Trickle Research

Every raging river, every great lake, every deep blue sea starts … with a trickle

Research Update and Target Decrease

Sonoma Pharmaceuticals, Inc.

(NASDAQ: SNOA)

Report Date: 07/15/24

12- 24 month Price Target: *$1.10

Allocation: 4

Closing Stock Price at Initiation (Closing Px: 05/11/23): $1.03

Closing Stock Price at This Target Decrease (Closing Px: 07/15/24): $.39

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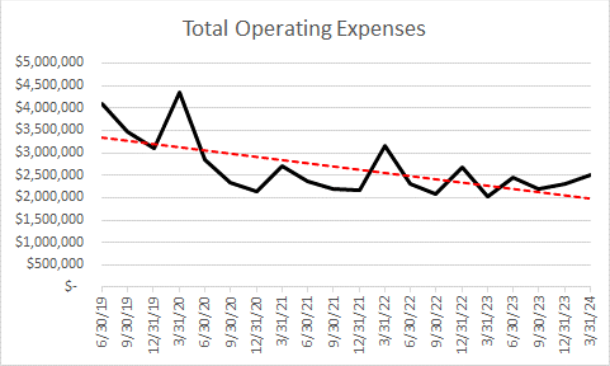
Disclosure: Portions of this report are excerpted from Sonoma's filings, website(s), presentations or other public collateral. We have attempted to identify those excerpts by *italicizing* them in the text.

Since our initiation of Sonoma a little over a year ago, the Company has reported a handful of results that have largely underperformed our initial modeling, however, those same results have also largely performed in line with subsequent models. To be clear, we often note along the way that much of our research is done on companies where revenue visibility is difficult, and our goal therein is to learn along the way and "manage" that visibility through the things we learn until that visibility improves. That said, there are some insights we have gathered about Sanoma in that regard that may be helpful.

In retrospect, we are not sure we took the right approach in evaluating Sonoma's opportunities. To edify, our original assumption was that Sonoma would be able to largely take existing sku's and add distributors in new countries around the globe and essentially grow the business on a relatively linear path.

In addition, management has spent much of the past three years refocusing the business, which has included trying to shed expenses:

Table 1.



In short, we viewed the combination of those two factors; steady, moderate sequential revenue growth with lower absolute operating expenses, as a favorable combination. That said, we submit, the "*steady, moderate sequential revenue growth*", is the part that has been elusive. To be clear, as with many companies, the pandemic created some long tail operating results. Unlike most, as **Tabel 2** below reflects, the pandemic was a boon for Sonoma, given the effectiveness of their product(s) to mitigate viruses including Covid. Coming out of the pandemic, the business "normalized" as the interest around everything anti-viral waned, which is reflected in **Table 3**. Again, while the trendline since the waning of the pandemic has been positive, it was below our initial modeling.

Table 2.

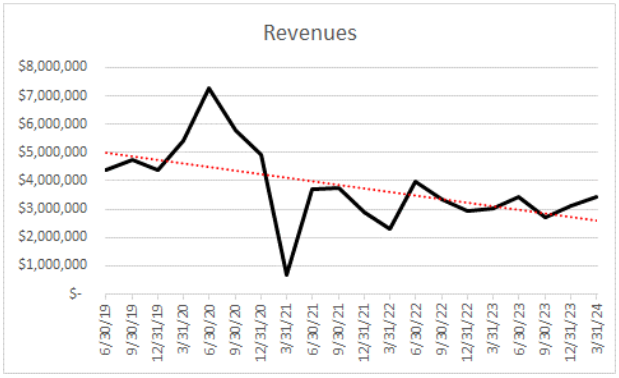
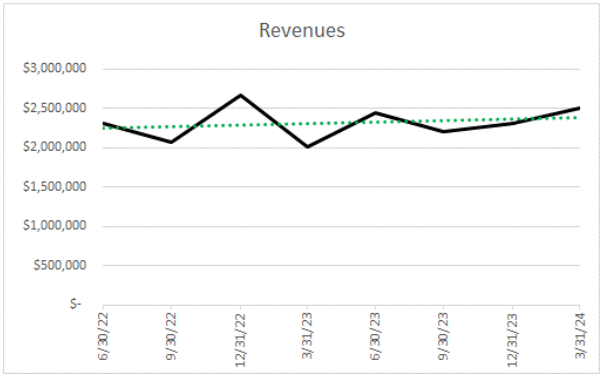


Table 3.



