Ascendiant CAPITAL MARKETS, LLC

United States
Healthcare

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Guardion Health Sciences, Inc.

Initiating Coverage with BUY and $0.75 Target

Trading below net cash value. We believe operational improvement over the next year will be a positive catalyst for stock.

COVERAGE INITIATION

Rating: BUY

Ticker: GHSI

Price: $0.15

Target: $0.75

Initiating with BUY: We are initiating coverage of Guardion Health Sciences, Inc. with a BUY rating. Guardion is a nutritional supplement company that develops and distributes clinically supported nutrition, medical foods and dietary supplements designed to support healthcare professionals, their patients, and consumers.

Viactiv acquisition providing revenue traction: In June 2021, Guardion acquired the Viactiv line of nutritional supplements from Adare Pharmaceuticals. The acquisition has boosted Guardion's revenue run-rate to the tune of 4-5x, while also given Guardion a strong consumer-facing product line with major distribution at top retailers.

Large market potential: The US nutritional supplement market exceeds $80 billion and continue to grow at 5%+ annually. The calcium chew market where Guardion has the strongest position exceeds $1 billion annually and grows at a 5.5% CAGR.

Guardion's Omega Bite product just introduced significantly expands Guardion's market potential: According to the NCHS, The Omega supplement market exceeds the calcium market by a factor of 27% annually for adults aged 40 and over. In addition, the Viactiv acquisition is synergistic with Guardion's line of medical foods for eye health.

Supply chain issues have been a challenge: Guardion's contract manufacturers have been experiencing labor shortages, causing certain of Guardion's popular products to sell out.

Supply chain issues affect competitors as well: According to our checks, 80% of Guardion's competitor products in the calcium chew supplement space are unavailable on amazon.com as of June 19, 2022, meaning they are experiencing supply-chain issues that are as bad or worse than that of Guardion's Viactiv line. In addition, only Viactiv's Calcium + Immune Product is unavailable online, with all other products currently available. Our conclusion is that Guardion may be in a better position with respect to its supply chain relative to some of its competitors.

Operational milestones can catalyze a stock price appreciation: To the extent that Guardion continues to focus on executing on its core business, we believe the company's financial model could reap the benefit, particularly in the areas of reducing administrative costs, and getting a handle on supply-chain problems. Given the stock's deep discount valuation, we believe upside surprises could have a dramatic effect on the stock.

Guardion is trading at a 35% discount to net cash: Guardion's Book Value is currently $0.45 per share. The company has no debt, and Cash and Short-Term investments per share amount to $0.23. Guardion's current share price of $0.15 represents a 35% discount to net cash: an extremely undemanding valuation.

12-month price target of based on asset value: We calculate a 12-month price target for shares of Guardion of $0.75 based on 1.7x book value, representing 5x upside from the current share price. We believe this valuation appropriately balances out the company's high risks with the company's extremely deep discount.

Company Description

Based in Houston, TX, Guardion Health Sciences is a nutritional supplement company which distributes its products under the Viactiv name through major distribution outlets including Walmart, Target, Amazon, Kroger, and more.

Stock Data

Exchange:	NasdaqCM
52-week Range:	$0.14-1.98
Shares Outstanding (million):	61
Market cap ($million):	$8.6
EV ($million):	($8.2)
Debt ($million):	0
Cash ($million):	$17
Avg. Daily Trading Vol. ($million):	$6
Float (million shares):	60
Short Interest (million shares):	7
Dividend, annual (yield):	$0 (NA%)

Revenues (US$ million)

	2021A (Cur.)	2022E (Cur.)	2023E (Cur.)
Q1 Mar	0.2A	2.4A	2.8E
Q2 Jun	1.2A	2.5E	3.0E
Q3 Sep	3.1A	3.7E	4.4E
Q4 Dec	2.6A	3.1E	3.7E
Total	**7.2A**	**11.7E**	**13.8E**
EV/Revs	(1.1x)	(0.7x)	(0.6x)

Earnings per Share (pro forma)

	2021A (Cur.)	2022E (Cur.)	2023E (Cur.)
Q1 Mar	(0.13)A	(0.07)A	(0.05)E
Q2 Jun	(0.19)A	(0.04)E	(0.04)E
Q3 Sep	(0.12)A	(0.05)E	(0.05)E
Q4 Dec	(0.60)A	(0.05)E	(0.05)E
Total	**(1.04)A**	**(0.21)E**	**(0.19)E**
P/E	N/A	N/A	N/A

**Reflects a 1:6 reverse stock split in March 2022*

For analyst certification and other important disclosures, refer to the Disclosure Section, located at the end of this report, beginning on page 23.

Exhibit 1: Guardion Health Sciences, Inc. Weekly Stock Price Since IPO

Source: https://bigcharts.marketwatch.com/

INVESTMENT THESIS

We are initiating coverage of Guardion Health Sciences, Inc. with a BUY rating and a 12-month price target of $0.75.

Guardion Health Sciences is a nutritional supplement company that develops and distributes clinically supported nutrition, medical foods, and dietary supplements designed to support healthcare professionals, their patients, and consumers. We view Guardion as an exciting turn-around story with significant progress already made under the leadership of CEO, Bret Scholtes, who joined the company at the beginning of 2021. Key initiatives undertaken by the company in the past 18 months include the acquisition of the Viactiv line of supplements, as well as the winding down of legacy Nutriguard and VectorVision businesses. The result is a dramatically higher revenue run-rate, greater focus on core opportunities, and a better platform for growth and profitability going forward.

Acquisition strategy. As stated in Guardion's year-end letter to shareholders, the company is regularly seeking opportunities to utilize mergers and acquisitions to advance the company's business strategy and provide immediate opportunities to rapidly scale its business. Targets that would advance Guardion's business strategy and focus include companies with an established brand presence, growing revenues, strong distribution channels, profitable sales, commercialized products which complement Guardion's product portfolio, and products that present strong growth opportunities and unique science or technology profiles.

Viactiv acquisition. In June 2021, Guardion purchased Viactiv Nutritional, LLC from Adare Pharmaceuticals, Inc., for $26 million in cash, making Guardion the owner and distributor of the Viactiv® line of dietary supplements for bone health, immune health and other applications. This acquisition fundamentally changed the profile of Guardion, giving the company a 4-5x higher revenue run-rate, and much stronger retail shelf-space.

Viactiv products. In addition to being backed by clinical studies, Guardion's products also seek to deliver the best possible consumer experience, i.e., optimize taste and eliminate undesirable ingredients, aftertaste, etc. The Viactiv line of products has an established brand presence built over 20 years and physical distribution at Walmart, Target, McKesson, Kroger, and CVS, as well as online distribution at Amazon.com and directly through the company's website. Key products in the Viactiv line include:

- Calcium Chews for bone strengthening containing Calcium, Vitamin D, and Vitamin K (available in Caramel, and Chocolate Flavors)
- Calcium + Immune supplements containing Calcium, Vitamin D, and Zinc (available in Orange Cream flavor)
- Omega Boost chews containing 720mg DHA and 295mg EPA (available in Passion Fruit flavor, newly introduced)

Guardion refers to its core psychographic user base as 'life enthusiasts'. Historically, the Viactiv brand has appealed heavily to women looking for delicious taste in a calcium supplement. The company notes that over 50 million Americans over the age of 55 have osteoporosis or low bone mass.

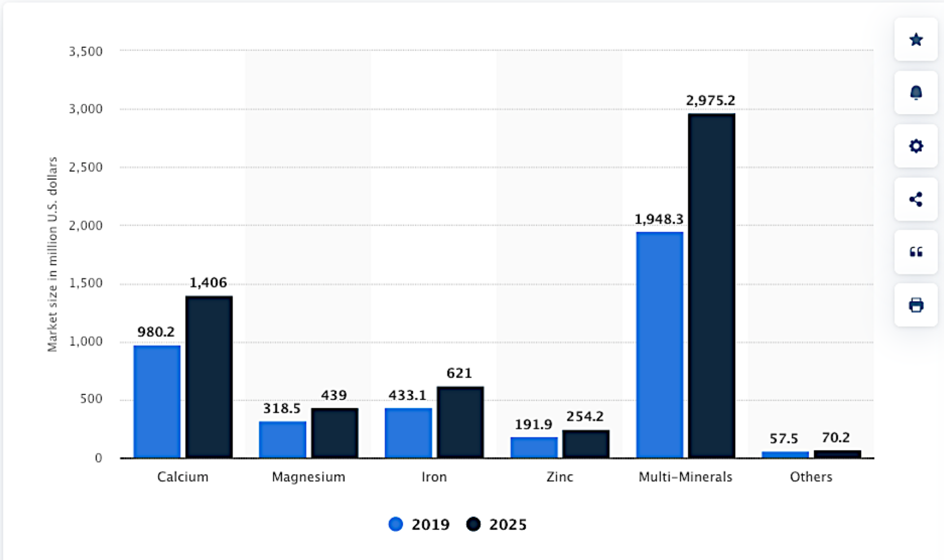
Exhibit 2: Global Nutritional Supplement Market

Source: Company Documents.

