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In 1997, Julian Robertson was at the top of his game.

Tiger Management, the investment firm he had started with $7 million in 1980 at age 48 as a "second career," had grown into the largest hedge fund managing $21 billion. Robertson had compiled a track record of investment success that put him in the same league as Warren Buffett, George Soros, and Paul Tudor Jones. *Institutional Investor*, the pricey monthly magazine that catered to Wall Street's elite, described him as arguably the greatest investor of his generation.

Like other legendary money managers, Robertson had carved out an investment style that came to be known as "his," one that would be widely emulated by others but that would always be associated with Robertson. His style was beautiful in its simplicity. As he himself described it, "We own the best companies and short the worst."

And so in 1997, when Robertson studied a large, competitively overcrowded group of internet, telecom, and technology stocks that traded at astronomical market capitalizations and yet had no earnings... often no revenue... and no viable business models, he did what he had done so successfully in the decades prior: he shorted them. These businesses, such as Pets.com and Books-A-Million, were quintessentially the worst companies in the world. As Robertson described them in a letter to his limited partners, the group constituted "a Ponzi pyramid destined for collapse."

But by 1999, the clownish group of tech stocks that Robertson had shorted kept rising in price. Steve Mandel, one of Robertson's analysts who would go on to become the founder of his own successful firm Lone Pine Capital, later reminisced about this painful period: Tiger would short a business that was rapidly burning cash and that had no plan for creating value when the stock was, say, $12 per share. "Six weeks later, on no news, the stock was at $108," Mandel explained.

Robertson held onto his conviction in these shorts for three painful years, all the way into 2000. By that point, the damage that Robertson's stubbornness had inflicted on his portfolio was considerable: Tiger's funds had lost nearly 40% since 1997, and investor redemptions had shrunk its capital base from $21 billion to $6 billion.

In March 2000, Robertson finally capitulated, announcing that he was winding down Tiger and would no longer manage other people's money. Notwithstanding the losses of these final years, Robertson ended up with an astonishing track record, having compounded his investors' money at 31.5% annualized (gross) between 1980 and 2000.

Source: ShadowStats, BLS

Within six weeks of Tiger's closure, the dot-com bubble burst, and Robertson's high-conviction short was spectacularly vindicated… albeit too late for him to profit from it.

The lesson of this chapter in Julian Robertson's career could not be clearer: Even the greatest money managers must put their portfolios in alignment with powerful market forces or risk a wipeout… and they must do so even if this means giving up on high-conviction positions.

Julian's close friend and rival, Stanley Druckenmiller, summarized this essential trait well in describing his own longevity and success in managing money:

> *"Probably one of my greatest assets over the last 30 years is that I'm open-minded and I can change my mind very quickly…. When you're betting the ranch and the circumstances change, you have to change, and that's how I've always managed money."*

It's a lesson Robertson himself took to heart. It turns out he had a third act, one that would prove to be arguably his most successful of all. After he wound down Tiger Management, he became a mentor to a series of proteges whom he backed with his own capital – investors such as Steve Mandel, John Griffin, Andreas Halverson, Chase Coleman, and Rick Gerson.

While mentoring these "Tiger cubs," Robertson also managed between $500 million to $1 billion of his own money, enjoying the challenge of competing against the "young turks." In 2007, successfully riding a boom in emerging-market stocks, Robertson returned over 100% managing this personal account.

Then in 2008 – when many fund managers were suffering tremendous losses – Robertson identified the sudden change in the investing season and decisively changed his positioning. He built a huge, levered short position in the most vulnerable financial stocks and made another 100%-plus gain for the year.

Finally, in March 2009, after the Federal Reserve intervened in the financial crisis with its quantitative-easing program that reduced interest rates to spur growth, Robertson shifted decisively again – exiting his financial short and aggressively buying some of the financial stocks he had ridden down. He had another year of monster gains in 2009.

His back-to-back-to-back triumphs in 2007, 2008, and 2009... years that humbled so many of even his best investment peers... proved emphatically that the dot-com experience was one that Julian had learned, mastered, and shared with others. Never find yourself out of step with important shifts in the market.

On March 19, we issued an important update for *Biotech Frontiers* subscribers significantly reducing the size of our portfolio. Our update was titled: "**Focusing On the Big Picture When the Big Picture Matters**." In it, we explained that the inflation outlook was worse than the market had yet understood... that as a result, the Fed's plans to cut interest rates in 2024 would likely be significantly delayed or possibly even scrapped and that when the market came around to our view, pain would ensue for risky assets in general and biotech stocks in particular.

The timing and the direction of our call look pretty good now, six weeks later. When we penned our update, the market was still pricing in three Fed rate cuts in 2024. As of now, it's pricing in between zero and one. In the meantime, at the Fed's most recent press conference this past Wednesday, Chair Jerome Powell walked back any guidance on when rates may be cut, instead explaining that rates will need to remain "higher for longer" due to uncertainties about inflation.

Not surprisingly, all the major stock indexes finished the month of April lower than where they started the month... and biotech stocks, due to their sensitivity to interest rates, have suffered acutely: The S&P 500 Biotech Index (XBI), which consists of large-cap biotech stocks, declined over 10% in April, while several of the smaller, high-octane picks that we exited at a profit in the *Biotech Frontiers* portfolio, declined even more. For example, **Kodiak Sciences (Nasdaq: KOD)**, which we exited in March at a profit of 87%, fell 38% in April.

