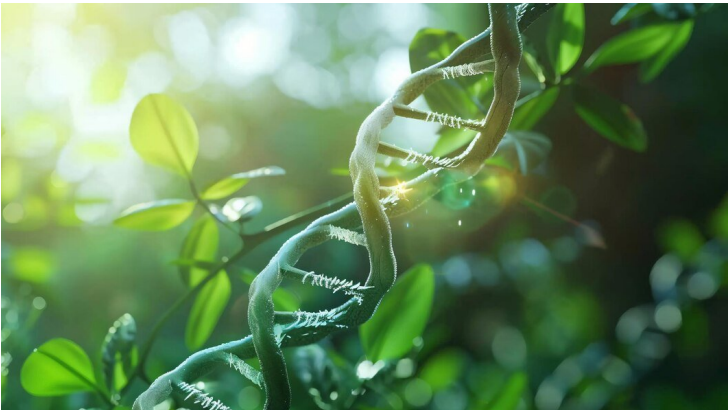


## Syngenta and InstaDeep collaborate to accelerate crops seeds trait research using AI Large Language Models

20 June 2024 | News

**Large Language Models (LLMs) aim to reduce research cycle time and bolster decision science to bring valued solutions to farmers.**



**Large Language Models (LLMs) aim to reduce research cycle time and bolster decision science to bring valued solutions to farmers.**

Syngenta Seeds, one of the world's leading global agriculture technology companies, today announced a collaboration with AI company, InstaDeep, to bring Syngenta's proprietary trait research and development capabilities together with InstaDeep's Large Language Model (LLM) platform to accelerate the development of solution-providing crop traits for farmers.

InstaDeep has developed a state-of-the-art language model, AgroNT<sup>1</sup>, trained on trillions of nucleotides from agriculturally relevant crop species, to interpret the complex language of the genetic code. This next-generation AI technology learns from nature and was designed to accurately predict how genes are regulated, potentially enabling a new level of trait control and crop performance.

"We are excited to collaborate with InstaDeep and bring forward insights from advanced AI to accelerate the advancement of our proprietary trait pipeline, enabling us to bring innovative and effective solutions to challenges facing agriculture," said Gusui Wu, Global Head of Syngenta Seeds Research. "The potential of LLMs to understand the language of DNA opens new opportunities to gain insight and to more quickly deliver traits farmers need to enhance and protect yields."

"Our collaboration with Syngenta Seeds is a major milestone for InstaDeep and the transformative agricultural science our Genomics AI team is helping pioneer," said Karim Beguir, InstaDeep CEO and Co-Founder. "We're excited by AI's potential to discover and deliver new traits critical for advancing a more sustainable, resilient, and productive food system."

The initial phase of the collaboration will focus on AI-mediated trait design for both corn and soybeans.