

Letter to the Editor

Celebrating the 2022 Lifetime Achievement Award of the International Society of Photosynthesis Research to Govindjee, Who Hails from Allahabad

Arthur Nonomura^{1*} and Ashwani Kumar^{2**}

¹Department of Chemistry and Biochemistry, Northern Arizona University, Flagstaff, AZ, USA

²Department of Botany and Biotechnology, University of Rajasthan, Jaipur, Rajasthan, India

(*Corresponding author) email id: *arthur.Nonomura@NAU.edu, **kumar.ashwani104@gmail.com


Received: ; Accepted:

ABSTRACT

In 2022, Govindjee, already known to the World as 'Mister Photosynthesis of the 21st Century', was recognised with one of the highest honours of the International Society of Photosynthesis Research—its lifetime achievement award. We briefly describe and celebrate it here.

Keywords: Emerson-Govindjees' enhancement effect, University of Illinois at Urbana-Champaign

INTRODUCTION

Govindjee joins seven other top international leaders in photosynthesis research to have received the prestigious Lifetime Achievement Award from the International Society of Photosynthesis Research (ISPR). He is the first with origin from India to receive this award, and the second from the USA. Chronologically, other recipients have included the following: **2004**, Horst Tobias Witt (1922–2007),  Germany; **2007**, Joan Mary (Jan) Anderson (1952–2015) from New Zealand/Australia; **2010**, Ulrich Wolfgang Heber (1930–2016) from Germany and Kenneth Sauer (1931–2022) from the USA; **2013**, Pierre Joliot from France; **2016**, Jean-David Rochaix from Switzerland; and **2022**, Eva-Mari Aro from Finland. At our request, we were able to obtain the list from the ISPR and a few other individuals. Two of us (Kumar *et al.*, 2021) were among the first scientists to recognise Govindjee on the occasion of his 90th birthday; Block (2022) interviewed Govindjee for his personal and academic history, following his journey

from Allahabad (now re-named Prayagraj), Uttar Pradesh, India to Urbana, Illinois, USA; and therefore, we applaud ISPR for recognising both the extraordinary impact of Govindjee's scientific contributions to the field and the international fellowship engendered by his global collaborations in science and education. Furthermore, at long last, it is time to recognise the couple, Govindjee and Rajni, in the 'Emerson enhancement effect', by properly acknowledging their contributions, now identifying it as the 'Emerson-Govindjees' enhancement effect' (see Naithani *et al.*, 2022).

LETTER TO GOVINDJEE FROM THE PAST PRESIDENT OF ISPR, RICHARD COGDELL

On 16 June 2022, Govindjee received the following letter from Richard Cogdell

'Dear Gov [referring to Govindjee],

I am pleased, in my role as Past President of ISPR, to let you know that you are one of two of this year's

[2022] recipients of our Society's Lifetime Achievement Award. Very many congratulations. It is a personal delight for me to pass on this good news. I will raise a glass in your honour when I go home tonight. The current President of ISPR [Wim Vermaas, Professor, School for the Future of Innovation in Society, Life Sciences, Arizona State University, USA] will be in touch with more details. The other recipient is Eva-Marie Aro [Professor of Plant Molecular Biology, University of Turku, Finland].

Very best regards,
Richard Cogdell

Hooker Chair of Botany, and Director of Glasgow Biomedical Centre, University of Glasgow, UK'

THE NOMINATION LETTER (ANONYMOUS)

'I would like to nominate Govindjee (Govindjee Govindjee, these days) for the ISPR Lifetime Achievement Award. Gov has contributed immensely to the photosynthesis field over the years. The first book I bought about photosynthesis as an undergraduate senior was "Bioenergetics of Photosynthesis" edited by Govindjee, and the fascination with this book was one of the main reasons that I contacted him to do a visiting

studentship in his lab, which happened shortly thereafter. He is an excellent mentor, and I learned a lot from my time in his lab. While he was an active researcher, he made key contributions to chlorophyll fluorescence induction and photosystem II function (e.g. the effect of bicarbonate), and after retirement he continued to impact the field in many other ways, including by providing a historical perspective of the field and arranging for and writing reviews of deceased members of the field. I could make this a long email but let me just say that everyone in the field knows of or knows Govindjee because of his books, articles, or personal interactions that always leave an impression, and his contributions over the years have greatly helped to shape the field. I let his attached 52-page list of publications speak for itself. If anyone is worthy of a lifetime achievement award, it is him.' *Source*: Secretary of ISPR.

