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Loopworm: Turning Silkworms into the Next Generation of Biofactories

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What if silkworms could do more than produce silk? Loopworm is reimagining these biological systems as miniature biofactories capable of producing sustainable protein ingredients and high-value recombinant proteins. Founded by Ankit Alok Bagaria and Abhi Gawri, the company is bridging insect biotechnology and industrial biomanufacturing, with ambitions spanning animal nutrition, diagnostics, enzymes and life sciences.

Problem

Conventional animal-feed proteins can place pressure on marine resources and land use, while recombinant protein production can require expensive infrastructure and complex manufacturing processes. Loopworm aims to address both challenges through silkworm-based production systems that use India's established sericulture ecosystem.

Product

Loopworm produces insect-derived protein meals and oils for aquaculture, livestock and pet nutrition. Its LoopBac protein-expression platform also uses silkworm biotechnology to develop recombinant proteins for applications including diagnostics, vaccines, enzymes and research.

Proof

Loopworm reports operating a 6,000-metric-tonne-per-annum animal-nutrition facility near Bengaluru and exporting products internationally. On 9 September 2026, the company reported a 60-member team, operations across more than 10 countries and positive cash flow from its animal-nutrition business. It also cites an independent life-cycle assessment reporting the removal of 2.56 kg of COâ??-equivalent emissions per kilogram of its silkworm-based ingredients, on a cradle-to-gate basis.

People

Loopworm was co-founded by Ankit Alok Bagaria, CEO, and Abhi Gawri, COO, both IIT Roorkee alumni. Their team combines biotechnology, insect farming, process engineering and protein science to develop commercially scalable biomanufacturing solutions.

Purse

Loopworm states that it has raised $6.25 million in total funding as of its 9 September 2026 company update. Its disclosed pre-Series A round of $3.25 million was led by WaterBridge Ventures and Japan-based ENRISSION INDIA CAPITAL; the company is using its established animal-nutrition business as a foundation for advancing recombinant protein production.

Plan

Loopworm plans to scale its silkworm-based recombinant protein platform for diagnostic reagents, specialty enzymes and research applications, with therapeutics as a longer-term opportunity. It is building on its existing manufacturing infrastructure and international distribution network to expand into higher-value life sciences markets.

Why it matters:

Loopworm is demonstrating how insect biotechnology can serve both sustainable nutrition and advanced biomanufacturing. By developing a silkworm-based platform for protein production, it aims to reduce dependence on

conventional manufacturing systems and strengthen India's capabilities in affordable, scalable biotechnology.

FAST FACTS

Category	Details
Company	Loopworm Private Limited
Founded	2019
Headquarters	Bengaluru, Karnataka
Industry	Insect biotechnology, sustainable proteins, biomanufacturing
Founders	Ankit Alok Bagaria and Abhi Gawri
Core platform	Silkworm-based protein production
Key offerings	Insect protein meals, oils and recombinant proteins
Manufacturing capacity	Approximately 6,000 metric tonnes annually
Total funding	$6.25 million, as reported by the company on 9 September 2026
Pre-Series A	$3.25 million; led by WaterBridge Ventures and ENRISSION INDIA CAPITAL
Certifications listed	ISO 22000, HACCP, EU TRACES and CAA
International footprint	10+ countries across four continents, as reported by the company
Next	Scale recombinant protein production and expand life sciences applications

Disclaimer: This profile is based on publicly available company information and official disclosures reviewed as of 28 October 2026.