

The Botanical Synthesis Company

**Investor Presentation** 

September 2024

**CSE: BHSC | OTCQB: CNVCF** 



# **Forward Looking Statements**

This presentation contains "forward-looking statements." The statements contained in this presentation that are not purely historical are forward-looking statements. Forward-looking statements give the Company's current expectations or forecasts of future events. Such statements are subject to risks and uncertainties that are often difficult to predict and beyond the Company's control and could cause the Company's results to differ materially from those described. In some cases, forward-looking statements can be identified by terminology such as "may," "should," "potential," "continue," "expects," "anticipates," "intends," "plans," "believes," "estimates," and similar expressions. These statements include statements regarding moving forward with executing the Company's global growth strategy, such as identifying a path to profitability in 2H 2024. Although the company believes it has identified a path to profitability there is no assurance that profitability will be achieved as many factors beyond the control of the company could impact its potential for profitability such as changes in consumer preferences, increases in costs and changes in government regulation. The statements are based upon current beliefs, expectations and assumptions and are subject to a number of risks and uncertainties, many of which are difficult to predict. The Company is providing this information as of the date of this presentation and does not undertake any obligation to update any forward-looking statements contained in this presentation as a result of new information, future events or otherwise, except as required by law. We have based these forward-looking statements largely on our current expectations and projections about future events and financial trends affecting the financial condition of our business. Forward-looking statements should not be read as a guarantee of future performance or results and will not necessarily be accurate indications of the times at, or by, which such performance or results will be achieved.



## **Corporate Overview**

BioHarvest Sciences is a biotech innovator & inventor of Botanical Synthesis – a new process to synthesize plant-based molecules – providing the world with consistent, reliable, economically viable & patentable potent molecules for the next generation of therapeutic solutions.

- Patented Botanical Synthesis Technology Platform: Industrial scale process that economically produces patentable, plant-based molecules with the highest levels of consistency and purity a compelling alternative to chemical synthesis or biologics
  - Enables the homogenous production of non-GMO phyto-medicinal molecules (small and complex) turning thousands of plants into predictable, reliable sources of new therapeutic molecules without growing the plant itself
- Products Division Commercialized at Industrial Scale: Successful direct-toconsumer sale of grape-derived nutraceutical product serves to rapidly monetize and validate the power of the Botanical Synthesis technology process
- **Defined Path to Profitability:** Realized **\$6.0** million in Q2 2024 revenue **(**119% growth) with gross margins expanding from 40% in Q2 2023 to 52% in Q2 2024
- **Disrupting Multiple High Growth Verticals:** Platform technology applicable to pharmaceuticals, cosmeceuticals, nutraceuticals, nutrition and other industries
- February 2024 Launch of CDMO Business Unit: Contract Development & Manufacturing Organization ("CDMO") services business unit offers the industry access to the patented Botanical Synthesis Process Platform, as a service





# BioHarvest Sciences CSE: BHSC | OTCQB: CNVCF

Share Price <sup>1</sup>	US\$5.50
Market Cap <sup>1</sup>	\$92M
Q2-24 Revenue	\$6.0M
Shares Outstanding <sup>1</sup>	16.4M
loat	10.2M
nsider Ownership	37.9%



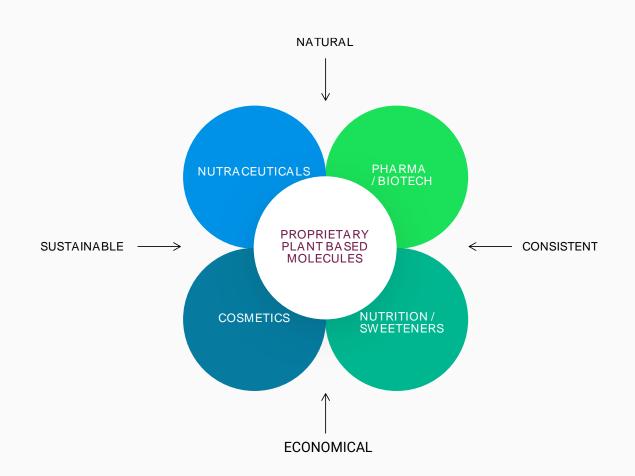






## **Market Opportunity**

BHSC is Addressing Unmet Health & Wellness Needs With Patentable Plant Molecules Produced Consistently & Economically With the Highest Levels of Sustainability