US nutritional supplement market. For the moment, Guardion's primary focus in on the US market. According to Grand View Research, the overall US nutritional supplement market reached $88 billion in 2021 and is projected to grow at a 5.5% CAGR to $110 billion by 2026. According to Statista, the Calcium segment, where Guardion has highest exposure, is worth over $1 billon, and should grow to $1.4 billon by 2025. Omega 3 supplements, which Guardion has recently entered, comprise an even larger component, at over $1.6 billon and growing at a 7.8% CAGR.

Exhibit 3: Market Size of Mineral Supplements in North America in 2019 and 2025 by Mineral

(in million U.S. dollars)

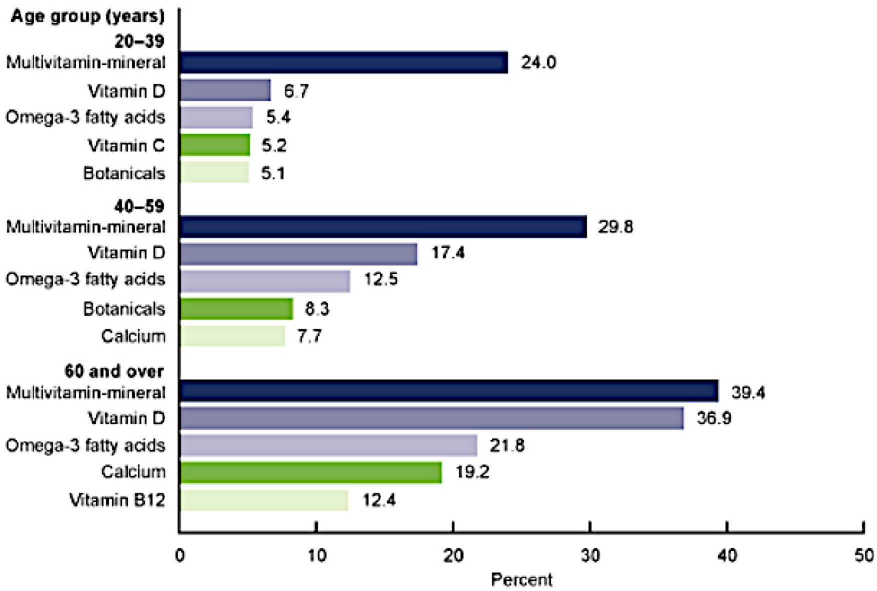


Source: Statista.

Medical foods for eye health. The FDA defines a medical food as “a food which is formulated to be consumed or administered under the supervision of a physician and which is intended for the specific dietary management of a disease or condition for which distinctive nutritional requirements, based on recognized scientific principles, are established by medical evaluation.” This is distinct from a “drug”, which is defined as “an article that is intended for use in the cure, treatment, prevention or mitigation of a disease.” The distinction is important because drugs are subject to considerable additional regulation. In addition to its purchase of Viactiv, Guardion has also independently developed two formulations of medical food designed to support and restore ocular health. These are:

> **Lumega-Z.** Lumega-Z® provides a clinically proven, proactive approach to protecting the macula through high-quality carotenoids, antioxidants, and anti-inflammatory nutrients. The product is for people with risk factors for Age-related Macular Degeneration (AMD), such as a family history, smoking, aging eyes, or early signs of drusen.
>
> **GlaucoCetin.** Glaucocetin® was developed in collaboration with Dr. Robert Ritch, a world-renowned glaucoma specialist from New York Eye and Ear Infirmary of Mount Sinai in New York City, to provide antioxidants and anti-inflammatories that can reduce oxidative stress and increase blood flow for eye support and ocular health.

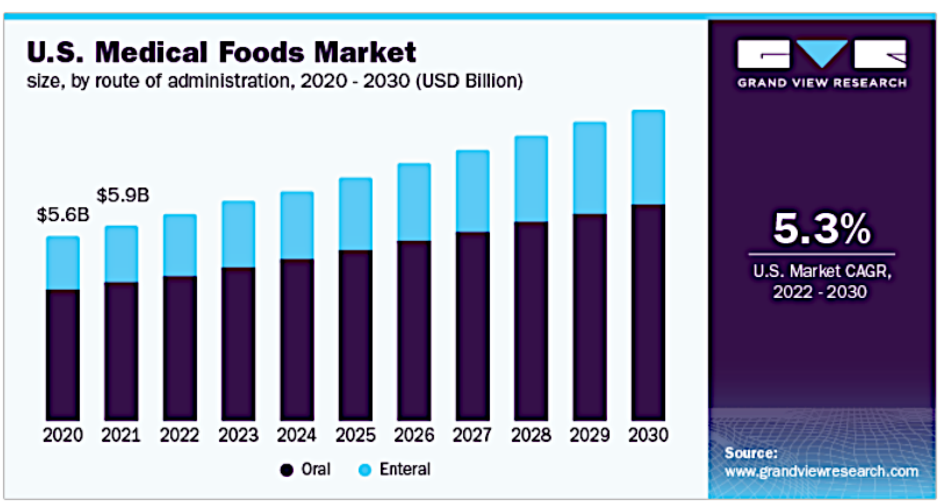
Exhibit 4: Most Common Types of Dietary Supplements Used by Adults in the US, 2017-2018



Source: National Center for Health Statistics.

How big is the market for medical foods? The market for medical foods in the US is estimated to top $6 billion, with major categories including formulations designed to manage diabetes, obesity, and depression. Key drivers of demand in this market include an aging population, as well as a rising preference for non-drug alternatives to managing disease and addressing nutritional deficits.

Exhibit 5: US Medical Foods Market



Source: Grand View Research.

How many people have macular degeneration? According to the National Institute of Health, 1.8 million Americans have Age-Related Macular Degeneration (AMD), and 7 million have the precursor condition, Drusen. The market for AMD drug therapies is a multi-billion dollar market growing at a rapid clip, due to aging populations.

Platform for new product launches. Key to Guardion's growth strategy is the broadening of its product portfolio, leveraging its existing brands and distribution traction. As an example, the company launched its Omega Boost product under the Viactiv brand less than a year after purchasing the Viactiv portfolio. We expect to see further new product launches helping to drive revenue growth for Guardion going forward.

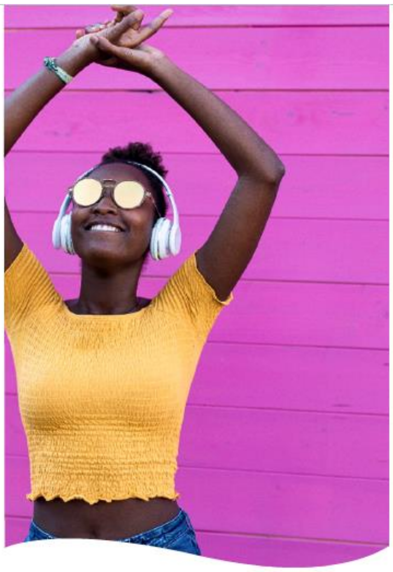
Exhibit 6: Viactiv Omega Boost Gel Bites

Source: Company Documents.

Nutriguard brand discontinued. Guardion had marketed a brand of dietary supplement products under the NutriGuard brand, which it acquired in 2019, but decided to stop marketing the brand after acquiring the Viactiv line of supplements in June of 2021. ImmuneSF, a proprietary nutraceutical formulation designed to support and maintain an effective immune system was the first product developed after the acquisition of NutriGuard. While the company still intends to build a portfolio of nutraceutical products, it plans to launch such products under the Viactiv brand rather than the NutriGuard brand.

VectorVision, CSV-1000 and CSV-2000 wound down. In September 2017, Guardion acquired VectorVision, Inc., a company that specialized in the standardization of contrast sensitivity, glare sensitivity, low contrast acuity, and early treatment diabetic retinopathy study visual acuity testing. In December 2021, management decided to wind down the day-to-day operations of VectorVision to reduce costs, while exploring ways to exploit the company's intellectual property rights, including U.S. patents, associated with the VectorVision technology. The goal was to better focus its efforts and deploy capital to more growth-oriented brands and product lines, like Viactiv, and other products in development, that it hopes to bring to market in 2022.

