

# Hyasynth Biologicals

## Patent for efficient cannabinoid production

Private Canadian biotech firm Hyasynth recently announced a US patent award for using yeast to biosynthesize cannabinoids and is the first to sell yeast-derived cannabidiol (CBD) built on this proprietary pathway. The biosynthesis of major and rare cannabinoids provides multiple growth prospects in pharmaceutical and consumer markets. Key catalysts for further funding and expanding the valuation include growing commercial sales in 2022 and demonstrating production of cannabinoids in a large-scale, low-cost manner.

### Using yeast to biosynthesize cannabinoids

Hyasynth produces CBD and a range of rare cannabinoids through yeast fermentation without the need for traditional cultivation from cannabis or hemp plants. The company recently announced [a US patent](#) on its [cannabinoid biosynthesis pathway](#), which reduces the number of enzymatic yeast steps to produce CBD by 75%. Management believes this makes Hyasynth's strain significantly more efficient and allows it to engineer new yeast strains rapidly and optimize them for large-scale production. Furthermore, this patent award follows Hyasynth's 2020 achievement of the first ever [sale of CBD](#) produced and extracted from yeast. Importantly, using biosynthesis aids in the precision manufacturing of cannabinoids on a large scale with consistent quality and reliability.

### Expanding pharma markets with significant potential

Cannabinoid markets are expanding, especially in the cosmetic and pharmaceutical markets. While still in its infancy, research on using cannabinoids to treat medical conditions is growing, with several candidates in clinical development. For instance, rare cannabinoids could potentially treat conditions such as Crohn's disease, and companies such as GW Pharmaceuticals have developed treatments for epilepsy. Raymond James estimated that the [global market for cannabinoid biosynthesis](#) could reach C\$10bn in 2025 and C\$115bn by 2040. Biosynthetics have the potential to generate larger amounts of rare cannabinoids than those that occur in small quantities in the plant. To take advantage of these growing markets, Hyasynth's proprietary strains can be scaled rapidly in production, reducing time to market and potentially enabling sales to begin within months.

### Catalysts: Sales milestones and scaling production

As Hyasynth is a private company, financials are not available nor is the stock publicly traded, so appraising its valuation is difficult. Hyasynth expects to be profitable by the end of 2022. The cannabinoid biosynthesis market has received significant funding over the past few years, and a [2019 SynBioBeta report](#) noted that more than 15 companies made multi-million-dollar investments in cannabinoid biosynthesis companies. Key catalysts for further funding and an expanding valuation include moving product to market by growing commercial sales in 2022 and Hyasynth demonstrating that it can scale production from a pilot to a larger commercial level, yet still in a cost-effective manner.

#### Biotechnology

21 October 2021

Price	N/A
Market cap	N/A
	US\$0.80/C\$

#### Share details

Code	N/A
Listing	Private
Total capital raised	~C\$11.5m

#### Business description

Hyasynth Biologicals is a Montreal-based biotech firm that produces and distributes biobased cannabis products. Its biosynthesis platform produces ingredients through a yeast fermentation process, without the need for traditional cultivation from cannabis or hemp plants. Biosynthesis is a process using a genetically modified organism (eg yeast) to ultimately produce pure, high-value products such as cannabinoids.

#### Bull

- Growing global adoption of biosynthetic cannabinoids.
- Strong yeast fermentation patent and product portfolio.
- Shortened manufacturing process unaffected by weather, soil and other climatic variations in growth cycle.

#### Bear

- Limited visibility on financials and capital requirements given private company status.
- Increasing competition from other biosynthetic companies.
- Cannabinoid use for medical treatments still at an early stage.

#### Analyst

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