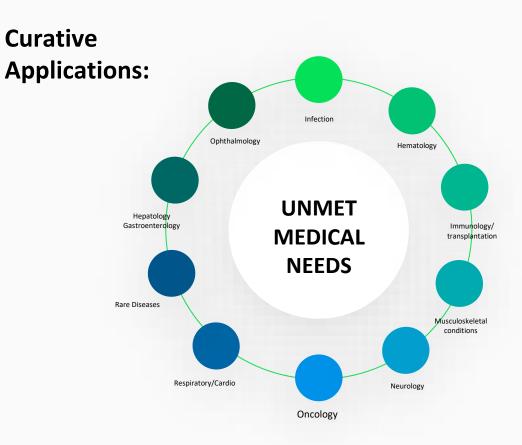


NORTH STAR OF BHSC IS TO
DEVELOP 10-15 MOLECULES THAT
CHANGE THE WORLD OF HEALTH
& WELLNESS FOR HUNDREDS OF
MILLIONS OF PEOPLE WHILE
PRESERVING THE PLANET



## **Curative & Preventative Applications**

BHSC is Addressing Unmet Health & Wellness Needs With Patentable Plant Molecules Produced Consistently & Economically With the Highest Levels of Sustainability



# Preventative Applications:



- Health & Wellness
- Longevity



## Invested \$100M Into Proprietary Technology Process Which Enables **Development of Molecules for Next-Gen Therapeutic Solutions**

Botanical Synthesis allows for the perpetual creation of consistent botanical molecules, requiring the plant only one time, giving BioHarvest the ability to Address Unmet Medical Needs not yet solved by Pharma and provide new solutions for preventative medicine

**PERFORMED** ONCE



THE **PLANT** 



**CELL ISOLATION & POTENCY MAGNIFICATION** 



**CELL BANK** 

**PERPETUAL PROCESS** 



**CELL BANK** 



**PROPAGATION** 

**SMALL SCALE UPSTREAM** 



LARGE SCALE PROPAGATION IN MID-SCALE BIOREACTORS



**DRYING** 



FINAL MOLECULE

**DOWNSTREAM** 

- Global Leader in Plant Cell Biology with 15+ Years of Development and ~\$100M Invested in the Platform
- 14 Granted Patents Multiple Pending



## **Turning Plants Into a Scientifically Reliable Source of Patentable Biological Molecules**

#### **BioHarvest's Botanical Synthesis Process Provides New Solutions for Pharma to Address Unmet Medical Needs**



Plants possess an infinite source of molecules with historic efficacy that deliver significant therapeutic potential for mankind via:

- 1. Simple Molecules
- Complex Molecules (such as proteins and enzymes)
- 3. Complex Composite of Molecules



Until now, the industry has been faced with many challenges to unlock this potential

- 1. Traditional extraction methods pose consistency and economic challenges.
- 2. Securing intellectual property rights for Plant-based molecules/compositions is near impossible



**Botanical Synthesis Process offers an industrial scale process to** economically produce patentable plant-based molecules with the highest levels of consistency and purity - near infinite source of molecules to access

#### **Botanical Synthesis Offers Significant Advantages**



#### Consistency



#### **Patentability**



Production inherently has a degree of control not possible in nature.

**Botanical compositions** patentable given concentrations not possible in nature.



Maintaining the metabolites original molecular conformation while enabling the elicitation of certain important molecules.



#### Cleanliness / **Purity**

Inherently clean process due to aseptic growth conditions.



# **Sustainability**

Botanical synthesis uses much less resources, including land, water and electricity. In addition, growing a plant cell only requires a 'real' plant one time for future replication.



