

International Conference on CLINICAL PHARMACY

&

International Conference on BIOCONTROL, BIOSTIMULANTS & MICROBIOME

September 06-07, 2018 | Zurich, Switzerland

Metabolite determination and quantification in different biostimulants using UHPLC-MS/MS

Nuria De Diego, Katerina Podlesakova, Ondrej Novak, Lydia Ugena and Karel Dolezal
Palacky University, Czech Republic

Bio stimulant is loosely defined as an organic material and/or microorganism, which is applied to enhance nutrient uptake, stimulate growth, and enhance stress tolerance or crop quality. Extracts from algae or from different plant/microbial material have been reported to confer beneficial effects on growth and stress adaptation. Many primary and secondary metabolites have been reported as possible candidates for improving plant growth, including plant hormones, phenolic compounds and amino acids among others. In our research group we are focus on the identification of these metabolites in biostimulants from different extracts, and in parallel the quantitative changes

of the same metabolites in the different crops subjected to diverse growth conditions. This approach allows us to understand the role that the identified compounds are playing as plant growth regulate and/or stress alleviators. The wide experience in the study of plant growth regulators and the use of leading technologies based on ultra-high performance liquid chromatography–tandem mass spectrometry (UHPLC-MS/MS) have permitted us to increase the number of metabolites detected as well as simplification of purification protocol and the miniaturization of the sample preparation methods used.

Biography

Nuria De Diego has done the physiological traits related to water stress and recovery capacity in *P. radiata* from different climatic regions was studied with the aim to identify drought tolerance mechanisms.

nuria.de@upol.cz

Notes: