Initiation Report

BIOHARVEST SCIENCES INC.

DIAMOND
EQUITY RESEARCH

BioHarvest Sciences Inc. – Leading Innovation in Botanical Synthesis with First-to-Market Technology that Mirrors, Multiplies, and Magnifies Phytonutrients, Potentially Transforming Multi-billion-dollar Health and Wellness Markets

BioHarvest Sciences Inc. (OTCQB: CNVCF, CSE: BHSC)

Key Statistics

52 Week Range	$4.10 - $7.70
Avg. Volume (3 months)	35.62K
Shares Outstanding	17.33M
Market Capitalization	$105.81M
EV/Revenue	7.1x
Cash Balance*	$3.44M
Analyst Coverage	1

***Cash balance as of March 2024 (excluding cash raise from private placement)**

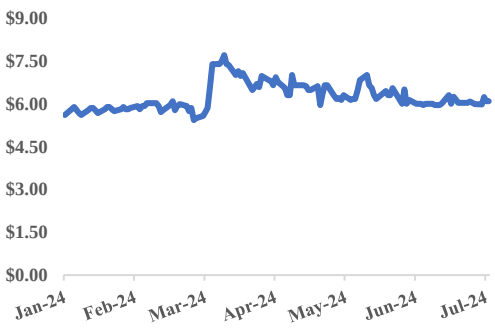
Revenue (in $mm)

Dec - FY	2023A	2024E	2025E
Q1	2.16	5.34	9.26
Q2	2.75	5.97	12.49
Q3	3.24	6.69	18.16
Q4	4.52	7.41	27.40
FY	12.67	25.41	67.31

EPS (in $)

Dec – FY	2023A	2024E	2025E
Q1	(0.06)	(0.48)	0.02
Q2	(0.21)	(0.10)	0.04
Q3	(0.13)	(0.05)	0.04
Q4	(0.52)	0.03	0.06
FY	(0.93)	(0.60)	0.16

Stock Price Chart (in $)



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Share Price: $6.09 | Valuation: $18.00

Investment Highlights

- **Pioneering the Wellness Market with First-to-Market Technology that Mirrors and Magnifies Phytonutrients:** BioHarvest Sciences Inc. distinguishes itself with its proprietary Botanical Synthesis technology that not only mirrors but also significantly magnifies and multiplies natural phytonutrients. This positions BioHarvest as a first-to-market innovator, disrupting traditional pharmaceutical and nutraceutical production methods. The technology enhances the potency and efficacy of polyphenolic compounds derived from any plant, highlighting its versatile application across multiple botanical sources. VINIA®, BioHarvest's first commercialized product, is a proprietary nutraceutical containing 100 times the Piceid Resveratrol found in a red grape. VINIA® boosts nitric oxide production and increases arterial dilation, which increases the rate of blood flow, improving mental alertness, energy, and circulation. The product has been a commercial success, demonstrating the effectiveness and market appeal of BioHarvest's innovative approach.

- **Unlocking High-Margin Markets through Proprietary Molecule Development:** BioHarvest has developed the capability to create proprietary molecules targeting high-margin sectors such as nutraceuticals, pharmaceuticals, food and beverages, and skincare, which demand natural, effective solutions. The global nutraceuticals market, valued at $317 billion in 2023, is projected to grow at a compound annual growth rate (CAGR) of 9.6% from 2024 to 2030, highlighting significant market potential. The company's commitment to premium products is demonstrated through sophisticated production processes, emphasizing its strategic focus on premium pricing and exceptional quality. These attributes not only ensure consumer satisfaction but also enhance the company's profitability through higher product margins. This strong market potential affirms the lucrative opportunities available for BioHarvest's innovative solutions.

- **Targeting Q4 2024 EBITDA Profitability through Positive Financial Trajectory:** BioHarvest is on track to achieve positive EBITDA, potentially by the fourth quarter of FY2024, supported by strong revenue growth and the company's operational efficiency. In 2023, BioHarvest generated gross profit of $5.63 million, a significant increase from $1.22 million in 2022, representing growth of approximately 361.47%. This impressive growth was driven by rising revenues and a substantial gross margin expansion from 22% in 2022 to 45% in 2023. The company's gross margins further expanded in Q1 2024 to 56% owing to increased manufacturing scale, improved manufacturing yields, and cost reduction in downstream packaging. Operating losses contracted from $10.61 million in 2022 to $9.96 million in 2023, reflecting the company's improving financial health and operational sustainability. Additionally, BioHarvest's expansion into the CDMO business is expected to further increase revenue, leveraging its advanced botanical synthesis technology to meet growing demand in the pharmaceutical and nutraceutical markets.

- **Valuation:** We have valued BioHarvest Sciences using a blended approach that incorporates both a discounted cash flow (DCF) analysis and a comparable company-based sum-of-the-parts (SOTP) method. The DCF analysis assumes a discount rate of 12.75% and a long-term growth rate of 1.5%, while the SOTP approach uses the average EV/S multiple of comparable firms in the nutraceutical and CDMO industries. We have assigned a weight of 75% to the DCF and 25% to the SOTP, resulting in a comprehensive valuation of $18.00 per share, contingent on the successful execution by the company.

Company Description

BioHarvest Sciences Inc. specializes in botanical and cellular-based health solutions through its patented Botanical Synthesis technology, focusing on nutraceuticals, pharmaceuticals and CDMO services.

- **Maximizing Market Penetration with Diverse and Strategic Distribution:** BioHarvest employs a comprehensive distribution strategy that spans B2C, direct-to-consumer (D2C) channels, and incentive-based programs such as direct-to-doctor. This extensive market penetration is supported by a substantial base of recurring revenue from the VINIA® product line, demonstrating strong customer retention and a stable revenue stream. Approximately 90% of the revenue generated from VINIA.com comes from recurring subscriptions, underscoring the product's strong consumer retention and consistent demand. Notably, over 95% of these subscribers are committed to subscriptions of 3 months duration or more, indicating high customer satisfaction and the perceived value of continued use of the product.

- **Expanding Botanical Synthesis Horizons with CDMO Services:** The expansion into CDMO services allows BioHarvest to broaden its impact to include pharmaceuticals, food ingredients, nutraceuticals, and cosmetics. This strategic diversification is further strengthened by initial contracts with major industry players, potentially positioning the company for significant revenue growth and an enhanced market presence. Importantly, the initial phase of the CDMO business can be effectively managed using the existing resources and infrastructure, ensuring a cost-effective and efficient scale-up of operations. This allows BioHarvest to leverage its current capabilities, while exploring new revenue streams without the immediate need for extensive additional investment. The global nutraceuticals CDMO market, valued at USD 37.3 billion in 2022, is projected to grow at a 7.7% CAGR from 2023 to 2030, while the global pharmaceutical contract manufacturing and research services market, valued at USD 226.6 billion in 2022, is expected to grow at a 7.10% CAGR over the same period.

- **Entering New International Territories for Global Market Expansion:** BioHarvest is actively pursuing expansion into key international markets, including Europe, Japan, Australia, Canada and China, aiming to capitalize on the increasing global demand for natural and scientifically validated products. The company has already established a robust infrastructure for online sales, which is bolstered by very positive ratings and reviews. These provide strong social proof of the product's efficacy and customer satisfaction. This existing online platform and favorable consumer perception mean that BioHarvest does not need to rebuild its foundational business elements in these new markets. Consequently, revenue generation can commence relatively early in the expansion process, leveraging established systems and consumer trust to quickly penetrate and establish a presence in these regions.

- **Strong ESG Commitment Enhancing Investment Appeal:** BioHarvest Sciences Inc. is deeply committed to Environmental, Social, and Governance (ESG) principles, ensuring its operations align with sustainable and ethical practices. The company's proprietary Botanical Synthesis technology exemplifies this commitment, significantly reducing the environmental footprint of traditional agricultural methods. This innovative process requires significantly less land, water, and energy, minimizing the ecological impact while producing high-quality, natural products. By prioritizing environmental sustainability and social responsibility, BioHarvest not only meets regulatory requirements but also positions itself as a potential leader in the global move towards sustainable business practices, thereby enhancing its appeal to investors seeking responsible and forward-thinking companies.

Company Overview

BioHarvest Sciences Inc., founded in 2007 in Israel, is a biotechnology company advancing the production of botanical and cellular-based solutions in the health sector. The company's operations are centered in Israel, with operational footprints through subsidiaries in the USA. The company specializes in developing botanical and cellular-based health solutions through its innovative Botanical Synthesis technology. This patented platform allows for the industrial-scale cultivation of active plant ingredients directly from cells, eliminating the need for traditional agriculture. This technology supports the production of high-purity, non-GMO phyto-medicinal molecules and is safeguarded by 14 granted patents, supporting BioHarvest Sciences' commitment to technological innovation and environmental sustainability. The company operates through two major business segments: the Product Business Unit and the Services Business Unit. The Product Business Unit focuses on the development, manufacturing, and marketing of nutraceuticals, while the Services Business Unit is centered around the company's capabilities as a Contract Development and Manufacturing Organization (CDMO), offering comprehensive solutions to clients across various industries.

BioHarvest Sciences Inc. specializes in botanical and cellular-based health solutions through its patented Botanical Synthesis technology, focusing on nutraceuticals, pharmaceuticals and CDMO services

Within the **Product Business Unit**, BioHarvest Sciences has successfully brought to market VINIA®, a bioactive red grape powder that encapsulates the antioxidant benefits of red wine without the associated sugars, calories, or alcohol. Developed using the company's proprietary Botanical Synthesis technology, VINIA® is rich in polyphenols, particularly piceid resveratrol, which is recognized for its cardiovascular and vasodilatory benefits. This flagship product has undergone vigorous clinical trials and has been commercialized in the USA and in Israel, and achieved Canadian regulatory approval in 2023. The company is actively pursuing expansion into key markets, including the EU, UK, Canada, and China. BioHarvest Sciences has committed substantial resources to R&D, investing over $100 million in its proprietary Botanical Synthesis technology; an investment which facilitated the development of a disruptive technology platform that mirrors natural processes to maximize the bioavailability and efficacy of active ingredients. The company's manufacturing capabilities have also expanded significantly, with a 20-ton facility that adheres to Good Manufacturing Practice (GMP) standards and has received key ISO certifications. This facility is pivotal in scaling production to meet the rising demand, particularly in the U.S. market, where VINIA® has seen a 130% revenue increase in FY2023 compared to the previous year. BioHarvest Sciences plans to expand its nutraceutical portfolio with new products targeting significant markets such as coffees, teas and electrolyte-enhanced beverages. Additionally, the company is entering the cosmeceutical market, starting with skincare products. Both the hydration powders and skincare products are potentially scheduled for a H1 2025 launch. These initiatives are part of a broader strategy to fully utilize the Botanical Synthesis technology not only within nutraceuticals but also in various multi-billion-dollar industries such as pharmaceuticals, cosmeceuticals, and food & beverages.

In parallel, the **Services Business Unit** aims to capitalize on BioHarvest Sciences' unique Botanical Synthesis capabilities through its contract development and manufacturing (CDMO) operations. This division offers end-to-end development and manufacturing solutions to clients in the pharmaceutical, cosmeceutical, nutraceutical, and nutrition industries, targeting large CDMO markets in North America, Europe, and Asia. By doing so, the company further diversifies its

business model and strengthens its market position. As BioHarvest Sciences continues to expand its technological and commercial footprint, it remains focused on innovation, sustainable practices, and the strategic development of its operational divisions.

Corporate Structure

BioHarvest Sciences Inc., established in April 2013, is headquartered in British Columbia, Canada, and operates globally through its wholly-owned subsidiaries. BioHarvest Ltd., its first subsidiary, was founded in Israel in January 2007 and specializes in the development of the company's core technologies and products. To extend its reach into the North American market, BioHarvest Ltd. set up BioHarvest Inc. in Delaware, USA, in July 2014, serving as a bridge for technology transfer and market adaptation in the United States.