#### **Economic Viability**

Cells are grown directly in bioreactors and harvested every 3 weeks which creates up to 17 harvest cycles per year. The result is an order of magnitude lower cost of production.



## BHSC has 2 Growth Engines Powered by Our Botanical Synthesis Process











# Introducing VINIA®: Our Flagship Red Grape Cell-Derived Direct-to-Consumer Nutraceutical Product

- VINIA® is BioHarvest's first commercial product, a proprietary nutraceutical containing the entire matrix of red grape polyphenols, including Piceid Resveratrol
- Botanical Synthesis process increases Piceid Resveratrol concentration by at least
   100x versus regular grapes (a principal health-benefitting compound in red grapes)
- Breakthrough red grape cell powder that significantly increases artery dilation and blood flow, enhancing delivery of oxygen to cells & removal of toxins from the body
- Proof of concept and market acceptance with \$2M in sales in May 2024, validating the demand for products created using inherent advantages of Botanical Synthesis
  - Growing customer satisfaction (4.8/5 average rating and 6,000+ verified online reviews) coupled with positive feedback from healthcare professionals
- VINIA® is patent-protected with 3 peer-reviewed studies and 8 scientific studies
- Available in the U.S., expanding into the Canadian market on recent regulatory approval, with additional regulatory efforts underway in Europe, Japan and China

### **Providing Better Blood Flow for a Better Life:**

\*These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure or prevent any disease



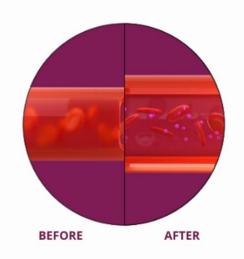




# Products Anchored in Science & Backed by Clinical Trials

#### 70% INCREASE IN ARTERY DILATION

Our clinical trial showed that VINIA increased the dilation of arteries by at least 70% for **each person who took VINIA daily for 90 days.**\*



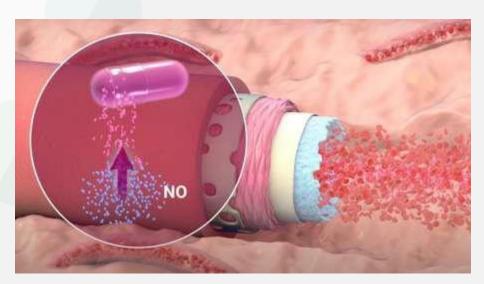
#### 120% Increase in Nitric Oxide

Our in vitro studies show that VINIA boosts nitric oxide production by 120%, this helps blood vessels dilate to promote proper blood flow.

#### 50% Decrease in ET-1

Our in vitro study shows that VINIA decreases Endothelin-1 by 50%, a peptide that increases as you age, constricts blood vessels and slows down blood.





#### Clinical trial published in peer reviewed scientific journals

bioharvest.com/clinical-studies

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### Scaling Grape Molecule Across 3 New Higher Margin Verticals in Next 24 Months

#### **Testament to BioHarvest's Ability to Scale and Enter New Markets**

#### **VINIA Capsules**

Flagship Nutraceutical Superior Blood Flow



1.0x

Relative Gross
Profit Profile per
Capsule Equivalent

#### **VINIA Hot Beverages**

Launched December 2023

Superior Energy & Alertness >\$5B Market<sup>1</sup>







NOV '24 LAUNCH

#### **VINIA Hydration**

Launching H1-25

Superior Hydration >\$15B Market<sup>1</sup>





#### **VINIA Skincare Products**

Launching H1 2025

Superior Beauty >\$13B Market<sup>1</sup>



1.3x

1.3x

> 10.0x

"Eunctional Coffee - Market Share Analysis. Industry Trends & Statistics, Growth Forecasts 2019 - 2029; "Functional Coffee - Market Share Analysis, Industry Trends & Statistics, Crowth Forecasts 2019 - 2029; "DATA HORIZON RESEARCH - FUNCTIONAL TEA MARKET 2 RESEARCH 2024



