

## Botanical Solution Series A funding expands to \$13 million

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Botanical Solution Inc. (BSI; Davis, California), a maker of botanical extracts for the agchem and pharma markets, said it has secured an additional \$7 million in Series A investment, bringing total funding for the round to about \$13.1 million. The latest investment was led by venture capital firm Otter Capital LP (Palo Alto, California), along with Latin American investor Boldo SpA (Santiago, Chile) and two-family offices.

The funding will help develop a supply chain for vaccine adjuvant QS-21 derived from BSI's proprietary process for extracting material from small trees grown via bioreactors. The process improves the chemical consistency and purity of QS-21, which is critical for applications in the vaccine space, according to Gaston Salinas, CEO of BSI.

QS-21 is traditionally sourced from soapbark trees that grow mostly in Chile. It is currently used as an adjuvant in a shingles vaccine developed by GlaxoSmithKline (Philadelphia), as well as in a malaria vaccine and a recently launched respiratory syncytial virus (RSV) vaccine, according to BSI.

BSI is, in a partnership with Croda, planning to produce pharma-grade QS-21 at kilogram scale in accordance with good manufacturing practice (GMP) using its process. "We have a clear roadmap to making the first GMP-grade batches," Salinas said. "The goal is to get to 150 grams" by late 2024 or early 2025, he added. The deal with Croda was announced in May.

The company is putting together collaborations with pharmaceutical firms to test its materials, according to Salinas. "The most important thing is to demonstrate that the technology is ready for prime time and to be able to deliver at kilogram scale," he said.

BSI also sells a biofungicide derived from the same process involving soapbark trees. The product has been commercialized in Chile since 2019 under a partnership with Syngenta, and that deal was expanded to include Mexico and Peru in 2021.