Exhibit 7: Guardion Health Sciences, Inc. Investment Highlights



Highlights

- Well-positioned to compete in the **large and growing global nutrition market** with differentiated and established product portfolio focused on bone, ocular, and immune health
- Well defined **value creation process** focused on clinical evidence, product development and targeted marketing
- **Science-based mindset** that leverages clinical evidence to support our product portfolio
- Viactiv is an established, 20-year-old **brand with strong consumer awareness** and acceptance
- **Established distribution** with many largest retailers and eCommerce channels
- Products focused on **consumer experience and efficacy** that drive differentiation
- Promising **organic growth potential** via product development and increased commercialization
- **Proven and capable leadership**

GUARDION HEALTH SCIENCES

Source: Company Documents

Reiterating our positive view of Guardion's Positioning. With its acquisition of Viactiv, Guardion is well positioned to compete in the large and growing nutritional supplement industry. It has strong brands and strong distribution, as well as a strong platform for new product introduction. Guardion's products leverage clinical science and also target consumer efficacy to drive competitive differentiation. Guardion's leadership has demonstrated the ability to develop and introduce strong new products which have the potential to drive organic growth.

INVESTMENT RISKS

Risks Related to the company's Business. Guardion has incurred losses since its inception in 2009. The company had a net loss of $25 million for the year ended December 31, 2021, and a net loss of $8.6 million for the year ended December 31, 2020. We note that the current management under Bret Scholtes has made significant improvement, relative to previous management. This can be seen in the top-line revenues, and the strategic acquisition of Viactiv, which greatly expands the company's product line, strengthens its distribution profile, and provides a platform for new product launches.

The future success of the company's business is largely dependent upon the successful commercialization of its products. If the company is unable to establish and maintain adequate sales, marketing and distribution capabilities or enter into or maintain agreements with third parties to do so, it may be unable to successfully commercialize its products. Establishing and maintaining sales, marketing, and distribution capabilities is expensive and time-consuming. Such expenses may be disproportionate compared to the revenues the company may be able to generate from sales. If this occurs, it will have an adverse impact on the company's operations and its ability to fund future development and commercialization efforts.

High level of competition. Though the market for nutritional supplements is large, competing brands are numerous, and many are backed by large companies with substantially greater resources for R&D, manufacturing, and marketing. For example, a recent survey of chewable Calcium supplements in the US market identified over 600 products on the market. (Source: https://www.findthisbest.com/best-calcium-supplements/chewable). Fortunately, Viactiv appeared near the top of this list (#7) with its Calcium + Immune product. Still, fierce competition in the space is likely to exert pressure on prices and market share, making it a challenge for Guardion to continue growing its footprint.

Supply Chain Constraints. Like many companies, Guardion has been experiencing supply chain constraints due to the COVID-19 pandemic. These constraints began in the fourth quarter of 2021 and have continued into 2022. In specific, Guardion has been impacted by labor shortages at a key supplier which manufacturers Viactiv products for the company. These constraints have impacted Guardion's ability to obtain inventory to fulfill customer orders for some Viactiv branded products and subject the company to out-of-stock fees at certain retailers in the event that the company is unable to adequately maintain inventory levels of Viactiv products with these retailers. Although the company expects these supply chain challenges to continue through approximately the third quarter of 2022, they have begun to see some improvement in the inventory production cycle.

Note, according to our checks, 80% of Guardion's competitor products in the calcium chew supplement space are unavailable on amazon.com as of June 19, 2022, meaning they are experiencing supply-chain issues that are as bad or worse than that of Guardion's Viactiv line. In addition, only Viactiv's Calcium + Immune Product is unavailable online, with all other products currently available. **Our conclusion is that Guardion may be in a better position with respect to its supply chain relative to some of its competitors.**

Cost Inflation. The company has stated that it and its suppliers are experiencing broad-based inflation of manufacturing and distribution costs as well as transportation challenges, partially because of the pandemic, and they expect input cost inflation to continue at least throughout 2022. They are monitoring cost structures and are evaluating whether any such costs can be passed on to customers, taking into account the overall impact of increasing inflation and interest rate pressures on consumers.

Acquisition related risks. The company is regularly engaged in acquisition discussions with other companies and anticipates that one or more potential acquisition opportunities may become available in the future. Acquisitions involve a number of risks, including the risk that the acquired business will fail to achieve expected results, potential leverage and dilution from additional financing required to acquire, management challenges relating to the integration of new systems, products, and technology, and potential impact on personnel, customers, distributors, vendors, etc. In addition, the company faces fierce competition for acquisition candidates, which may put upward pressure on acquisition prices.

Access to Funding. Guardion currently has cash and short-term investments of $17 million on its balance sheet with no debt. Its cash burn rate is approximately $2.3 million per quarter, giving it comfortable runway for operations. That being said, the company may seek additional financing to support its acquisition-led growth strategy, in which case investors could be subjected to further dilution in the case of equity or convertible offerings. In the case of debt financings, the business could incur extra expenses, as well as sign covenants which could restrict its ability to maneuver. Finally, if the company finds itself needing cash for operations in a period of dry credit conditions, it could compromise the business, and present significant risk to equity investors.

Product liability risks. Like any consumer product maker, Guardion faces a risk of product liability exposure related to the use of its products. If a lawsuit arises and the company cannot successfully defend itself against claims that its products caused injuries, the company could incur substantial liabilities. We note that the nature of Guardion's product portfolio (primarily vitamin and mineral supplements, as well as medical foods formulated with natural ingredients) is non-toxic in by nature and supported by clinical science.

Patent litigation risks. As a health sciences company, the company's products may come into competition with products in the medical foods and related industries, such as pharmaceuticals, biologics or dietary supplements. The company currently relies upon and expects to continue to rely upon patents, trade secrets, know-how, continuing technological innovations and licensing opportunities to develop and maintain its competitive position. The company may find it necessary to initiate claims to defend its intellectual property rights as a result.

Nasdaq De-Listing Notice. On January 25, 2022, the company received a notice from the Nasdaq Stock Market that the company has not been in compliance with the minimum bid price requirement of $1.00 per share for a period of 30 consecutive business days. If the company does not regain compliance during the compliance period ending July 25, 2022, the company may request that Nasdaq grant the company a second 180 calendar day period to regain compliance. If the company does not qualify for the second compliance period or fails to regain compliance during the second 180-day period, then Nasdaq will notify the company of its determination to delist the company's common stock, at which point the company will have an opportunity to appeal the delisting determination to a Hearings Panel.

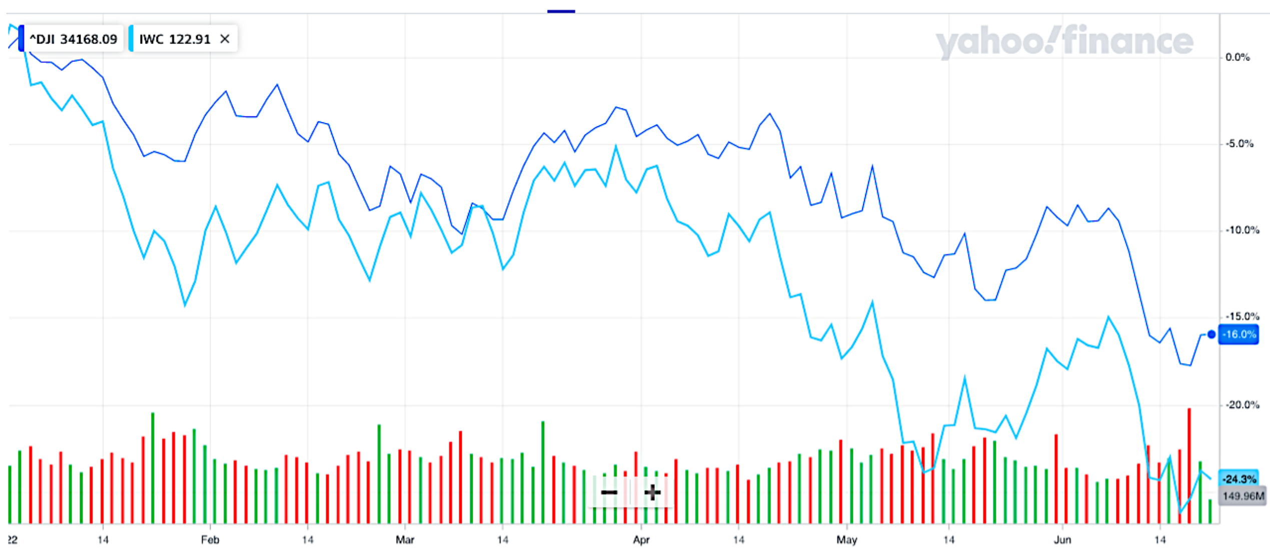
Reverse Stock Splits. On March 1, 2022, the company executed a 1 for 6 Reverse Stock Split in part to address the risk of de-listing, and also to make the stock more attractive to institutional investors. On June 16, 2022 the company asked its shareholders to approve a proposal to give the board the authority to again implement a Reverse Stock Split of up to 1 to 30 at the board's discretion. As the measure was not approved, the company is considering scheduling a special meeting of stockholders to reconsider the Reverse Stock Split proposal and will provide information to its stockholders, when available.

