This year, Plant Physiology launches a new feature that we have titled the Founders Review, to be published annually in the January issue. The Founders Review is intended to highlight the work of an internationally eminent plant biologist and to present an in-depth current perspective of a highly active area of research.

Our inaugural Founders Review has been authored by Christine Foyer, professor of plant sciences at the University of Leeds (UK). Christine also holds an appointment at Newcastle University (Newcastle upon Tyne, UK) and is a research leader in the Metabolic Regulation and Signaling group at Rothamsted Research (Harpenden, Hertfordshire, UK). Christine received her Ph.D. from the Department of Biochemistry, Kings College, University of London, in the lab of Barry Halliwell, an internationally prominent researcher in redox biology in his own right. While completing her doctoral work, Christine also completed a part-time “postexperience” course at Chelsea College in London and obtained a certificate in immunology. She remained at Kings College for an additional 2 years as a postdoctoral fellow before moving to the Research Institute for Photosynthesis at the University of Sheffield (UK; now the Robert Hill Institute) as an independent researcher. After 9 years at the University of Sheffield, Christine was awarded a Professeur Invité at the Université de Paris-Sud (Orsay, France) for 1 year before being appointed Directeur de Recherche INRA, Laboratoire du Métabolisme et de la Nutrition des Plantes (Versailles, France). She returned to the United Kingdom 6 years later as the head of the Environmental Biology Department, Institute of Grassland and Environmental Research (Aberystwyth, Ceredigion, Wales, UK) and then was appointed head of the Biochemistry and Physiology Department, Rothamsted Research, Institute of Arable Crops Research (Harpenden, Hertfordshire, UK) 4 years later. She has remained affiliated with Rothamsted Research.

During her Ph.D. work, she made a major contribution to the elucidation of the water-water cycle, also known as the “Foyer-Halliwell-Asada cycle” or “ascorbate-glutathione cycle,” where she proposed that “hydrogen peroxide was dissipated in the chloroplast by the coupling of ascorbate and glutathione redox cycling.” Her highly productive and influential research program remained focused on redox metabolism as related to plant growth and defense against stress as she became one of the foremost experts in this field. Her current research interests include the elucidation of glutathione’s effect on the cell cycle and ultimately plant performance and stress tolerance. Through her affiliation with COSI (www.univie.ac.at/cosi), of which she is a consortium member, she is involved in a project looking at the regulation of electron transport processes in the chloroplasts and mitochondria and their contribution to cellular redox homeostasis and signaling. Other projects involve the identification of genes and processes that confer stress tolerance in legumes, specifically the roles of redox processes and Cys proteases and Cys protease inhibitors in nodule development and the breakdown of symbiosis as well as adaxial/abaxial regulation of photosynthesis, CO2 and stress signaling in the leaves of C4 monocotyledonous species, particularly maize and sugar cane. She is also expanding on the body of work involving redox processes in systemic signaling during plant-aphid interactions. Christine is an ISI highly cited researcher, with 31 of her nearly 300 papers garnering greater than 100 citations. For the 10-year period of 1997 to 2007, she ranked number seven in the list of top worldwide plant science researchers (http://sciencewatch.com/dr/sci/08/jun22-08_4/).

Of the many successful collaborations Christine has had over the years, none has proven more fruitful than the one with Graham Noctor, a coauthor of this review.

Donald R. Ort, Editor in Chief
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