Alison Smith is Professor of Plant Biochemistry at the University of Cambridge. Her research interests are focused around the metabolism of plants, algae and bacteria, in particular of vitamins and cofactors, and of other high value compounds. Current projects include the use of synthetic biology approaches in metabolic engineering of microalgae to enhance production of vitamins and other chemicals, as well as the use of algae to remediate waste streams and generate novel food sources. In particular, following her observations that half of known microalgal species need an external source of vitamin B12, which they can obtain from bacteria in exchange for fixed carbon, her group also studies the molecular basis of this interaction, and how this might be used to enhance provision of B12 and other micronutrients in the diet.