

テニュアトラック推進機構セミナーのご案内

日時: 3月23日(月) 10:30~12:00

場所: 農学部 L102 教室(宮崎大学木花キャンパス)

The Double Life of ATP: extracellular nucleotide signaling in plants

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PROFILES

Assistant professor, Washington State University (2014-present)

Researcher, University of Missouri (2006-2014)

Ph.D. Kagoshima University, Japan (2005)

Although ATP is generally considered to be the energy currency molecule in the living cell, ATP is released into the extracellular space following cellular damage, where it acts as a danger signal for damaged-self recognition in multicellular organisms. Extracellular ATP is recognized at the cell surface by purinoceptors to evoke immune responses and healing of damage. Recently, we identified a lectin receptor kinase, P2K1 as the first plant purinoceptor, which recognizes extracellular ATP in *Arabidopsis*. P2K1 is required for all ATP-induced cellular responses, e.g., cytosolic calcium response, MAPK phosphorylation, and gene expression. Genetic analysis using mutants and overexpression lines showed that P2K1 plays an important role for the plant wound response, supporting our hypothesis that ATP acts as a danger signal in a recognition system of self-damage in plants. Recent research on the extracellular ATP signaling in plants will be presented.

田仲先生は、鹿児島大学で学位を取られた後、渡米されて、植物における細胞外ATP受容体の研究で、先駆的な成果を挙げられてきました。セミナーは日本語で行います。皆様のご来聴をお待ちしています。

問い合わせ

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