## Repeating the VINIA Playbook: Olive & Pomegranate Cells

**Business Model Can be Easily Replicated Across New Plant Molecules** 

Olive Cell & Pomegranate Cell Molecules to be Launched in H2 2025 & 2026 Respectively

Addressing Consumer Needs Through New Molecules

- Olives: Providing at least 15X concentrated amounts of Verbascoside concentration vs. a regular olive: a compound with antioxidant, anti-inflammatory and antineoplastic properties.<sup>1</sup> Focus on Liver Health, Cholesterol & Joint Health
- Pomegranates: Providing at least 10X concentrated amounts of PGG Polyphenol (1,2,3,4,6-pentagalloyl glucose): a compound with anti-microbial, anti-diabetic, anti-inflammatory and antitumor properties<sup>2</sup>. Focus on Brain Health.

Mirroring the VINIA Playbook

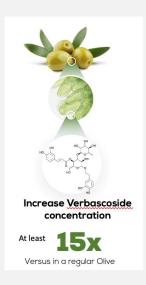
 Olives and Pomegranate Cell powders can be expanded across Hot Beverages, Snacking, Hydration Powders, Skincare and more to provide a full suite of nutraceuticals

Sell Through Opportunities

- Further integrate consumers into the BioHarvest ecosystem
- Loyal & growing subscriber base provides captive audience for new products







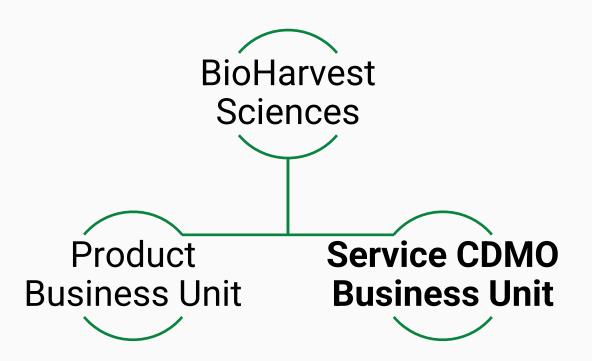
- 1) https://www.sciencedirect.com/science/article/abs/pii/S0944711323003884
- 2) https://www.sciencedirect.com/science/article/abs/pii/S1756464617304334



# Introducing BIOLOGICS BY BIOHARVEST SCIENCES

### **Service Business Unit**

**Applying Botanical Synthesis as a CDMO: Contract Development & Manufacturing Organization** 







# Introducing BIOLOGICS CDMO Products & Services

# BioHarvest Sciences Botanical Synthesis CDMO has the Potential to Become an Emerging Force in Plant-based Biologics Development

- Newly launched expansion into the contract development & manufacturing organization (CDMO) market, built upon the success of its commercially validated botanical synthesis technology process
- CDMO unit enables BioHarvest to offer disruptive innovation via Botanical Synthesis for market leaders in cosmeceutical, nutraceutical & food nutrition verticals with unique plant molecules
- Development of plant-based Biologics<sup>+</sup> molecules create a safer, faster and less expensive pipeline of molecules for next-gen therapeutics vs existing small and complex molecule solutions available to pharma.
- CDMO partners own all IP rights to the new developed molecules
- Biologics<sup>+</sup> can be pursued through full FDA-approved drugs in both regulatory approval pathways: Biological drugs and Botanical drugs
- CDMO unit provides unique optionality on top of existing high performing products business





#### **CDMO ENGINES FOR GROWTH**



#### Pharma & Biotech

**Pharma: (a)** Over 140 existing Rx small molecules utilize plant-based API, KSM, or excipients **(b)** pursuit of new molecules in clinical Ph1+

**Biotech:** Over 100 biologics including vaccines, adjuvants, antibodies, and proteins that originate from plants



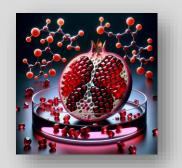
#### **Nutraceuticals**

Major Health and
Wellness focus driven by
preventative medicine
and move away from RX
world of side effects





