

ArkeaBio Appoints Dr. Zach Serber as Chief Technology Officer to Speed Development of Methane-Reducing Livestock Vaccine

ArkeaBio is advancing a unique, practical and cost-effective solution for farmers and producers to reduce emissions and enhance livestock productivity.



ArkeaBio logo

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[ArkeaBio](#), a global agricultural

bioscience company developing the [first vaccine to reduce methane emissions from cattle](#), today announced the appointment of Dr. Zach Serber as Chief Technology Officer. A pioneering leader in synthetic biology and industrial biotechnology, Dr. Serber brings more than 20 years of experience turning cutting-edge science into real-world solutions across the bioeconomy.



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Dr. Zach Serber

Dr. Serber is best known as a founder and Chief Science Officer at Zymergen, where he helped grow the company from startup to IPO and nearly 1,000 employees. He led scientific strategy, pioneered the integrated robotics and machine learning into industrial fermentation, and secured major government and commercial contracts, including as PI on multiple DARPA projects.

Earlier, at Amyris, Dr. Serber contributed to the development of a yeast-based antimalarial drug with

support from the Gates Foundation and advanced large-scale biofuel production in Brazil. He most recently served as Chief Operating Officer of Evozyne, an AI-driven protein engineering company focused on novel enzymes and biologics for human and planetary health.

"Reducing methane emissions from livestock will have a more immediate and profound impact on climate change than electrifying the entire transportation sector," said Dr. Serber. "Methane is over 80 times more potent than CO₂ in the short term, but it also breaks down faster, meaning reductions today can cool the planet within years, not decades. What excites me about this work is the scale of impact, the speed at which we can achieve it, and the potential to improve both

climate outcomes and productivity on the farm, all at a fraction of the cost of most other climate solutions.”

Dr. Serber will oversee scientific strategy as the team builds on the success of its discovery platform and accelerates toward product validation and deployment. ArkeaBio is on track to transition its current animal studies into full field trials in 2026 and launch commercially shortly thereafter, aligning with 2030 emissions targets for major corporations and governments.

“Zach brings new technical depth and leadership experience to accelerate and scale a world-class vaccine platform,” said Carmichael Roberts, [Breakthrough Energy Ventures](#). “His appointment strengthens ArkeaBio’s ability to provide substantial new revenue opportunities for farmers and ranchers via agricultural carbon credits, unlocking a multibillion-dollar market in livestock methane reduction.”

About ArkeaBio

ArkeaBio is a global agricultural bioscience company pioneering the first methane-reducing vaccine for cattle. Our mission is to equip farmers with practical, scalable tools to reduce emissions and feed a growing world. Backed by leading climate and agriculture investors, ArkeaBio’s vaccine addresses a \$4 billion global market for ruminant methane reduction, with significant upside through access to agricultural carbon markets valued in the tens of billions. With over 80% of the world’s cattle raised on pasture, ArkeaBio’s approach offers a singular combination of reach, affordability, and climate impact. With one tiny shot, ArkeaBio unlocks new opportunities for farmers, brands, consumers and our climate.

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