

A 5X Opportunity on a “Full Stack” Biotech Play



Jeff Brown
March 15, 2021
44 min read

Last July, as I was flipping through the week’s recent research publications, one particular paper caught my attention.

A joint team of researchers from Duke and the National University of Singapore published a remarkable look at the immune system and how effectively our bodies can build T cell immunity to coronaviruses.

T cells (and B cells) are types of white blood cells that are critical to what is referred to as our adaptive immune system. Our adaptive immune system fights invading pathogens and other foreign molecules using these T cells and B cells.

T cell receptors (TCRs) exist on the surface of our T cells, and they are “programmed” to recognize antigens, which are proteins that are produced as a result of exposure to a virus or pathogen. That way, if we have been exposed to a pathogen, our bodies learn to recognize and fight off the disease in the future.

Needless to say, the timing of the research was highly relevant considering that it was only in March when the world came to terms with the fact that SARS-CoV-2 (COVID-19) had spread far and wide. This research should have been disseminated widely, but it wasn’t. Sadly, it was largely ignored.

The research demonstrated that patients who were exposed to SARS-CoV-1 during the SARS outbreak in the early 2000s and recovered still had T cell memory that reacted to exposure to the same coronavirus over 17 years later. That’s right – almost two decades of natural immunity and counting.

Ironically, while I wasn’t part of the research, I was actually one of those people exposed to the virus. I was on a business trip in Hong Kong at the absolute height of the SARS-CoV-1 outbreak in 2003. I must have contracted the virus on that trip, but I never knew it. I was asymptomatic, as most people were.

It wasn’t until I was tested a few months after I caught SARS-CoV-2 (COVID-19) last March that I realized I had been exposed to both.

Interestingly, the research also demonstrated that patients who had already been exposed to SARS-CoV-1 demonstrated strong cross-reactivity when exposed to SARS-CoV-2. Put more simply, those patients’ T cell immunity, developed back in 2003 from SARS-CoV-1, protected them against SARS-CoV-2 (COVID-19).

Also surprising was that the research demonstrated that preexisting T cell memory “learned” from exposure to common cold coronaviruses could cross-recognize SARS-CoV-2 (COVID-19) down to the exact molecular structure. That’s right – exposure to common cold coronaviruses actually helps train our immune system to fight off COVID-19.

And that’s why the majority of cases of COVID-19 go undetected. They are asymptomatic. And this is also why many cases that do present symptoms are mild and don’t even require a visit to a doctor.

The Crisis That Fueled Breakthroughs

What a different world 2020 would have been if the media and politicians had read and understood this research. The fear and panic could have been completely avoided. But sadly, the political narratives won at great devastation and cost that we are only now beginning to understand.

But something good has come out of all of this. Not only have we seen incredible advancements in messenger RNA (mRNA) technology used to develop vaccines, the COVID-19 pandemic has created a lot of awareness and excitement around our immune systems.

Coincidentally, almost exactly a year prior to the research being published, something highly relevant happened. A small biotechnology company focused on our adaptive immune systems and backed by Celgene, Illumina, LabCorp, Microsoft, and a small group of biotech venture capitalists went public.

Shares flew out of the gate, opening up 141%. But normal investors never had a chance. Only the insiders had the chance to take profits off the table in the weeks that followed.

Regular readers know that I don't like to recommend stocks during this window for traditional IPOs. There is too much market manipulation during the first 180 days of trading, and I also like to watch companies go through a couple cycles of earnings announcements to build confidence in the management team and company progress.

But that time has now passed for this exciting biotech company that went public in June 2019. And a recent pullback in the share price is finally presenting us a great opportunity to invest.

This month, we're going to be investing in **Adaptive Biotechnologies (ADPT)** as it uses our immune systems to diagnose and treat disease.