I titled our March update "Focusing On the Big Picture When the Big Picture Matters" as a nod to Julian, whose own experiences taught me the valuable lesson that there are seasons in investing when one must focus like a laser on the macroeconomy, because it's driving everything else. Stock picking can still be valuable in such seasons... but only if the Big Picture informs the stock picks.

For instance, you couldn't own financial stocks in 2008 and make money… they were all going down in price. But if, like Julian, you understood that we were in the midst of a financial crisis, you could pick the most vulnerable financial stocks, short them, and make a killing when the market re-priced them downward. Indeed, Porter understood this too, which led him to make his epic call in the June 2008 issue of *Stansberry's Investment Advisory* to short Fannie Mae and Freddie Mac… the letter that introduced me to his work.

Although markets have moved emphatically in the direction I outlined in my March sell alert, we're in a season where the Big Picture still matters most, especially for biotech stocks with their sensitivity to interest rates. The change in the market environment I correctly called requires us to refine our investment approach. As regular readers of *Biotech Frontiers* know, we ordinarily underwrite recommendations using the seven-part investment framework we laid out in our ***Investment Guidebook***. Our seven factors are:

1. The Science
2. The Size of the Opportunity
3. The Capitalization Table
4. The Catalysts
5. The Balance Sheet
6. The Big Picture Backdrop
7. The Risk/Reward

Each factor is still relevant to any investment in biotech. But in this season, their relative importance to one another has changed.

Today, we need to *start* with the Big Picture Backdrop, and to reassess whether the broader economic climate for biotech investing looks hostile, neutral, or more inviting. If we're still in the foreboding environment I identified in mid-March, we need to focus on identifying opportunities that are especially compelling in two particular factors, their balance sheet and their catalysts: The balance sheet because it ensures a biotech company can survive a long unfriendly market, and catalysts because they can help us to "get paid" even amid a difficult bear market.

For this month's issue, I have found just such an opportunity. **Vanda Pharmaceuticals (Nasdaq: VNDA)** isn't a trailblazing scientific innovator such as **Iovance Biotherapeutics (Nasdaq: IOVA)**, nor a pharma business-model innovator such as **Roivant Sciences (Nasdaq: ROIV)**. Unlike those two members of our portfolio, Vanda hasn't attracted any superstar life-sciences investors among its largest shareholders. But as we'll see, Vanda has a fortress balance sheet and features more potential catalysts than I've found in any other biotech opportunity in quite some time. These characteristics make Vanda particularly well-suited to the investing environment we find ourselves in today.

In keeping with the "change in season" I've described, in this month's issue I have re-ranked and condensed the factors in our Investing Framework in a way that best lends itself to presenting our Vanda investment thesis. We'll cover:

1. The Big Picture Backdrop
2. Vanda's Balance Sheet
3. Its Catalysts
4. Its Cap Table
5. The Overall Risk Reward

For readers curious about The Science and The Size of the Prize... don't worry – we'll cover these along the way too, embedded in the rest of our discussion of Vanda.

Let's begin...

I. The Big Picture Backdrop

In investing, the Big Picture is like the weather. In some seasons, we don't need to think about the weather, other than to muse that it's a beautiful day. But in other seasons, we wouldn't step outside – much less embark on an activity like running or sailing – without carefully assessing the current conditions and the forecast. And in rarer times still, such as when there's a hurricane, snow storm, or forest-fire warning, we need to step up our alertness and preparation to ensure our family's safety.

This moment is one of those rare times that call for heightened alertness and preparation. The Big Picture questions we need to focus on today are:

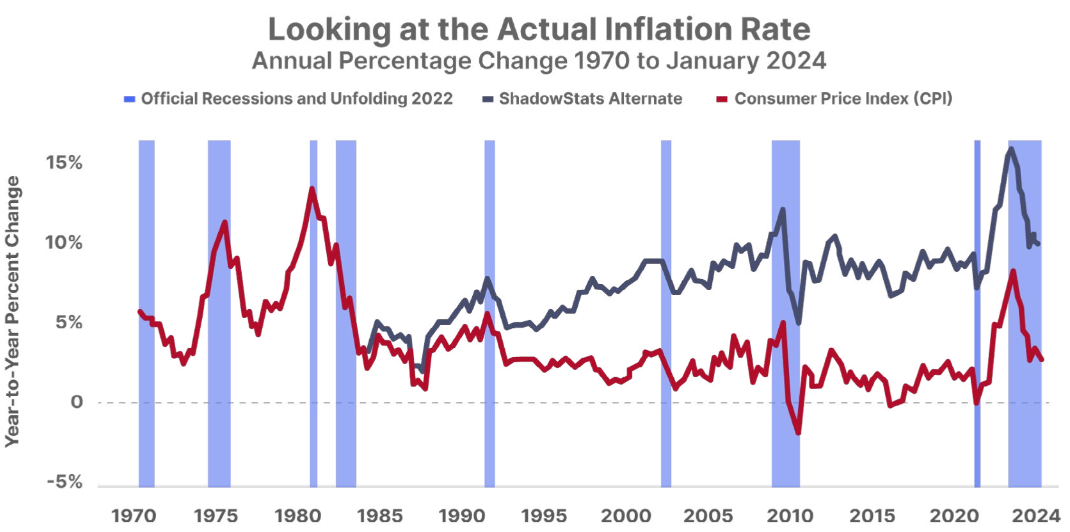
1. Is the inflation outlook getting better or worse?
2. How will the inflation outlook drive the Fed's behavior in setting interest rates?
3. To what extent has the market come to terms with the likely realities about inflation and rates?