Further M&A activity could provide additional risk and additional reward. Management has reiterated its clear intention to pursue mergers and acquisitions activity when strategic to do so, much as it has with Viactiv. Whether or not the company is able to find suitable targets at suitable prices and arrange suitable financing are unknowns. In addition, further acquisitions would bring integration and management risk. However, acquisitions could also provide the company with more scale, additional revenues, a more diversified product portfolio, new distribution relationships, and potential talent. If a potential acquisition were perceived as accretive and strategic, this could provide a significant catalyst for the stock.

VALUATION

Stock is currently trading at a 35% discount to net cash. Guardion's Book Value is currently $0.45 per share. The company has no debt, and Cash per share is $0.23. While much of the stock's weakness can be attributed to equity dilution from financings, as well as ongoing operating losses in its core business, arguably some of the weakness is also a function of the recent market downturn, which has hit microcap stocks disproportionately hard. As an example, the Dow Jones is down 16% YTD, while the iShares Microcap ETF is down 24% over the same period. With Guardion's stock recently trading at $0.15 per share, investors are getting the company for a 35% discount to net cash, and a 67% discount to Book Value. We note that our price target of $0.75 represents 1.7x book, and is less than half of the stock's 52-week high of $1.98.

Exhibit 8: Dow Jones vs Microcaps 2022 YTD



Source: Yahoo Finance.

Initiating coverage at a price target of $0.75. Our price target of $0.75 per share represents just 1.7x Book Value and a 5x return from current levels. Significantly, we believe that in order to achieve our price target, management need only execute on 'the basics' of managing its business, in particular marketing its products, managing inventory, resolving supply chain issues, and reducing structural costs, particularly G&A. Given the inherent potential of the Viactiv acquisition and the operating leverage in the financial company's model, it has the opportunity to grow towards profitability. Its current liquidity position of $17 million in cash and short-term investments gives it plenty of runway to do so, and incremental improvements in its margin structure are likely to be rewarded by the market, given the current deep discount.

COMPANY

Guardion Health Sciences, based in Houston, TX, is a nutritional supplement company that develops and distributes clinically supported nutrition, medical foods and dietary supplements designed to support healthcare professionals, their patients, and consumers.

Viactiv Acquisition Was Strategic for Guardion. In June 2021, the company acquired Viactiv Nutritional, LLC from Adare Pharmaceuticals, Inc for $26 million in cash. The acquisition and integration of the Viactiv line of products has materially changed the company's financial position, market profile and brand focus, and has also expanded its search for additional business opportunities in the short-term, both internal and external. As a result, neither its operations nor financial results for the three months ended March 31, 2022 are comparable to three months ended March 31, 2021. Additionally, the company believes the Viactiv acquisition added other valuable attributes that will help it achieve its goals, including (1) Viactiv's brand awareness and acceptance from the consumer; (2) experienced management; (3) established distribution networks and relationships; (4) product development potential; and (5) a long track record of revenue growth and profitability. More on each of these factors below:

1. **Brand awareness** – Viactiv was initially launched by industry leaders Mead Johnson/Johnson & Johnson approximately twenty years ago, and the company believes this history, along with the product's marketing campaigns, taste profile and receipt of consistently positive consumer reviews, have led to strong consumer awareness and acceptance.
2. **Experienced management** – As part of the Viactiv acquisition, the company appointed Craig Sheehan as its Chief Commercial Officer. Mr. Sheehan was the senior executive responsible for the Viactiv brand as a member of the executive leadership team of Adare.
3. **Established distribution** – Viactiv's products are currently marketed through many of the nation's largest retailers, including, among others, Walmart (retail and online), Target, CVS and Amazon.
4. **Product development and distribution synergies.** The Viactiv brand and distribution created a good platform for the company's Omega Boost Gel Bite introduction, and the new product has expanded Guardion's product portfolio, while also expanding the total addressable market for Viactiv. The company has also expanded its sales channels for Viactiv by launching a direct-to-consumer website. This new channel offers Viactiv customers an additional channel to purchase the company's products, but it also provides customers with more customized offers and information. The company believes it can leverage the established distribution channels and marketing experience that Viactiv enjoys to its other products, with the aim of accelerating revenue growth for those other products.
5. **Track record of profitability**. Viactiv generated net revenues of approximately $12 million and operating income of approximately $1.2 million in 2020, prior to the acquisition. For the seven-month period from June 1, 2021 through December 31, 2021, when Guardion owned the business, revenues were $6.4 million, accounting for 90% of Guardion's total revenue for the year ended December 31, 2021. For the year ended December 31, 2021, on a pro forma basis, Guardion's total revenues would have been approximately $13 million and the Viactiv products would have accounted for 94% of pro forma revenues for the year.

Launch of Direct-to-Consumer Online Store for Viactiv Products. During January 2022, the company launched a Shopify store for its Viactiv line of products. The new e-commerce venue offers Viactiv customers the option of shopping via retail outlets (e.g., grocery, pharmacy, etc.) or online through those same retail websites or directly through our new branded website.

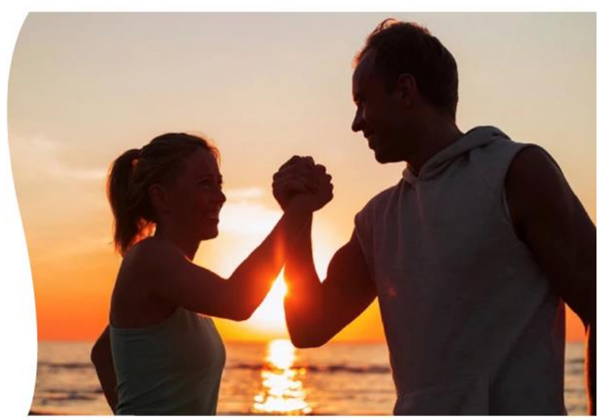
Launch of Viactiv® Omega Boost Gel Bites. Guardion recently launched Viactiv® Omega Boost Gel Bites, the first expansion of the Viactiv brand since the Guardion acquisition in June 2021. The 1,200 mg Omega-3 gel bites are designed to provide total body support, including cardiovascular, brain, joint and eye health. The new dosage form is able to provide the potency of large, hard-to-swallow soft gels, in a great tasting chewable format that has ten times more Omega-3 than the leading fish oil gummies. The gel bite dosage form has been shown to have better absorption and fewer digestive issues than regular soft gel formulas, as well as no unpleasant fishy aftertaste and no sugar, which can all be associated with certain other Omega-3 products. The Omega Boost Gel Bite also represents an expansion of the Viactiv brand beyond calcium products.

VectorVision, CSV-1000 and CSV-2000 wound down. In September 2017, Guardion acquired VectorVision, Inc., a company that specialized in the standardization of contrast sensitivity, glare sensitivity, low contrast acuity, and early treatment diabetic retinopathy study visual acuity testing. VectorVision developed, manufactured, and sold equipment and supplies for standardized vision testing for use by eye doctors in clinics, for researchers to use in clinical trials, for real-world vision evaluation, and industrial vision testing. In December 2021, management decided to wind down the day-to-day operations of VectorVision in order to reduce costs, while exploring ways to exploit the company's intellectual property rights, including U.S. patents, associated with the VectorVision technology. The goal was to better focus its efforts and deploy capital to more growth-oriented brands and product lines, like Viactiv, and other products in development, that it hopes to bring to market in 2022.

