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**Prof Giles E. D. Oldroyd**

The green revolution brought significant yield improvements for many cereal crops, primarily resulting from the ability to apply nitrogenous fertilisers. However, the predominant beneficiaries of these yield improvements remain wealthy farmers in developed nations and fertiliser application accounts for a significant proportion of the pollution derived from agriculture. Achieving more equitable and sustainable agricultural systems requires a different solution to nitrogen in agriculture, other than the application of fertilisers. Prof Giles Oldroyd studies the mechanisms by which plants form beneficial interactions with micro-organisms, both bacteria and fungi, that aid in the uptake of nutrients from the environment, including nitrogen. A long-term aim of this research is to reduce agricultural reliance on inorganic fertilisers and he currently heads an international programme funded by the Bill and Melinda Gates Foundation to engineer nitrogen-fixing cereals. He completed his PhD in 1998 at the University of California, Berkeley, studying plant-pathogen interactions and then moved to Stanford University, USA, to work on nitrogen fixation in the laboratory of Prof. Sharon Long. After working 15 years as a group leader at the John Innes Centre in the UK, he moved to the Sainsbury Laboratory Cambridge University in 2017. He has been recognised by a number of awards for his research: EMBO young investigator; European Research Council young investigator; Society of Experimental Biology Presidents medal; Royal Society Wolfson Research Merit award and a BBSRC David Philips Fellowship.