

CORRECTING and REPLACING Pow.Bio Raises \$9.5M to Deploy Intelligent Continuous Fermentation Technology to Enable the Future of Biomanufacturing

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- The raise is helping Pow.Bio to expand operations with a state of the art demonstration plant in Alameda, California that can deploy their intelligent continuous platform at scale

BERKELEY, Calif.--(BUSINESS WIRE)-- First paragraph, second sentence of release has been revised to include Bee Partners and change Vectors to Vectors Angel.

The updated release reads:

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Pow.Bio announced its \$9.5 million Series A round. Re:Food and Thia Ventures led the round and were joined by Hitachi Ventures - the strategic corporate venture capital arm of Hitachi, Ltd. - with participation from Possible Ventures, XFactor Ventures, Bee Partners, iSelect, Climate Capital, Vectors Angel, Better Ventures, and Cantos.

Pow.Bio's goal is to unlock the economic viability of sustainable biomade products by significantly driving down the high costs associated with biomanufacturing. The simple fact is that synthetic biology companies today are unable

to manufacture products at a price that can displace unsustainable petrochemical or animal derived alternatives. The market impact of these biomade products is **estimated to reach \$4T by 2040**. But until we are able to produce biomaterials at (or below) cost parity to their commodity counterparts, only the most expensive biomade products will ever be commercially viable - limiting the sustainable impact of such a promising technology.

“Early on, we identified continuous fermentation as a necessity to enable cost-competitive, sustainable food production,” said Peter Odemark, co-founder and Managing Partner at Gullspång Re:food. “We are excited to partner with Pow.Bio because of the strength of their continuous platform, the quality of their team, and their commitment and vision for a more sustainable SynBio future.”

Hideshi Nakatsu, Vice President and Executive Officer, CEO of Water & Environment Business Unit, Hitachi, Ltd., said, “Hitachi is committed to contributing our expertise in growth markets such as Bioproduction, and Pow.bio’s continuous fermentation platform represents a potential step-change in biomanufacturing economics that aligns with Hitachi’s expansion plans to enter into the Bioproduction business.”

Pow.Bio’s CTO and founder, **Ouwei Wang**, describes their continuous fermentation technology as solving the historical challenges that have made what some call this ‘holy grail’ of biomanufacturing so elusive. “By running a fermentation process more like an assembly line,” says Wang, “we see multi-fold increases in productivity without contamination or drift.”

Integrated within the Pow.Bio system is an intelligent AI-controlled software known as SOFe, that accelerates process optimization and will drive autonomous operation. The one-two punch of its advanced hardware and intelligent software drives 5x gains in productivity for a fraction of the capital expense of traditional systems. Prospective clients don’t have to wait and can **begin working with Pow.Bio today**.

Pow.Bio is excited to announce the construction of an advanced demonstration facility in Alameda, California, designed to provide partner companies unfettered access to this novel platform.

The Alameda site is engineered for the seamless transition from gram-scale experimentation to the production of hundreds of kilograms of finished products. This facility will not only showcase the potential of Pow.Bio’s platform but also serve as a blueprint for commercial-scale deployment of the platform for the production of a wide range of biology-based products.

The myth of more capacity

Many in this space blame the challenge of cost effective manufacturing on a lack of commercial scale fermentation capacity. The truth is that capacity alone cannot fix the core problem of lowering unit costs. Building more of the

same large scale bioreactors won't solve this problem.

"When we hear people talking about the 'capacity problem,' we wonder if we're the only ones who see that the Emperor isn't wearing any clothes," explains Pow.Bio's CEO and cofounder, **Shannon Hall**. "Focusing on building capacity without addressing unit economics will expose the industry to more frustration about not delivering on its promises," says Hall, "the right target is economic viability, and hitting it requires technical advances in biomanufacturing."

For Pow.Bio's partners, this new technology is game-changing. For those with products already in the market, significantly reducing manufacturing costs with Pow.Bio's technology can have a huge impact on their bottom line. While for those that need to hit a lower price point in order to even launch a new product, Pow.Bio's platform might be the only way to do it.

"By building a technology that is inherently much lighter in its capital demand and therefore much lighter in its operational demand," explains Hall, "we achieve two really valuable goals: we can build more capacity at a fraction of the cost, and that capacity can perform its job better by making products at a lower price - and at a lower price, a wider array of products can actually get to market."

About Pow.Bio (www.pow.bio):

Founded by a UC Berkeley Ph.D. graduate and a Life Sciences executive, Pow.Bio is developing intelligent continuous fermentation technologies to unlock the future of sustainable biomanufactured products. Pow.Bio's unique technology stack features AI-controlled, automated fermentation software that seamlessly integrates with a novel fermentation system yielding highly-efficient continuous fermentation capabilities. Pow.Bio is based in Berkeley, CA.

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Source: Pow.Bio