Exhibit 9: Guardion's Strategic Priorities

Strategic Priorities – Driving Growth and Creating Value

- **Brand Strategy** – by improving the management of our brand portfolio particularly, by leveraging Viactiv's strong consumer awareness and acceptance
- **Product Strategy** – continuing develop new products that increase our product breadth as well as critically evaluating our current product portfolio in order to improve or discontinue certain products. We are focused on differentiated formulations, product taste, compelling product formats, strong science and competitive cost structures.
- **Sales Channels** – increasing product commercialization through better access to sales channels and leveraging our collective experience, particularly from the Viactiv product distribution.
- **Clinical Nutrition Strategy** – continuing to advance clinical evidence regarding our products, working with suppliers to leverage innovation and increasing awareness of our products and efforts with the healthcare community



GUARDION® HEALTH SCIENCES

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Source: Company Documents.

Guardion's Strategic Priorities. Guardion's biggest strategic priorities are to:

Demonstrate Commercial Success. In particular, the company is focused on growing sales of its existing Viactiv product portfolio, growing sales of new products introduced in 2022 and positioning the other clinical nutrition products to maximize results. The launch of the new Omega Boost Gel Bite added a key product to the company's portfolio. Guardion is also working with its manufacturing partners to begin rebuilding inventories which are required to grow sales of its calcium chew products. **Lack of inventory is currently the biggest impediment to the company's ability to grow sales of its calcium products, so inventory rebuilding remains a prime area of focus.** The company also communicated a price increase to its retail partners that it expects to be implemented in the second and third quarters of 2022.

Strengthen the company's Commercial Engine. To Guardion, this means executing simultaneously several initiatives, including expanding its distribution within its sales channels, strengthening the Viactiv brand, building its innovation pipeline and strengthening its management team. In the first quarter of 2022, the company launched its Viactiv direct to consumer capability to expand distribution of its products. It also advanced its new product development pipeline and took steps to strengthen the Viactiv brand.

Strengthen the Company's Clinical Nutrition Strategy. Initiatives in this area include advancing clinical evidence around the company's existing and future products, partnering with specialty manufacturers and suppliers to leverage innovations, and increasing awareness of its products within the healthcare community. In the first quarter of 2022, the company worked with research partners to advance existing clinical work on its GlaucoCetin product, and advanced plans for clinical work on new products.

Improve Distribution. The company intends to improve its sales channels by increasing product commercialization through better access to sales channels and by leveraging collective experience, particularly from the Viactiv product distribution, to increase the distribution of all of its products.

Expand product portfolio. The company intends to enhance its product strategy by continuing to develop new products that increase its product breadth, like the Omega Boost Gel Bites. It will also continue to critically evaluate its current product portfolio in order to improve or discontinue certain of its existing products. The company is focused on differentiated formulations, product taste, compelling product formats, and competitive cost structures.

Exhibit 10: Viactiv Distribution Outlets

Source: Company Reports.

Strengthen Brand. The company intends to improve its brand strategy by improving the management and exploitation of its brand portfolio. In particular, by leveraging Viactiv's strong consumer awareness and acceptance.

Exhibit 11: Viactiv Branded Products

Source: Company Documents

Product Offerings

Viactiv calcium soft chews. Guardion's product profile and focus fundamentally changed with the acquisition of Viactiv in June 202. In 2021, sales of the Viactiv line of supplements represented approximately 90% of consolidated net sales. The Viactiv line of supplements contains several flavored nutritional supplement products, but the milk chocolate and caramel flavored calcium chews constitute the main product category. Viactiv was first introduced to the market over 20 years ago as a calcium-fortified soft chew intended to deliver clinical nutrition to women in a way that is enjoyable to taste and easy to consume. Since the original chocolatey-chew, multiple chews have been introduced, each delivering nutrition to help consumers maintain health goals, such as strong bones and immune support. Viactiv is regulated in the U.S. as a dietary supplement.

Exhibit 12: Guardion Focus on Consumer Experience

Source: Company Documents

Medical foods for eye health. Guardion also sells Lumega-Z, a medical food product designed to replenish and restore the macular protective pigment, simultaneously delivering critical and essential nutrients to the eye. The current formulation has been delivered to patients and used in clinics since 2019. As a medical food, Lumega-Z must be administered under the supervision of a physician or professional healthcare provider. Guardion uses a variety of marketing strategies to increase awareness of Lumega-Z among ophthalmologists and optometrists. The company also markets Lumega-Z through direct-to-consumer strategies such as social media and paid search advertising.

Clinical support for Lumega-Z. In 2020, two peer-review scientific articles were published demonstrating the beneficial efficacy of Lumega-Z®. Both articles were published in the journal *Nutrients*. The first published study assessed the level of absorption of the carotenoids in Lumega-Z compared to absorption of the carotenoids in the industry leading eye vitamin, PreserVisionTM (AREDS 2 formula sold by Bausch and Lomb), and determined whether an elevated level of carotenoid absorption leads to increased macular pigment optical density ("MPOD"). The study found that despite only a 2.3-fold higher carotenoid concentration than PreserVisionTM, Lumega-Z supplementation provides approximately 3–4-fold higher absorption, which leads to a significant elevation of MPOD levels.

The second study evaluated the visual benefits in a group of patients taking Lumega-Z compared to a group of patients taking AREDS 2 (PreserVisionTM) soft gel supplements, as well as a third control group that were ocular normals taking no supplements. Each study participant had retinal drusen, delayed dark adaptation recovery time and was at risk of developing vision loss from age-related macular degeneration ("AMD"). The results showed significant improvements in visual function, as measured by contrast sensitivity, in the group of patients taking Lumega-Z. The patients taking PreserVisionTM showed a trend toward an improvement, but no statistical change, while the control group showed no change.

Glaucoma formula. GlaucoCetin, also currently considered a medical food, offers a formula that is designed to support proper mitochondrial function in the optic nerve cells in glaucoma patients. Loss of optic nerve cells is thought to be the primary cause of vision loss in glaucoma patients. Like Lumega-Z, Guardion markets GlaucoCetin through direct-to-consumer strategies such as social media and paid search advertising. The company also uses a variety of marketing strategies to increase awareness of GlaucoCetin among ophthalmologists and optometrists.

Both Lumega-Z and GlaucoCetin are distributed through the company's online store at www.guardionhealth.com, and the company intends to expand E-commerce capabilities in 2022.

Business Strategy

The company believes that developing new products, growing its established distribution and cost effectively marketing its products are the keys to growing its business. The company has several innovation initiatives underway that are aimed at increasing the number of new products in its product portfolio and expanding its total addressable market, and its plan to grow its established distribution network. The company's current network includes many of the nation's largest retailers, including, among others, Walmart (retail and online), Target, CVS and Amazon. The company is also focused on its direct-to-consumer website. Guardion is working to add additional retailers that sell its products and adding new sales channels. The company is also focused on marketing initiatives that strengthen its brand and target consumers who would benefit most from its specific products. The company also intends to explore the acquisition of other companies, product lines and intellectual property rights that may be complementary or supplementary as part of its efforts to expand its business.

Team. Led by Bret Scholtes, Guardion has a top-tier team of seasoned business leaders. The team has experience in Nutritional Supplements, Medical Education, Supplement Marketing, Finance, Marketing Strategy, Medicine, Healthtech, Strategic Planning, and more.

Exhibit 13: Guardion Senior Leadership Team

Source: Company Documents.

Sales. Viactiv has traditionally sold the majority of its products through traditional retailers via third party brokers. The company has continued to utilize these brokers to sell the Viactiv products to retailers rather than employing an internal sales force. Online retailers have represented a smaller portion of sales, but play an important role in the company's eCommerce strategy. In addition, Guardion sells a limited amount of Viactiv products directly to consumers via its website and plans to invest in this channel to grow sales. While the footprint of its direct-to-consumer channel is currently small, the company expects this channel to play an important role in its new product launches and growth. Furthermore, the company is evaluating its medical food product portfolio in order to determine whether it would be advantageous to fold those products into the Viactiv brand of supplements and utilize those distribution channels.

Marketing – Digital. Guardion utilizes digital marketing for the majority of its marketing expenditures and believes that such methods have been among the most cost-effective way to market its products.

Marketing – Practitioners. Healthcare practitioners are important stakeholders for Guardion's products, especially Lumega-Z and GlaucoCetin. The company has deemphasized its direct sales approach involving sales representatives in favor of a more cost-effective approach to increase the awareness of its products with health care practitioners. This approach is designed to increase marketing reach through a combination of collaboration with industry-specific publishers, peer-to-peer promotion using key opinion leader clinicians, organic and paid search engine optimization and marketing, and other content-driven and educational approaches.

Domestic vs International Expansion. Guardion is primarily focused on expanding its business domestically rather than internationally. The acquisition of Viactiv in 2021 shifted the company's strategic focus towards the Viactiv line of supplements, which has historically focused on domestic markets. As a result, the domestic markets allow the company to leverage Viactiv's strong consumer brand awareness, distribution networks and key third party vendors relationships.