Top players targeting 100% naturally derived ingredients by 2030, driven by major pressure from consumers



#### **Nutrition & Sweeteners**

Significant Applications throughout the food and beverage market driven by sub optimal solutions today (i.e. Stevia)



### **CDMO Staged Development Process**

#### Two Contracts Already Signed with Tier-1 Partners Across Multiple Verticals

- Contracts signed with leading Nasdaq-listed pharmaceutical company and a major food ingredients industry player
- Platform is resonating with industry: In advanced negotiations with several other companies

**Development Timeline: 15-24 Months** 

Non-Recurring Engineering (NRE) Costs: \$1.8M - 2.5M, paid for by CDMO partner

- Process begins with customer initiation where specific plant and compounds is chosen; cell culture development and elicitation completed
- Within 6-9 months customer can receive kilograms of molecules for development and clinical trials
  - Requires \$0.5-1M non-refundable, milestone driven capital commitment from customer
- Development completes with industrial production of chosen compound and royalty model put into place with customer (targeting ~70%+ gross margins)

#### **Botanical Synthesis CDMO Development Stages**



PREDICTOR & SELECTOR

3 - 6 MONTHS

\$300K-\$400K



CORRECTOR & SAMPLER

6 - 9 MONTHS

\$600K-\$900K



STEP 3

LARGE SCALE & PRODUCER

6 - 9 MONTHS

\$900K-\$1.2M

STEP 4



INDUSTRIAL & COMMERCIAL

CONTINUOUS

PARTNERSHIP & ROYALTY MODEL



## The CDMO Sales Funnel: An Illustrative Case Study

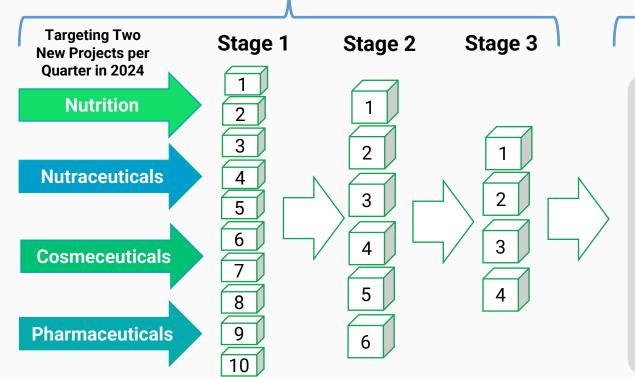
Each Ten Projects Have the Potential to Generate \$100M+ in Revenue Over 5 Years

#### **CDMO Projects**

~15-24 Month Development Cycle ~\$1.8-2.5M in NRE Revenue per Project

#### **Continuous Contract Manufacturing**

Predictable, High-Margin Royalty Revenues



#### **Illustrative CDMO Revenue per Ton Produced**

Customer Type	Tons per Year	Price per Ton	Royalty Revenue/Ton	
Pharmaceuticals	5	>\$5M	\$4M/Ton	
Cosmeceuticals	30	>\$1.5M	\$1.2M/Ton	
Nutraceuticals	100	\$600-800K	\$400K/Ton	
Nutrition	500	<\$500K	\$300K/Ton	

\*Assuming 4 of 10 projects make it to commercialization stage within 24 months, with one of each customer type. Revenue dependent on client mix.



