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# LabCom SEASIDES

Powerful tools for the characterization of the mechanism of action of biostimulants

Sophie Bernard<sup>1</sup>, Gaelle Durambur<sup>1</sup>, Carole Plasson<sup>1</sup>, Patrice Lerouge<sup>1</sup>, Narimane Mati-Baouche<sup>1</sup>, Bruno Gugi<sup>1</sup>, Jeremy Brebion<sup>2</sup>, Franck Hennequart<sup>2</sup>, Azeddine Driouich<sup>1</sup>, and Isabelle Boulogne<sup>1</sup>

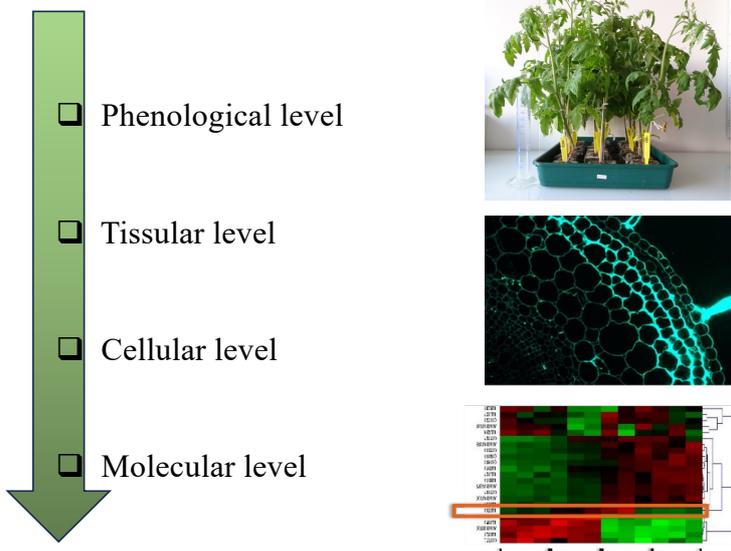
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The LabCom SEASIDES, combines the expertise of two partners:

- GlycoMEV laboratory (Glycobiology and Plant Extracellular Matrix - UR4358) at the University of Rouen Normandy, with a recognized expertise in glycobiology
- ALGAIA R&D Center, a private company, the main manufacturer of seaweed extracts in France

## A multi-scale approach



Over the past few years, we have seen a growing interest in the use of biostimulants for sustainable agriculture. In addition, the ongoing European Regulation (EU 2019/1009) establishes the rules related to the registration and marketing of plant biostimulants within the EU. Therefore, to officially register a biostimulant product, it is required to demonstrate its effectiveness reliably through fundamental research. In addition, many companies are currently willing to characterize more specifically the mechanism of action of their biostimulant products.

## Plants of interest



Soybean      Maize      Tomato      Flax

## Analysis of Organs

## Abiotic stresses



Roots/stems/leaves

Drought stress

A multi-scale approach (plant growth traits, water content, chlorophyll content measurement, cell imaging, carbohydrate analysis, molecular biology including RNAseq) is available in controlled and semi-controlled conditions on cultivated species of agronomical interest in order to assess biostimulant activities under drought stress conditions. **The proposed services can be offered to both private and academic laboratories.**