Another subsidiary, Superfood Nutraceuticals Inc., also based in Delaware, was established on October 28, 2020. This subsidiary focuses on the marketing and distribution of the nutraceutical products developed by its parent company, particularly aiming to enhance the commercial presence of products like VINIA® in the U.S. market. This organizational structure allows BioHarvest Sciences Inc. to effectively manage its operations and product distribution across different regions, ensuring that developments in technology and new products are efficiently integrated into relevant markets.

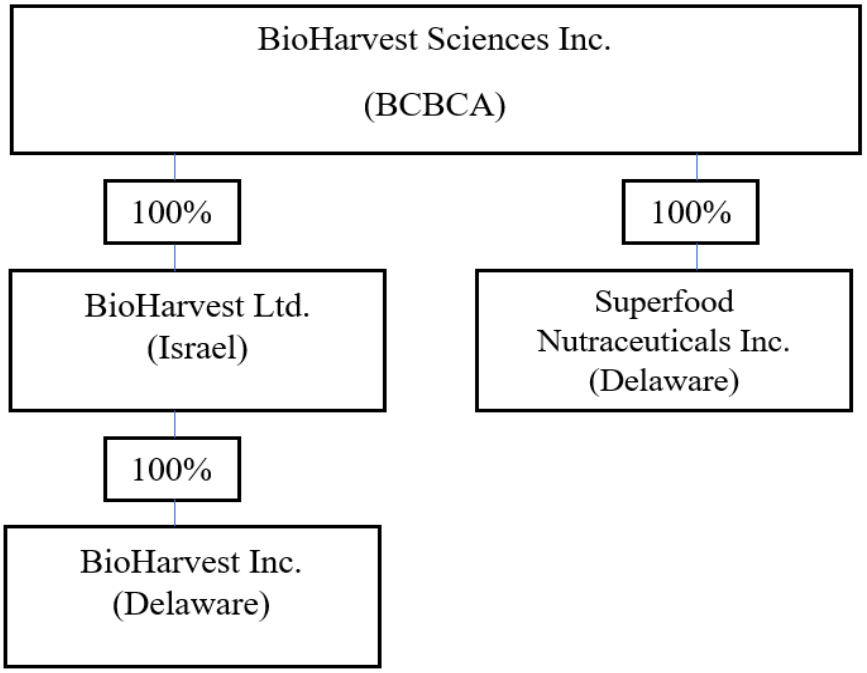

Exhibit 1: BioHarvest Corporate Structure. Source: Company Filings

BioHarvest Sciences is publicly traded on the Canadian Securities Exchange under the symbol BHSC, on the OTCQB under the symbol CNVCF, and on the Frankfurt Stock Exchange under the symbol 8MV. The company also intends to list on NASDAQ by the end of 2024 as a strategic move to access larger capital markets, attract liquidity, and draw interest from institutional investors.

Transformative Botanical Synthesis: Revolutionizing Industrial-Scale Botanical Ingredient Production for Large Markets

BioHarvest Sciences has developed a revolutionary approach to botanical ingredient production with its patented Botanical Synthesis platform technology. This innovative method enables the company to cultivate the active and beneficial ingredients inherent in specific fruits and plants at an industrial scale, without the necessity to grow the entire plant. This technology is distinctive as it is the only non-GMO platform capable of producing plant cells with significantly higher concentrations of active ingredients than those produced naturally. It also ensures extremely high levels of solubility and bioavailability of these ingredients.

BioHarvest Sciences' patented Botanical Synthesis platform allows for industrial-scale production of active ingredients from plants without growing the entire plant. This non-GMO technology produces plant cells with higher concentrations of active ingredients and ensures high solubility and bioavailability

The Botanical Synthesis technology offers several critical advantages. It provides consistent product production, enables a year-round production cycle, and produces products that are free from sugars, calories, and contaminants such as insecticides, fungicides, herbicides, chemical solvents and residues. This positions BioHarvest Sciences as a leader in clean and sustainable biotechnology. Moreover, the technology seeks to accomplish in just 21 days what typically takes two years in nature, allowing for up to 17 production cycles per year. This efficiency is critical for scaling operations to meet increasing market demand rapidly. Additionally, this method requires 99.99% less land and remarkably less water and energy than traditional agriculture production, significantly reducing the environmental impact associated with large-scale farming.

Historically, the pharmaceutical industry has faced significant challenges in harnessing the therapeutic potentials of plants due to inconsistencies in traditional extraction methods and difficulties in securing intellectual property rights for plant-based molecules. BioHarvest's Botanical Synthesis process addresses these challenges by offering an industrial-scale process to economically produce patentable plant-based molecules with the highest levels of consistency and purity. This capability opens up nearly infinite sources of molecules for pharmaceutical applications, providing new solutions for preventative medicine and addressing unmet medical needs.

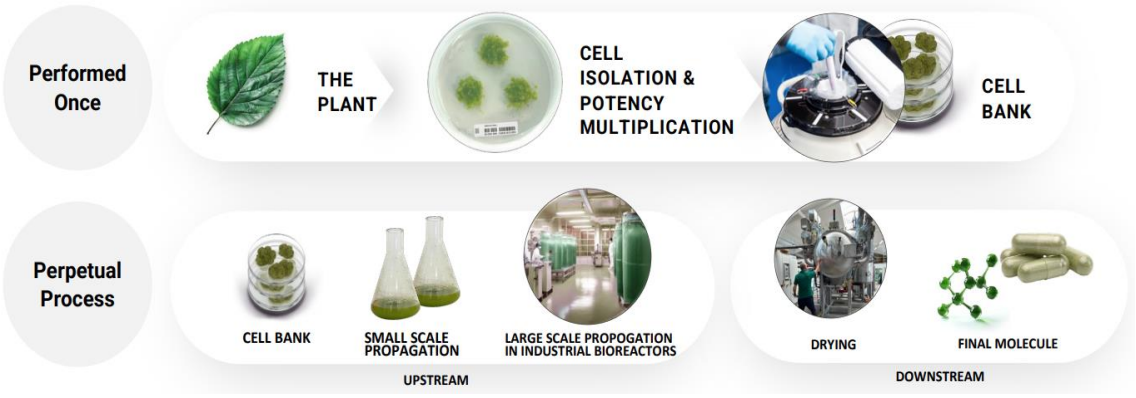

Exhibit 2: BioHarvest Botanical Synthesis Technology. Source: Investor Presentation

The Five-Step Botanical Synthesis Process:

1. **Plant Selection and Preparation:** The process begins with selecting a plant known for its beneficial phytochemicals. Specialists identify and select the part of the plant that contains the most potent cells, which are then prepared for cultivation.

2. **Cell Isolation:** These selected cells are carefully cut into small pieces and placed into a nutrient-packed Petri dish. The cells are grown under meticulously controlled conditions, including temperature, light intensity, and oxygen levels, which are optimized to support healthy cell growth and proliferation.

3. **Cell Storage:** Once the cells reach a suitable growth stage, they are stored and constitute what is referred to as the "cell bank". This bank serves as the perpetual source for production, ensuring total independence from the original mother plant.

4. **Biofarming:** For production, these cells are transferred to a large-scale bioreactor, known as the BioHarvester, where they continue to grow in liquid mediums. The Botanical Synthesis process, conducted under aseptic conditions compliant with ISO and GMP standards, allows the cells to reach the required biomass within three weeks.

5. **Harvesting:** In the final step, the mature cells are harvested and then dried into a powder form. This powder contains the desired active phytochemicals in concentrated forms, ready for incorporation into various health and wellness products.

BioHarvest Sciences' Botanical Synthesis technology has demonstrated significant success in transforming the production of plant-based ingredients. This is notably evidenced in the development and commercialization of VINIA®, a product that has become the first commercial validation of this innovative platform. Using the Botanical Synthesis process, the company has successfully achieved an impressive 100 times the concentration of Piceid resveratrol that is naturally present in red grapes. This high-potency polyphenol is the key active ingredient in VINIA®, providing enhanced health benefits far exceeding those available from conventional grape extracts. Each 400mg capsule of VINIA® contains pure red grape cell powder, produced directly from the bioreactors in a controlled, clean, and sustainable manner.

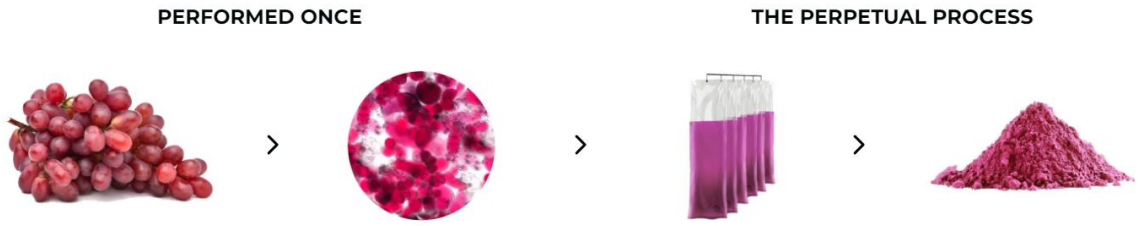

Exhibit 3: BioHarvest's Continuous Botanical Production Process. Source: Company Website

The process involves cultivating red grape cells in bioreactors, which are set to generate crops in rapid 21-day cycles. After each cycle, the contents are harvested and dried to create the red grape cell powder. This cycle is perpetually repeated, ensuring a consistent supply of the product without ever needing to return to the original plant for re-cultivation.

BioHarvest Sciences currently operates a production facility in Rehovot, Israel. This facility is designed to produce up to 20 metric tons of botanical compounds per year. To expand its capacity, BioHarvest has signed two key agreements: a long-term lease for an 80,000-square-foot facility in Yavne, Israel, and an agreement for the purchase of 12 GMP clean rooms. These facilities are equipped with labs, offices, and spaces that can support an expanded production capacity.

The company plans to move its Research & Development and administrative offices to the new Yavne site within the next 2-3 quarters. This new campus will eventually consolidate all R&D functions and include a new manufacturing facility, projected for completion in 2025, with a capacity of 50 tons. This expansion will help accommodate growing production demands.

BioHarvest Sciences' Botanical Synthesis process ensures consistent, controlled production of highly pure, patentable, and bioavailable plant-derived molecules, while also being economically viable and environmentally sustainable

Advantages of the Botanical Synthesis Process

BioHarvest Sciences' Botanical Synthesis process presents several compelling advantages that significantly enhance the production and utility of plant-derived molecules, aligning with both industry and environmental needs.

Consistency and Control: One of the foremost benefits of the Botanical Synthesis process is its ability to achieve a level of consistency and control over production that is unattainable in natural environments. This controlled setting allows for the production of uniform and stable products batch after batch, reducing the variability often seen in traditional agricultural methods.

Patentability of Unique Compositions: The Botanical Synthesis technology facilitates the production of unique botanical compositions with concentrations of active ingredients that are not achievable in nature. This capability not only enhances the effectiveness of these compositions but also meets the criteria for patentability, providing BioHarvest with valuable intellectual property and a competitive edge in the marketplace.

Enhanced Bioavailability: The process maintains the original molecular conformation of metabolites, which is crucial for optimal bioavailability. This ensures that the active ingredients are more readily absorbed and utilized by the body, potentially increasing the therapeutic effectiveness of the products.

Cleanliness and Purity: BioHarvest's technology operates under strictly aseptic growth conditions, which eliminates the risk of contamination from insecticides, herbicides, chemical solvents and residues. This inherent cleanliness guarantees that the final products are pure and safe for consumption.

Environmental Sustainability: The Botanical Synthesis process is markedly more sustainable than traditional agricultural practices. It requires significantly fewer resources such as land, water, and electricity. Importantly, after the initial extraction from the ‘real’ plant, the cells can be replicated indefinitely without the need for replanting, dramatically reducing the ecological footprint of production.

Economic Viability: Economically, the Botanical Synthesis process is highly viable due to the efficiency of growing cells directly in bioreactors, which can be harvested every three weeks, resulting in up to 17 harvest cycles per year. This frequent harvesting capability leads to a substantial reduction in production costs compared to conventional methods, enhancing the economic scalability of the operation.