The Inflation Outlook

April brought further indications that the inflation outlook is getting worse, not better. On April 10, the U.S. Department of Labor released the March consumer price index ("CPI") report, the most common measure for inflation, and it contained several troubling data points: the CPI grew by 0.4% month-over-month and by

3.5% year-over-year, the third consecutive monthly CPI increase and its largest annualized gain for the past six months. Core CPI, a metric preferred by the Fed because it strips out volatile food and energy prices, likewise increased by 0.4% monthly and 3.8% annualized. All of this data suggests that inflation is running well above the Fed's stated 2% inflation target and is moving in the wrong direction (i.e., rising not falling).

Because CPI is a government-made metric that doesn't necessarily capture inflation as most Americans experience it, I find it helpful to cross-check CPI against other inflation measures. Economist John Williams' excellent **Shadow Statistics** service adjusts a range of government economic data in ways that better reflect everyday American life. Here is the latest Shadow Statistics update on CPI inflation, from March:

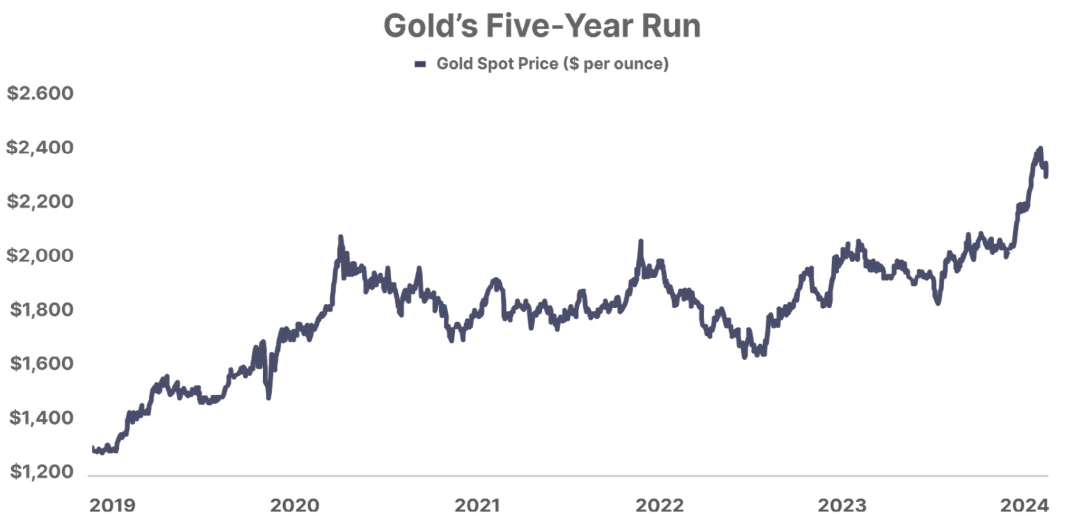


Source: ShadowStats, BLS

Shadow Statistics leaves us with two takeaways: First, inflation as most Americans experience it is running much higher than the 3.5% annualized level reported by CPI… it's something closer to 11%. Second, as Williams wrote in his commentary in late April:

> *"the ShadowStats broad outlook remains for a continuinging pickup in headline (and actual) U.S. inflation."*

As a final cross-check on CPI, it's revealing to study the performance of humanity's oldest, most well-established inflation hedge… gold. Here is a five-year history of the price of gold:



Source: Bloomberg

As the chart shows, the price of gold has risen 13% year-to-date, and 25% over the past 12 months, and is now at its five-year high. Gold's performance sends us another clear, independent warning signal that inflation is far from under control.

The Fed's Decision-Making and the Market's Likely Reaction

With telling signs that inflation is moving in the wrong direction, the crucial next question we must answer is – how will this drive the Fed's decision-making on interest rates? For most of the past year, Chair Powell offered the market tantalizing hints that rate cuts would be coming in 2024. And it's not hard to identify the reasons Powell might wish to deliver rate cuts: the market would celebrate them, stocks would get a short-term bump, and the Fed would provide some help to President Joe Biden, who is a more establishment, institutional politician than former President Donald Trump.

But as I've suggested here before, Chair Powell may be many things, but he is no dummy – and he has studied history. He knows that the most infamous failure as Fed chairman was Arthur Burns, who prematurely declared victory over inflation in the early 1970s, cut rates when inflation was still at about 5%, and today is blamed for the roaring inflation that persisted throughout the 1970s... which proved to be a lost decade for U.S. stocks and an exceptionally painful economic era for everyday Americans. I simply don't think Powell will risk making a Burns-like blunder, even if it means walking back his earlier hints that rate cuts are coming soon. Indeed, it seems that Powell is already beginning to embark on that walk back.

Although I wish I could tell you that the market has fully digested these developments concerning inflation and the Fed, I don't believe it has. The S&P 500 gained 24% in 2023 and, despite a 2.6% loss in April, is still up more than 5% year to date. There's still a lot more pain for stocks left to come.

But here at *Biotech Frontiers*, we care most about one category of stocks: the life-sciences companies that constitute our investable universe. Even if I'm mistaken about what the likely delay in rate cuts means for the broader stock market, I am very confident this delay is bad news for broad gains in the biotech sector. That's because, **as we've explained in detail before**, biotech stocks are some of the most interest-rate sensitive securities that exist.