Welcome to *Exponential Tech Investor*

Welcome once again to *Exponential Tech Investor*. Here, our mission is to invest in small- and sometimes micro-capitalization companies on the bleeding edge of progress. And we've built a portfolio focused on some of the most exciting technology trends in the world.

The rate of technological advancement continues to accelerate. We're seeing incredible progress in 5G wireless networks, artificial intelligence, decentralized manufacturing, cloud computing, and – as this month's company shows – biotechnology.

This is one of the trends I am most excited about. As I wrote above, the COVID-19 pandemic has thrown a spotlight on this space... and with this month's recommendation, we're once again perfectly positioned to profit.

While we've seen higher volatility in the markets in recent weeks, our portfolio companies are still making excellent progress. And, as I wrote in [my update](#) last week, this pullback has been providing a great opportunity for new investors to establish positions in our portfolio. We also raised several buy-up-to prices to that end.

I'll cover that and all the latest in our portfolio updates below. So be sure to read today's issue to the end.

Our Incredible Immune System

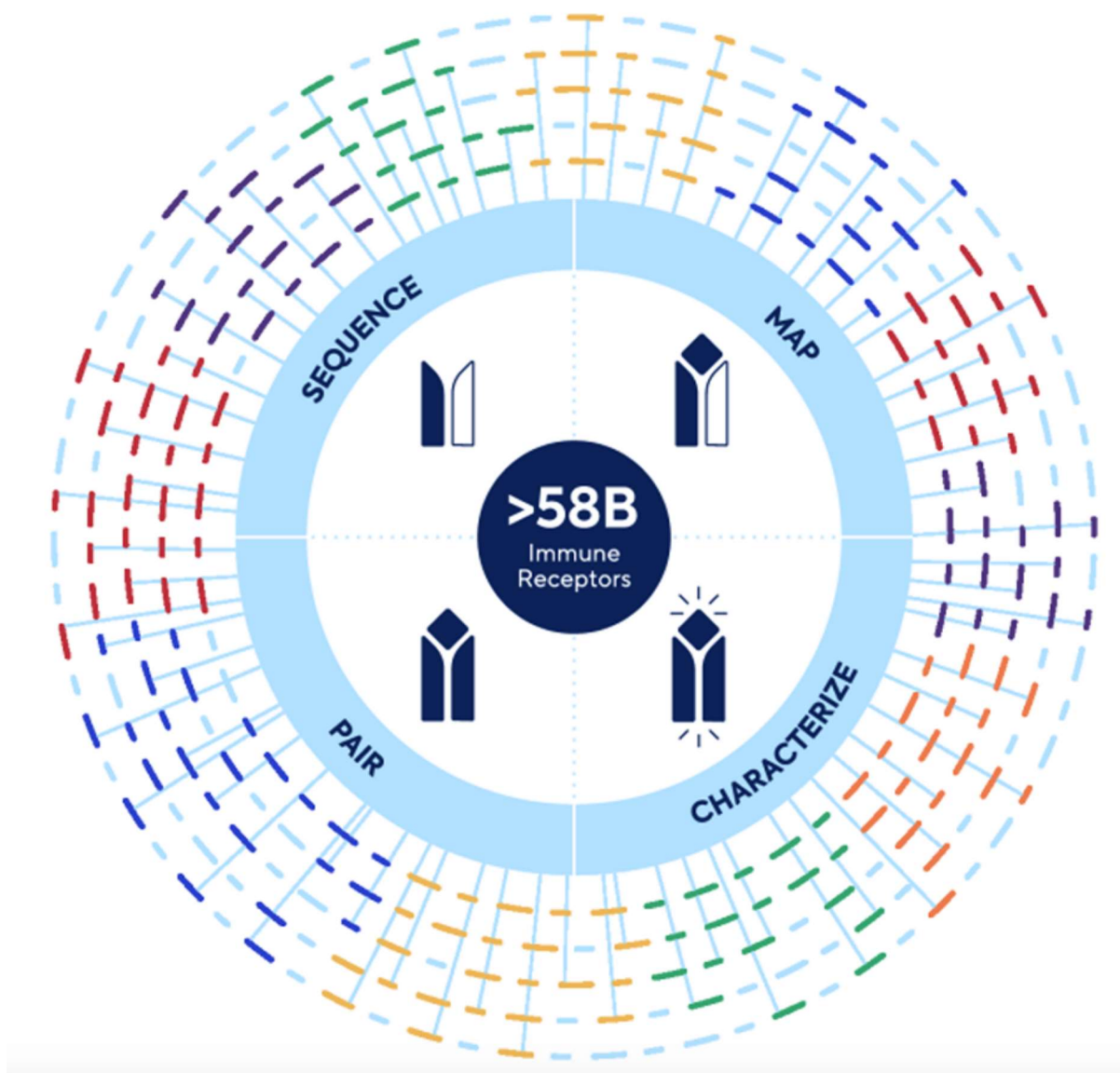
Adaptive Biotechnologies is, of course, named after our *adaptive* immune system. This exciting biotech company is focused on immune medicine and using the immune system for diagnosing and treating disease.

