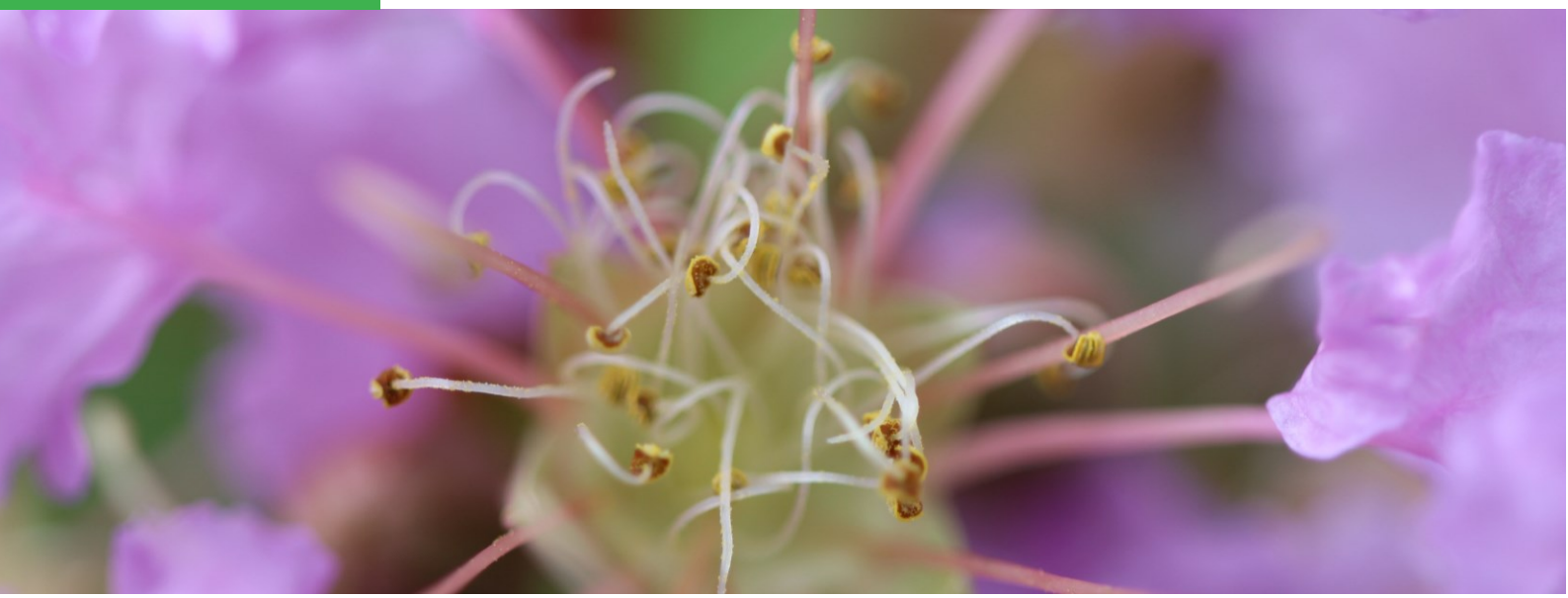
Press Release

PLANT ADVANCED TECHNOLOGIES announces the discovery of a new class of plant enzymes, published in exclusivity in the scientific journal, PNAS [1] , in partnership with Kyoto University (Japan) and the University of Lorraine (France).



- **Discovery of a new class of aromatic enzymes in plants**
- **Identification of a plant defense mechanism**
- **Development of remarkable new active ingredients for Plant Advanced Technologies PAT's target markets**

Vandœuvre-lès-Nancy, May 3, 2021, 06 :00 p.m. CET – **Plant Advanced Technologies PAT (Euronext Growth™- Paris - FR0010785790 - ALPAT),** a French plant biotech company specialized in the identification, optimization and production of rare new active plant compounds for cosmetics and pharmaceuticals and crop protection, announces the results of a study published in the American scientific journal, PNAS, of a new class of plant defense molecules equipped with biosynthesis mechanisms unknown to date.

Aromatic O-prenyltransferases (O-PT): new enzymes with unsuspected powers

This discovery concerns a new class of enzymes identified in plants producing very original self-resistance mechanisms (O-prenylated substances).

The discovery of these enzymes and the associated resistance mechanisms contribute to a better understanding of the immense chemical diversity contained in plants.

A collaborative partnership with leading universities for a world first in the field of plant biochemistry

This work was carried out as part of a scientific collaboration between Plant Advanced Technologies PAT, the Agronomy and Environment Laboratory (LAE) of the University of Lorraine and the Laboratory of Plant Gene Expression, Research Institute for Sustainable Humanosphere of Kyoto University.

[1] Proceedings of the National Academy of Sciences of the United States of America (PNAS)
Article: "*Parallel evolution of UbiA superfamily proteins into aromatic O-prenyltransferases in plants*" - Authors: Munakata, Olry, Takemura, TatsumI, Ichino, Villard, Kageyama, Kurata, Nakayasu, Jacob, Koeduka, Yamamoto, Moriyoshi, Matsukawa, Grosjean, Krieger, Sugiyama, Mizutani, Bourgaud, Hehn, Yazaki.

This initiative was made possible through industrial contracts (LAE-PAT) and collaborative projects, BIOPROLOR2 (financed by the Grand Est region) and IMPACT Biomolécules (financed by the Lorraine University of Excellence (LUE) I-SITE program.

A discovery with applications in all PAT's markets

The potential applications of this discovery are very promising and provide Plant Advanced Technologies PAT and its subsidiaries with an additional biotechnology tool to create and produce new innovative active ingredients for its different markets (pharmaceuticals, cosmetics, nutraceuticals and crop protection).

Frédéric Bourgaud, Chief Research and Innovation Officer of Plant Advanced Technologies PAT and co-author of the article published in PNAS, explains: "*This discovery will allow us to increase the portfolio of molecules we are able to produce. We are already studying the use of these enzymes in the industrial processes of Plant Advanced Technologies PAT, notably within our wholly-owned subsidiary, CELLENGO, a producer of rare high added value molecule through industrial fermentation technologies. Cellengo's know-how provides a unique advantage for exploiting this discovery to develop future remarkable active ingredients for industrial applications.*"

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About PAT – www.plantadvanced.com
Plant Advanced Technologies (PAT) is a plant biotechnology company specialized in the identification, optimization and production of rare new active plant compounds for cosmetics, pharmaceutical, nutraceutical and fine chemicals markets. PAT possesses unique plant-based expertise with a portfolio of worldwide patents (PAT Plant Milking® and Target Binding®).

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