VABILO

Slovenska akademija znanosti in umetnosti in Slovensko fiziološko društvo vljudno vabita na predavanje, ki ga bo imel

prof. dr. Mark Tester,

v ponedeljek, 11. aprila 2016 ob 12.00 uri v veliki dvorani SAZU, Novi trg 3/I v Ljubljani.

»Crops for salty waters«

Forty percent of the world's food is produced under irrigation, and this is directly threatened by increasing salinity, due to:

- unsustainable current practices: over-abstraction of water and poor land management; and
- global climate change, which will alter rainfall patterns and reduce the utility of current infrastructure built to store water for agricultural use.

One way to address this threat of reduced amounts and quality of water is to develop systems for increasing our ability to use lower quality water, in particular saline water. This can be done by development of a new saltwater-based agricultural system.

In this talk, examples will be given on recent advances in increasing the salinity tolerance of crops. These have been made by the use of forward genetics for discovery of genes related to salinity tolerance in barley and tomatoes. Rather than studying salinity tolerance as a single trait, we dissect salinity tolerance into a series of components that are hypothesised to contribute to overall salinity tolerance, and study each of these in their own right. Combining this physiological approach with the modern tools of genomics-powered genetics, we have real opportunities to make significant step changes in salinity tolerance of crops and thus contribute to increasing agricultural production in many regions, especially in the face of global environmental change.

Mark Tester is Professor of Bioscience and Associate Director of the Center for Desert Agriculture at KAUST, Saudi Arabia. He was previously Research Professor in the Australian Centre for Plant Functional Genomics and Director of the Australian Plant Phenomics Facility, including The Plant Accelerator, which Mark established. He leads a research group in which forward and reverse genetic approaches are used to understand salinity tolerance and improve this in crops such as barley and tomatoes.

Predavanje bo v angleščini.

V Ljubljani, 30. marca 2016

akad. Robert Zorec, tajnik IV. razreda