ADPT was originally focused on immunosequencing. We can think of this like sequencing every T cell receptor in our immune system in order to understand and quantify the health and status of our immune system. This kind of sequencing can be done with incredible sensitivity and specificity down to identifying a single cell out of a million cells.

It's no surprise that Illumina, the giant in genetic sequencing, found this company an exciting early stage investment.

Put another way, Adaptive sequences the genetics of the human immune system in order to understand exactly how the immune system detects and recovers from a disease. Since its founding in 2009, Adaptive has sequenced and characterized more than 58 billion immune receptors.

Adaptive Bio's "One" Immune Medicine Platform



Source: Adaptive Biotechnologies

Adaptive has been the pioneer in this space with its "immunoSEQ" product that is used by more than 165 biopharma companies around the world. Naturally, this product has been the core of Adaptive's business for years.

Combined with its "immunoSEQ T-MAP" product, which maps T-cell immune responses to specific antigens, this sequencing business historically made up the majority of Adaptive's revenues.

But it's been quickly expanding its capabilities...

"Full Stack" Biotech

To characterize Adaptive as just the world's best immunosequencing company would be a mistake. To use a software analogy, I like to think of Adaptive as a "full stack" biotechnology company.

In software, "full stack" refers to the entire architecture of a software application. It includes how and where an application is hosted, how it connects with databases, how it functions with other applications, and of course how users interact with the software.

And Adaptive has a similarly broad scope for its own products and services.

It doesn't *just* build technology that enables sequencing, immune research, and mapping of the immune system. Adaptive also built a diagnostics business capable of detecting and monitoring minimal residual disease (MRD) and developed products that can detect past infections or diseases. Thus, it can detect whether someone has natural cellular immunity or not.

And the final part of the "stack" is using all of this incredible data about the immune system that Adaptive has built over the last decade for the purpose of drug discovery.

Research, mapping, characterization, diagnostics, detection, drug discovery, and ultimately drug development... all in one company. This is a big play... Adaptive is swinging for the fences.

And Adaptive's work on SARS-CoV-2 (COVID-19) gives us a perfect example of this in action...

Purpose-Built Detection

The University of Oxford and AstraZeneca used Adaptive's technology to map the immune system interaction with specific SARS-CoV-2 antigens. The AstraZeneca vaccine was ultimately authorized for emergency use in the U.K. last December and for further use by the World Health Organization (WHO) this February.

Adaptive took this "full stack" work of sequencing, mapping, and characterizing the immune system with regards to SAR-CoV-2 antigens, and it developed "T-Detect."

This diagnostics product detects prior infection of COVID-19 using a single blood draw, and it has incredible accuracy of 97.1%. And T-Detect was just approved by the Food and Drug Administration (FDA) on March 5 for emergency use.