# In-House Biotech Manufacturing and R&D Facilities

### World Class Biological Production and R&D Team in Israel

- BioHarvest is currently producing VINIA in a state-of-the-art biological production facility in the center of Israel
  - Production facility located in Yavneh, Israel
  - Corporate and R&D offices located Rehovot, Israel
- Yavneh Facility fully optimized for industrial production with a 20 metric ton per year production capacity (est. \$55 Million of product per annum)
- Botanical Synthesis allows BioHarvest to set up new facilities producing unique patentable plant molecules using a fraction of the time, space, electricity, water and manpower required for conventional agriculture
- VINIA product line is distributed in North America leveraging world-class DTC capabilities
- May 2024: New 80,000 sq. ft. corporate campus added in Israel with 12 clean rooms and the space needed for a 50 metric ton manufacturing facility by the fourth quarter of 2025
- Future Target: Planning to construct a 150-160 metric ton manufacturing facility in the United States to be completed by end of 2026





# **Financial Highlights**

- Success of VINIA® Red Grape Cell product line drove FY23 revenues to a record of \$12.7 million, reflecting an increase of 131% over 2022
  - 90% of VINIA.com revenue is generated from recurring subscriptions
  - 91% of those on subscriptions of 3 months or more
- Margin enhancement initiatives increased gross margins in Q2 24 to 52 % vs. 40% in the same year-ago quarter and 12% two years ago
  - Recently converted VINIA shipments from 30 & 60 count bottles to a singular 90 count in a redesigned package, saving an est. 3% in gross margin
- Marketing efficiency increasing with industry leading customer acquisition cost. Q2 2024 subscription base increased by 135% with marketing spend only increasing by 43%
- Investing for Growth: Spent 2023 investing heavily to scale with VINIA® sales takeoff, incremental new products and defined path to run rate EBITDA breakeven
- CDMO Optionality: Long-term royalty potential through CDMO services business unit

(USD \$ in Millions)	TTM as of Q2 2024	Fiscal 2023	Fiscal 2022	Fiscal 2021
Revenue	\$19.1	\$12.7	\$5.5	\$2.1
Gross Profit Margin	51%	45%	22.2%	31.9%

# Quarterly Revenue\*

\$ in Millions



\*Q3 FY2024 reflect low end of management guidance



## Management Team with Track Record of Innovation & Commercial Excellence



Ilan SobelChief Executive Officer25+ years developing & executing strategic growth strategies







**Dr. Zaki Rakib**Chairman of the Board
30+ years experience developing disruptive technologies







**Dr. Yochi Hagay**Chief Technology Officer
20+ years experience in the pharmaceutical & biotech space







**Alan Rootenberg**Chief Financial Officer
25+ years CFO experience of publicly traded companies

ALPHA GOLD NORTH











**Dr. Ilana Belzer**Chief Operating Officer
Extensive experience overseeing biotech companies







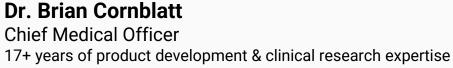
**Dr. Malkit Azachi**Vice President R&D
20+ years experience developing biotechnologies







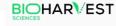














# **Investment Highlights**

- BioHarvest Botanical Synthesis process technology represents a generational opportunity for pharmaceutical and health & wellness markets
  - Patented technology platform optimizes the production of the phyto-medicinal molecules in plants to develop pharmaceutical and health and wellness products
  - o Unique plant cell R&D capabilities and ability to manufacture at scale could change multi-billion-dollar industries
- Botanical Synthesis Process Technology fuels a high performing D2C Products Business as well as a newly launched CDMO Service business with 2 contracts already signed with tier 1 partners and a strong pipeline
- VINIA® red grape cell flagship product and three SKUs thus far, **reaching record revenue of \$19.1M** for TTM as of Q2 2024 (year-over-year *growth of 116*%)
  - As of EOY 2023, 90% of VINIA.com revenue is generated from subscriptions, with 91% of those on recurring subscriptions of 3 months or more
- Expanding from 3 to 10 SKUs over next twelve months in four new adjacent consumer wellness categories (including Coffee, Hydration Powder and more) with further plans to harness molecules from Olives and Pomegranates to launch parallel product lines
- New High Margin CDMO Service Business allows major innovators across pharmaceutical and health & wellness verticals to avail themselves of the Botanical Synthesis process technology and provides the Company with unique optionality on top of existing high performing products business
- Strengthened balance sheet, identified path to profitability and targeting Nasdaq uplisting in 2H 2024









## **Contact Us**

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