As we alluded to above, we are not sure we have framed the Sonoma opportunity properly, or at least in a way that reflects what may be their most likely path to measurable success. In short, while we remain on board with the Company's approach of continuing to block and tackle their way to growth by adding new products and new distributors in new countries/jurisdictions, our discussions with management have provided some insights around new sku's that we have found constructive. To clarify, *we* define a "new sku" as a product existing or new, that gets picked up by a new distributor, which typically means in a new territory. From a high level, we think there are scenarios that could unfold where new sku's could provide outsized contributions to the whole. Here are a few examples.

In July 2023, Sonoma launched "*a new application for intraoperative pulse lavage irrigation treatment, which can replace commonly used IV bags in a variety of surgical procedures*". This announcement applied to the introduction of the product in the European Union, but it was introduced in the U.S a few months later in November 2023. While we submit, the Company has many sku's it sells around the globe, as we see it, these applications are the first that address a large *commercial* (hospital) market. For perspective, there are a wide array of surgeries that often require irrigation, with two of the more prominent being orthopedic and trauma surgeries. Industry data indicates that there are approximately 7 million orthopedic surgeries and 6 million trauma related surgeries performed in the U.S. each year. Worldwide, industry estimates suggest that orthopedic surgeries alone will reach 28 million procedures per year.

Generally, the irrigation related to these procedures is performed with the use of saline. However, Microcyn® provides marked anti-microbial advantages over saline, which we believe could provide Sonoma with an opening into the surgery market. For instance, from (unfortunate) personal experience, many saline irrigation surgeries are performed in joint trauma settings simply to prevent infection even prior to the determination of or eventual repair of the impacted joint(s). In those cases, the sole purpose of those surgeries is to try to mitigate infection, which is sometimes unsuccessful which can lead to a cascade of other problems. While we recognize there is currently no visibility in terms of how successful Sonoma might be in cracking the U.S. and/or EU hospital/surgery irrigation markets, we are comfortable suggesting that Microcyn® likely represents a superior alternative to saline. If they can translate that into even a small portion of the irrigation market, the impact for Sanoma could be marked. Again, we believe this represents their first shot at a commercial market that in our view the Company has not historically been able to approach in earnest.

In January (2024), the Company introduced (in the U.S.) a new *"direct to consumers for over-the-counter"* product called Lumacyn™ Clarifying Mist. Lumacyn™ is *"an anti-inflammatory and antibacterial spray that calms irritated skin using Sonoma's patented stabilized hypochlorous acid. As a daily use toner, Lumacyn is specially formulated to soothe the skin, reduce redness and irritation, and manage blemishes by reducing infection. Lumacyn is all-natural, pH balanced, free of fragrances and additives, and safe for all ages and skin types".* In our view, this is important from multiple perspectives.

As we noted above, as we see it, the Company's irrigation product represents their initial foray into the commercial/hospital space, however, we think Lumacyn™ also represents a new approach for the Company in terms of their efforts to develop new markets. To edify, those who are familiar with some of Sonoma's products will likely recognize that Lumacyn™ is perhaps the first true *direct to consumer* product they have developed. We think the fact that they referred to the product in their announcement as a "direct to consumer" product suggests the same, as does the packaging, which is clearly more marketing oriented than any of their other products we have seen.

A it turned out, Lumacyn's™ launch happened to coincide with an event that we believe could prove serendipitous for Sonoma:

> *NEW HAVEN, CT - March 6, 2024 - Valisure, a pioneer in independent quality assurance for pharmaceuticals, has conducted extensive testing, detailed in a Petition linked below, revealing that benzene, a known human carcinogen, can form at high levels in Benzoyl Peroxide ("BPO") acne treatment products. Benzoyl Peroxide is considered a drug product regulated by the Food and Drug Administration ("FDA"). Results from Valisure's tests show that on-market BPO products can form over 800 times the conditionally restricted FDA concentration limit of 2 parts per million (ppm) for benzene, and the current evidence suggests that this problem applies broadly to BPO products currently on the market. High levels of benzene were not only detected inside BPO products, but also in the air around incubated BPO products, showing that benzene can leak out of some product packages and pose a potential inhalation risk. Incubation of a Proactiv® product at the temperature of a hot car (70°C) resulted in the detection of benzene in a compact car's volume of air at ~1,270 times the Environmental Protection Agency's ("EPA") calculated threshold for increased cancer risk by long-term inhalation exposure to benzene.*
>
> *Valisure's tests on dozens of prescription and over-the-counter benzoyl peroxide products suggest that currently formulated BPO medications are fundamentally unstable and can generate unacceptably high levels of benzene when handled or stored at higher temperatures that the products may be exposed to during handling by consumers. Benzene can be produced in the product itself and potentially escape into the surrounding air. Therefore, Valisure is requesting an investigation and market withdrawal of BPO-containing products.* https://www.valisure.com/valisure-newsroom/valisure-detects-benzene-in-benzoyl-peroxide

