



Scientist Spotlight



Gina Neumann, PhD

Senior Director of Molecular Sciences
and Strategic Initiatives

ROLE AT SOLIS AGROSCIENCES

- Leads all Solis capabilities in gene editing, molecular biology, and cellular assays, while also bringing new technologies to the company's offerings
- Serves as a client project leader for individual client projects, with a particular focus on gene editing in row crops and specialty crops

BACKGROUND

After earning her PhD in synthetic biology with a focus on engineering microbes, Gina transitioned to industry to advance plant biotechnology. She spent six years at Benson Hill, where she led teams in molecular biology, plant transformation, and gene editing. During this time, her work on a novel CRISPR technology mechanism, developed through a collaboration between industry and academia, was [published in Nature](#). Gina joined Solis in 2024, drawn by the opportunity to apply genome editing and molecular technologies across a wide variety of row crops and specialty crops, helping clients meet their product development goals.

OUTSIDE OF WORK

Gina spends as much time as possible with her husband and two young children. In her spare time, she enjoys indulging in her hobbies, which include exercising, baking cookies and breads, cross-stitching and reading.

EDUCATION & TRAINING

University of Wisconsin–Madison

Doctor of Philosophy (Ph.D.), Microbiology

Indiana University Bloomington

Bachelor of Science, Biotechnology

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SELECT PUBLICATIONS

Dmytrenko, O., **Neumann, G. C.**, et al. (2023). Cas12a2 elicits abortive infection through RNA-triggered... *Nature*, 613(7944), 588–594. ([Link](#) and [PR](#))

Gordon, G. C., et al. (2020). Genome-Wide Analysis of RNA Decay in the Cyanobacterium *Synechococcus* sp. Strain PCC 7002. *mSystems*, 5(4), e00224–20. ([Link](#))

Gordon, G. C., Cameron, J. C., & Pfeleger, B. F. (2018). Distinct and redundant ... of RNase III *Nucleic acids research*, 46(4), 1984–1997. ([Link](#))

Gordon, G. C., Cameron, J. C., & Pfeleger, B. F. (2017). RNA Sequencing Identifies New RNase III Cleavage Sites... mRNA. *mBio*, 8(2), e00128–17. ([Link](#))

Gordon, G. C., et al. (2016). CRISPR interference as a ... regulatory tool for metabolic engineering in the cyanobacterium *Synechococcus* sp. strain PCC 7002. *Metabolic engineering*, 38, 170–179. ([Link](#))

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I've always been fascinated by DNA. My sisters are identical triplets who share the same genetic code yet they are wonderfully diverse individuals. This complexity and the urge to understand fuels my research. The ability to read, understand, and write genetic code holds immense potential for innovation in agriculture, allowing us to unlock new traits and efficiencies that were previously unimaginable. I am proud to work towards this mission and be part of a team that prides itself on delivering exceptionally high-quality scientific results for our clients.”

— Gina Neumann, PhD