

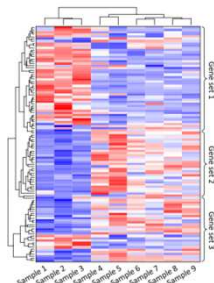
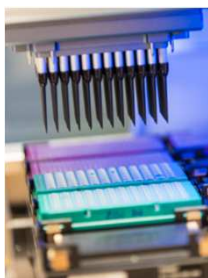


# Unraveling the mode of action of biocontrol products

## *Biocidal, antagonist or elicitor effect*

Vegenov developed performant tools and bioassays to determine the mode of action of plant protection products under controlled and semi-controlled conditions.

### Evaluation of the ability to trigger plant defense pathways through gene expression analysis (molecular tools)



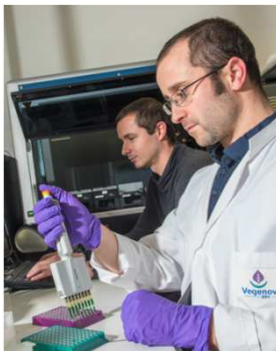
#### Transcriptomic approach with high-density microarrays



*Tomato Arabidopsis*

More than 30,000 genes covering all metabolic pathways

#### Quantitative low-density "qPFD" genes expression profiles



*Tomato Apple Potato Wheat*

A selection of 28 defense genes covering the different signaling pathways (e.g. salicylic acid, jasmonic acid, ethylene) or downstream defense pathways (e.g. PR proteins or enzymes of the secondary metabolism)

### Evaluation of direct or antagonist effect of the product under controlled conditions

#### (bioassays)

We can evaluate the direct or antagonist effect of your product at different development stages of the pathogen: spore germination, mycelium growth, bacterial multiplication...



*Assay on mycelium growth*

We can also do **bibliographic searches** to see what has been published in scientific literature which can help you to better understand the mode of action your products.