Benzoyl Peroxide is the primary active ingredient in many acne and/or skin treatments including Proactiv, Clearasil, Clinique, CeraVe, and several others including branded products from large retailers. As the excerpt notes, this release is now a few months old, and as near as we can tell, there has been no official response from the FDA regarding the matter, although we suspect there will be additional follow up on the issue. Further, there is clear concern regarding the issue among dermatology associations or other industry related groups, and ultimately the issue has the potential to create litigation and other related problems for manufactures utilizing the product. Simply put, we do not know where this is going, but what we do know is that HOCL is a safe and effective treatment for acne and is gentle on the skin. We submit, Lumacyn™ has a formidable task trying to take market share from the large, entrenched companies that dominate the $30 billion U.S skin care market. However, black swan variables such as the benzoyl peroxide issue raised above, could provide Sonoma with openings that may prove advantageous. Again, if Lumacyn™ could carve out a very small piece of this market via concerns over legacy product or otherwise, the result could be quite meaningful for Samona.

As a final example, for some time now, the Company has marketed a surface disinfectant outside of the U.S. We believe that product is applicable to both commercial enterprises (hospitals, restaurants etc.) as well as consumer markets. As the excerpt below reflects, the Company has had EPA approval to market the product in the U.S. :

> *BOULDER, CO / ACCESSWIRE / March 2, 2023 / Sonoma Pharmaceuticals, Inc. (Nasdaq:SNOA), a global healthcare leader developing and producing patented Microcyn® technology-based stabilized hypochlorous acid (HOCl) products for a wide range of applications, including wound, eye, oral and nasal care, dermatological conditions and disinfectant use, and its partner, the MicroSafe Group DMCC, are excited to announce that Nanocyn® hospital-grade disinfectant has received additional claims from the U.S. Environmental Protection Agency (EPA) for effective use against Methicillin Resistant Staphylococcus Aureus (MRSA), Salmonella, Norovirus, Poliovirus,*

and as a fungicide. Moreover, Nanocyn® has also received the esteemed Green Seal® Certification after surpassing a series of rigorous standards that measure environmental health, sustainability and product performance.

The additional claims add Nanocyn® to the EPA's List G, Antimicrobial Products Registered with the EPA for Claims Against Norovirus (Feline calicivirus), and List H, Registered Antimicrobial Products with Label Claims Against MRSA and/or Vancomycin-resistant Enterococcus faecalis/faecium (VRE). MRSA is a type of bacteria that is resistant to several antibiotics and can cause pneumonia and other infections. Athletes, daycare and school students, military personnel in barracks, and those who receive inpatient medical care or have surgery or medical devices inserted in their body are at higher risk of MRSA infection.

Nanocyn® hospital-grade disinfectant was approved by the EPA for use as a disinfectant on hard non-porous surfaces in April 2022 and was subsequently listed on the EPA's List N, Disinfectants for Coronavirus (COVID-19), and List Q, Disinfectants for Emerging Viral Pathogens, including Ebola virus, Mpox virus, and SARS-CoV-2 and variants, for use at sites that include but are not limited to hospitals and other medical areas, cruise ships, gyms, food preparation areas and veterinary and animal housing environments.

There are a handful of cogent issues with this product and the associated announcement that we think are important to recognize. First, as we understand it, the U.S. distributor the Company partnered with to market the product paid for much of the EPA approval process. That (as we also understand it) is a typical approach for the Sonoma. That is, in many instances the Company is approached by potential distributors who would like to develop a specific product around the Company's HOCL process (a surface disinfectant for instance). In those cases, the distributor will often pay for the appropriate studies and associated approvals necessary to commercialize the product. We believe that was the case with the U.S disinfectant product noted above, and the EPA approval and Green Seal® Certification. That brings us to the second point.

