



BPIA 2022 Annual Meeting

18 May 2022
Monterrey, CA

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Chief Science Advisor



Introducing TechAccel



VISION

Increase food production and quality and enhance companion animal health through technology innovation.

MISSION

Use breakthrough science to accelerate sustainable innovations to market in agriculture, animal health and food technology.



What RNAissance Ag Has to Offer



Novel RNAi Pesticides

- Proprietary and novel mode of action
- First reported efficacy targeting insects of order Lepidoptera
- Expanding portfolio demonstrating efficacy against insects of other orders, and arachnids
- Designs suitable for a biopesticide and/or transgenic payload

Proprietary dsRNA manufacturing platform

- Simple microbial fermentation method has demonstrated in excess of 9g dsRNA/L
- Expect at scale dsRNA cost to be \$1/g or less
- We utilize a food/feed grade microbe with USDA 'generally recognized as safe' designation

RNAiSSance Ag Company Information

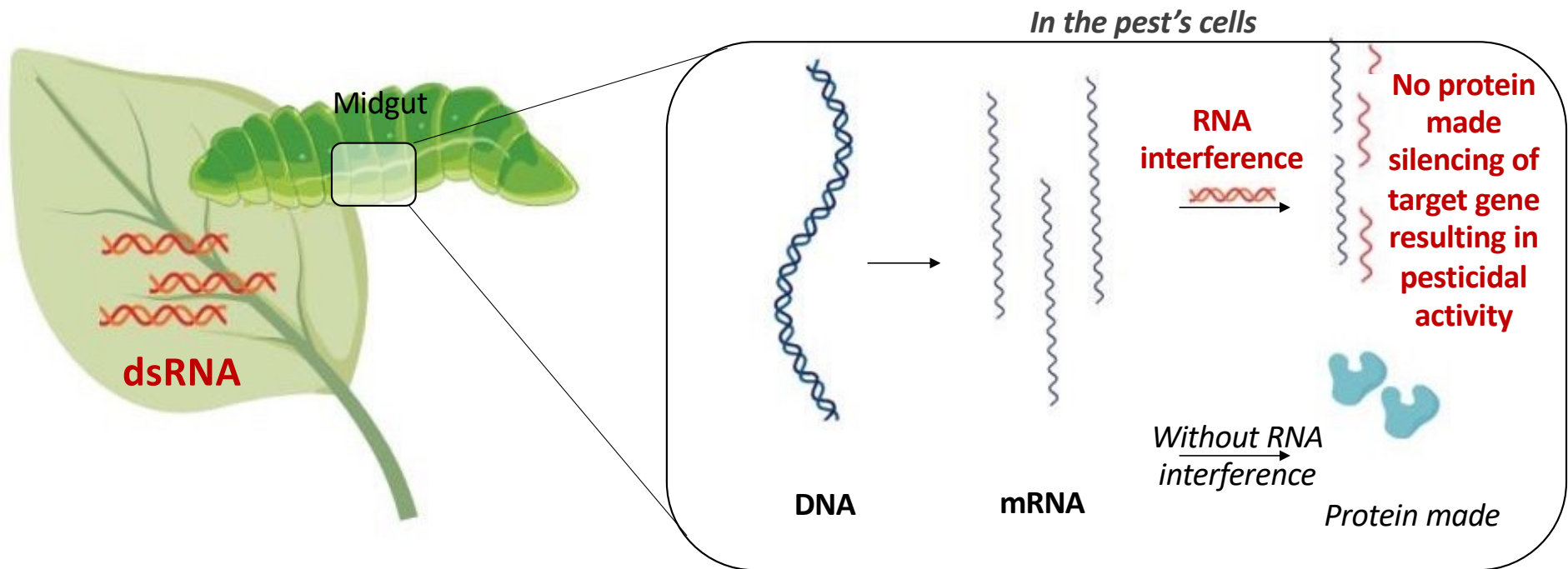
Formed in 2019

- Spin-out from the Donald Danforth Plant Science Center, St. Louis MO focused on RNAi biopesticide design
- Majority owned by TechAccel, LLC

In 2020, we acquired the proprietary dsRNA manufacturing assets of RNAgri/APSE; low-cost leader for dsRNA

We currently have offices & laboratory facilities in St. Louis, MO, and have 8 (and growing) R&D staff, and multiple academic and contract research collaborators

How RNA Interference (RNAi)-based biopesticides work



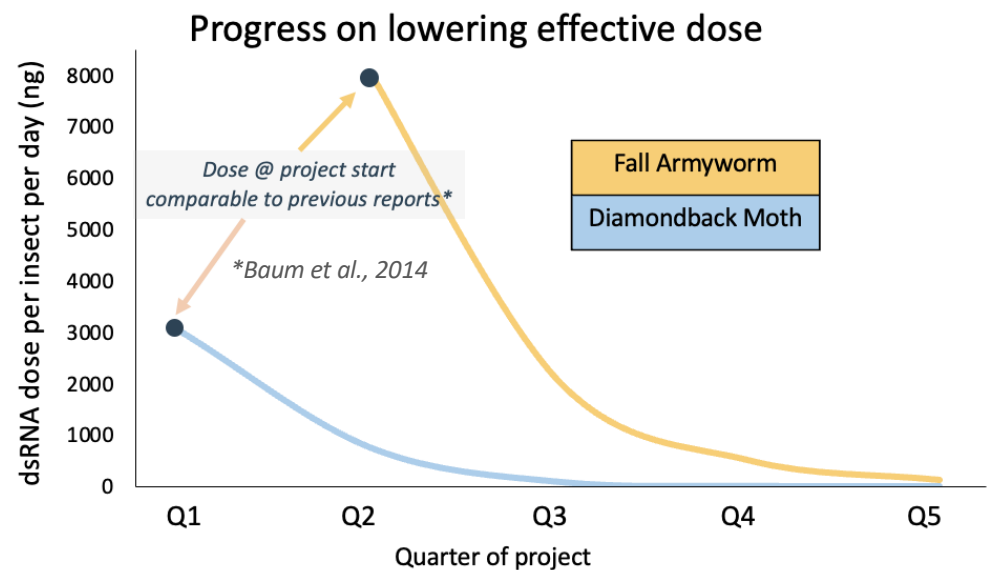
The dsRNA can be delivered either as an active ingredient in a biopesticide or as a plant transgenic trait