I ordered the T-Detect kit right away and received one at my house a couple of days later. Whenever I can, I always like to test the products and services of the companies that I research, as the first-hand experience always leads to better insights.

This test is the very first of its kind. And while this one specifically tests for prior infection of COVID-19, the reality is that this new product is just the beginning.

This is a breakthrough in the world of diagnostics. The COVID-19 test is just the first.

In fact, prior to the pandemic, Adaptive was already working aggressively on cellular diagnostics tests for Lyme disease, Celiac disease, and Crohn's disease. And a program for the early detection of ovarian cancer is also in its pipeline.

And for all these diseases, Adaptive is focused on one end goal...

One Blood Draw, Many Results

The goal, which Adaptive will achieve, is to have one single blood draw result in a spectrum of disease results. I went through a health checkup recently where I had about 15 vials of blood drawn to test for a variety of conditions. We can imagine how just one blood draw and one diagnostics test would dramatically reduce costs and quickly identify diseases to improve overall health outcomes.

Adaptive's technology will also enable population immunomics. This enables us to study the human immune system response to a virus or pathogen at a population level.

That's right... If we choose to use T-Detect at a population level, we can accurately understand what percentage of the population has already had COVID-19 and built natural immunity. If we do so, I'm willing to bet that the numbers are much higher than we might think.

More importantly, natural immunity is stronger and longer lasting than immunity from any vaccine. And understanding its prevalence will inform us as to whether or not we have reached herd immunity.

If there is one thing that we have been missing throughout this entire pandemic, it has been accurate data. T-Detect is far more accurate than any serology test for antibodies. And it can detect the past presence of COVID-19 no matter when we were infected. I can only hope that this test is used widely and the population-level results are published for everyone's benefit.

Before we go further, I want to emphasize one key point. Adaptive Bio is *not* a play on COVID-19.

That may come as a surprise. Yes, Adaptive will grow and profit from the sales of T-Detect and potentially from the development of an antibody therapy for SARS-CoV-2. But that's not the big picture. It's not the "full stack."

When I look at Adaptive, I see a company that leveraged its platform (its "full stack") to deliver an extremely valuable product (T-Detect) to market that addresses a critical need during the pandemic.

But our investment thesis for this company is much larger...

A Smart Capital Raise

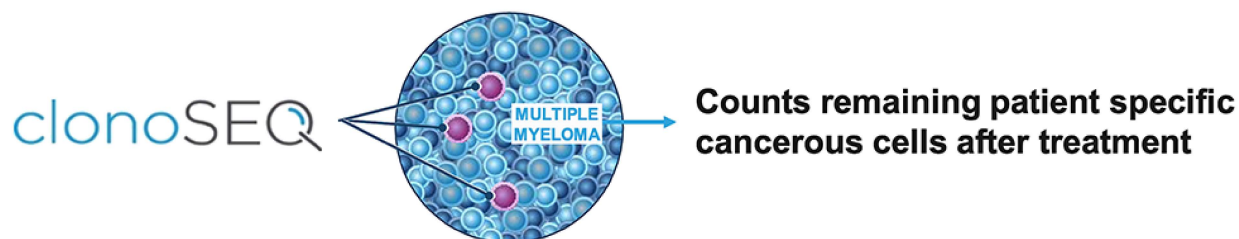
Adaptive was smart. Last year, COVID-19 heightened the excitement and focus on developing diagnostics and therapies. So Adaptive quickly capitalized on the situation and announced a secondary offering last July to take advantage of the 144% run-up in its share price since its initial public offering (IPO) the year prior. On the back of excitement about T-Detect and the potential of its powerful antibody therapy for COVID-19, it raised an additional \$368 million on July 15, 2020.

This was a great move, as the company more than doubled what it raised from its 2019 IPO. Adaptive now sits on more than \$800 million in cash – enough to fund research and development (R&D) for the next three years or until it starts generating free cash flow.