Technical Advantages of BioHarvest's Botanical Synthesis Platform Technology Over Other Techniques

BioHarvest Sciences' Botanical Synthesis Platform Technology offers several significant advantages over conventional farming and biosynthesis methods, positioning it as a potentially superior approach for producing botanical compounds. This technology not only maximizes land use efficiency and significantly lowers production costs but also requires less capital expenditure, making it an economically viable and environmentally sustainable option.

	BIOHARVEST SCIENCES	Conventional Farming+ extraction	Biosynthesis
Land use efficiency	High	Low	High
Production cost ($/kg)	Low	High	Unknown
Capex	Low	High	Medium
Production cycle times	Low	High	Semi/Continuous
Purity	High	Low	High
Consistency	High	Low	High
Full spectrum Composition	Yes	Yes	No
Sustainability	High	Low	Low
Patentability	High	Low	High
Non-GMO	Positive	Positive	Negative

Exhibit 4: Comparative Advantages of BioHarvest's Botanical Synthesis Platform Technology. Source: Company Website

With its capability to deliver specific molecules in a commercially viable manner, BioHarvest's technology stands out, particularly in scenarios where conventional agriculture cannot compete. For example, with the increasing threats to olive plants, conventional methods struggle to meet even the basic food demands for olives, let alone specialized nutraceutical applications. BioHarvest's method, on the other hand, can mass produce olive cell nutraceuticals effectively, offering a unique solution that is likely unachievable by other companies.

Additionally, the technology ensures shorter production cycles, enabling faster turnaround and increased production efficiency—a substantial advantage over traditional methods. BioHarvest guarantees high purity and consistency in its products, retaining the full spectrum of botanical compounds necessary for various applications. The technology is highly sustainable and eco-friendly, reducing the environmental impact. Moreover, BioHarvest's approach offers significant patentability, produces non-GMO products, and aligns with consumer preferences for **natural** and safe botanical compounds.

BioHarvest's Pioneering Approach to Nutraceuticals

Nutraceuticals, a portmanteau of "nutrition" and "pharmaceuticals," are products derived from food sources with extra health benefits in addition to their basic nutritional value. These products can prevent disease, improve health, delay the aging process, increase life expectancy, or support the structure or function of the body. Nutraceuticals are categorized into dietary supplements, functional foods, and medicinal foods, each offering specific health benefits through concentrated forms of bioactive compounds such as polyphenols, vitamins, minerals, amino acids, and enzymes.

BioHarvest Sciences' Nutraceutical division uses its proprietary Botanical Synthesis technology to create scientifically validated, high-quality nutraceuticals with enhanced bioavailability

Nutraceuticals have gained prominence due to their ability to address a wide range of health issues—from everyday wellness to chronic conditions—without the side effects often associated with pharmaceutical drugs. They align well with the growing consumer preference for natural and organic products and fit seamlessly into preventative healthcare regimes that increasingly define global health trends. The appeal of nutraceuticals is their ability to offer health-enhancing benefits in natural forms, such as superfoods. Superfoods are typically packed with a high concentration of vital nutrients and antioxidants that offer superior health benefits. They include foods like berries, leafy greens, nuts, and seeds, which are known for their ability to reduce the risk of chronic diseases and improve overall health. The popularity of superfoods has strengthened the nutraceutical market, providing consumers with potent, concentrated options that are both effective and easy to incorporate into daily diets.

BioHarvest Sciences' Nutraceutical division leverages its proprietary Botanical Synthesis technology to create high-quality nutraceutical products that are scientifically validated and supported by rigorous clinical trials. The division focuses on harnessing the power of plant-based ingredients, utilizing the cellular constituents of fruits and plants to produce highly concentrated nutraceuticals with enhanced bioavailability and efficacy. It specializes in the research, development, manufacturing, marketing, and sales of science-based therapeutic nutraceutical solutions. These products are available in various forms, including capsules, and innovative VINIA® Inside delivery mechanisms like infused coffee and teas. This diverse range of formats ensures that consumers can integrate these health-enhancing products seamlessly into their daily routines, catering to a broad spectrum of lifestyle and dietary preferences.

VINIA: Premier Red Grape Nutraceutical for Consumers

VINIA® is BioHarvest Sciences' inaugural commercial product, demonstrating the company's novel approach to nutraceutical development. This proprietary product is derived from the red grape (Vitis vinifera) and utilizes the entire matrix of red grape polyphenols, prominently featuring Piceid Resveratrol. Produced in BioHarvest's proprietary bioreactor facilities, VINIA® is a fine, dry, pink-purple powder that preserves the natural state of polyphenols found in red wine, offering their health benefits without the use of solvents or genetic modification.

Exhibit 5: VINIA® Production Process. Source: Company Website

VINIA® significantly amplifies the concentration of Piceid Resveratrol, a key health-promoting compound in red grapes, by at least 100 times compared to regular grapes. This enhanced concentration is achieved through BioHarvest's Botanical Synthesis process, which not only increases the potency of the active ingredients but also maintains their synergy and natural benefits. The result is a product that delivers the cardiovascular and cognitive benefits of red wine consumption—increasing blood flow and improving mental alertness—without the sugar, calories, or alcohol. VINIA® works through a dual-action effect that involves increasing Nitric Oxide (NO) while reducing Endothelin-1 (ET-1), a vasoconstrictor that can be harmful in excess. By modulating these two compounds, VINIA® promotes the relaxation and dilation of arteries, enhancing blood flow and thereby increasing the delivery of oxygen and nutrients to vital organs such as the heart and brain. This improved vascular function can lead to enhanced overall energy levels and mental alertness. The bioavailability of VINIA's Piceid Resveratrol is notably high. After ingestion, it begins entering the bloodstream in approximately 20 minutes, with peak plasma levels reached within about one hour. Remarkably, VINIA® achieves a second peak at around five hours and remains bioactive in the bloodstream for up to 12 hours. This prolonged bioactivity significantly extends the health benefits, unlike regular Resveratrol, which typically peaks quickly and is then rapidly cleared from the body.

VINIA®, BioHarvest Sciences' first product, is a red grape-derived nutraceutical with 100 times the Piceid Resveratrol concentration of regular grapes, achieved through their Botanical Synthesis process

The Impact of VINIA's Piceid Resveratrol

VINIA®, BioHarvest Sciences' premier nutraceutical product, harnesses the potent effects of Piceid Resveratrol. This powerful component of VINIA® offers a dense matrix of phytonutrients, providing significant health benefits through innovative technology and enhanced bioavailability.

Feature	Description
High Concentration	Contains 100 times the Piceid Resveratrol found in standard red grapes, enhancing its health benefits.
Enhanced Solubility	25 times more water soluble than regular resveratrol, improving absorption and utilization by the body.
Sustained Release	Increases nitric oxide and reduces ET-1 to promote blood vessel dilation, effective for up to 12 hours.
Rapid Bioavailability	Rapidly enters the bloodstream within 20 minutes of ingestion, initiating health benefits quickly.
Dual Peak Absorption	Reaches peak blood plasma levels first at one hour and again at five hours, ensuring prolonged efficacy.

Exhibit 6: VINIA's Piceid Resveratrol Features. Source: Company Filings

VINIA Clinically Validated for Comprehensive Health Benefits

VINIA® is distinguished by its robust foundation in scientific research and clinical validation. With an investment of over $100 million and 15 years dedicated to research and development of polyphenols, VINIA® has undergone extensive testing to confirm its health benefits. This testing includes three specific clinical studies and eight scientific studies that collectively emphasize the effectiveness and safety of VINIA®. Additionally, the unique methods and technologies used to create VINIA® are protected by 14 patents.

VINIA®, backed by over $100 million of investment and 15 years of R&D, has proven its health benefits through various clinical and scientific studies

The clinical studies on VINIA® have demonstrated several key health benefits, particularly in cardiovascular health.[1] VINIA® promotes the dilation of blood vessels by increasing nitric oxide and reducing endothelin-1, which enhances blood circulation. This improvement in circulation helps increase the delivery of oxygen and vital nutrients to cells, facilitating the removal of cellular waste and toxins, and supports overall vascular health. These benefits contribute to increased mental alertness and physical energy, and help maintain blood pressure within a normal range. Furthermore, VINIA® plays a role in boosting antioxidant activity, which helps protect cells from oxidative damage, and in reducing the oxidation of LDL cholesterol, which is beneficial for maintaining healthy blood vessels.

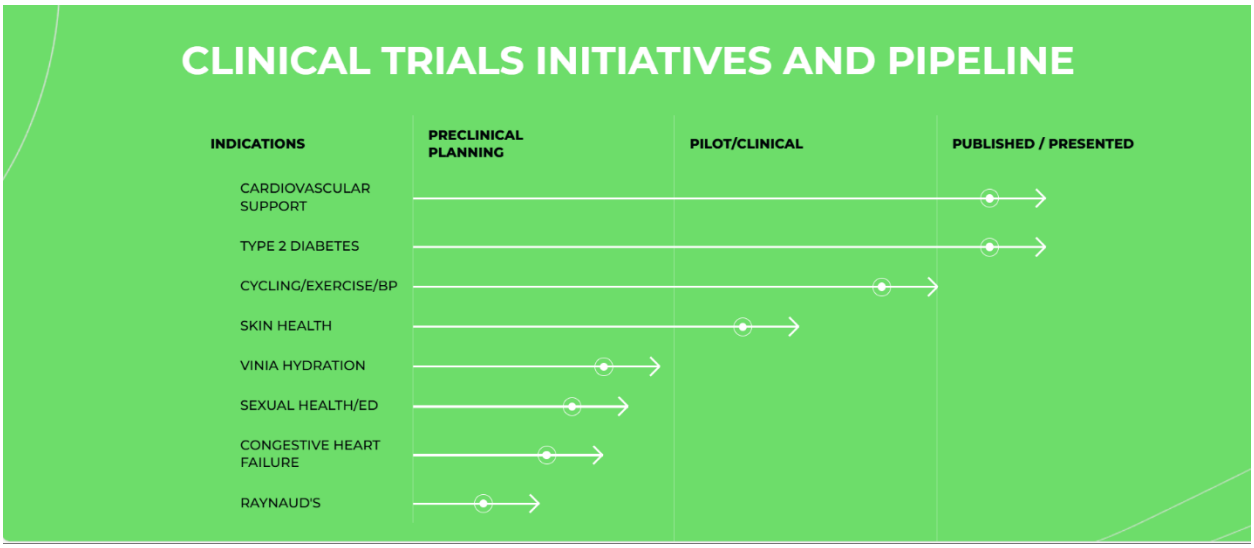

Exhibit 7: BioHarvest Clinical Trials Pipeline. Source: Company

A double-blind, placebo-controlled, randomized study titled "Daily consumption of red grape cell powder in a dietary dose improves cardiovascular parameters" was conducted to explore the impact of VINIA® on individuals with prehypertension and mild hypertension.[2] The study involved 50 participants who were administered daily doses of 200 mg or 400 mg of red grape cell powder (RGC) or a placebo over a period of 12 weeks.

[1] https://bioharvest.com/clinical-studies/

[2] Vaisman N, Niv E. Daily consumption of red grape cell powder in a dietary dose improves cardiovascular parameters: a double blind, placebo-controlled, randomized study. Int J Food Sci Nutr. 2015 May

Key findings of the study:

- **Improved Endothelial Function:** The consumption of RGC was associated with a significant improvement in flow-mediated dilation (FMD), an indicator of endothelial function, with the results showing marked enhancement ($p = 0.013$). This suggests that regular intake of VINIA® can help improve the elasticity of blood vessels, which is crucial for maintaining a healthy cardiovascular system.

- **Reduction in Oxidative Stress:** The study observed a notable decrease in lipid peroxidation—a marker of oxidative stress—among participants who consumed RGC ($p = 0.013$). This reduction highlights VINIA's potential as a powerful antioxidant, aiding in the protection against cellular damage caused by free radicals.

