



Biographica and Hudson River Biotechnology partner to take on traits breeding has not cracked

28 September 2026 | News

Causal gene discovery of Biographica meets the plant genome-editing and regeneration expertise of Hudson River with an open call to breeders: Bring us the trait you have not solved



Biographica and Hudson River have announced a partnership, enabling breeding companies to take their trait ambitions all the way to commercial-ready edited plants. Biographica, an agricultural biotech company that identifies the causal genetics behind better crops, and Hudson River, a plant genome-editing technology company that turns trait ambition into edited executable crop-development programmes are combining target discovery with editing and regeneration to address the traits that conventional routes have been unable to reach.

Both companies will be at the World Agri-Tech Innovation Summit in London from the 22nd to the 23rd of September, where they will be taking first trait challenges from breeders. Within the partnership, Biographica identifies the causal genes behind a desired trait, ranks them by how likely they are to work in the customer's crop with the evidence behind each ranking made explicit and designs the DNA change to unlock new value for breeders. Hudson River deploys these changes using their proprietary editing and single-cell regeneration platform, BioMaas, at the scale and reliability their customers already rely on.

The partnership brings together two sets of capabilities which rarely sit under the same roof: identifying which gene to act on and what changes to make, and turning that decision into a plant crop breeders can commercialise. For breeding companies, the result is one conversation instead of two. Biographica's customers gain a partner that can put a target into a plant. Hudson River's customers keep the route they already use for established traits, and gain target discovery, prioritisation and edit design for complex trait challenges where literature offers no answer.

"By bringing those capabilities together, we want to move genome editing beyond the obvious targets and unlock traits that breeding has not yet been able to crack," said Lotte Westerhof, CSO of Hudson River Biotechnology.

Whereas Hudson River's R&D already identifies targets from published literature on well-studied traits, many trait ambitions go beyond what is on offer either because the gene has not yet been found, or because obvious targets are

protected by prohibitive patents. This is where Biographica's computational biology and proprietary models come in, finding the causal genes behind a trait and designing the DNA change that confers it. Hudson River then translates that change into a physical plant that is transgene-free, genetically uniform, and delivered in a single generation, ready for breeders to use in their own varieties reliably in their commercial programmes.

"Hudson River is one of very few companies that can edit crops as difficult as strawberry, transgene-free and at a scale our clients depend on. Put those together and a customer can bring us a trait problem and get the whole way to a plant, which is not something either of us could offer alone," said Dominic Hall, CEO of Biographica.

"Biographica is using the rapidly expanding body of biological and trait data to improve target discovery and predict which genetic changes are most likely to deliver commercially relevant phenotypes," said Lotte Westerhof, CSO of Hudson River Biotechnology.

Work for the collaboration will begin with tomato, where both companies already have experience, with vegetables and soft fruit crops to follow. The two companies have also begun exploring advanced forms of editing together, including changes to the regulatory DNA that controls when and where a gene is active, for traits where switching a gene off entirely would carry a yield penalty – a field where Hudson River already has extensive experience.