibly even eclipsing that of his old mentor, Eugene Rabinowitch!

Paul Castelfranco, a well-known chlorophyll biochemist from the University of California at Davis, wrote:

> Govindjee, you are young in spirit and you have been so longer than anyone else. Congratulations.

Morton Weir, University of Illinois Chancellor Emeritus, wrote:

> Govindjee, I want to congratulate you in advance, even if I will not be able to do so personally on June 16. Your work over these many years has set a standard that few can match. Award programs are judged by the quality of those selected. It is very important that the person honored be, without question, worthy of the award. This is clearly true in your case.

Carl Woese, a well-known molecular biologist, and the recipient of the 2003 Crawfoord Prize, wrote:

> Govindjee, there has always been fullness and a humanity to your person and your science that is rare; and it feels entirely just that you should be so honored.

John C. Munday Jr, a 1968 PhD, in Biophysics, under Govindjee wrote:

> [Govindjee,] You continue to be an inspiration by your ongoing activity in pursuit of scientific truth. May you enjoy many more years of fruitful endeavor. I hope there will be additional opportunities to offer congratulations to you for being a scientist of high calling, a professor, a mentor, and a good friend. I have often wished to be able to come back to the laboratory to do some additional experiments and to enjoy your fellowship.

Finally, one of Govindjee's family members, namely sister-in-law of Govindjee's wife (Rajni), **Subhashini Chandra**, wrote:

> [Govindjee,] It is a great honor for you to get this award in recognition of your dedication to science and research. Heartfelt congratulations to you. The Rebeiz Foundation might give this award now, but I have always honored you as a man dedicated to science only. Congratulations.

One of us (Tino) remarked at the ceremony: Of course behind every man there is a woman and in this case it is Govindjee's wife, **Rajni Govindjee**.

Then the platform was turned over to several speakers who attended the ceremony, namely: Robert Blankenship (Professor of Chemistry and Biology, Washington University, St. Louis), a leading authority on photosynthesis research, Fred Delcomyn, Director of the School of Integrative Biology, at UIUC and Braj Kachru, Director Emeritus of the Center for Advanced Study at UIUC.

Robert Blankenship stated:

> In the 1940s and 1950s, Govindjee's former mentor Eugene Rabinowitch summarized the entire field of photosynthesis. No person could do that alone now, it is just too vast a subject. However, Govindjee has succeeded in accomplishing the same result by editing the extremely successful *Advances in Photosynthesis and Respiration* book series, where he has selected editors on particular aspects of the field and they have in turn selected experts in particular areas. The series is a remarkably detailed and up to date summary of photosynthesis and would not have happened without the leadership and direct personal involvement of Govindjee. It will truly be his most enduring legacy and will be used for decades to come.

Fred Delcomyn, said:

> Govindjee, you deserve this award. You have had a distinguished carrier at UIUC for a long time, and whereas most people slow down after retirement, there was no sign of you doing that.

Braj, Kachru said:

> Our honoree inherited the questioning and challenging traits from his family. His elder brother—Gopalji—rightly observes that "Govindjee was an inquisitive child, wanting to know the 'why' and 'how' of everything he saw." The quality of the questioning mind from his childhood has deservedly resulted in The Rebeiz Foundation Award. Govindjee and Rajni's grace, elegance, contagious optimism and

Fig. 3 Left to right: Rajiv (grandson), Govindjee (with the plaque) and Arjun (grandson). Photograph was taken by Rajni Govindjee

commitment to social concerns and causes have made them both much respected members of our community. All of that, as all of us know, is in addition to their dedication to science and scientific research.

Finally, the Rebeiz Foundation Lifetime Achievement Award, which consisted of a Recognition Plaque and a monetary award were handed by one of us (Tino) to Govindjee. See Fig. 2 for the Award ceremony, and photographs of some of those who were present at the ceremony.

This was followed by Govindjee's acknowledgment of various associates, spanning 50 years, with whom he interacted throughout the years. Those present at the ceremony included: Hans Bohnert; Robert Clegg; Tony Crofts; Rajni Govindjee; Don Ort; Archie Portis; Tino Rebeiz, and Manfredo Seufferheld.

We end this REPORT by showing a picture of Govindjee, holding his Lifetime Achievement plaque, flanked by his two grand sons (Rajiv, leaning against him; and Arjun, standing), taken a month after the ceremony (Fig. 3).

Acknowledgment We thank the other five Board Directors of the Foundation (Thomas Bach, Henry Daniell, Natalia Dudareva, Baishnab C. Tripathy and Julian Whitelegge) for their participation in Foundation activities. Figure 1 was provided by Britta Förster, Figure 2 by Hyungshim Yoo, and Figure 3 by Rajni Govindjee.