- **Blood Pressure Management:** A significant decrease in diastolic blood pressure was recorded in the group that took 200 mg of RGC compared to the placebo group ($p = 0.032$). This indicates that VINIA® can play a role in maintaining blood pressure levels within a normal range.

- **Arterial Dilation:** Further clinical evidence from the trial indicates that daily consumption of VINIA® increases the dilation of arteries by at least 70% for each person over the three-month study period. This effect on arterial dilation directly contributes to improved blood flow and overall cardiovascular health.

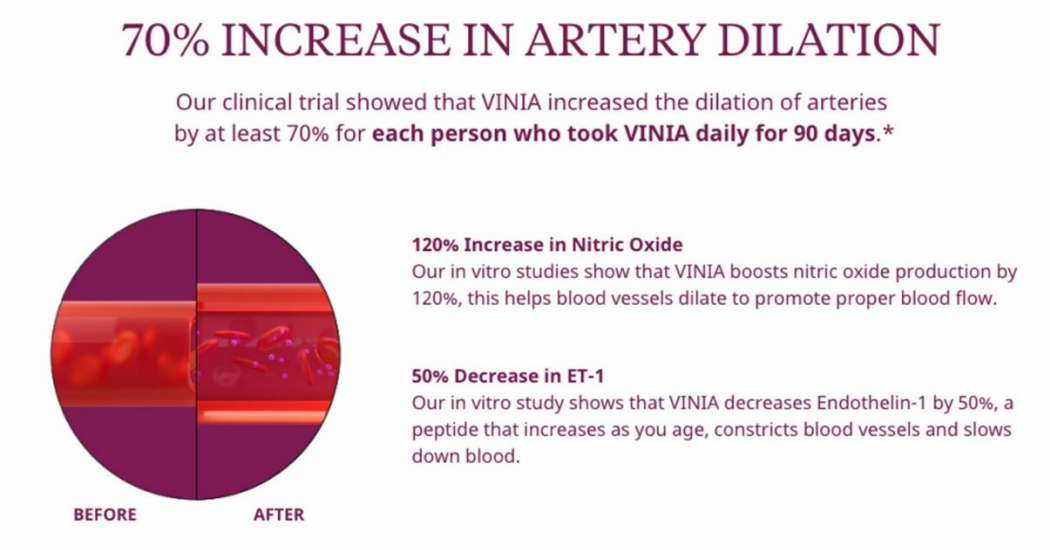

Exhibit 8: VINIA's Efficacy Demonstrated in Clinical Trials. Source: Investor Presentation

In another study titled "A novel red grape cells complex: health effects and bioavailability of natural resveratrol," researchers focused on evaluating the health impacts of a red grape cell (RGC) complex, particularly its effects on LDL cholesterol oxidation and inflammatory stress. This comprehensive study combined both in vitro assessments and in vivo experiments using a rat model. The research thoroughly analyzed the polyphenol content of RGC, with a specific emphasis on the bioactivity and properties of RGC-derived resveratrol (RES). The findings revealed significant health benefits: RGC showed a potent inhibitory effect on LDL cholesterol

oxidation, with an inhibition concentration (IC50) as low as 8.0 mg/ml, indicating its potential to significantly hinder the process associated with arterial hardening. Additionally, the study demonstrated the anti-inflammatory properties of RGC by significantly reducing inflammation in rats, as evidenced by the decreased paw swelling induced by carrageenan injection. This suggests potential therapeutic applications for reducing inflammation-related symptoms and diseases. Moreover, the pharmacokinetic analysis of RGC-derived resveratrol in human plasma highlighted its high bioavailability, characterized by two distinctly separated peaks in plasma concentration at one- and five-hours post-ingestion. This pattern suggests efficient absorption and sustained presence of resveratrol in the body, enhancing its potential health benefits. LC/MS analysis confirmed that the primary polyphenol in RGC was resveratrol with an attached hexose moiety, a sugar molecule that likely contributes to its improved solubility and stability.

The study concludes that the antioxidant and anti-inflammatory properties of the RGC complex warrant further exploration in both pre-clinical and clinical settings. These promising results support ongoing research and validate the efficacy of BioHarvest Sciences' VINIA® product, reinforcing its value as a health-promoting natural product. BioHarvest Sciences is actively selling VINIA® in the USA and Israel, and is actively seeking to expand its market presence via regulatory approvals in Canada, the EU, the UK, and China, aiming to make VINIA accessible to a broader consumer base.

Distribution and Consumer Engagement of VINIA

BioHarvest employs a comprehensive distribution strategy that spans B2C, direct-to-consumer (D2C) channels, and incentive-based programs such as direct-to-doctor This approach ensures broad market coverage and accessibility, tapping into diverse consumer bases and business partnerships to maximize reach and impact.

VINIA®, BioHarvest Sciences' flagship product, uses multiple distribution channels such as B2C, D2C, and incentive based sales program to ensure broad market coverage and accessibility

Multi-Channel Distribution Strategy

B2C and D2C Channels: VINIA® is actively marketed and sold directly to consumers, primarily through its own dedicated website, VINIA.com, and major online retailers, such as Amazon. These platforms cater to different consumer needs:

- **VINIA.com:** This platform serves as the primary D2C channel, offering detailed product information, customer testimonials, and subscription options. It allows BioHarvest Sciences to engage directly with consumers, providing comprehensive support and fostering a strong brand relationship.
- **Amazon:** As a major B2C channel, Amazon broadens VINIA's reach, tapping into a vast customer base and benefiting from the platform's robust logistics and customer service infrastructure.

Direct-to-Doctor Channels: In addition to consumer sales, VINIA® is also distributed through a select group of integrative medicine practitioners. This channel leverages referral codes/specific sales arrangements with doctors who recommend VINIA® to their patients. By integrating VINIA® into the healthcare provider's recommendations, BioHarvest taps into the professional health sector, gaining credibility and trust from consumers who rely on their doctor's advice for health-related products.

Subscription-Based Model Acts as a Revenue Engine

A significant aspect of VINIA's sales strategy is its subscription-based model, which has proven highly effective in fostering a stable revenue stream. Approximately 90% of the revenue generated from VINIA.com comes from recurring subscriptions, demonstrating the product's strong consumer retention and consistent demand. Notably, over 95% of these subscribers are committed to subscriptions of 3 months duration or more, indicating high customer satisfaction and the perceived value of continued use of the product. This subscription model not only ensures a predictable and steady income flow for BioHarvest Sciences but also reflects the trust and loyalty of customers who experience ongoing benefits from VINIA®. It also aligns with consumer preferences for hassle-free, regular deliveries of their health supplements, further enhancing customer engagement and satisfaction.

VINIA's subscription-based sales model generates 90% of its revenue, with 95% of subscribers maintaining their subscriptions for three months or more, reflecting high customer satisfaction and stable revenue for BioHarvest Sciences

Social Proof as a Catalyst for Brand Growth

VINIA's quality and effectiveness are further validated by strong social proof, evidenced by a high consumer rating. The product boasts an impressive average rating of 4.8 out of 5 based on approximately 5,000 reviews (VINIA® customers are encouraged to submit uncensored feedback, and receive a 30 day supply when they submit a review, whether positive or negative). This high level of customer satisfaction serves as a powerful endorsement, helping to attract new users and retain existing customers by reinforcing the product's credibility and effectiveness.

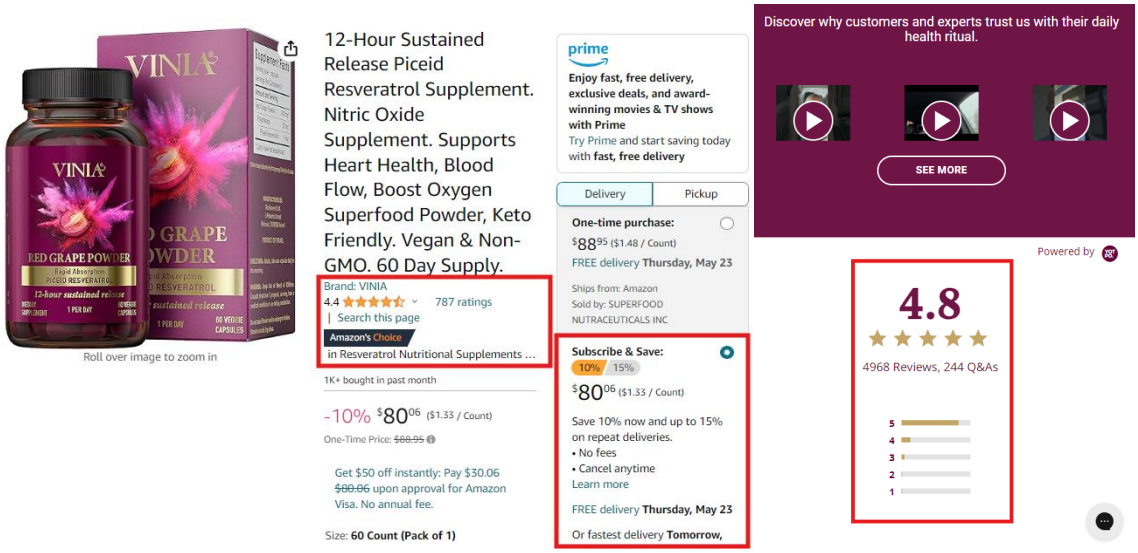

Exhibit 9: VINIA Reviews Showcase Consumer Satisfaction. Source: VINIA.com, Amazon.com

VINIA Product Line Growth: Horizontal Expansion into Lucrative New Markets

BioHarvest has announced an ambitious expansion plan for its VINIA® product line, aiming to grow from three SKUs to over ten by the second half of 2025. This move will introduce VINIA® into new consumption categories within the Food & Beverage and Nutraceuticals markets, further solidifying its presence and impact.

Exhibit 10: VINIA Expanding Product Line. Source: Investor Presentation

Since its 2021 launch, VINIA® has grown rapidly, with over 50,000 users. BioHarvest aims to expand VINIA® into functional coffee pods, electrolyte beverages, and cosmeceuticals, targeting multi-billion-dollar markets

Since its US launch in 2021, VINIA® has seen substantial revenue growth and market penetration, supported by the positive experiences of over 50,000 consumers. Analyzing the data from these users, BioHarvest identified significant opportunities to leverage VINIA's blood flow benefits and expand into three major product categories:

1. **Hot Beverages:** With an estimated annual consumption of 2.6 billion coffee pods in North America, this market represents a significant opportunity for VINIA®. BioHarvest has developed a new functional coffee product line featuring VINIA® Red Grape Superfood, enhancing physical energy and mental alertness without caffeine. Medium Roast and Decaffeinated functional coffees have been launched, available in Keurig compatible pods. Nespresso-compatible pods will be introduced in 2024, plus a range of teas featuring English breakfast, black and green teas, available in both Keurig compatible pods and tea bags.

2. **Electrolyte Beverages:** The electrolyte beverage market in North America is projected to be a $15.3 billion USD opportunity. VINIA's entry into this market aims to offer a unique, health-enhancing alternative to existing products.

3. **Cosmeceuticals:** Over the past year, BioHarvest has identified significant opportunities for its red grape cell and olive cell molecules in the growing beauty and therapeutic skincare market, worth approximately $20 billion USD in the USA. Initial small-scale assessments in Seoul, South Korea, showed positive feedback regarding skin ailments when respondents ingested red grape cell molecules. BioHarvest is now developing topical formulations for larger clinical trials, with the first skincare solution expected to launch in HI 2025.

BioHarvest has identified strategic manufacturing partners within each of these categories, ensuring the successful integration of VINIA® into unique delivery systems. These partnerships are designed to maintain VINIA's superior science and functionality while delivering an exceptional taste experience. The first products, including VINIA® functional coffees, are expected to disrupt the North American coffee pod market, providing consumers with a convenient way to enjoy the health benefits of VINIA®.