But that doesn't mean we can't find attractive investment opportunities. We still can, but we need to adapt our investing criteria to the environment we find ourselves in, and also perhaps make some adjustments to our entry sizing. For these reasons, until the Big Picture Backdrop becomes friendlier, we will place a heavier emphasis than usual on biotech opportunities that feature distinctive strength in their balance sheets and catalysts.

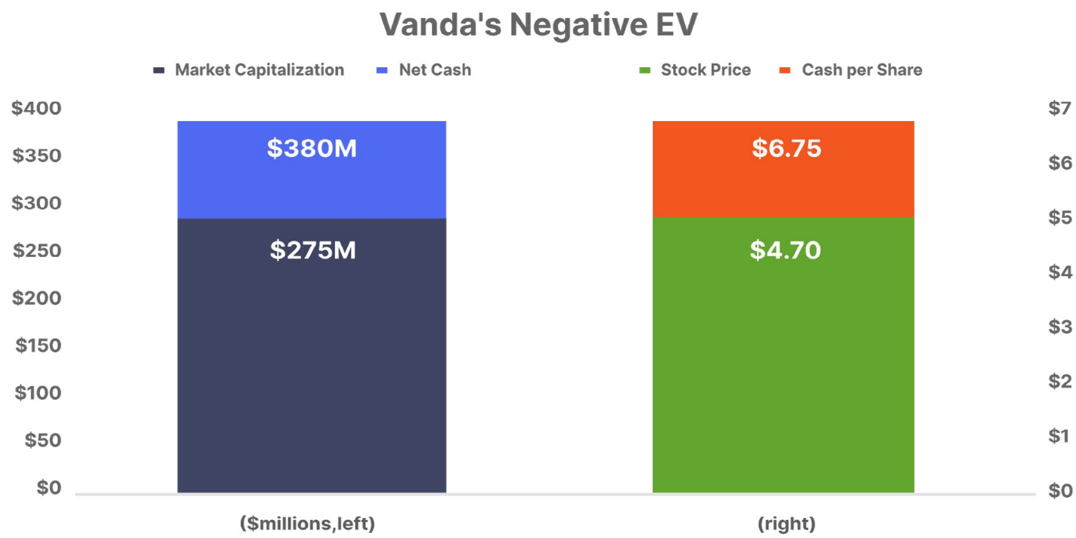
Our pick this month, Vanda, shines in both of those areas...

II. The Balance Sheet

We always study the balance sheet because companies fail for one reason and one reason only: they run out of cash. Drug development is an especially cash-intensive business, and before we underwrite any investment, we want to be sure a company has the financial wherewithal to see things through to success. Balance sheet strength is therefore a minimum threshold for our investment.

In rare instances, a company's balance sheet may be so strong that it's actually a central driver of our investment thesis. That was the case for the 10-stock basket of negative enterprise-value ("EV") stocks with which we launched *Biotech Frontiers* in January. And it's the case for Vanda, too.

With approximately $380 million of net cash on its balance sheet and a market capitalization of only $275 million, Vanda trades at an EV of negative $105 million. Framing it in terms of dollars per share, we can buy Vanda stock today for about $4.70 per share and get $6.75 per share in net cash, with the company's revenue-generating drugs and its early-stage pipeline thrown in for free.



Source: Bloomberg

As we discussed in detail in the **January issue of *Biotech Frontiers***, negative-EV stocks have historically generated powerful gains: an average of 50.4% over a 12-month holding period in one authoritative study, 27.4% annualized in another. These historical returns reflect the phenomenon of mean reversion: stocks trading at negative EV are anomalously cheap, and their strong subsequent price appreciation stems from their returning to more normalized valuation levels.

But mean reversion can take a while to play out... and so it requires patience. With Vanda, we have an even better set up: the presence of activist investors who have taken note of the company's nine-figure cash pile and are fighting to unlock value in ways that benefit shareholders.

Let me explain...

On April 17, Vanda issued a press release announcing it had received an unsolicited bid from Future Pak to acquire the company for between $7.25 and $7.75 per share. The offer from this privately held manufacturer of pharmaceuticals represented an 80% to 90% premium to Vanda's April 16 closing share price of $4.05. Even though the offer was credible and did not include any financing contingencies, Vanda's board summarily dismissed it, claiming it "significantly undervalues" the company. The board then adopted a poison pill plan, a defensive tactic aimed at preventing activists from acquiring enough shares in the open market to stage a takeover without the board's consent.

Within a week of Vanda's disclosure of Future Pak's bid, two activist hedge funds – Butler Hall Capital and Shareholder Capital – wrote open letters to Vanda's board.

The letters thoughtfully spelled out how Vanda's management has destroyed shareholder value over the past decade and acted in self-dealing ways that have enriched the CEO. Both missives urge the board to appoint a special committee to engage with Future Pak, and to run a robust sales process that could entice other potential acquirers.

