



TOHOKU
UNIVERSITY

生命科学セミナー

(植物生殖遺伝分野担当: 第20回)

(生命科学研究科単位認定セミナー: 2ポイント)

日時: 2012年1月12日(木) 16:00~18:00
場所: 生命科学研究科・本館大会議室 (片平・3F)

Dr. Junshi Yazaki (The Salk Institute for Biological Studies, USA)

MAPPING PROTEIN-PROTEIN INTERACTIONS USING HALO-TAG NAPPA MICROARRAYS REVEALS HORMONE SIGNALING CROSSTALK IN *ARABIDOPSIS*

Protein microarrays are unparalleled in their capacity to investigate diverse biochemical properties for thousands of proteins in a single experiment. Using a novel high-affinity protein microarray approach termed HALO-tag nucleic acid programmable protein assay (HT-NAPPA), we created high-density arrays comprising 12,000 *Arabidopsis* ORFs and used these to query protein-protein interactions for a set of transcription factors from plant hormone regulatory pathways. The resulting transcription factor interactome network, TFNAPPA, contains thousands of novel interactions. Evaluation of the quality of TFNAPPA using pulldown assays revealed that many of interactions were reproducible. HT-NAPPA technology will provide many opportunities to study protein function and the novel TFNAPPA transcription factor interactome network will provide the foundation to expand our knowledge of plant transcription factor signaling pathways.

なお、不明な点は、生命科学研究科・植物生殖遺伝分野・渡辺 (nabe@ige.tohoku.ac.jp) までお願いします。
共催: 新学術領域研究「ゲノム遺伝子相関」、若手研究(S)「アブラナ科自家不和合性」、新農業プロジェクト



新学術領域研究

ゲノム・遺伝子相関

—新しい遺伝学分野の創成—