PRESENTATION OF THE AWARD ON 5 AUGUST 2022

The presentation of the Lifetime Achievement Award was *via* Zoom teleconferencing during the closing ceremony of the 18th International Congress on Photosynthesis Research, 2022, in Dunedin, New Zealand, at 15:00, 5 August 2022 (see Figure 1). On the



Figure 1: Left: Wim Vermaas, president of the *International Society of Photosynthesis Research*, announcing the 2022 Lifetime Achievement Award at the 18th International Congress of Photosynthesis Research, Dunedin, New Zealand, 5 August 2022. Right: The slide, that was used at the Congress, showing the awardees Govindjee and Eva-Mari.

Source: Julian Eaton-Rye

left is Wim Vermaas (USA), President of ISPR, announcing ‘The Lifetime Achievement Award 2022’ to Govindjee Govindjee (middle) and to Eva-Mari Aro (right)—the latter two are in a slide since they could not be present physically!

A GENERAL INTERVIEW

We end this ‘Letter to the Editor’ with reference to a general interview of Govindjee by Madhu Vishwanathan (Department of Marketing, College of Business Administration, Loyola Marymount University, Los Angeles, USA; and Professor Emeritus, Department of Business Administration, Gies College of Business, University of Illinois at Urbana-Champaign, USA). He had interviewed Govindjee on a variety of topics calling it, ‘An Interview with A Very Special Scholar and Human Being—Govindjee’. This interview was recorded long before the actual Award: ‘A Conversation with Govindjee’ (Govindjee.mp4; <https://vimeo.com/721990812>). For interesting photographs and another interview of Govindjee on his museum of ‘old stuff’ from the time of Robert Emerson (1903–1959), see Yates (2022),



Figure 2: The early 1970s. Left to right: Govindjee and Indira Gandhi; photograph at the residence of the Prime Minister of India.

Source: Office of M.S. Swaminathan—provided to Govindjee

which is preceded by an introduction from one of us (Nonomura 2022).

We end this Letter with Govindjee’s photograph, in the early 1970s, with Indira Gandhi at her residence, who was at that time, the Prime Minister of India, when he was invited by M.S. Swaminathan, responsible for ‘The Green Revolution’ in India. At a conference in New Delhi, Govindjee discussed all of the possible ways to improve photosynthesis and, thereby, provided a vision for a future of improvements in crop productivity.

ACKNOWLEDGEMENTS

We thank the staff of the International Society of Photosynthesis Research and of the University of Illinois at Urbana-Champaign (UIUC), for help in providing the information used here. We thank Julian Eaton-Rye for his crucial contribution to information included here. Jeff Haas (of UIUC) is thanked for providing Figure 2 from the original. For further information on Govindjee, see his websites: main page, <https://www.life.illinois.edu/govindjee/>; publications, <https://www.life.illinois.edu/govindjee/g/Publications.html>

REFERENCES

- Block JE (2022) Life of Govindjee, known as Mister Photosynthesis. *Journal of Plant Science Research* 38(1):1–22.
- Kumar A, Block JE, Nonomura A (2021) Mister Photosynthesis of the 21st century, Govindjee. *International Journal of Life Sciences* 10(2):61–80.
- Naithani S, Stirbet A, Shevela D, Pareek A, Björn LO, Eaton-Rye JJ, Nonomura A (2022) Govindjee’s 90th birthday – congratulations from friends and colleagues. *Current Plant Biology*. <https://doi.org/10.1016/j.cpb.2022.100263>
- Nonomura A (2022) Prologue to an interview by Diana Yates on Govindjee’s photosynthesis museum. *International Journal of Life Sciences* 11(2):91–92.
- Yates D (2022) Govindjee’s Photosynthesis Museum. *International Journal of Life Sciences* 11(2):93–98.

How to cite this article: Nonomura A and Kumar A (2022) Celebrating the 2022 Lifetime Achievement Award of the International Society of Photosynthesis Research to Govindjee, Who Hails from Allahabad. *LS - An International Journal of Life Sciences* 11(3):153–155.