These developments are terrific news for Vanda shareholders, offering us several different ways to win:

1. ***The board could accept the activist's suggestion and formally put Vanda up for sale***. Admittedly, this scenario may be unlikely in the short term, as management and the board seem more intent on retaining control of the company. But FuturePak has retained Moelis, a widely respected investment bank, to provide strategic advice on its bid. Meanwhile, seasoned activist investors manage both of the letter-writing firms, Butler Hall and Shareholder Capital. Collectively, this group of agitators could eventually threaten Vanda's board with a proxy fight – a campaign to replace the board's incumbent directors with others who are more open to a sale. The threat of a proxy fight, in turn, could be enough to convince Vanda's management and board that opening a sales process is a sensible path.
2. ***The developments so far could attract larger activists and could prompt Vanda's large institutional shareholders to pressure the board for constructive action***. Butler Hall and Shareholder Capital are small funds that together own less than 1% of Vanda's outstanding shares. But shareholder activists often hunt in packs, and there is a possibility that the attention these small activist funds have shone on the opportunity at Vanda could entice a larger activist fund with greater financial firepower to get involved. The activist campaign underway at Vanda could also draw the attention of some of Vanda's larger institutional shareholders – such as the multitrillion-dollar asset manager BlackRock that owns 14.5% of Vanda's shares. BlackRock tends to refrain from public shareholder activism, but a private, off-the-record phone call from a BlackRock portfolio manager to a member of Vanda's board would likely nudge the board into action. These scenarios, too, could eventually lead to a sale process.
3. ***Management and the board could seek to quell the activist campaign for a sale by undertaking a meaningful return of cash to shareholders***. The easiest way for Vanda's leadership to get the activists off its back would be to prove that it can act to benefit shareholders. For instance, by announcing a significant share-buyback plan or a special cash dividend. With approximately $6.75 per share of net cash on the balance sheet, Vanda could announce that it has decided to return, say, $2 to $3 per share to stockholders via a buyback or special dividend. That would still leave a lot of net cash on the balance sheet to advance its pipeline. With shares trading at about $4.70 today, such an announcement would prompt an immediate 40% to 60% appreciation in Vanda shares.

The natural question that ensues from the first and second scenarios I've outlined above is: How much could Vanda fetch if the board decides to put the company up for sale? The back-of-the-envelope math looks like this:

- We begin with the company's $380 million of net cash.
- In a base-case scenario, Vanda ought to be able to generate approximately $225 million in revenue in 2024 and potentially much more going forward. Smaller, early-stage biotech companies are typically valued between two to three times sales. Applying a 2.5x sales multiple to $225 million in 2024 revenues translates to approximately $560 million in enterprise value.
- We can be conservative and value the entirety of Vanda's earlier-stage pipeline at $50 million.

If we add the $380 million in net cash with $560 million in enterprise value from

Vanda's revenue-generating drugs, plus $50 million for the early-stage pipeline, we get about $990 million in total EV. With 57 million shares outstanding, that gets us to $17 per share in value… or 350% above where the stock trades today. This rough exercise leaves out a control premium, which has historically been anywhere from 25% to 70% above the value of a passive, minority stake of the kind implied by our $17-per-share calculation above.

To sum it up, Vanda's balance sheet and the dynamics that have begun to emerge around it provide us several paths to significant upside.

III. The Catalysts

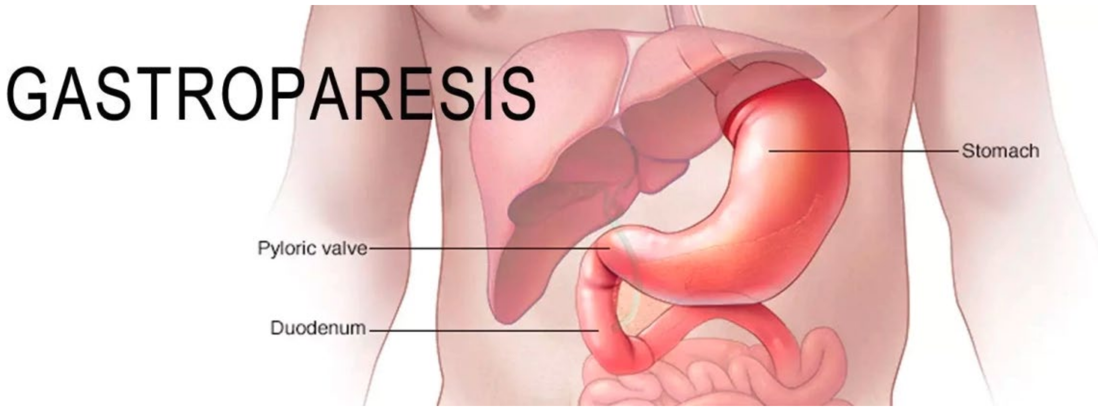
Catalysts are events that unlock value in a stock and, in the argot of my old mentor Julian, help us "get paid." Our discussion of Vanda's balance sheet has already surfaced two important potential catalysts – a sale of the company or a significant return of cash to shareholders.

But in Vanda's case, there are also others…

Tradipitant's PDUFA Date Upcoming in September

One important catalyst is a regulatory approval decision that Vanda has pending before the Food and Drug Administration ("FDA") for its novel drug Tradipitant – which has a PDUFA date of September 18, 2024. A PDUFA date (established by the Prescription Drug User Fee Act) is a prescribed day by which the FDA promises to deliver a verdict on the regulatory approval of a new drug for a specific disease indication. (We discussed the FDA's PDUFA process in detail in our **February issue on Iovance**; I would encourage new subscribers to read that report to learn more.)

Tradipitant is a therapy for gastroparesis, also known as a "stomach paralysis" – an awful condition characterized by slow emptying of solid food from the stomach. Gastroparesis patients often experience nausea, vomiting, reflux, and bloating... and the condition can lead to other complications that are even worse. This digestive malady, which hasn't seen a new therapy approved in over four decades, afflicts an estimated 7 million Americans.