We have addressed the pace of the commercialization of the surface disinfectant product with the Company in terms of why it is yet to be sold in the U.S. Apparently, despite these approvals and certifications the state of California has yet to release their approval of the product, which ostensibly is related to the methodical pace at which California regulators approve such things. I do not think we are being particularly provocative by suggesting that regulatory approvals of everything in California requires more time and rigor than most other places on the planet. That said, given the size of the California market, and the additional complexity around for instance being able to market it in some places in the U.S. but not others, the distributor has made the decision to wait for those approvals/certifications as well, before it begins marketing the product. That brings us to our third point.

We (and we suspect others following the Company) get a bit impatient with the pace of some of the marketing of their products. In that regard, it is important to recognize that the Company's approach of using distributors to market most of their products (as opposed to employing a large in-house sales force), has some pros and some cons. On the positive side, as we noted, aside from ultimately marketing the product(s), those distributors often help (finance) their development, as well as paying for the associated regulatory processes, which obviously reduces the general overhead responsibilities of Sonoma. On the negative side, with this approach, the Company loses some of its control regarding the pace and perhaps the vigor of the marketing process.

To summarize, we submit the pace of Sonoma's sales has been less robust than we projected in our initiating coverage, and that may be a function of the Company's challenges in moving that needle, our own errors in our projections or some of each. We would add, visibility was and remains difficult, and we do not

expect that to change any time soon. That said, we believe they will continue to grind away at adding distributors for existing products both domestically and internationally (ala their recent addition of a distributor in Ukraine), and we think those efforts should continue to produce growth going forward. At the same time, as we covered above, there are several new developments in que that include new products and new markets that we believe represent opportunities they have never pursued such as the U.S hospital market(s) with both a new irrigation product as well as a coming surface disinfectant. Further, we believe these new offerings have the potential to produce outsized contributions relative to prior product launches. In our view, that scenario(s), could provide a basis for much better valuations.

In the meantime, we submit, risks remain around the potential for added dilution until they can achieve positive cash flow thresholds. To that end, because of dilution we had not projected, we are establishing a new Price Target of *$1.10, and we reiterate our allocation of 4. We will reassess each as new visibility arises. We would add, as we have noted many times in our research and other conversations we have had regarding the Company, much of our enthusiasm for it stems from our believe in their product (shelf stable HOCL), and the many potential applications for the product. We believe the Company is uniquely positioned to prosper from *any events* that shed light on the anti-microbial benefits and advantages of HOCl.