Although the company has deemphasized international expansion, it maintains relationships that it hopes will lead to increased distribution of its existing products and proprietary nutritional formulations in Asian markets. In March 2020, Guardion received its first order for a novel immune support product from a Malaysian company. The order was valued at $890,000 and could herald similar opportunities in the future.

Manufacturing Sources and Availability of Raw Materials. Guardion outsources the manufacturing of its medical food and dietary supplement product line to contract manufacturers. The company believes that there are alternative sources, suppliers and manufacturers available for its products in the event of a termination or a disagreement with any current vendor.

Government Regulation

Dietary Supplement Regulation. The US Food and Drug Administration (FDA) has primary jurisdiction for the regulation of dietary supplements. The FDA regulates dietary supplements, such as Viactiv chews, as "dietary supplements" under the Federal Food, Drug, and Cosmetic Act ("FDCA") as a distinct, sub-category of "food."

Dietary supplements do not require approval from the FDA before they are marketed. Except in the case of a "new dietary ingredient," where pre-market review for safety data and other information is required by law, a firm is not required to provide the FDA with the evidence it relies on to substantiate safety or effectiveness before marketing a supplement product.

Companies are responsible for determining that the dietary supplements they manufacture or distribute are safe, and that any representations or claims made about them are substantiated by adequate evidence to show that the claims are not false or misleading. The Federal Trade Commission ("FTC") has the primary responsibility to regulate the advertising of foods, including dietary supplements. In practice, the FDA and FTC share jurisdiction over promotional practices and monitor the promotion and advertising of dietary supplements in multiple media forms, including TV, radio, social media (e.g., Facebook, Twitter), and the internet.

Medical Foods Regulation. The FDA is primarily responsible for regulating medical foods. A medical food is defined under the FDCA as a "food which is formulated to be consumed or administered enterally under the supervision of a physician and which is intended for the specific dietary management of a disease or condition for which distinctive nutritional requirements, based on recognized scientific principles, are established by medical evaluation." Medical foods do not require approval or review by the FDA prior to marketing. However, a company must have data to demonstrate that the formula, when taken as directed, meets the distinctive nutritional requirements of the particular disease or condition.

Guardion currently considers its Lumega-Z and GlaucoCetin products to be medical foods. Like any evolving area, especially where no premarket approval is required, the FDA reserves the right to raise questions about the qualification of products within any category. If the FDA were to disagree and consider Guardion's medical foods to be "drugs" under the FDCA, the company and its products would be subject to considerable additional FDA regulation.

The FTC has the primary responsibility to regulate the advertising of foods. Under the FTC Act, all advertising claims, both express and implied, must be truthful, non-misleading, and substantiated. Enforcement by the regulators is post-market, mostly via FDA inspections of food manufacturing facilities, including packaging, distribution facilities, and fulfillment houses. The FDA and FTC also gathers material at trade shows and conferences and review company websites and social media accounts.

FINANCIALS

First quarter results continue to show impacts from the Viactiv acquisition. On May 12, 2022, Guardion reported its financial results for the first quarter ended March 31, 2022. Highlights were as follows:

- Total revenues were $2.3 million for the three months ended March 31, 2022, as compared to $233,297 for the three months ended March 31, 2021.
- Gross profit was $1.1 million for the three months ended March 31, 2022, as compared to $100,282 for the three months ended March 31, 2021.
- Loss from operations was $(2.6 million) for the three months ended March 31, 2022, as compared to $(2.6 million) for the three months ended March 31, 2021.
- Basic and diluted net loss per share for the three months ended March 31, 2022 was $(0.07), as compared to $(0.13) for the three months ended March 31, 2021, based on 39,150,882 weighted average common shares outstanding for the first quarter of 2022, as compared to 21,351,380 weighted average common shares outstanding for the first quarter of 2021.
- Net cash used in operations was $(2.2 million) for the three months ended March 31, 2022, as compared to $(2.4 million) for the three months ended March 31, 2021.
- As of March 31, 2022, the company had cash and short-term investments of $17 million and working capital of $19 million.

Exhibit 14: Guardion Health Sciences, LLC Q1 2022 earnings and forward estimates

	2021A (Cur.)	2022E (Cur.)	2023E (Cur.)
Q1 Mar	(0.13)A	(0.07)A	(0.05)E
Q2 Jun	(0.19)A	(0.04)E	(0.04)E
Q3 Sep	(0.12)A	(0.05)E	(0.05)E
Q4 Dec	(0.60)A	(0.05)E	(0.05)E
Total	**(1.04)A**	**(0.21)E**	**(0.19)E**
P/E	N/A	N/A	N/A

Reflects a 1:6 reverse stock split in March 2022

Source: Company Reports, Ascendiant Capital Markets Estimates

The comparisons to the three months ended March 31, 2021 demonstrate the dramatic impact that Guardion's June 1, 2021 acquisition of Viactiv line of supplement chews has had on the company's operations. In a nutshell, revenues and gross profit have risen an order of magnitude while losses from operations have stayed the same.

Exhibit 15: Guardion Health Sciences Annual Historical and Projected Financial Metrics

FYE December ($ mils)	2019	2020	2021	2022	2023
Fiscal Year End: December 31	FY-A	FY-A	FY-A	FY-E	FY-E
Total revenue	0.90	1.89	7.23	11.70	13.81
Loss from operations	(10.34)	(8.55)	(24.75)	(11.00)	(11.80)
Net loss	(10.72)	(8.57)	(24.75)	(10.99)	(11.80)
EPS	(1.79)	(0.60)	(1.04)	(0.21)	(0.19)
Net cash used in operating activitie	(6.03)	(8.01)	(10.64)	(11.13)	(12.24)

Source: Company Reports, Ascendiant Capital Markets Estimates

Initiating Estimates. We are initiating estimates of ($0.04) for Q2 2022 and ($0.05) for Q3 2022 on revenues of $2.5 million and $3.7 million, respectively. This puts us close to consensus, which is at ($0.05) for Q2 2022 and ($0.04) for Q3 2022 on revenues of $2.7 million and $3.6 million.

On an annual basis, we are initiating estimates of ($0.21) for FY2022 and ($0.19) for FY2023 on revenues of $11.7 million and $14 million, respectively. Consensus estimates call for EPS of ($0.21) on revenues of $12.3 million for FY2022 and EPS of ($0.18) on revenues of $14.5 million for FY2023.

Exhibit 16: GHSI Consensus Expectations

	Revenue (in millions) 2022E	2023E		EPS 2022E	2023E
Q1 Mar	$2.4A		Q1 Mar	$(0.07)A	
Q2 Jun	$2.7E		Q2 Jun	$(0.05)E	
Q3 Sep	$3.6E		Q3 Sep	$(0.04)E	
Q4 Dec			Q4 Dec		
Total	$12.3E	$14.5E	Total	$(0.21)E	$(0.18)E

**Quarterly estimates may not add to annual estimates due to variations in contributing estimates and rounding.*

Source: Company report, Refinitiv, and Ascendiant Capital Markets estimates

Sales estimates driven by seasonality. Regarding our forecasts, we note that the company has not provided any guidance, and therefore our estimates are prone to significant surprises, both on the upside and on the downside. The topline of our forecast is driven by seasonality, noting that the company's Q3 2021 was significantly stronger than Q4 2021. Prior comparisons are essentially meaningless, given there was no Viactiv business before June 2021.

Cost structure provides operating leverage. Regarding the company's margin structure, we further note that there is significant scope for financial improvement by reducing operating expenses, in particular G&A. As an example, G&A expenses in the first quarter of 2022 were $3 million, more than revenues of $2.4 million, and 3x gross profit of $1 million. We see this as an opportunity for the company: by cutting costs and/or growing revenues faster than G&A, significant progress towards profitability could be attainable even without the introduction of new products and/or acquisitions.

Guardion's next scheduled earnings call (for Q2 2022 ending June) is expected to be on or near August 15.