BioHarvest has laid out several key strategic imperatives for the expansion of the VINIA® product line. The company believes that VINIA® can enter these new categories without substantial additional R&D investment, allowing for significant growth and market impact:

Strategic Imperative	Description
Broadening the Market	Targeting additional age ranges and lifestyles to expand the addressable market.
Revenue Growth	Aiming for double-digit quarter-over-quarter revenue growth.
Leveraging Manufacturing Capacity	Doubling production output to meet increased demand.
Premium Product Portfolio	Launching differentiated, higher-margin products to enhance the VINIA brand.
Cross-Selling Opportunities	Increasing marketing efficiencies by cross-selling products across the expanded portfolio.
Improving Profitability	Enhancing bottom-line profitability and cash flow performance.

Exhibit 11: Strategic Imperatives for VINIA Expansion. Source: Company Filings

VINIA Superfood Coffee: A New Frontier in Functional Beverages

BioHarvest has recently introduced an innovative "functional" coffee product line featuring its flagship nutraceutical product, VINIA® Red Grape Superfood. This launch represents a significant advancement in BioHarvest's strategy to integrate health-enhancing nutraceuticals into everyday consumption patterns, potentially disrupting the $6 billion North American coffee pod market.

VINIA® Superfood Coffee contains 100% premium Arabica beans infused with red grape polyphenols, delivering all the benefits of VINIA®. Each Medium Roast and Decaf VINIA® Superfood Coffee Pod includes 23 mg of polyphenols, equivalent to one VINIA® capsule, and is compatible with Keurig® (K-cups) and most single-serve brewing systems. VINIA® Superfood functional coffees are expected to be also available in 2024 in Nespresso® compatible pods, and the company has announced that it will add tea products to its hot beverages business, including black and green teas.

BioHarvest has launched VINIA® Superfood Coffee, infusing premium Arabica beans with red grape polyphenols. Each pod contains 23 mg of polyphenols and is compatible with Keurig® and most single-serve systems, targeting the $6 billion North American coffee pod market

Exhibit 12: VINIA Coffee Packaging – Decaf and Medium Roast. Source: VINIA.com

The expansion strategy includes partnering with top industry players to ensure superior product delivery. For instance, BioHarvest has collaborated with Seattle-based Joe's Garage, one of the world's top coffee makers, to develop a unique functional coffee that excels in taste. This partnership has already yielded positive results in blind taste-tests, where VINIA® Superfood Coffee was preferred by coffee drinkers over a leading functional coffee national brand, and VINIA® Superfood DECAF was favored over a top-selling decaf brand on Amazon.

BioHarvest's new hot beverages product line is aligned with the company's broader strategy to diversify its product portfolio, which also includes plans to enter the hydration electrolyte beverage markets in the next twelve months.

Building on the success of VINIA®, BioHarvest Sciences plans to replicate its proven business model by producing various natural plant-based molecules in large quantities through industrial manufacturing

Expanding BioHarvest Sciences' Nutraceutical Success: Mirroring the VINIA Model with New Plant-Based Innovations

Building on the success of VINIA®, BioHarvest Sciences plans to replicate its proven business model by mirroring a variety of natural plant-based molecules and expanding their production in large quantities through industrial manufacturing.

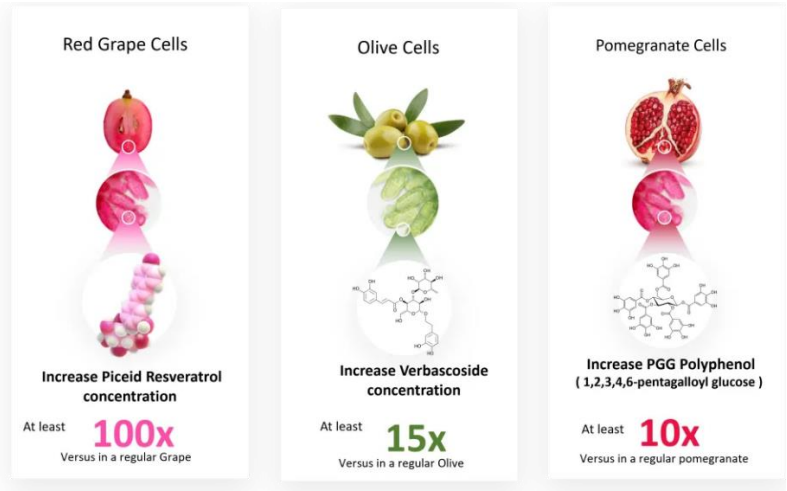

Exhibit 13: BioHarvest's Botanical Synthesis Technology Significantly Magnifies Beneficial Phytonutrients Compared to Regular Plant Cells. Source: Company Website

The company is strategically preparing to introduce two new products: Olive cell product, slated for release in H1 2025, and Pomegranate cell product, expected in H1 2026. These products are designed to capitalize on the unique properties of olive and pomegranate cells:

Exhibit 14: Upcoming Olive Cell and Pomegranate Cell Products. Source: Company Website
For Illustration purposes only. Trademarks are placeholders

Olive Cell Product: This product will potentially offer up to 15 times the concentration of Verbascoside compared to regular olives. Verbascoside is recognized for its antioxidant, anti-inflammatory, and antineoplastic properties, and it may also contribute to wound healing and neuroprotection.

Pomegranate Cell Product: Aimed at harnessing the health benefits of PGG Polyphenol (1,2,3,4,6-pentagalloyl glucose), this product will contain this compound at concentrations potentially 10 times greater than found in standard pomegranates. PGG Polyphenol is noted for its anti-microbial, anti-diabetic, anti-inflammatory, and antitumor properties.

Versatile Applications Across Consumer Products

Following the VINIA® model, these new products will be designed to be versatile across a variety of applications, enhancing their marketability and consumer appeal. Both these cell products are planned to be integrated into a range of products, including hot beverages, hydration powders, and even skincare products. This strategy not only broadens the scope of each product's use but also caters to a wider consumer base looking for health benefits in everyday products.

Strengthening Market Integration by Leveraging Existing Subscriber Base

BioHarvest Sciences plans to leverage its existing subscriber base to introduce these new products, aiming to further integrate consumers into its ecosystem. The company's loyal and growing subscriber base provides a foundational audience for these launches, potentially facilitating successful market entry and sustainable sales growth through recurring subscriptions.

Scaling Up and Expanding Plant-Based Innovation Across Multiple Species

These applications are not limited to VINIA®, Olive cell, and Pomegranate cell products alone. BioHarvest's Botanical Synthesis platform has the capability to replicate this approach with any

plant cells. This scalability enables the production of numerous high-value nutraceuticals, addressing a broad spectrum of health benefits. Currently, BioHarvest markets to only 13% of existing revenue pools, indicating a vast opportunity for growth and expansion into new markets with innovative plant-based products.

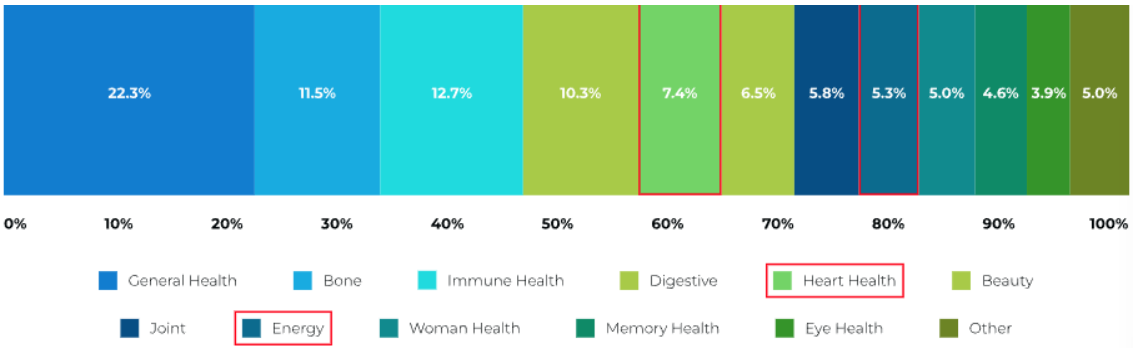

Exhibit 15: Polyphenols Market Potential for Expanding Beyond Current Revenue Pools. Source: Company Website

Nutraceuticals Market Growth Fuelled by Innovation and Consumer Demand

Nutraceuticals are distinctive products that blend the fields of nutrition and pharmaceuticals, offering health benefits that extend beyond basic dietary needs. Found in various forms, such as capsules, tablets, drinks, and fortified foods, nutraceuticals often contain beneficial ingredients like vitamins, minerals, herbs, amino acids, and other natural substances. These innovative products are designed to promote wellness and enhance health, bridging the gap between food and medicine with their scientifically-backed benefits. The global nutraceuticals market was valued at $317 billion in 2023 and is projected to grow at a compound annual growth rate (CAGR) of 9.6% from 2024 to 2030, with North America accounting for the largest revenue share at 34.9%.[3] The following factors contribute to the growth of the nutraceuticals market:

The global nutraceuticals market, valued at $317 billion in 2023, is projected to grow at a compound annual growth rate (CAGR) of 9.6% from 2024 to 2030, with North America holding the largest revenue share at 34.9%

Rising consumer awareness about the importance of health and wellness has led to increased demand for nutraceuticals. Consumers are increasingly opting for self-directed care to manage lifestyle disorders such as cardiovascular diseases and obesity. The ***aging global population*** and the ***rising prevalence of chronic diseases*** are prompting more individuals to seek preventive healthcare solutions, further boosting the demand for nutraceutical products. Additionally, positive consumer attitudes towards functional foods, known for their added health and wellness benefits, are contributing to market growth. The COVID-19 pandemic has also accelerated this trend, with a surge in demand for dietary supplements and functional foods, particularly those aimed at boosting immunity. The pandemic has significantly shifted consumer behavior, making ***preventive healthcare measures***, including regular use of dietary supplements, a part of everyday life. This shift has solidified the presence of nutraceuticals in the global market.

Technological advancements in the production and formulation of nutraceuticals are making these products more accessible and effective. Innovations such as the adoption of artificial

[3] https://www.grandviewresearch.com/industry-analysis/nutraceuticals-market

intelligence (AI) are enabling more personalized solutions based on individual dietary and health data. This technological integration is expected to drive further growth in the industry. Additionally, ***growing disposable incomes*** in emerging economies and increased investment in research and development by key market players are fueling innovation and market penetration. These combined factors are expected to sustain the strong growth trajectory of the nutraceuticals market in the coming years.

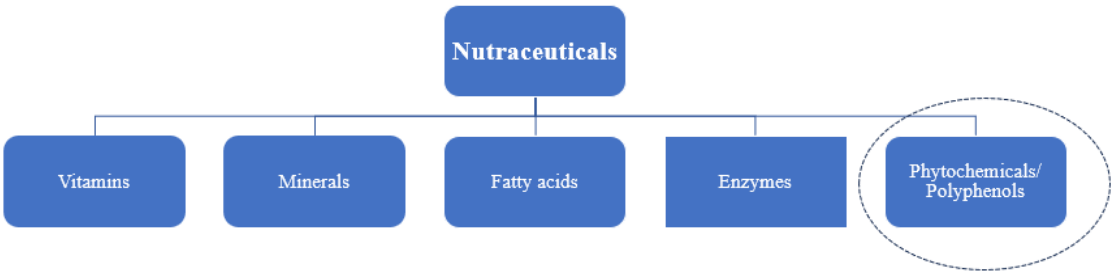

Exhibit 16: Nutraceuticals Segmentation Based on Chemical Composition. Source: Diamond Equity Research

BioHarvest is leveraging its innovative Botanical Synthesis technology to explore numerous high-potential applications for its plant-derived molecules, including dietary supplements, hot beverages, hydration powders, and skincare products. The company's VINIA® dietary supplement, made from grape cells, has already demonstrated significant benefits for blood flow and vascular health, making it ideal for athletic recovery and performance enhancement. Moreover, BioHarvest is set to launch VINIA® Skincare Products in H1 2025, including day capsules, night cream, and beauty capsules, targeting the growing demand for natural and effective skincare solutions. This move, aimed at entering the $72 billion global cosmeceuticals market, leverages the powerful polyphenol benefits of their proprietary grape cell technology, entering the high-margin skincare sector.[4]

The company operates in a highly competitive and fragmented market, focusing on the development, production, and distribution of dietary supplements, functional foods, and plant-based therapeutics. BioHarvest's core asset is its innovative Botanical Synthesis technology, which provides a substantial competitive advantage. This technology uniquely enables the company to grow plant cells in industrial-scale bioreactors, mirroring and amplifying the levels of targeted phytonutrients and medicinal compounds by significant orders of magnitude. Unlike other companies in the space, BioHarvest can mass-produce these active molecules, ensuring the commercial viability of their products. Their ability to magnify nutrient levels and scale production in large bioreactors sets them apart, as other companies have not demonstrated similar capabilities. Additionally, BioHarvest leverages this technology to operate a scalable direct-to-consumer business model, offering multiple clinically-backed molecules. This approach contrasts with other companies that focus primarily on the B2B market. Furthermore, BioHarvest's advanced R&D and manufacturing capabilities allow them to offer their Botanical Synthesis Technology Process as part of a Contract Development and Manufacturing Organization (CDMO) service model. This comprehensive strategy ensures BioHarvest can efficiently meet market demands and maintain a significant competitive edge.