And one of its key areas of R&D has been detecting and monitoring minimal residual disease (MRD). MRD refers to small numbers of cancerous cells that remain in a person either during or following treatment when the patient is in remission. It's a major cause of relapse.

Adaptive's product "clonoSEQ" is the first test authorized by the FDA for the detection and monitoring of patients with multiple myeloma (MM), B cell acute lymphoblastic leukemia (ALL), and chronic lymphocytic leukemia (CLL).

ClonoSEQ



Source: Adaptive Biotechnologies

The specificity of these tests is incredible. ClonoSEQ can find one cancerous cell among a million cells. For patients who have undergone therapy for cancer, clonoSEQ gives a very precise understanding of how successful the treatment has been.

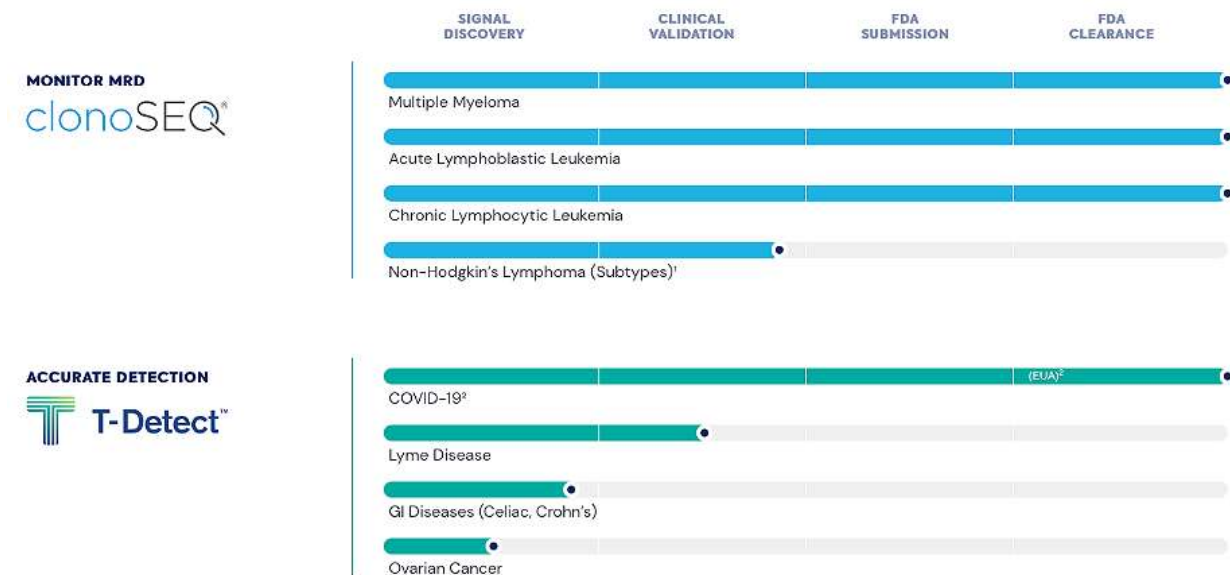
Adaptive has done a great job getting its diagnostic test for these cancers approved for reimbursement through insurance. As a result, about 225 million people are now covered. ClonoSEQ is used in literally every single one of the National Comprehensive Cancer Network (NCCN) centers around the U.S.

More than 40 biopharma companies are now using clonoSEQ in more than 190 clinical trials. Needless to say, it has become the industry standard for diagnostic testing in blood cancers.

At the moment, clonoSEQ is approved for ALL and MM in bone marrow and CLL in blood. And over the course of the next 24 months, it should receive approval for ALL and MM in blood and expand its support for non-Hodgkin's lymphoma (NHL).

In total, by 2024 we can expect that Adaptive's clonoSEQ product will be accessible to about 4.6 million cancer patients around the world.