Exhibit 17: Guardion Health Sciences Financial Metrics

Exchange:	NasdaqCM
52-week Range:	$0.14-1.98
Shares Outstanding (million):	61
Market cap ($million):	$8.6
EV ($million):	($8.2)
Debt ($million):	0
Cash ($million):	$17
Avg. Daily Trading Vol. ($million):	$6
Float (million shares):	60
Short Interest (million shares):	7
Dividend, annual (yield):	$0 (NA%)

Source: Company Reports, Yahoo Finance, Ascendiant Capital Markets Estimates

Financial Model

Guardion Health Sciences Inc

Income Statement ($ mils) Fiscal Year End: December 31	2019 FY-A	2020 FY-A	Mar-21 Q1A	Jun-21 Q2A	Sep-21 Q3A	Dec-21 Q4A	2021 FY-A	Mar-22 Q1A	Jun-22 Q2E	Sep-22 Q3E	Dec-22 Q4E	2022 FY-E	Mar-23 Q1E	Jun-23 Q2E	Sep-23 Q3E	Dec-23 Q4E	2023 FY-E
Total revenue	**0.9**	**1.9**	**0.2**	**1.2**	**3.1**	**2.6**	**7.2**	**2.4**	**2.5**	**3.7**	**3.1**	**11.7**	**2.8**	**3.0**	**4.4**	**3.7**	**13.8**
Total cost of goods sold	0.2	1.9	0.1	0.7	1.8	1.6	4.1	1.3	1.4	2.0	1.8	6.5	1.5	1.6	2.3	2.1	7.4
Gross profit (loss)	0.7	(0.1)	0.1	0.6	1.4	1.1	3.1	1.1	1.2	1.7	1.3	5.2	1.3	1.4	2.1	1.6	6.4
Operating expenses																	
Research and development	0.2	0.2	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1
Sales and marketing	1.9	1.5	0.5	0.4	0.8	0.6	2.3	0.7	0.5	0.9	0.7	2.8	0.7	0.6	1.0	0.8	3.2
General and administrative	7.4	7.5	2.3	2.5	3.3	3.1	11.2	3.0	2.9	3.8	3.5	13.3	3.4	3.3	4.2	4.0	14.9
Other	1.6	(0.6)	0.0	2.1	0.3	11.8	14.3	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1
Total operating expenses	11.1	8.5	2.8	5.1	4.4	15.6	27.9	3.7	3.5	4.7	4.3	16.2	4.2	3.9	5.3	4.8	18.2
Loss from operations	(10.3)	(8.6)	(2.7)	(4.5)	(3.0)	(14.5)	(24.7)	(2.6)	(2.3)	(3.0)	(3.0)	(11.0)	(2.8)	(2.5)	(3.2)	(3.2)	(11.8)
Other income (expense)																	
Interest income (expense)	(0.3)	(0.0)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other income (expense)	(0.1)	(0.0)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Income before taxes	(10.7)	(8.6)	(2.7)	(4.5)	(3.0)	(14.5)	(24.7)	(2.6)	(2.3)	(3.0)	(3.0)	(11.0)	(2.8)	(2.5)	(3.2)	(3.2)	(11.8)
Taxes	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net loss	(10.7)	(8.6)	(2.7)	(4.5)	(3.0)	(14.5)	(24.7)	(2.6)	(2.3)	(3.0)	(3.0)	(11.0)	(2.8)	(2.5)	(3.2)	(3.2)	(11.8)
Nonrecurring/noncash adjustments	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net income (pro forma)	(10.7)	(8.6)	(2.7)	(4.5)	(3.0)	(14.5)	(24.7)	(2.6)	(2.3)	(3.0)	(3.0)	(11.0)	(2.8)	(2.5)	(3.2)	(3.2)	(11.8)
EBITDA	(9.9)	(8.5)	(2.6)	(4.4)	(2.7)	(14.2)	(24.0)	(2.3)	(2.3)	(3.0)	(3.0)	(10.7)	(2.8)	(2.5)	(3.2)	(3.2)	(11.8)
Weighted average common shares outs	6.1	14.3	21.4	24.4	24.4	23.7	23.7	39.2	61.4	61.4	61.4	55.8	61.4	61.4	61.4	61.4	61.4
Shares, Diluted	6.1	14.3	21.4	24.4	24.4	23.7	23.7	39.2	61.4	61.4	61.4	55.8	61.4	61.4	61.4	61.4	61.4
EPS Basic (pro forma)	(1.79)	(0.60)	(0.13)	(0.19)	(0.12)	(0.60)	(1.04)	(0.07)	(0.04)	(0.05)	(0.05)	(0.21)	(0.05)	(0.04)	(0.05)	(0.05)	(0.19)
EPS Diluted (pro forma)	**(1.79)**	**(0.60)**	**(0.13)**	**(0.19)**	**(0.12)**	**(0.60)**	**(1.04)**	**(0.07)**	**(0.04)**	**(0.05)**	**(0.05)**	**(0.21)**	**(0.05)**	**(0.04)**	**(0.05)**	**(0.05)**	**(0.19)**
Margins																	
Gross margin	79%	-3%	43%	46%	44%	40%	43%	46%	46%	46%	42%	45%	47%	47%	47%	43%	46%
Research and development	22%	9%	9%	1%	1%	0%	1%	0%	1%	1%	0%	0%	0%	1%	0%	0%	0%
General and administrative	822%	394%	982%	207%	105%	117%	155%	127%	117%	102%	114%	113%	120%	111%	97%	108%	108%
Operating margin	-1145%	-453%	-1144%	-371%	-96%	-553%	-342%	-110%	-93%	-82%	-97%	-94%	-100%	-84%	-74%	-89%	-85%
Tax rate, GAAP	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Net margin	-1188%	-454%	-1144%	-371%	-96%	-553%	-342%	-110%	-93%	-82%	-97%	-94%	-100%	-84%	-74%	-89%	-85%
Y/Y % change																	
Revenue		109%	-5%	3%	1144%	1214%	283%	922%	105%	18%	18%	62%	18%	18%	18%	18%	18%
COGS		945%	22%	3%	1443%	45%	112%	868%	103%	15%	15%	57%	15%	15%	15%	15%	15%
Gross Profit		-108%	-27%	2%	898%	-221%	-5577%	993%	106%	22%	22%	68%	22%	22%	22%	22%	22%
Research and development		-17%	-34%	-62%	-52%	-79%	-60%	-68%	15%	15%	15%	-11%	15%	15%	15%	15%	15%
Sales and marketing		-23%	-6%	-15%	365%	136%	60%	46%	15%	15%	15%	21%	12%	12%	12%	12%	12%
General and administrative		0%	17%	48%	59%	80%	50%	32%	15%	15%	15%	18%	12%	12%	12%	12%	12%
Total operating expenses		-23%	12%	306%	92%	529%	228%	34%	-32%	7%	-72%	-42%	12%	12%	12%	12%	12%
Operating Income		-17%	14%	541%	40%	333%	189%	-2%	-49%	1%	-79%	-56%	8%	7%	7%	8%	7%
Net income		-20%	14%	542%	41%	330%	189%	-2%	-49%	1%	-79%	-56%	8%	7%	7%	8%	7%
EPS		-66%	-28%	280%	-20%	173%	73%	-46%	-80%	-59%	-92%	-80%	-34%	7%	7%	8%	-7%