[4] https://www.arizton.com/market-reports/cosmeceuticals-market-size-share

Revolutionizing Biologics Manufacturing with Launch of CDMO Services Targeting Large Markets Using Proprietary Botanical Synthesis Technology

In February 2024, BioHarvest Sciences announced the launch of its new Contract Development and Manufacturing Organization (CDMO) Services Business Unit, marking a significant expansion into service provision within the pharmaceutical, cosmeceutical, nutraceutical, and food & beverages industries. This strategic move leverages the company's proprietary Botanical Synthesis Process technology, offering industry leaders the opportunity to develop and manufacture novel plant-based biologics, termed by the company as BIOLOGICS+.

Unique Offerings of the Botanical Synthesis CDMO Services

BioHarvest Sciences' approach to molecule development distinctly contrasts with typical Contract Development and Manufacturing Organization (CDMO) services that utilize biosynthesis involving genetically modified organisms, such as yeast. These conventional methods, while effective for simpler molecules, involve complex processes where yeasts are genetically altered to produce target molecules, which are then extracted from the biomass post-mortem. However, such biosynthesis methods are often incapable of producing very complex molecules due to the limitations in the complexity of cells that can be genetically modified.

BioHarvest Sciences launched a new CDMO Services Business Unit, expanding into pharmaceutical, food & beverages, cosmeceutical, and nutraceutical sectors, using their Botanical Synthesis Process to manufacture novel plant-based biologics, termed BIOLOGICS+

In contrast, BioHarvest's Botanical Synthesis Platform Technology excels at producing complex plant-derived molecules. This method does not rely on genetic modification, which can be costly and restricted in terms of molecular complexity. By enabling the production of these complex molecules more effectively, BioHarvest's technology offers a significant advantage in applications requiring the full spectrum of plant-derived compounds, providing a more natural and potent solution.

Advantage	Description
Cost-Effectiveness	The technology facilitates lower development and manufacturing costs compared to traditional methods.
Intellectual Property	CDMO partners retain all IP rights to the newly developed molecules, ensuring exclusive benefits from their innovations.
Regulatory Flexibility	Biologics+ developed through BioHarvest's CDMO services have the potential for streamlined regulatory approval, suitable for both Biological and Botanical drug pathways.
Speed	BioHarvest's process significantly reduces the time required for development, accelerating the path from concept to market.
Safety	The non-immunogenic properties of the molecules enhance their safety profile, making them suitable for a wide range of therapeutic and nutritional applications.
Extended Applications	Beyond pharmaceuticals, BioHarvest's CDMO services extend to developing food ingredients, nutraceuticals, and cosmetics, broadening the impact and application of their technology.

Exhibit 17: Key Advantages of BioHarvest Sciences' Botanical Synthesis CDMO Services. Source: Investor Presentation

BioHarvest Sciences' CDMO business model is structured around a three-step process, each with specific milestones and Non-Recurring Engineering Expenses (NRE):

Exhibit 18: Botanical Synthesis CDMO Development Stages. Source: Investor Presentation

1. **Predictor & Selector** (3 to 6 months): Involves producing a small biomass of the BIOLOGICS+ from the source plant. This initial phase requires an investment ranging from $300k to $400k from the customer.

2. **Corrector and Sampler** (6 to 9 months): Focuses on scaling up the biomass to support clinical trials and other tests, with NRE costs between $600k and $900k.

3. **Large Scale and Producer** (9 to 12 months): The final development phase, which scales the production up to large-scale manufacturing capabilities. This stage demands NRE investments of $900k to $1.2M.

The entire development process using the Botanical Synthesis Process is projected to take 15 to 24 months and cost the client between $1.8M and $2.5M in total Non-Recurring Engineering (NRE) expenses. Therefore, the first large-scale industrial production for a CDMO customer could potentially begin as early as Q3 2025. Upon successful completion, this can lead to a transition to a royalty-based model for ongoing production. This royalty model has significant potential due to its structure, where BioHarvest Sciences would receive a percentage of the high-growth revenues generated by successful products. This model provides optionality and scalability, allowing BioHarvest to benefit from the commercial success of the developed products. As these products gain market traction and generate increasing sales, BioHarvest's revenue from royalties can grow substantially, aligning long-term company revenues with the success and market performance of the client's products. Additionally, CDMO customers utilizing BioHarvest's services may qualify for various tax grants and incentives. These financial benefits can significantly offset operational costs, enhancing the attractiveness and cost-effectiveness of BioHarvest's CDMO offerings.

The Botanical Synthesis CDMO Process takes 15-24 months and costs $1.8M-$2.5M in NRE expenses. Large-scale production could start by Q3 2025. Successful completion may lead to a royalty-based model, aligning BioHarvest's long-term revenues with product success

The launch of the CDMO unit was accompanied by the announcement of two significant contracts that emphasize the unit's potential and strategic importance. The first contract was signed with a NASDAQ-listed pharmaceutical company, which has engaged BioHarvest to develop specific complex molecules crucial for their patented drug development. This contract focuses on Step 1 of the Botanical Synthesis process, priced at the lower end of the previously mentioned range. The second contract involves a leading player in the food nutrition and ingredients industry, aimed at

developing unique plant-based molecules for use in the multi-billion-dollar sweeteners industry. Similar to the first, this contract also covers Step 1 of the Botanical Synthesis process at the lower pricing tier. Recognizing the commercial potential of the sweetener molecule, BioHarvest has opted to acquire a 50% stake in the molecule ownership by covering half of the Step 1 development costs.

CDMO Operational Efficiency and Growth Projections

BioHarvest has strategically added business development personnel to support the new CDMO unit. However, the existing in-house R&D team at BioHarvest Sciences is well-equipped to handle the initial wave of CDMO service contracts, which allows the company to manage these new projects without incurring much incremental expense. Furthermore, BioHarvest has a promising outlook for the growth of its CDMO business, with expectations to announce approximately two new customer contracts each quarter. This projection is supported by a robust deal flow pipeline that was rapidly established following the announcement of the CDMO services.

Expanding BioHarvest Sciences' Manufacturing Capabilities with a New State-of-the-Art Facility

BioHarvest is strategically expanding its manufacturing and research capacity to meet growing demand and innovate further in the field of biotech manufacturing. The company currently produces its flagship product, VINIA®, in a biological production facility located in Yavne, Israel. This facility is fully optimized for industrial production and boasts a capacity of 20 metric tons per year, which translates to an estimated production value of $55 million annually. The corporate and R&D offices are situated in Rehovot, Israel.

In April 2024, BioHarvest announced significant expansions with the signing of two key agreements: a long-term lease for an 80,000-square-foot facility in Yavne, Israel, and an equipment purchase for 12 state-of-the-art GMP clean rooms. This new facility is designed to support the anticipated growth of the CDMO Business Unit and features industry-leading clean rooms, extensive laboratory space, and additional areas capable of supporting a new 50-ton manufacturing facility.

Exhibit 19: Laboratory Spaces Inside New Yavne Corporate Campus. Source: Press Release

In April 2024, BioHarvest signed a lease for a new 80,000-square-foot facility in Yavne, Israel, and purchased equipment for 12 GMP clean rooms to support CDMO growth. This facility includes labs and space for a 50-ton manufacturing unit

The installation of all equipment for the clean rooms is completed, providing immediate operational capabilities. The new BioHarvest Campus is set to become a hub for all R&D functions, with the Rehovot facility's research and development and corporate administrative offices relocating there within the next 2-3 quarters. By 2025, the campus will feature a new 50-ton manufacturing facility to accommodate increasing product demand and provide comprehensive botanical synthesis services to CDMO customers under one roof.

Moreover, BioHarvest is planning further expansion into the United States with a proposed 150-ton capacity facility, which will represent the third generation of the Botanical Synthesis manufacturing process. This U.S.-based facility is expected to incorporate advanced technologies that enhance production yields and efficiencies, potentially setting a new standard in the industry for biotechnological manufacturing.

BioHarvest's Strategic Advantage in the Growing Global CDMO Market

The global Contract Development and Manufacturing Organization (CDMO) market has been experiencing significant growth, driven by the increasing outsourcing needs of pharmaceutical, nutraceutical, cosmeceuticals, and other healthcare companies. The global nutraceuticals CDMO market, valued at USD 37.3 billion in 2022, is projected to grow at a 7.7% CAGR from 2023 to 2030, while the global pharmaceutical contract manufacturing and research services market, valued at USD 226.6 billion in 2022, is expected to grow at a 7.10% CAGR over the same period.[5][6] This growth is fueled by healthcare companies outsourcing drug development and manufacturing

[5] https://www.grandviewresearch.com/industry-analysis/nutraceuticals-cdmo-market-report
[6] https://www.grandviewresearch.com/industry-analysis/pharmaceutical-contract-manufacturing-market

processes to CDMOs to reduce costs, enhance efficiency, and leverage specialized expertise. The opportunity size in this market is vast, offering substantial potential for CDMOs that can provide high-quality, scalable, and cost-effective solutions for the development of complex and innovative therapeutics.

The global CDMO market is growing rapidly due to increased outsourcing by healthcare companies. The nutraceuticals CDMO market, valued at $37.3 billion in 2022, is projected to grow at a 7.7% CAGR from 2023 to 2030

BioHarvest's entry into this market presents a substantial opportunity, especially given its unique capabilities in Botanical Synthesis. Leveraging its proprietary technology, BioHarvest can offer innovative solutions to pharmaceutical and nutraceutical companies, positioning itself to capture a significant share of this expanding market. The company's Botanical Synthesis Process Technology facilitates the development and production of patentable plant-based molecules, both small and complex, as well as unique compositions that incorporate both types. BioHarvest stands out with its ability to grow plant cells in bioreactors at an industrial scale, a capability not yet achieved by other companies in the field.

BioHarvest's Botanical Synthesis Process offers several industry advantages, including lower development and manufacturing costs, faster development speeds, and non-immunogenic properties that enhance safety. This scalability, combined with the patentable nature of its process and technology, positions BioHarvest to potentially capture an increasing share of the global CDMO market. The flexibility of this approach provides BioHarvest with the optionality to serve numerous CDMO markets, allowing the company to adapt to the diverse needs and opportunities within the pharmaceutical, cosmeceutical, nutraceutical, and nutrition industries.

Management Overview

BioHarvest Sciences is managed by an experienced and diverse team of professionals, each bringing substantial expertise from various fields including biotechnology, finance, and pharmaceuticals. This leadership team combines decades of experience in research, operations, and market strategy to drive the company's innovation and commercial success in developing plant-based bioactive compounds:

Ilan Sobel - Chief Executive Officer

Ilan Sobel has served as the CEO of BioHarvest Sciences since July 2020, steering the company through significant milestones, including the North American launch and commercialization of its flagship product, VINIA®. Under his leadership, VINIA® has become a key revenue generator for the company, establishing a scalable model for future nutraceutical products. Before joining BioHarvest, Ilan had an extensive career at Weissbeerger, where he was instrumental in evolving the company into a notable BIG Data, IoT, and software entity, culminating in its acquisition by Anheuser Busch InBev. Prior to that, Ilan spent 18 years at The Coca-Cola Company, holding various senior leadership roles that significantly enhanced revenue and market presence across multiple global markets. He holds a Bachelor's Degree in Marketing and Human Resource Management from the University of New South Wales, Sydney, Australia.

