

千葉大学名誉教授で当センターの客員教授（機能性植物生産学寄付研究部門）の古在豊樹氏が、米国の培養生物学会(The Society for In Vitro Biology)の 2009 年度生涯業績賞 (2009 Lifetime Achievement Award)を受賞し、6 月 7 日の年次総会において、受賞講演をされました。この受賞は、古在教授の「光独立栄養培養による植物増殖法の開発およびその応用」に関する研究が米国においても高く評価されたものです。古在教授は、今まで、国内では紫綬褒章や日本農学賞を受賞し、中国からは国家友誼賞などを受賞しています (<http://www.h.chiba-u.jp/kanko/contents/keireki.htm#jyusyou>)。今回は、米国においてその研究業績が認められました。培養生物学会 (<http://www.sivb.org/index.html>) は、培養(*in vitro*)という手段を利用した植物学、微生物学、動物学に関する基礎研究とその応用に関する学会です。

受賞セレモニーと受賞講演に先立ち、古在教授の研究行政内容の紹介が、米国・アリゾナ大学教授の Chieri Kubota（久保田智恵利、本学園芸学部の前助教授かつ卒業生）により行われました。その全文はこちら（英文）です。写真は、受賞楯とブロンズのメダルです。

Introduction by Professor Chieri Kubota, The University of Arizona, USA.

Good afternoon ladies and gentlemen, friends and colleagues in the Society of In Vitro Biology. On behalf of our colleagues who supported the nomination, it is my great honor to have this opportunity to introduce Professor Toyoki Kozai as a recipient of 2009 Lifetime Achievement Award from the Society of In Vitro Biology.

Professor Kozai's contribution to in-vitro biology and technology is known worldwide through his work on in-vitro microenvironment control for manipulating growth and development of plantlets.

Professor Kozai obtained a BS degree in Horticultural Sciences from Chiba University, and Master and Doctoral degrees in Agricultural Engineering from University of Tokyo. When Prof. Kozai started his academic career in 1973 as an agricultural engineer, his work was focused on greenhouse environment control engineering. After establishing his early work on greenhouse light environments, energy savings, ventilation, and computer control, his scientific interest was extended to in vitro environments and their control.

That was in early 1980s when plant tissue culture and micropropagation techniques were developing rapidly worldwide. Professor Kozai was the pioneer in identifying the mechanisms of interactions of ex-vitro and in-vitro physical environments, and

plantlets, using his expertise of greenhouse controlled environment engineering. The work conducted by Professor Kozai and his colleagues on promoting plant photosynthesis and growth under controlled environments in sugar-free media was a breakthrough. The technique is known as photoautotrophic micropropagation and the method can improve in vitro growth and survival in acclimatization of plantlets of many plant species. The foundational work also led to development of large-scale systems and facilitated automation in micropropagation.

Photoautotrophic micropropagation was particularly well accepted in countries like China, Vietnam, and Thailand, which serve the world as the major production platform for this labor intensive process. Professor Kozai also devoted his time and academic life to helping scientists in these countries to establish commercial operations that would help them to continue necessary research.

For this contribution, Prof. Kozai received many prestigious awards including the 2002 Purple Ribbon Award from the Prime Minister of the Japanese Government. His work was published in 270 peer-reviewed journal papers, 140 review articles, and 137 books/book chapters.

Professor Kozai also contributed to the in-vitro biology and technology field through educating graduate students and training postdocs and visiting scholars. He trained more than 200 undergraduate and graduate students, and supervised 8 postdoctoral research fellows. Many of those are now university faculty members, research scientists in national, regional or commercial institutions, or administrators who lead his/her group of scientists or faculty members. Some of them, including myself, are in this room sharing the honor of seeing him awarded.

Today, Professor Kozai is a professor emeritus in an endowed chair position at the Center for Environment, Health and Field Sciences, Chiba University, leading the nation's controlled environment agriculture effort with a special focus on medicinal plant production. After recently serving as the President of Chiba University, I understand that Professor Kozai is happy to be back in research and education.

It is such a pleasure and honor to have Professor Kozai with us today to celebrate his lifetime achievement in in-vitro controlled environment technology development. Ladies and gentlemen, please welcome Professor Toyoki Kozai from Chiba University, Japan.



受賞楯とブロンズのメダル



受賞式風景（SIVB 会長 Dr. Todd Jones(右)、久保田アリゾナ大学教授(左)と一緒に）

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会場での古在教授（久保田アリゾナ大学教授(左)と）

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