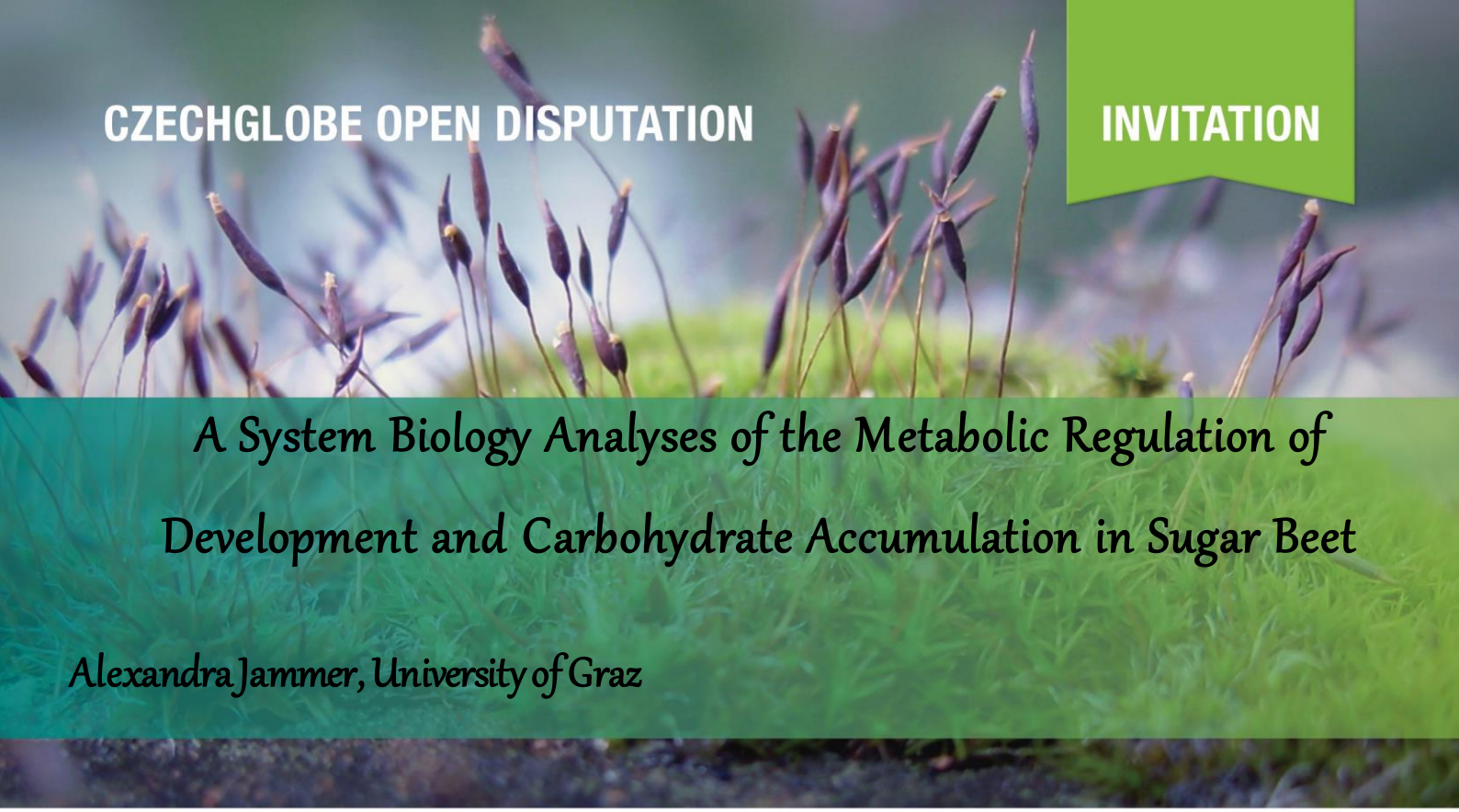

CZECHGLOBE OPEN DISPUTATION

INVITATION

A System Biology Analyses of the Metabolic Regulation of Development and Carbohydrate Accumulation in Sugar Beet

Alexandra Jammer, University of Graz

On 7th July 2014 at 14:00 pm in the large meeting room
of Global Change Research Centre AS CR, v. v. i.; Brno, Bělidla 986/4a

Abstract

Sugar beet (*Beta vulgaris* L.) is of economical importance for the production of table sugar (sucrose) that is extracted from its storage roots. Since it is known that the foundation for sugar yield is laid during early phases of development, the early stage tap root development was first analysed in a systems biology approach. Thus a broad spectrum of complementary techniques has been applied, including anatomy, biochemistry, histochemistry, instrumental analytics and transcriptomics. Notably, platforms for the determination of complex enzyme activity signatures and phytohormone profiles have been established. Based on the determined spatial and temporal dynamics a model for the metabolic control of storage root formation and sugar accumulation is presented and new perspectives for sugar beet breeding discussed.

CzechGlobe
Global Change Research Centre AS CR, v. v. i.
Bělidla 986/4a
603 00 Brno
Czech Republic
www.czechglobe.cz

esf european social fund in the czech republic
EUROPEAN UNION
MINISTRY OF EDUCATION, YOUTH AND SPORTS
OP Education for Competitiveness
INVESTMENTS IN EDUCATION DEVELOPMENT