Dr. Zaki Rakib - Chairman of the Board

Dr. Zaki Rakib serves as the Chairman of the Board at BioHarvest Sciences and is also the President of the Botanical Synthesis CDMO Business Unit. With a rich background in engineering, Dr. Rakib has pioneered several innovations across diverse fields such as software, telecommunications hardware, semiconductors, cellular operations, and bioscience. His notable contributions include co-founding Terayon Communication Systems, where he was instrumental in the invention of the first cable modem and S-CDMA technology, marking a significant technological advancement in the telecommunications industry. He holds a Ph.D. in Engineering, along with a Master of Science and a Bachelor of Science, all from Ben-Gurion University in Israel.

Dr. Yochi Hagay - Chief Technology Officer

Dr. Yochi Hagay holds the position of CTO at BioHarvest Sciences. With a profound background in biotechnology and pharmaceuticals, Dr. Hagay brings a wealth of experience to her role, having formerly served as the CEO of BioHarvest. Her career began in earnest after co-founding BioHarvest in 2005, following a significant tenure as Managing Partner at Zaki Rakib's Bio-Tech Capital Venture, where she evaluated numerous scientific research projects and bio-tech companies. Dr. Hagay also had a longstanding 15-year career at BTG, culminating in a crucial role overseeing clinical studies at Savient from 2002 to 2005, after BTG's acquisition. She holds a Ph.D. in biotechnology from Hebrew University, obtained in 2004, underscoring her deep expertise in the field.

Dr. Ilana Belzer - Chief Operating Officer

Dr. Ilana Belzer serves as the Chief Operating Officer at BioHarvest Sciences, bringing a wealth of leadership experience and technical expertise to the role. Her professional background is highlighted by her tenure as COO of CollPlant Biotechnologies, a NASDAQ-listed company specializing in regenerative and aesthetics medicine based in Israel. At CollPlant, Dr. Belzer was responsible for overseeing production facilities, process & infrastructure engineering, supply chain, maintenance, and analytical & quality control functions. Prior to her role at CollPlant, she served as the COO of BioHarvest Ltd. from 2012 to 2015, deepening her experience in operational management within the biotech sector. Dr. Belzer earned her Ph.D. in Microbiology and Cell Biology from the Tel Aviv University Faculty of Life Sciences in 1990.

Alan Rootenberg - Chief Financial Officer

Alan Rootenberg serves as the Chief Financial Officer of BioHarvest Sciences. He is a Chartered Professional Accountant with a robust history of managing the financial strategies of publicly traded companies across diverse industries, including mineral exploration, mining, technology, and medical cannabis. Mr. Rootenberg's educational background includes a Bachelor of Commerce degree from the University of Witwatersrand and a Certificate in the Theory of Accounting from the same institution. He received his CPA designation in Ontario, Canada, in 1980.

Dr. Brian Cornblatt - Chief Medical Officer

Dr. Brian Cornblatt serves as the Chief Medical Officer at BioHarvest Sciences, where he applies his extensive expertise in pharmacology and molecular sciences to enhance the company's clinical and medical strategy. He previously developed novel nutraceutical formulations and led both in vitro and clinical studies at Nutramax Laboratories Consumer Care, Inc., significantly contributing to products that support the production of sulforaphane, a notable phytochemical. Dr. Cornblatt holds three issued patents and four pending provisional patents in plant-based bioactive compounds. He earned his Ph.D. in Pharmacology and Molecular Sciences from Johns Hopkins University School of Medicine, followed by a postdoctoral fellowship at the Johns Hopkins Bloomberg School of Public Health.

Dr. Malkit Azachi - Vice President R&D

Dr. Malkit Azachi serves as the Vice President of Research and Development at BioHarvest Sciences, bringing nearly two decades of extensive experience in biochemistry, genetic engineering, tissue culture, molecular biology, and the management of clinical and pre-clinical trials. Before joining BioHarvest, Dr. Azachi held the position of Technology Director at HealOr Ltd., a biopharmaceutical company focused on developing topical therapeutics. She also led product development in the research and development department of Colbar LifeScience, a Johnson & Johnson company, where she spearheaded initiatives in cartilage regeneration and bone substitute products at Prochon Biotech and worked on immunotherapy-related development at Omrix Biopharmaceuticals, later acquired by Johnson & Johnson. Dr. Azachi earned her Ph.D. in microbiology from the Hebrew University of Jerusalem and completed a postdoctoral fellowship in Molecular Biology of the Cell at the Weizmann Institute of Science.

Nissim Bilman - Vice President Quality Assurance

Nissim brings the Company over 30 years of leadership experience in building end to end quality management systems and processes across organizations in the pharmaceutical industry. Nissim held the role of VP Quality Unit for Sol-Gel Technologies Ltd for the past 6 years where he developed an innovative encapsulation process for Benzoyl Peroxide for rosacea in adults and lead the QA and QC departments and shaped the company’s quality culture across the organization. Previous to this role, Nissim held the position of VP Drug Development at Exalenz BioScience Ltd, where he was responsible for engineering the design and execution of oral and liquid drug products and managing a complex network of global contract manufacturers. Nissim has also extensive experience working closely with global regulators in his capacity of CEO of QPRO Pharma where he served as CEO and led end to end drug development, scaling, validation and regulatory compliance.

The Board of Directors at BioHarvest Sciences comprises individuals with substantial experience in biotechnology, finance, and related sectors. This team provides strategic oversight and governance, leveraging their diverse backgrounds to guide the company's direction and ensure responsible management.

Name	Introduction
Vivien Rakib	Ms. Vivien Rakib has served as a director since 2007, with a background in software development and active investments in technology startups. Holds a B.Sc. in Mathematics and Computer Science from Ben Gurion University.
David Ryan	Mr. David Ryan, the company's President, Secretary, and Director VP of Investor Relations has extensive experience in investment and public markets, specializing in IPOs and financings.
Jake Fiddick	Mr. Jake Fiddick founded BMO's "Public Company Banking Group" and has extensive banking experience. Holds a real estate and broker's license.
Zaki Rakib	Dr. Zaki Rakib, Chairman of BioHarvest and co-founder of Terayon, has spearheaded innovations in telecommunications and bioscience. Holds a Ph.D. in Engineering from Ben-Gurion University.
David Tsur	Mr. David Tsur, co-founder and former CEO of Kamada Ltd, serves as Deputy Chairman. He has been instrumental since the company's inception in 1990.
Anne Binder	Ms. Binder has extensive experience as a financial strategy consultant and independent director for various sectors, and has served in senior roles at Tikehau Investment Management and on the boards of multiple organizations. She holds a Master in Public Affairs from Sciences Po and an MBA from INSEAD.

Exhibit 20: BioHarvest Biosciences' Board of Directors. Source: Company Filings

Financial Performance Overview

Product Division Flourishing, CDMO to Follow: BioHarvest Sciences Inc. currently generates revenues from its flagship red-grape-derived Nutraceutical product, VINIA® Capsule. The company generated revenue of $12.67 million in 2023 compared to $5.49 million in 2022, representing a y-o-y growth of 130.5%. The first quarter of 2024 saw a similar growth trend, with the company achieving a year-over-year increase of 147%, bringing in $5.34 million compared to $2.2 million in the same quarter of the previous year. The company has also recently announced that it has achieved the milestone of $2 million in monthly sales in the month of May 2024, continuing its strong growth momentum. This impressive growth, supported by a 4.8/5 average rating from over 5,000 verified reviews, positive feedback from healthcare professionals, and more than doubling of new customer and subscriber count, underscores strong market acceptance. This success has set the stage for new "VINIA® Inside" products, including the recently launched Hot Beverage lineup and the upcoming introduction of hydration powders and skin care products. With plans to expand geographically into Canada, Europe, and China, BioHarvest is well-positioned for continued growth. Moreover, the company also plans to replicate its success with VINIA®-red grape plant cell product across new plant molecules, specifically focusing on olive and pomegranate cell products, poised to launch in 2025 and 2026, respectively. With the geographical expansion of the current product line and the introduction of new product lines, BioHarvest Sciences Inc. is potentially set to achieve exponential growth in its nutraceutical division. This growth will be further complemented by the recent launch of its CDMO division, which has already secured contracts to develop complex molecules for a NASDAQ-listed pharmaceutical company and a leading player in the nutrition and ingredients industry.

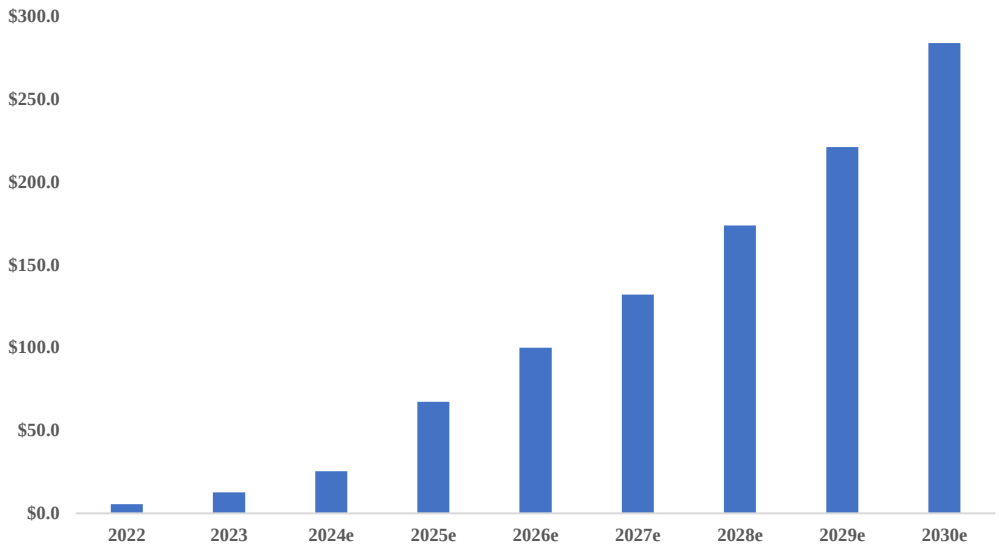

Exhibit 21: Revenue Forecast. Source: Diamond Equity Research

Margin Expansion Driven by Operational Efficiencies and Economies of Scale Benefit: The company generated a gross profit of $5.63 million in 2023 compared to $1.22 million in 2022, representing a growth of 362.10%. This significant growth was driven by growth in revenues as well as material gross margin expansion from 22% in 2022 to 45% in 2023. The company's gross

margins further expanded in Q1 2024 to 56% owing to increased manufacturing scale, improved manufacturing yields, and cost reduction in downstream packaging. Total operating expenses increased 31.8% from $11.83 million in 2022 to $15.59 million in 2023. This increase was contributed by 4.18% growth in general and administrative expenses, 45.97% growth in research and development, and a 48.27% increase in sales and marketing expenditure. While total operating expenses reported a 31.8% increase, the company's revenue more than doubled, resulting in a decrease in operating losses from $10.61 million in 2022 to $9.96 million in 2023. Similar trends were observed in Q1 2024 results, with operating losses decreasing from $2.53 million in Q1 2023 to $1.42 million in Q1 2024. The company's customer churn and cost of acquisition both decreased as well. BioHarvest is focused on further optimizing its e-commerce processes and cost of customer acquisition with an aim to achieve EBITDA profitability by the second half of the current year 2024.

