

Photosynthesis. Energy from the Sun

14th International Congress on Photosynthesis

Editorial Introduction

Photosynthesis is the natural process of harvesting, converting, and storing light energy. It is widely distributed among living organisms. With minor possible exceptions near hydrothermal vents, deep in the dark of the ocean floor, all life as we recognise it, including our own, depends absolutely upon this process.

The first truly international conference on photosynthesis was held in Freudenstadt in Germany in 1968 (Govindjee 2005). It was organised by Helmut Metzner.

By simple arithmetic, the unbroken succession of thirteen triennial international photosynthesis conferences, or congresses, stands behind the fourteenth and most recent, held in Glasgow, Scotland, U.K. from 22nd – 27th July 2007. The book you are reading contains individual papers by world leaders in research. These volumes are their collective record of the most recent advances in understanding how photosynthesis works, what it does, where it came from, where it is going, what we can do with it, and what we can learn from it. We see here that photosynthesis holds many promises for the future.

The fourteenth international congress on photosynthesis had 824 registered participants. Each participant was invited to submit no more than one paper for consideration for publication in these proceedings. The result, after editorial and peer

review, contains 347 chapters of a book in twenty-five sections, each section representing one of the topics covered by plenary lectures and sessions at the meeting. The abstracts of presentations were published in time for the meeting as a special issue of the journal *Photosynthesis Research* (2007).

These proceedings are not just “conference proceedings” – all papers have been edited and peer reviewed. Many manuscripts had to be revised extensively in order to become acceptable for inclusion. Some manuscripts submitted could not finally be accepted for publication at all. We take full responsibility for these editorial decisions, while thanking the many reviewers for helping us to arrive at them.

As editors we believe strongly in the value of these volumes. Firstly, they contain the latest and the best research in this field, in succinct form, and often years ahead of more lengthy published papers in traditional primary and review journals. Secondly, the context of the succession of conferences shows the lasting value of a distinct and personal record of research, a chronicle of the time. Priority disputes are often most effectively dealt with by means of reference to past proceedings volumes. Huge progress in advancing knowledge of biological energy conversion is clear to see in each successive set of proceedings volumes. Those who believe that scientific knowledge is a matter of

personal choice, each person free to make his or her own, could do worse than look at the waves of new insight and comprehension that accrue in these volumes. These proceedings also refute the argument that science is merely a matter of majority, or powerful, opinion. Invariably today's orthodoxy and textbook accounts developed from what, at their inception, were radical and minority viewpoints. This process will continue. It is science itself. It is human progress "as she is writ".

We thank Chris Trimmer, Suzanne Brockhouse, and Sarah Blackford of the U.K. Society for Experimental Biology, together with other SEB staff for expertly handling the practicalities and logistics of a huge and successful international congress. We thank Jacco Flipsen (Fig. 1), Editorial Director, and Noeline Gibson at Springer, Dordrecht, The Netherlands, for their patience and planning of this unique published record of achievement. We are indebted to Art van der Est and his informatics maestro, Ben Davidson, at Brock University, Canada, who provided the database and interface for on-line submission and retrieval of manuscripts. We also thank Amina Ravi, project manager, and her staff at SPi Publishing, Pondicherry, India, for meticulous layout and attention to proofs, each checked and corrected by individual authors.

We thank Christine H. Foyer (Fig. 2) of the University of Newcastle, U.K., for mounting the successful bid to host the fourteenth international congress on photosynthesis in the U.K., for choosing the brilliant location of the Scottish Exhibition and Conference Centre on the banks of the river Clyde in Glasgow, and for chairing and masterminding this meeting.

The International Society for Photosynthesis Research continues to promote both these meetings and the international photosynthesis research

community in general. Fig. 3 is a photograph of the ISPR president at the time of the meeting, Eva-Mari Aro (University of Turku, Finland), together with past president Bob Blankenship (Washington University, St Louis, Missouri, U.S.A) and, not least, the ISPR award winners at the congress, all of whom delivered inspirational presentations and papers.

Lastly we thank all conference participants. Of course and in particular, we thank those whose chapters are published here. You go down in history. You deserve to. Your work is a chronicle of our growing understanding of the most important chemical process on our planet.

What could be a finer achievement, and legacy, than that?

John F. Allen

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John H. Golbeck

The Pennsylvania State University

Barry Osmond

Australian National University

31 January 2008

References

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- Govindjee (2005) A list of photosynthesis conferences and of edited books in photosynthesis. In: Govindjee, Beatty JT, Gest H, Allen JF (eds) *Discoveries in Photosynthesis*. Springer, Dordrecht, pp 1249-1262



Fig. 1 The editors at “PS2007” with Jacco Flipsen of Springer. Left to right: Barry Osmond; John Golbeck; Beth Gantt; Jacco Flipsen; John Allen. Photograph taken and kindly provided by Carol Allen, Queen Mary, University of London, U.K.



Fig. 2 At the PS2007 conference banquet. Foreground, left to right: Christine Foyer; Alison Telfer (Imperial College London, U.K.); John Allen. Alison and John are successfully persuading a reluctant Christine to make a speech at the banquet, prior to the opening number of the inimitable Baskerville Blues Band of Bill Rutherford (C.E.A Saclay, France; not pictured – busy tuning up). Photograph taken and kindly provided by Zhen-Ling Sun, Sheffield University, U.K.



Fig. 3 At the PS2007 awards ceremony. Left to Right: Robert Blankenship (Past President, ISPR; Chair Selection Committee for the Awards); Eva-Mari Aro (President, ISPR); Jan Anderson (The Lifetime Achievement Award); Warwick Hillier (The Robert Hill Award); Govindjee (The Communication Award); Junko Yano (The Robert Hill Award); Julian Hibberd (The Melvin Calvin Award); Ulrich Schreiber (The Innovation Award). Photograph taken and kindly provided by Zhen-Ling Sun, Sheffield University, U.K.