Tradipitant's Phase III clinical-trial results as a therapy for gastroparesis, published in the journal *Clinical Gastroenterology and Hepatology*, were not a home run. However, they are strong enough to make FDA approval likelier than not. I would gauge the odds of Tradipitant's receiving a green light from the FDA at about 2:1 in favor... or approximately 66% "yes" and 33% "no."

Even with FDA approval not a sure thing, Tradipitant still amounts to a major potential positive catalyst for Vanda in probability-adjusted terms because the therapy's market potential is vast. The global market for gastroparesis treatments is estimated to be in the $4 billion to $5 billion range annually, with the market in the U.S. alone estimated at $2 billion per annum.

If Tradipitant wins approval and Vanda can eventually capture, say, 10% of the global market, its annual sales could reach $400 million to $500 million. Applying a 2.5x multiple to this revenue range suggests that Tradipitant's approval could be worth a $15 to $20 boost to Vanda's share price ($1.125 billion in incremental enterprise value divided by 57 million shares outstanding). Discounting that $15 to $20 per share by our estimated two-thirds probability of approval suggests Tradipitant is worth $10 to $13 to shareholders today.

... And Commercial Launches for Ponvory and Fanapt

But we're not done... because during the balance of 2024 and 2025, Vanda will also be commercially launching two recently approved drugs for which the market appears to be giving the company little or no credit.

The first commercial launch is for Ponvory, a new treatment for relapsing multiple sclerosis ("MS") with potential applications to other inflammatory and autoimmune diseases as well. Vanda paid $100 million for the U.S. and Canadian commercial rights to Ponvory from Johnson & Johnson's Actelion subsidiary in December 2023. The market reacted poorly to the news of this acquisition, treating it as a value-destructive move that would not create any long-term shareholder value.

I think that's too pessimistic. It's true that the MS market is crowded and competitive, with over 10 approved treatments in the U.S. alone. But Ponvory has certain distinguishing positive features that could help it stand out to a subsegment of the MS market.

It's a once-a-day, oral therapy – not an infusion and not a multiple-times-a-day pill. And, crucially, it clears the body within one week, a bio-clearance profile that is superior to competitors' and that could make Ponvory especially attractive to patients looking to conceive. While the U.S. market for MS therapies is crowded, it is also enormous, with over $20 billion in sales annually.

With a well-executed commercial launch, Ponvory could plausibly capture 1% to 2% of this market over time... which would translate to $200 million to $400 million in incremental revenues for Vanda. Applying a 2.5x revenue multiple to this range, we get $400 million to $800 million in additional enterprise value, or $7 to $14 per share. Vanda's $4.70 stock price today reflects none of this upside.

Vanda's second commercial launch this year is for Fanapt – a therapy for bipolar disorder I. Fanapt has been an established, well-regarded treatment for schizophrenia since 2009. In early April, Vanda succeeded in winning the FDA's approval to expand Fanapt's application to bipolar I, the form of the disorder characterized by mood swings from euphoria to depression.

An estimated 1% of the population in the U.S., over 3 million people, suffer from bipolar I disorder. Fanapt has an already-established strong track record as a safe, well-tolerated, and effective antipsychotic medication based on 15 years of use in the context of schizophrenia. Because of this track record, it's realistic to conclude it will gain traction among mental-health prescribers and patients for bipolar I – a condition that's notoriously difficult to treat, and in which patients often cycle through different medications. If Fanapt can capture just 1% of the bipolar I market, or about 30,000 patients, the revenue to Vanda would be an estimated $375 million to $400 million annually. At a 2.5x sales multiple, such revenues could be worth an incremental $935 million to $1 billion in enterprise value, or $16 to $17.50 of upside per share. Here, too, the market has given Vanda effectively no credit for the potential upside.

Summing It Up

When we consider Vanda's balance sheet alongside its upcoming Tradipitant PDUFA and two commercial launches, we have five discrete catalysts that could help us "get paid":

1. ***A sale of the company*** – this could plausibly be worth $17 per share or more based purely on 2024 revenue estimates, 350% upside from current levels
2. ***A significant share buyback or special dividend*** – this would likely be worth at least $2 to $3 per share and plausibly drive an immediate 40% to 60% appreciation in the stock
3. ***FDA approval for Tradipitant to treat gastroparesis*** – this could be worth an additional $15 to $20 in value per share over a period of years, which is 300% to 410% upside from current levels
4. ***Successful commercial launch for Ponvory*** – this could be worth an additional $7 to $14 per share over a period of years, which is 145% to 290% upside from current levels
5. ***Successful commercial launch for Fanapt for bipolar I disorder*** – this could be worth an additional $16 to $17.50 per share, which is 333% to 365% upside from current levels

To be clear, I am not predicting that all or even any of these catalysts will materialize. A year or two from now, we could well find ourselves in a situation where none of them have. However, an important part of our job as investors is to think concretely and specifically about what could go right. These catalysts are all real, and they provide several diverse paths to success in owning Vanda.

IV. The Capitalization Table

A company's capitalization table is simply the list of its largest shareholders. When we study it, we focus on the Smart Money (venture capitalists and hedge funds), Insiders (management and the board members), and Whales (large financial institutions or Big Pharma stakeholders). Our aim is to tease out useful insights that we may glean from knowing who owns the shares… how long they've owned them, when they bought or sold, and what prices they paid… and any other relevant inferences we can draw from their ownership history.