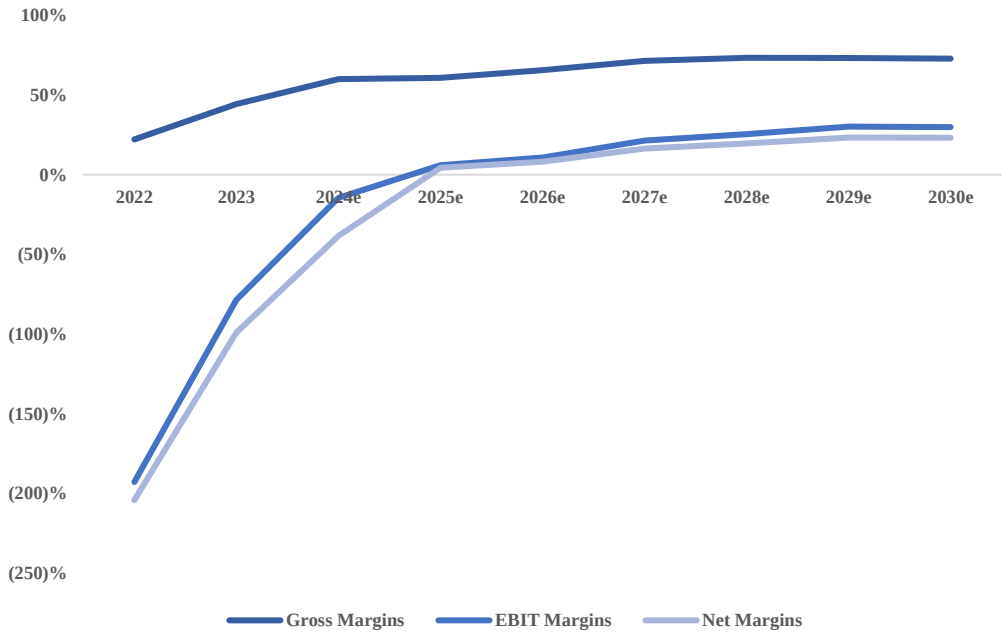

Exhibit 22: Margin Profile. Source: Diamond Equity Research

Balance Sheet Strength: The company concluded the first quarter of the financial year 2024 with cash reserves amounting to $3.44 million. Total operating cash burn during the same period was $1.58 million. At the end of Q2, approximately 93% of the company's convertible notes have been exercised and converted into equity shares. Moreover, we model the company achieving breakeven by the end of 2024 and reporting its first meaningful operating profit and operating cash flow in the first half of 2025, significantly reducing its reliance on external funding sources.

Year-end 31 Dec. (in $'000s)	2022A	2023A	2024E	2025E	2026E
INCOME STATEMENT					
Revenue	$5,498	$12,672	$25,417	$67,313	$99,795
Gross Profit	$1,219	$5,633	$15,250	$41,026	$65,588
EBITDA	($9,900)	($9,126)	($2,523)	$6,094	$13,962
Depreciation & Amortization	($712)	($840)	($1,162)	($2,090)	($3,262)
EBIT	($10,612)	($9,966)	($3,685)	$4,004	$10,700
Interest Income/Expense	($624)	($2,598)	($6,109)	($109)	($44)
Profit Before Tax (PBT)	($11,236)	($12,564)	($9,795)	$3,895	$10,656
Profit After Tax (PAT)	($11,236)	($12,564)	($9,795)	$2,999	$8,205
Basic Shares Outstanding (M)	13.05	13.53	16.24	19.49	23.39
EPS - basic	($0.86)	($0.93)	($0.60)	$0.16	$0.35
BALANCE SHEET					
Cash and cash equivalents	$1,736	$5,355	$17,230	$10,733	$37,873
Other current assets	$2,586	$3,697	$4,236	$8,501	$12,399
Total current assets	$4,322	$9,052	$21,466	$19,234	$50,272
Non-current assets	$5,071	$5,950	$9,871	$21,244	$27,962
Total Assets	**$9,393**	**$15,002**	**$31,337**	**$40,478**	**$78,234**
Short-term borrowing	$8,549	$20,533	$1,437	$1,437	$1,437
Other current liabilities	$2,970	$5,934	$6,606	$11,347	$13,847
Total current liabilities	$11,519	$26,467	$8,043	$12,784	$15,284
Long-term borrowing	$1,670	$1,425	$1,425	$1,425	$1,425
Other non-current liabilities	$2,133	$1,963	$1,963	$1,963	$1,963
Total liabilities	$15,322	$29,855	$11,431	$16,172	$18,672
Total Equity	($5,929)	($14,853)	$19,906	$24,306	$59,562
Total Liabilities & Equity	**$9,393**	**$15,002**	**$31,337**	**$40,478**	**$78,234**

Exhibit 23: Income Statement and Balance Sheet Snapshot. Source: Diamond Equity Research

Valuation

BioHarvest's growth story revolves around its transformative Botanical Synthesis platform technology, which finds applications across multiple health and wellness segments, including nutraceuticals, food & beverages, cosmeceuticals, and pharmaceuticals. This proprietary technology allows the company to grow plant cells in industrial-scale bioreactors, significantly enhancing the levels of targeted phytonutrients and medicinal compounds. The commercial success of its flagship product, VINIA®, emphasizes the efficacy and market potential of this innovative platform technology. VINIA® has set a strong precedent, and the company plans to leverage its technology to develop a range of high-potency, plant-derived compounds for diverse health and wellness applications. BioHarvest's recent strategic extension into the emerging Contract Development and Manufacturing Organization (CDMO) market represents a pivotal move to diversify revenue streams and enhance market presence. This expansion is expected to accelerate the company's growth trajectory by tapping into new demand from pharmaceutical and nutraceutical clients seeking natural and effective solutions. The company's ability to scale its unique technology and penetrate new markets positions it well for substantial revenue growth, potentially providing a clear path to profitability and shareholder value creation. Moreover, the company's potential uplisting from OTC markets to a major exchange like Nasdaq would likely draw more institutional investors, elevate the company's profile, improve liquidity, and provide better access to capital markets, all of which are potential catalysts.

We have valued BioHarvest Sciences using a blended approach, incorporating both a discounted cash flow (DCF) analysis and a comparable company-based sum-of-the-parts (SOTP) approach to arrive at a comprehensive valuation. This methodology captures the intrinsic value based on the company's projected cash flows and growth potential while also considering the market's perspective through the valuation multiples of comparable firms in the nutraceuticals and CDMO industry. For the DCF analysis, we have assumed a discount rate of 12.75% and a long-term growth rate of 1.5%, while for the comparable company-based SOTP approach, we have used an average EV/S multiple. For the DCF analysis, we have assigned a weighting of 75%, while for the SOTP approach, we have assigned a weighting of 25%. This blended approach results in a valuation of $18.00 per share, contingent on the company's successful execution of its strategic plans.

Product Line	2025e Sales	Commercialization	EV/Sales*	SOTP Valuation
Product Business Unit	**$54.54m**		**3.21x**	**$174.97m**
VINIA®	**$26.20m**	**Commercialized**	-	
VINIA® - Hot Beverages	**$12.98m**	**2024**	-	
VINIA® - Hydration	**$10.82m**	**2025**	-	
VINIA® - Skin Care	**$2.43m**	**2025**	-	
Pomegranate Cell Product	**-**	**2026**	-	
Olive Cell Product	**$2.09m**	**2025**	-	
Service Business Unit - CDMO	**$12.77m**	**2025**	**3.57x**	**$45.64m**

Calculated Equity Value ($mm)	
Enterprise Value	$334.26
- Debt and Preferred Stock	$1.44
+ Cash	$7.76
Net Debt	$6.33
Equity Value	**$340.59**

Approaches (in $ mm)	Value (USD)	Weight	Wtd. Value (USD)
DCF	$340.59	75%	$255.44
SOTP	$226.94	25%	$56.74
GTM	-	0%	$0.00
Wtd. Avg. Equity Value (USD)			**$312.17**
No of Diluted Shares Outstanding			**17.33**
Intrinsic Value Per Share			**$18.02**

Company Name	Ticker	Price	Currency	Country	Mrkt Cap.	EV	EV/Sales*
Product Business Comparable							
Church & Dwight Co., Inc.	CHD	106.7	USD	US	26,391	28,458	4.46x
Celsius Holdings, Inc.	CELH	92.6	USD	US	15,341	15,288	6.60x
The Clorox Company	CLX	137.0	USD	US	16,420	19,385	2.63x
Nature's Sunshine Products, Inc.	NATR	15.6	USD	US	289	237	0.49x
ChromaDex Corporation	CDXC	3.5	USD	US	236	212	1.86x
Service Business Comparable							
Thermo Fischer Scientific Inc.	TMO	577.9	USD	US	219,826	248,347	5.57x
Charles River Lab. International Inc.	CRL	214.9	USD	US	10,839	13,657	3.18x
Catalent, Inc.	CTLT	56.0	USD	US	10,100	14,928	3.21x
Ginkgo Bioworks Holdings, Inc.	DNA	0.3	USD	US	708	102	4.90x
Avid Bioservices, Inc.	CDMO	8.2	USD	US	507	672	4.57x

Exhibit 24: Valuation Snapshot. Source: Diamond Equity Research
(Values in $mm except per share data or otherwise stated. Mean valuation multiple is based on 2025e figures) *

Risks Profile

- **Dependency on External Financing:** BioHarvest Sciences has consistently incurred operational losses since its inception, resulting in a significant accumulated deficit. With ongoing negative cash flows from operations and an inability to generate sufficient sales to fund its activities autonomously, the company relies heavily on raising capital from new and existing investors. This financial dependency introduces substantial uncertainty regarding the company's long-term viability and its ability to continue as a going concern without securing further funds or achieving operational profitability.

- **Susceptibility to Global Economic and Geopolitical Uncertainties:** BioHarvest Sciences' operations and financial stability are influenced by global economic conditions and geopolitical events. Issues such as economic recessions, market volatility, and international conflicts could hinder its ability to raise capital and disrupt supply chains or sales. Despite ongoing geopolitical tensions, such as the recent conflict in Israel, the company has managed to continue operations without significant impact but remains vigilant about potential future disruptions.

- **Key Personnel Dependency:** BioHarvest Sciences heavily relies on the expertise and contributions of its key personnel, including its executive team and board members. The absence of "key man" insurance policies for these individuals poses a significant risk. Any loss or unavailability of these crucial team members could disrupt operations and have a material adverse effect on the company’s performance and stock value.

- **Competitive Landscape Risks:** BioHarvest Sciences faces the prospect of intense competition within its industry, where many rivals may possess greater financial resources and more extensive experience in manufacturing, marketing, and industry operations. Potential industry consolidation could further strengthen competitors by creating larger entities with broader geographic reach and enhanced economies of scale. To stay competitive, BioHarvest must continuously invest in research and development, marketing, sales, and client support.

- **Risk of Product Recalls:** BioHarvest Sciences, like any manufacturer and distributor, is susceptible to the risk of product recalls due to defects, contamination, harmful side effects, interactions with other substances, packaging safety issues, or inadequate labeling. A recall could impose substantial unexpected costs and legal challenges, diverting significant management attention. Additionally, such incidents could lead to considerable sales losses, potentially impacting the company's profit margins and overall financial condition if those sales cannot be effectively replaced.

- **Vulnerability to Supply Chain Disruptions:** BioHarvest Sciences' operations heavily depend on critical inputs such as raw materials, suppliers, and essential utilities like electricity and water. Any significant interruptions or adverse changes in the supply chain could severely impact the company's business operations and financial health. Challenges in securing these necessary supplies or negotiating favorable terms could also adversely affect the company's operational efficiency and profitability.

- **Exposure to Foreign Currency Risk:** Operating across multiple countries, BioHarvest Sciences is exposed to foreign exchange risk when engaging in transactions in currencies other than its functional currency. This risk arises when there is a mismatch between the currencies in which costs and revenues are denominated, primarily CAD, US dollars, Euro, and NIS. Fluctuations in these currencies could adversely affect the company's financial results, impacting profitability and operational cost structures.

This list of risk factors is not comprehensive. For a full list, please refer to BioHarvest’s latest prospectus and/or annual filings.

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