



SME of the Month – Plant Response



PLANTRESPONSE

STRONGER BY NATURE

PlantResponse is a Spanish green biotech company focused on searching for novel natural products that confer resistance and enhance plant responses to biotic and abiotic stress. With the aim of bridging the gap between early research and the market and bringing solutions to farmers in an efficient way, the company develops and commercializes products employed as preventive applications to crops. The innovative SME took home the Most Innovative Biotech SME Awards in 2016 and was the first winner in the agricultural biotech category. We had the chance to interview Francisco Javier García Domínguez – EMEA Director of PlantResponse.



The PlantResponse Team at their HQ in Madrid

How did PlantResponse start out?

PlantResponse™ was founded in March 2008 as an Universidad Politécnica de Madrid (UPM) spin-off. Since then we have focused on developing highly innovative products by taking advantage of the know-how and techniques we have acquired through our experience in the agricultural domain. PlantResponse has a world-wide exclusive license to the initial technologies we developed, which enables us to identify and develop solutions to different types of botanical stress and help plant growth on a global scale.

Your vision is of developing sustainable agriculture – how do you see the role of agricultural biotechnology in achieving this?

Our development pipeline is focused on developing and commercializing novel products of natural origin that meet the main challenges facing global agriculture today, increasing yields and quality, improving crop tolerance to abiotic stress, helping crops to a better assimilation of nutrients, and reducing residues of synthetic products in crops and environment.

What makes PlantResponse unique in enhancing plants and their resistance to stress?

Climate change is causing issues such as, temperature, drought and seawater levels to rise, therefore mitigation of environmental stress for crops is a true demand for growers. When it comes to protecting plants from abiotic stress, PlantResponse™ has developed a product line based on a single and novel molecule which occurs naturally in plants (PRB33). This molecule plays a key role as osmoregulant in plants, mitigating salinity, drought or extreme temperature stresses.

Since winning the Most Innovative Biotech SME Award in 2016, PlantResponse has celebrated many successes. How did your company evolve over the last couple of years?

A lot of things have changed since then. PlantResponse™ incorporated well-recognised employees coming from other companies of the industry to set the direction of the company over the coming years. In 2018, PlantResponse™ announced the close of our Series B investment. This round will support further growth of the global company through our new commercial headquarters in Research Triangle Park (North Carolina, USA), epicenter of agriculture research. In this round other well-known companies as Yara Germinate and iSelect joined Bayer Ventures, Middleland Capital and Novozymes.

As an innovative SME in Europe – where do you see the main barriers starting a successful biotech business in the EU?

We would highlight two main barriers: regulation and credibility.

There is a current lack of regulation that is creating strong barriers to market development particularly for SMEs. There is not a harmonized framework in Europe:

each Member State regulates biological products in a different manner. Considering the low risk profile of this kind of products, often the data requirements are disproportionate, leading to time-consuming and costly registration processes. However, compared to the past, the regulatory framework is evolving positively. The European Commission has recently adopted the New Fertilizers Regulation which includes for the first time a dedicated category for Plant Biostimulant products. In the United States, the EPA (Environmental Protection Agency) and the USDA (U.S. Department of Agriculture) are working to develop an appropriate regulatory environment for these technologies, although the project has just been initiated and results are not expected until mid- or end of 2020.

Another main challenge will be increasing the biostimulant industry credibility. Although biostimulants have been used for decades, there is still a lack of knowledge on the mode of action of many of them. Investment in scientific research that can demonstrate and validate the efficacy and mode of action of these products will be fundamental in the coming years.

On the contrary, are there any key points in the development of the company where the biotech ecosystem in the EU was benefitting your company?

There are also some benefits that are helping the industry and more specifically for SME's. The research ecosystem in Europe is a huge opportunity for companies to get ideas, technologies and partnerships that will boost their growth and development. Our researchers are among the best in class in the world and are quite accessible for companies. Also, the European R&D framework helps companies to collaborate with these public research institutions and researchers. This is something that the EU should support and promote even more in the next Horizon Europe R&D program.

As a SME active in agricultural biotechnology, what is your opinion on the low level of political acceptance on GM techniques in Europe?

Eventually, society is represented by politicians. We cannot omit that most of the public opinion do not support GM techniques for food, however, they accept it for industrial and medical purposes. The concept of food production in our society is idealized, perhaps, because urban population is increasing and losing the connection with the rural world and agricultural production. In Europe we have the most restrictive legislation on GMOs worldwide. Many other countries outside of EU can grow GMO crops. This situation leaves European growers at a disadvantage to compete, having less tools available for protecting their crops. Definitely, this is a debate which should be approached with scientific opinion instead of emotional feelings.

Did the unfavourable and restrictive EU legislation on GMOs have an impact on the development of your business? If so, how did you cope with it?

Indeed, it has an impact, not only for PlantResponse but also for growers. For example, PlantResponse has signed a licensing agreement with the University of Tübingen in Germany for a trait technology that confers enhanced plant innate immunity to fungal infections such as Sclerotinia and Botrytis. This promising

technology developed in Europe could not be used within the EU. There will be other countries and growers who will benefit from it.

What are the aspirations for PlantResponse in 2019 and beyond?

PlantResponse's team works for consolidating our commercial strategy both in the U.S. and Europe and spread our presence in other geographies, such as South and Central America, Middle East and Africa. PlantResponse remains focused on becoming a leader in the Biostimulant market.

We will finish to develop our new generation of products, led by a promising and novel microbial that increases the production of fruits, biomass and seeds by enhancing phosphorus availability, uptake and utilization.

ENDS

Media contact

Clément Robijns, EuropaBio Communications Manager

Email: C.Robijns@europabio.org / Telephone: +32 2 739 11 76

About EuropaBio

EuropaBio, the European Association for Bioindustries, promotes an innovative and dynamic European biotechnology industry. EuropaBio and its members are committed to the socially responsible use of biotechnology to improve quality of life, to prevent, diagnose, treat and cure diseases, to improve the quality and quantity of food and feedstuffs and to move towards a biobased and zero-waste economy. EuropaBio represents 75 corporate members and 17 national biotechnology associations and bioregions.

Read more about our work at www.europabio.org.

EuropaBio aisbl

Avenue de l'Armée 6, 1040 Brussels, Belgium

+32 2 735 03 13 | +32 2 735 49 60

www.europabio.org | VAT: BE 0477 520 310