For some of our prior Biotech Frontiers recommendations, the company's capitalization table has played a central part in our investment thesis. For example, in the cases of **Iovance Biotherapeutics (Nasdaq: IOVA)** as well as **Roivant Sciences (Nasdaq: ROIV)**, the largest shareholders are prominent biotech investors whose ownership history of these stocks has carried several crucial insights. Vanda's capitalization table is less important to our recommendation, but still holds helpful clues.

As we mentioned earlier, Vanda's largest shareholder, owning 14.5% of the company, is BlackRock – the world's largest asset manager. BlackRock's stake in Vanda, worth about $40 million today, is not significant in the context of the $10 trillion in total assets that the giant asset manager invests. However, BlackRock does manage several healthcare and life-sciences funds, and to the portfolio management teams of these funds, BlackRock's Vanda holdings matter.

As the Butler Hall and Shareholder Capital activist letters spell out convincingly, Vanda stock has way underperformed biotech benchmarks. For example, over the past five years, Vanda stock has declined 77% – relative to a 20% decline in its closest biotech peers, a 16% gain for the iShares Biotech Index (IBB), and 40% gain for the S&P 500 over the same period. Nonetheless, BlackRock has been growing its position in Vanda, adding about 1.5 million shares to own 8.35 million shares in total for the quarter ending December 2023. The growth in BlackRock's holdings could simply reflect passive fund flows into biotech. Alternatively, the holdings could represent one of BlackRock's actively managed healthcare funds seeing value in Vanda shares. Either way, I am hopeful that Vanda's underperformance makes BlackRock more open to the activist campaign underway to unlock Vanda's latent value. BlackRock is such a powerful financial institution that a single phone call from anyone at the giant firm to Vanda's leadership team would likely carry a lot of weight.

The rest of the top 10 in Vanda's capitalization table is relevant for similar reasons. Eight of the nine remaining members are either Whales (the #3 holder is mutual-fund giant Vanguard, owning 6%) or Smart Money (#5 holder is respected investment firm D.E. Shaw, owning 3.7%). All of these holders have bought their holdings in Vanda at weighted-average share prices significantly above today's. We hope that fact will render at least a few of them receptive to the incipient activist campaign underway… But we don't need it to. As our discussion of the catalysts makes clear, a successful activist campaign offers us one way to win with Vanda, but far from the only way.

And then there are the Insiders. Vanda's founder and CEO, Dr. Mihael Polymeropoulos, is the only Insider on the list of top 10 shareholders. His 3.25% stake – worth about $9 million – is better than his not having any skin in the game. Nonetheless, it's lower than the amount I generally like to see for a founder and CEO… which is at least 10%. Polymeropoulos' relatively low ownership is a yellow flag, and it adds credence to the activist's criticisms of company management. After all, one of the easiest ways for a chef to silence food critics is to demonstrate that he eats his own meals at the restaurant, which Vanda's management can't readily say. But this yellow flag isn't enough to dissuade me in light of the many other compelling reasons to own Vanda shares.

V. Risk/Reward & Expected Value

One element of our investment framework that is more relevant than ever is our discussion of risk/reward and expected value, which contains three elements: a Premortem, a Parade, and an Expected Value Tree.

Our Premortem invites us to contemplate what if our investment does not go as planned… and to imagine why. For Vanda, our Premortem goes like this: Notwithstanding the activist efforts of Future Pak, Butler Hall, and Shareholder Value, Vanda's leadership resists both a sale process and a return of cash to shareholders.

Instead, it steadily burns up Vanda's enormous cash pile with poor capital allocation decisions – for instance, by overpaying to acquire biotech assets that don't grow the company's intrinsic value nor earn an attractive return. Or Vanda suffers a setback in its September PDUFA date for Tradipitant, as the FDA issues a Complete Response letter demanding an entirely new clinical trial as a prerequisite for approval. Finally, the company bungles the commercial launches of both Ponvory and Fanapt, with the result that neither therapy gains market traction. This Premortem paints a picture of two to three years downstream, Vanda has burned through a meaningful amount of its balance sheet cash with little to show for it, and the company's most commercially promising novel therapies find themselves stalled.

A Parade is the mirror opposite of the Premortem… an imaginative rendering of what can go right. Here is Vanda's Parade: the company's management and board, despite their current resistance, are persuaded to put Vanda up for sale, resulting in the company's being acquired within the next 12 months at $17 per share or higher. Alternatively: in September, the FDA approves Tradipitant for the treatment of gastroparesis. Meanwhile, the company successfully executes its commercial launches for Ponvory and Fanapt. Over the following two to three years, each of these novel therapies gains a real foothold in their target markets. By 2026, Vanda is able to forecast forward year revenue of $400 million to $500 million, and the enterprise value, excluding cash, has risen to between $1 billion and $1.25 billion, or $17.50 to $21 per share.

Finally, our Expected Value Tree distills everything that's come before into simple arithmetic. We begin by encapsulating our entire investment thesis into a downside scenario, a base-case scenario, and an upside scenario. We assign a probability and a stock price to each. And we derive our EV for the stock based on the sum of these three probability-weighted scenarios and their respective contributions.

