

京都産業大学 総合生命科学部 バイオフィォーラム 2013

最先端の生命科学研究に触れてみませんか

バイオフィォーラム 12月10日(火) 開催

【開場】15:00～ 【開演】15:30～16:30

【場所】京都産業大学 15号館1階15102セミナー室

Complex composition of the RNA editosomes in plant organelles

【演者】 ウルム大学(植物分子生物学分野) グループリーダー
竹中 瑞樹 氏

RNA editing in flowering plant mitochondria and plastids alters 400-500 and 30-40 nucleotides from C to U in mRNAs, respectively. Loss of individual RNA editing events often leads to severe defects in organellar function and plant development. Recent molecular-genetic approaches have assigned more than 40 PPR (Pentatricopeptide repeat) proteins to be involved in different RNA editing sites in plant mitochondria or chloroplasts. The PPR domains in these specific RNA editing factors vary in their numbers and structures. Computational analyses suggest that only few amino acids in a given PPR domain determine the nucleotide specificity. The consecutive cluster of several PPR variants then defines the unique binding sequence for each editing site. In addition to the PPR proteins, we recently identified another class of proteins to play a role in RNA editing in both plant organelles. The loss of one of these MORF proteins (multiple organellar RNA editing factor) abolishes or lowers editing at many sites that also require individual PPR proteins. Y2H and BiFC analyses document selective combinations of interactions between various PPR editing factors and MORF proteins. These homo- and heteromer assemblies are part of the apparently complex structure of the RNA editosomes in plant organelles.

※講演は日本語で行われます。

お問合せ

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地下鉄「北大路駅」下車→市バス(北3号系統)または京都バスで京都産大前下車

主 催

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