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## Bex-Biotec-offering fast, lean biotechnological plant-based tools to evaluate the effect of bio stimulants on crop-plant physiology

## Rebecca Melcher and Hielscher Niklas

Bex-Biotec, Germany

Bex-Biotec is a young emerging start-up company that is dedicated to encouraging the development process of new more sustainable plant treatments. We support Small and Mid-sized Enterprises (SMEs) as well as research groups with fast biotechnological tools to characterize the effect of biological active substances or so called bio stimulants on plant physiology. Bio stimulants can support the growth of crops for example, by promoting the nutrient uptake within the plant. Besides, some substances can activate the overall defense system of plants by mimicking pathogen attacks or interacting with phytohormone pathways. Our tools chemical quantification of early plant stress response after treatment, classical growth experiments or phytohormone assay become nested to give a quick overview of the substance impact on plant growth and defense.

## **Biography**

Our team consists out of three specialists in biotechnological research — CEO PhD Rebecca Melcher, CTO PhD Tobias Weikert, Product and Content Manager BSc. Niklas Hielscher. Within her PhD program CEO Rebecca Melcher established a stress assay for rice cells and leaf material of higher plants based on chemiluminescence. She founded Bex-Biotec in March 2018 and promoted the technology transfer from university to economy. CTO Tobias Weikert worked on the protein engineering of chitosanases and their substrate specificities and classification. Niklas Hielscher manages PR-work of Bex-Biotec and performing a one-year research project for his master thesis to adapt existing tools for new plant species and investigating cultivation and stress conditions for our tool's setup.

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