Previous RNAi biopesticides were ineffective in controlling Lepidoptera insect pests

Previous RNAi insecticides have been ineffective against Lepidoptera because:

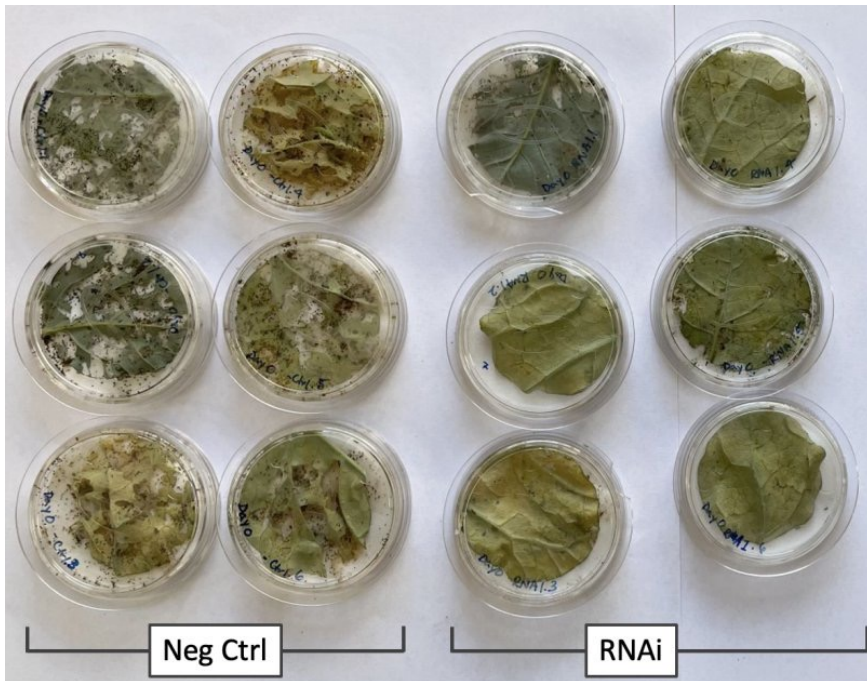
- *dsRNA degrading enzymes in gut*
- *Alkaline pH*
- *Variable cellular uptake*
- *Variable siRNA processing*

Result: Inefficient Gene Silencing

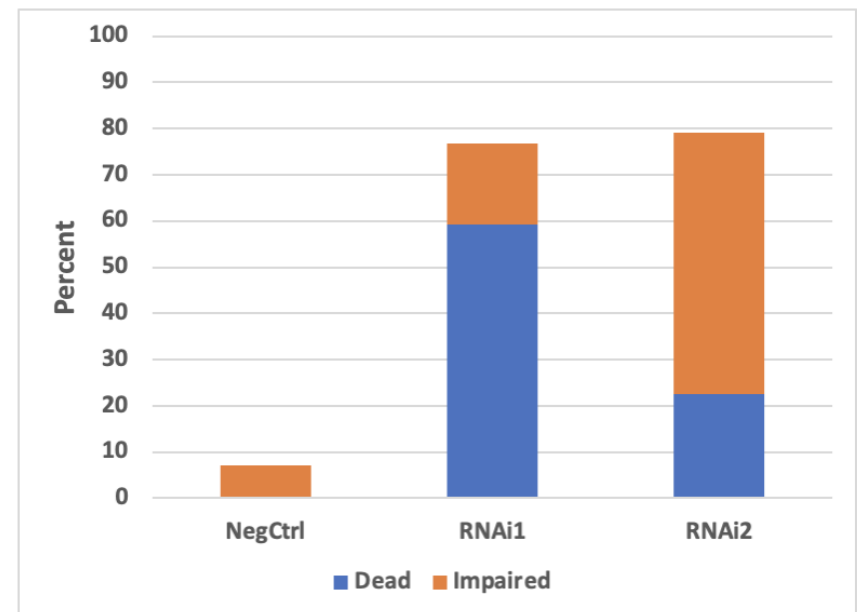


RNAissance Ag employs a proprietary and unique set of RNAi pesticidal targets that are effective against Lepidoptera (and other) pests

Example of diamondback moth RNAi pesticide bioassay



Leaf disk-based bioassay using 2nd instar DBM larvae; note more leaf feeding for negative control



After 96-hour assay, quantify the numbers of dead larvae vs. larvae that are significantly stunted, and not actively feeding ('impaired')

Do you want to know more?



RNAissance Ag welcomes an opportunity to explore possibilities for collaboration and partnership with you.

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Please feel free to contact us and we can have a conversation