Source: Company reports , Ascendiant Capital Markets estimates

Guardion Health Sciences Inc

Balance Sheet ($ mils) Fiscal Year End: December 31	Dec-19 Q4A	Dec-20 Q4A	Mar-21 Q1	Jun-21 Q2	Sep-21 Q3	Dec-21 Q4A	Mar-22 Q1A	Jun-22 Q2E	Sep-22 Q3E	Dec-22 Q4E	Mar-23 Q1E	Jun-23 Q2E	Sep-23 Q3E	Dec-23 Q4E
Current assets														
Cash	11.1	8.5	43.3	5.5	3.6	4.1	4.8	2.4	(1.6)	(4.1)	(6.7)	(9.3)	(13.7)	(16.3)
Short-term investments	0.0	0.0	0.0	7.0	7.0	5.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
Accounts receivable, net	0.1	0.0	0.1	1.9	2.3	1.4	2.2	2.3	3.4	2.9	2.6	2.7	4.0	3.4
Inventories, net	0.3	0.4	0.3	1.0	0.8	0.4	0.8	0.9	1.3	1.1	0.9	1.0	1.5	1.3
Prepaid expenses and other assets	0.4	0.2	0.3	1.2	1.2	1.2	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
Total current assets	**11.9**	**9.1**	**44.0**	**16.5**	**14.9**	**12.1**	**20.6**	**18.3**	**15.9**	**12.6**	**9.5**	**7.1**	**4.6**	**1.1**
Property and equipment, net	0.4	0.3	0.3	0.2	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Intangible assets, net	0.1	0.1	0.1	11.9	11.6	11.3	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0
Operating lease right-of-use asset, net	0.6	0.4	0.4	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Deposits	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Goodwill	0.0	0.0	0.0	12.0	11.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prepaid Expenses	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total assets	**12.9**	**9.9**	**44.7**	**41.3**	**38.6**	**23.5**	**31.6**	**29.4**	**26.9**	**23.7**	**20.6**	**18.2**	**15.6**	**12.1**
Liabilities and Stockholders' Equity														
Current liabilities														
Accounts payable	0.1	0.6	0.2	0.8	1.2	0.2	1.1	1.2	1.8	1.6	1.3	1.4	2.1	1.8
Accrued expenses	0.1	0.1	0.5	0.9	0.5	0.9	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
Operating lease liability - current	0.2	0.2	0.2	0.2	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Payable to former officer	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Warrant liability	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total current liabilities	**0.4**	**1.1**	**1.0**	**1.8**	**2.0**	**1.2**	**1.8**	**1.9**	**2.5**	**2.3**	**2.0**	**2.1**	**2.8**	**2.5**
Operating lease liability – long-term	0.4	0.3	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total liabilities	**0.8**	**1.3**	**1.2**	**2.0**	**2.0**	**1.2**	**1.8**	**1.9**	**2.5**	**2.3**	**2.0**	**2.1**	**2.8**	**2.5**
Stockholders' Equity														
Preferred stock	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Common stock	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Additional paid-in capital	57.5	62.6	100.2	100.5	100.9	101.1	111.2	111.2	111.2	111.2	111.2	111.2	111.2	111.2
Accumulated deficit	(45.5)	(54.1)	(56.7)	(61.3)	(64.3)	(78.8)	(81.4)	(83.7)	(86.8)	(89.8)	(92.6)	(95.1)	(98.3)	(101.6)
Total stockholders' equity	**12.0**	**8.5**	**43.5**	**39.3**	**36.6**	**22.3**	**29.8**	**27.5**	**24.4**	**21.4**	**18.6**	**16.1**	**12.9**	**9.6**
Total liabilities and stockholders' equity	**12.9**	**9.9**	**44.7**	**41.3**	**38.6**	**23.5**	**31.6**	**29.4**	**26.9**	**23.7**	**20.6**	**18.2**	**15.6**	**12.1**

Balance Sheet Drivers

	Dec-19 Q4A	Dec-20 Q4A	Dec-21 Q4A	Mar-22 Q1A	Jun-22 Q2E	Sep-22 Q3E	Dec-22 Q4E	Mar-23 Q1E	Jun-23 Q2E	Sep-23 Q3E	Dec-23 Q4E
Book & Cash Value (per share)											
Book Value per Share (diluted)	1.98	0.60	0.94	0.76	0.45	0.40	0.35	0.30	0.26	0.21	0.16
Cash per Share (diluted)	1.83	0.60	0.38	0.43	0.23	0.17	0.13	0.09	0.04	(0.03)	(0.07)
Net cash per Share (diluted)	1.83	0.60	0.38	0.43	0.23	0.17	0.13	0.09	0.04	(0.03)	(0.07)

Source: Company reports, Ascendiant Capital Markets estimates

Guardion Health Sciences Inc

Cash Flow Statement ($ mils)	2019	2020	2021	Mar-22	Jun-22	Sep-22	Dec-22	2022	Mar-23	Jun-23	Sep-23	Dec-23	2023
Fiscal Year End: December 31	**FY-A**	**FY-A**	**FY-A**	**Q1A**	**Q2E**	**Q3E**	**Q4E**	**FY-E**	**Q1E**	**Q2E**	**Q3E**	**Q4E**	**FY-E**
Cash flow from operating activities													
Net loss	**(10.9)**	**(8.6)**	**(24.7)**	**(2.6)**	**(2.3)**	**(3.0)**	**(3.0)**	**(11.0)**	**(2.8)**	**(2.5)**	**(3.2)**	**(3.2)**	**(11.8)**
Adjustments:													
Depreciation and amortization	0.5	0.1	0.8	0.3	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0
Goodwill impairment	1.6	0.0	11.9	0.0				0.0					
Loss on lease termination, net	0.0	0.0	0.1	0.0				0.0					
Impairment loss on equipment	0.0	0.0	0.0	0.0				0.0					
Loss on disposal of property and equipme	0.0	0.0	0.2	0.0				0.0					
Loss on sale of equipment	0.0	0.0	0.0	0.0				0.0					
Allowance for accounts receivable	0.3	0.0	0.0	0.0				0.0					
Inventory write-down	0.0	1.0	0.2	0.0				0.0					
Amortization of operating lease right of u	0.1	0.2	0.1	0.0				0.0					
Fair value of vested stock options	0.4	0.5	0.6	0.1				0.1					
Fair value of common stock issued for se	0.4	0.0	0.7	0.1				0.1					
Reversal of previously recognized stock c	2.3	(0.9)	0.0	0.0				0.0					
Change in fair value of derivative liability	(0.3)	0.0	0.0	0.0				0.0					
WC changes								0.0					
Accounts receivable	(0.1)	0.1	0.4	(0.8)	(0.1)	(1.1)	0.6	(1.4)	0.3	(0.1)	(1.3)	0.7	(0.5)
Inventories	0.0	(0.7)	0.5	(0.5)	(0.0)	(0.4)	0.1	(0.8)	0.2	(0.0)	(0.5)	0.2	(0.2)
Prepaid expenses and other	(0.3)	(0.1)	(1.0)	0.5	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0
Accounts payable	(0.0)	0.5	(0.7)	0.9	0.1	0.6	(0.2)	1.4	(0.3)	0.1	0.7	(0.2)	0.2
Accrued expenses	0.0	0.0	0.8	(0.2)	0.0	0.0	0.0	(0.2)	0.0	0.0	0.0	0.0	0.0
Operating lease liability	(0.1)	(0.2)	(0.2)	(0.0)	0.0	0.0	0.0	(0.0)	0.0	0.0	0.0	0.0	0.0
Payable to former officer	0.0	0.1	(0.1)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net cash used in operating activities	**(6.0)**	**(8.0)**	**(10.6)**	**(2.2)**	**(2.4)**	**(4.0)**	**(2.5)**	**(11.1)**	**(2.6)**	**(2.6)**	**(4.4)**	**(2.6)**	**(12.2)**
Investing Activities													
Purchase of property and equipment	(0.2)	(0.0)	(0.1)	(0.0)	0.0	0.0	0.0	(0.0)	0.0	0.0	0.0	0.0	0.0
Purchase of U.S. Treasury Bills	0.0	0.0	(71.0)	(22.0)				(22.0)					
Sale of U.S. Treasury Bills	0.0	0.0	66.0	15.0				15.0					
Cash paid for acquisition, net of cash acqu	0.0	0.0	(25.9)	0.0				0.0					
Net cash used in investing activities	**(0.2)**	**(0.0)**	**(31.0)**	**(7.0)**	**0.0**	**0.0**	**0.0**	**(7.0)**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Financing Activities													
Proceeds from initial public offering	3.9	0.0	0.0	0.0				0.0					
Proceeds from follow-on public offerings	12.3	0.0	0.0	0.0				0.0					
Proceeds from issuance of convertible no	0.3	0.0	0.0	0.0				0.0					
Proceeds from issuance of promissory no	0.1	0.0	0.0	0.0				0.0					
Payments on promissory note	(0.1)	0.0	0.0	0.0				0.0					
Proceeds from sale of common stock, net	0.0	0.0	33.7	8.8	0.0	0.0	0.0	8.8	0.0	0.0	0.0	0.0	0.0
Proceeds from exercise of warrants	0.2	5.5	3.6	1.1				1.1					
Net cash provided by financing activities	**16.6**	**5.5**	**37.2**	**10.0**	**0.0**	**0.0**	**0.0**	**10.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Net cash increase (decrease)	**10.4**	**(2.6)**	**(4.4)**	**0.7**	**(2.4)**	**(4.0)**	**(2.5)**	**(8.2)**	**(2.6)**	**(2.6)**	**(4.4)**	**(2.6)**	**(12.2)**
Cash balance at beginning of period	0.7	11.1	8.5	4.1	4.8	2.4	(1.6)	4.1	(4.1)	(6.7)	(9.3)	(13.7)	(4.1)
Cash balance at end of period	**11.1**	**8.5**	**4.1**	**4.8**	**2.4**	**(1.6)**	**(4.1)**	**(4.1)**	**(6.7)**	**(9.3)**	**(13.7)**	**(16.3)**	**(16.3)**

Source: Company reports, Ascendiant Capital Markets estimates

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Guardion Health Sciences, Inc.

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Total	42	100%	15	36%

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