



GIFS | GLOBAL INSTITUTE
FOR FOOD SECURITY

Growing science for life

PotashCorp - a Founding Partner



WE ARE PLEASED TO INVITE YOU TO A SEMINAR

Dr. Susan McCouch

Professor of Plant Breeding and Genetics, Plant Biology,
Biological Statistics and Computation Biology

Cornell University

The Buffering Capacity of Stems:

Genetic architecture of nonstructural carbohydrates in cultivated Asian rice,
Oryza sativa

Harnessing stem carbohydrate (CHO) dynamics in grasses will help meet future demands for food, fiber and fuel production. To better understand the genetic architecture of rice stem nonstructural carbohydrates (NSC), subpopulation-specific genome-wide association analysis followed by linkage (QTL) mapping was carried out. A number of QTL were identified; three were detected in multiple panels and are associated with starch-at-maturity, sucrose-at-maturity and NSC-at-heading. They tag OsHXX6 (rice hexokinase) and a tandem array of sugar transporters. This provides the foundation for molecular investigations to validate candidate genes underlying rice stem NSC and will inform future comparative studies in other agronomically important grass

Wednesday, May 24, 2017
3:30 p.m.
Reception to follow

U of S CAMPUS, SASKATOON
MARQUIS HALL
97 CAMPUS DRIVE
PRIVATE DINING ROOM
(UPPER LEVEL)



About GIFS

The Global Institute for Food Security (GIFS) performs discovery research that aims to deliver transformative innovation in agriculture in both the developed and the developing world. To address these issues, GIFS' research focuses on three areas: Seed and Developmental Biology, Root-Soil-Microbial Interactions, and Digital and Computational Agriculture. GIFS was founded as a public-private partnership among PotashCorp, the University of Saskatchewan, and the Government of Saskatchewan and is based at the University of Saskatchewan. It is the home of leading researchers and has attracted over \$100M in funding to date.

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