Projected Operating Model

Sonoma Pharmaceuticals, Inc.						
Projected Operating Model						
By Trickle Research						
	(estimate)	(estimate)	(estimate)	(estimate)	(estimate)	(estimate)
	6/30/2024	**9/30/2024**	**12/31/2024**	**3/31/2025**	**Fiscal 2025**	**Fiscal 2026**
Revenues	$ 3,619,712	$ 3,823,550	$ 4,110,785	$ 4,461,992	$ 16,016,039	$ 19,932,621
Cost of revenues	$ 2,202,181	$ 2,286,773	$ 2,405,976	$ 2,551,727	$ 9,446,656	$ 11,072,038
Gross profit	**$ 1,417,532**	**$ 1,536,776**	**$ 1,704,809**	**$ 1,910,265**	**$ 6,569,383**	**$ 8,860,583**
Operating expenses						
Research and development	$ 444,788	$ 452,942	$ 464,431	$ 478,480	$ 1,840,642	$ 1,997,305
Selling, general and administrative	$ 1,815,850	$ 1,842,957	$ 1,873,532	$ 1,916,618	$ 7,448,957	$ 8,065,734
Total operating expenses	**$ 2,260,638**	**$ 2,295,899**	**$ 2,337,964**	**$ 2,395,097**	**$ 9,289,599**	**$ 10,063,039**
Loss from operations	**$ (843,107)**	**$ (759,122)**	**$ (633,155)**	**$ (484,832)**	**$ (2,720,216)**	**$ (1,202,455)**
Interest income (expense), net	$ 685	$ 1,504	$ 1,140	$ 839	$ 4,167	$ 1,444
Forgiveness of PPP Loan	$ -	$ -	$ -	$ -	$ -	$ -
Other income (expense), net	$ -	$ -	$ -	$ -	$ -	$ -
Gain on sale of assets	$ -	$ -	$ -	$ -	$ -	$ -
Loss before income taxes	**$ (842,422)**	**$ (757,619)**	**$ (632,015)**	**$ (483,993)**	**$ (2,716,049)**	**$ (1,201,011)**
Income tax benefit (expense)	$ -	$ -	$ -	$ -	$ -	$ -
Income (Loss)Loss from continuing operations, net of tax	**$ (842,422)**	**$ (757,619)**	**$ (632,015)**	**$ (483,993)**	**$ (2,716,049)**	**$ (1,201,011)**
Income (Loss) from discontinued operations, net of tax	$ -	$ -	$ -	$ -	$ -	$ -
Net Income (Loss)	**$ (842,422)**	**$ (757,619)**	**$ (632,015)**	**$ (483,993)**	**$ (2,716,049)**	**$ (1,201,011)**
Net Income (Loss) per share: basic	**$ (0.04)**	**$ (0.04)**	**$ (0.03)**	**$ (0.03)**	**$ (0.14)**	**$ (0.06)**
Net Income (Loss) per share: diluted	**$ (0.04)**	**$ (0.04)**	**$ (0.03)**	**$ (0.03)**	**$ (0.14)**	**$ (0.06)**
Weighted-average number of shares: basic	**18,808,635**	**18,843,635**	**18,878,635**	**18,913,635**	**18,861,135**	**18,951,135**
Weighted-average number of shares: diluted	**18,808,635**	**18,843,635**	**18,878,635**	**18,913,635**	**18,861,135**	**18,951,135**
Foreign currency translation adjustments	$ -	$ -	$ -	$ -	$ -	$ -
Comprehensive Gain (Loss)	$ (842,422)	$ (757,619)	$ (632,015)	$ (483,993)	$ (2,716,049)	$ (1,201,011)

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Portions of this publication excerpted from company filings or other sources are noted in *italics* and referenced throughout the report.

Rating System Overview:

There are no letters in the rating system (Buy, Sell Hold), only numbers. The numbers range from 1 to 10, with 1 representing 1 "investment unit" (for my performance purposes, 1 "investment unit" equals $250) and 10 representing 10 investment units or $2,500. Obviously, a rating of 10 would suggest that I favor the stock (at respective/current levels) more than a stock with a rating of 1. As a guideline, here is a suggestion on how to use the allocation system.

Our belief at Trickle is that the best way to participate in the micro-cap/small cap space is by employing a diversified strategy. In simple terms, that means you are generally best off owning a number of issues rather than just two or three. To that point, our goal is to have at least 20 companies under coverage at any point in time, so let's use that as a guideline. Hypothetically, if you think you would like to commit $25,000 to buying micro-cap stocks, that would assume an investment of $1000 per stock (using the diversification approach we just mentioned, and the 20-stock coverage list we suggested and leaving some room to add to positions around allocation upgrades. We generally start initial coverage stocks with an allocation of 4. Thus, at $1000 invested per stock and a typical starting allocation of 4, your "investment unit" would be the same $250 we used in the example above. Thus, if we initiate a stock at a 4, you might consider putting $1000 into the position ($250 * 4). If we later raise the allocation to 6, you might consider adding two additional units or $500 to the position. If we then reduce the allocation from 6 to 4 you might consider selling whatever number of shares you purchased with 2 of the original 4 investment units. Again, this is just a suggestion as to how you might be able to use the allocation system to manage your portfolio.

For those attached to more traditional rating systems (Buy, Sell, Hold) we would submit the following guidelines.

A Trickle rating of 1 thru 3 would best correspond to a "Hold" although we would caution that a rating in that range should not assume that the stock is necessarily riskier than a stock with a higher rating. It may carry a lower rating because the stock is trading closer to a price target we are unwilling to raise at that point. This by the way applies to all of our ratings.

A Trickle rating of 4 thru 6 might best (although not perfectly) correspond to a standard "Buy" rating.

A Trickle rating of 7 thru 10 would best correspond to a "Strong Buy" however, ratings at the higher end of that range would indicate something that we deem as quite extraordinary..... an "Extreme Buy" if you will. You will not see a lot of these.