Here is our Expected Value Tree for Vanda:

Three Expected Value Scenarios for Vanda (VNDA)

Scenario	Summary	Probability	Stock Price	EV Contribution
Downside	Mismanagement and setbacks	25%	$3	$0.75
Base Case	Some catalysts materialize positivity	60%	$12	$7.20
Upside	Company fires on multiple cylinders	15%	$25	$3.75
			Expected Value ($/Share): $11.70	

As the Expected Value Tree reflects, Vanda offers uly favorable risk/reward.

Nonetheless, in light of the challenging Big Picture environment, I will be drawing upon one other important risk-management tool in our quiver, which I discussed originally in our Investment Guidebook: a time-staggered entry.

With a time-staggered position entry, we don't buy a full position all at once, but instead we stage our investment into chunks. This approach protects us from declines in the market that may also offer even better entry levels. Of course, we risk the stock appreciating in value, and that we'll need to pay up for future tranches. But I've found this approach helpful in navigating position entries during bear markets.

With Vanda, I am recommending that subscribers buy one-third of a full position now at up to $4.90 per share. To be concrete: If you would ordinarily allocate

$5,000 to a *Biotech Frontiers* recommendation, I'm recommending that you invest $1,650 (one-third of $5,000) into Vanda now. I will be watching both the stock and the biotech market carefully, and will advise readers in a timely way on when to acquire the next tranche.

Action to Take: Buy one-third of a full position in Vanda Pharmaceuticals (Nasdaq: VNDA) up to $4.90 per share. Await further updates from Biotech Frontiers on when to purchase the balance.

Portfolio Review

BIOTECH FRONTIERS PORTFOLIO

Ticker / Link to Latest Update	Entry Date	Entry Price	Latest Close	Total Return	Status
Open Positions					
QURE Uniqure	01/09/2024	$6.62	$4.68	-29.31%	Hold
SGMT SAGIMET BIOSCN-A	01/09/2024	$5.71	$4.45	59.58%	Buy Under $6.75*
IOVA IOVANCE BTHRPTCS	02/05/2024	$7.92	$12.88	62.63%	Hold
ROIV ROIVANT SCIENCES	02/29/2024	$11.44	$11.24	-1.75%	Buy Under $13.00
VNDA Vanda Pharma	05/02/2024	$4.68	$4.68	0.00%	Buy Under $4.90

BIOTECH FRONTIERS CLOSED POSITIONS

Ticker	Entry Date	Entry Price	Exit Date	Exit Price	Total Return
VIR VIR BIOTECHNOLOG	01/09/2024	$10.18	03/18/2024	$10.68	4.91%
LYEL LYELL IMMUNPHRM	01/09/2024	$2.07	03/18/2024	$2.08	0.48%
STRO SUTRO BIOPHARMA	01/09/2024	$4.03	03/18/2024	$3.91	-2.98%
NUVB NUVATION BIO-A	01/09/2024	$1.51	03/18/2024	$2.26	49.67%
AVIR ATEA PHARMA	01/09/2024	$3.45	03/18/2024	$4.00	15.94%
KOD KODIAK SCIENCES	01/09/2024	$3.16	03/18/2024	$5.94	87.82%
ATHA ATHIRA PHARMA	01/09/2024	$2.87	03/18/2024	$2.49	-13.09%
CYTT Cyteir Therap	01/09/2024	$3.05	02/08/2024	$3.12	2.30%
CMRX Chimerix	02/08/2024	$0.91	03/18/2024	$1.10	20.87%

BIOTECH FRONTIERS WATCHLIST

Ticker	Initial Analysis	Latest Close
ADCT ADC Therapeutic N	04/04/2024	$4.71
ATHA ATHIRA PHARMA	01/09/2024	$2.04
AVIR ATEA PHARMA	01/09/2024	$3.85
CMRX Chimerix	02/08/2024	$0.95
KOD KODIAK SCIENCES	01/09/2024	$3.53
LYEL LYELL IMMUNPHRM	01/09/2024	$2.33
MRSN MERSANA THERAP	04/04/2024	$3.37
NRXP NRX Pharma	04/04/2024	$2.18
NUVB NUVATION BIO-A	01/09/2024	$3.20
SLN SILENCE THER SP ADR	04/04/2024	$21.42
STRO SUTRO BIOPHARMA	01/09/2024	$3.74
VINC Vincerx Pharma	04/04/2024	$0.89
VIR VIR BIOTECHNOLOG	01/09/2024	$8.74
VNDA Vanda Pharma	04/04/2024	$4.77

**Total Return* reflects selling 1/2 of Sagimet Bio (SGMT) on January 22, 2024 for $18.42 per share and resuming a full position on February 8, 2024, up to $6.75 per share.*

***Total Return* reflects selling 1/2 of Kodiak Sciences (KOD) on March 5, 2024 for $6.20 per share.*

After our mid-March exit call, and before the addition of Vanda, we have four names in the *Biotech Frontiers* portfolio: **Roivant Sciences (Nasdaq: ROIV)**, **Sagimet Biosciences (Nasdaq: SGMT)**, **Iovance Biotherapeutics (Nasdaq: IOVA)**, and **uniQure (Nasdaq: QURE)**. The first two are all "buys" below our buy-up-to prices: Iovance and uniQure remain holds. Notwithstanding the challenging market conditions for biotech, I remain very enthusiastic about each of the buy-rated stocks in our portfolio, and believe they're well-suited to deliver strong returns.

None of these stocks has issued material news this past month – though we are awaiting Iovance's first quarter earnings report, slated for May 9. I'll share any important tidings with you from that call next month.

Until soon, best regards,

Erez