

Next Interactions and BASF Agricultural Solutions develop new technology to analyze Asian soybean rust

RICHMOND, Calif., Oct. 14, 2021 /PRNewswire/ -- Next Interactions and BASF's Agricultural Solutions division collaborate to develop a unique scientific approach to fight Asian soybean rust (ASR), one of the most harmful fungal diseases for soybean. With around 300 to 400 million tons produced per year, soybean is one of the most important crops for human consumption and animal feeds. Especially in South America, ASR can destroy up to 90% of the harvest. To offer growers in the future more flexibility and more sustainable solutions to control the fungus, BASF Agricultural Solutions develops, supported by Next Interactions' technology, new soy varieties with increased resistance to this fungus.

As part of its disease resistance research, BASF Agricultural Solutions is working to understand the interaction of the ASR fungus with soybean, and partnered with Next Interactions to analyze the function of potential ASR effector proteins, which enable the disease to spread.

Plant pathogens such as ASR secrete a variety of effector proteins into plant host cells. Once inside, these effectors interfere with the metabolism of the host cell and block defense pathways, allowing the spread of the disease. Recent genome sequencing of the fungus revealed the existence of an extraordinarily large number of ASR effectors.

Next Interactions employs its protein interaction screening and mapping platform technology that combines yeast two-hybrid with next-generation sequencing (NGS-Y2H) to deeply analyze the interaction of ASR effectors with soybean proteins.

"Next Interactions' scientific approach and the trustful cooperation have been very valuable in building our knowledge of ASR disease. It provides insight on ways to develop new products to combat this pathogen, offers soybean growers more flexibility in the field and fosters more sustainable agriculture, helping farmers to balance agricultural productivity, environmental protection and societal needs. BASF is committed to providing growers with solutions to help control ASR, and our collaboration with Next Interactions reflects this commitment," said Linda Trolinder, Senior Vice President Research & Development Seeds & Traits at BASF Agricultural Solutions.

Bernhard Suter, CEO of Next Interactions, added, "Combining BASF Agricultural Solutions' expertise in disease resistance research with Next Interactions' know-how in scientific technology enables a successful transfer of science to agricultural products of the future, all supporting more sustainable agriculture."

About Next Interactions

Next Interactions offers a suite of services comprising customized screens, protein engineering and functional assays for clients in pharma, biotech and academic research. NGS readouts and thoroughly redesigned components for Y2H provide comprehensive and precise measurements of protein-binding and protein assemblies. The Next Generation Interaction Sequencing (NGIS) platform can be applied for research in human health, energy, food security and sustainability. For more information, visit <https://nextinteractions.com>.

CONTACT: Bernhard Suter, suter@nextinteractions.com