Adaptive Biotechnologies' Diagnostics Pipeline



Source: Adaptive Biotechnologies

The way we can view a company like Adaptive is that it has two business lines that are growing exponentially at fantastic gross margins:

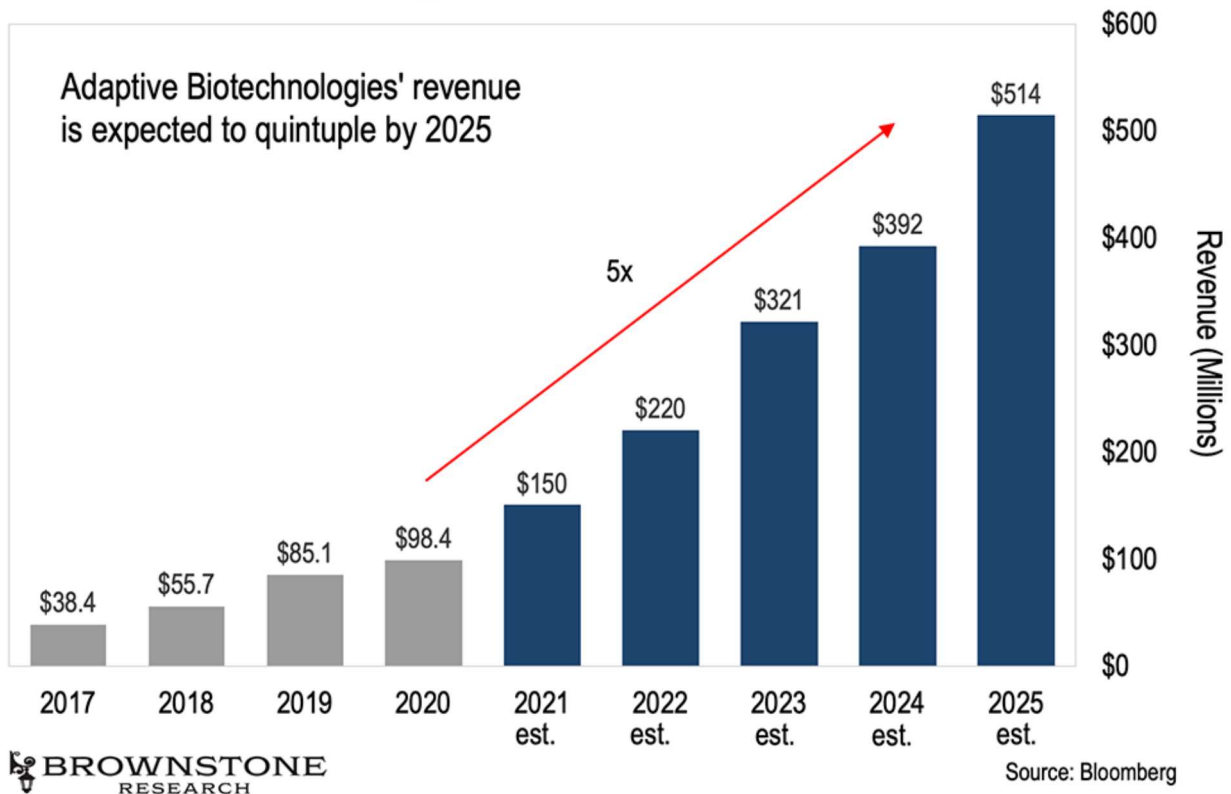
- Life Science Research – immunoSEQ products (sequencing and mapping)
- Clinical Diagnostics – clonoSEQ and T-Detect (detection of disease or past infection)

These business lines are a key part of Adaptive Biosciences' growth potential, but that's still not the whole picture...

The End Game

Here is the best part. Adaptive will grow its revenue this year from these two business lines at more than 50% year over year at 73% gross margins. And as it does so, it will gain an even larger competitive advantage in understanding the human immune system.

Adaptive Biotechnologies Annual Revenue

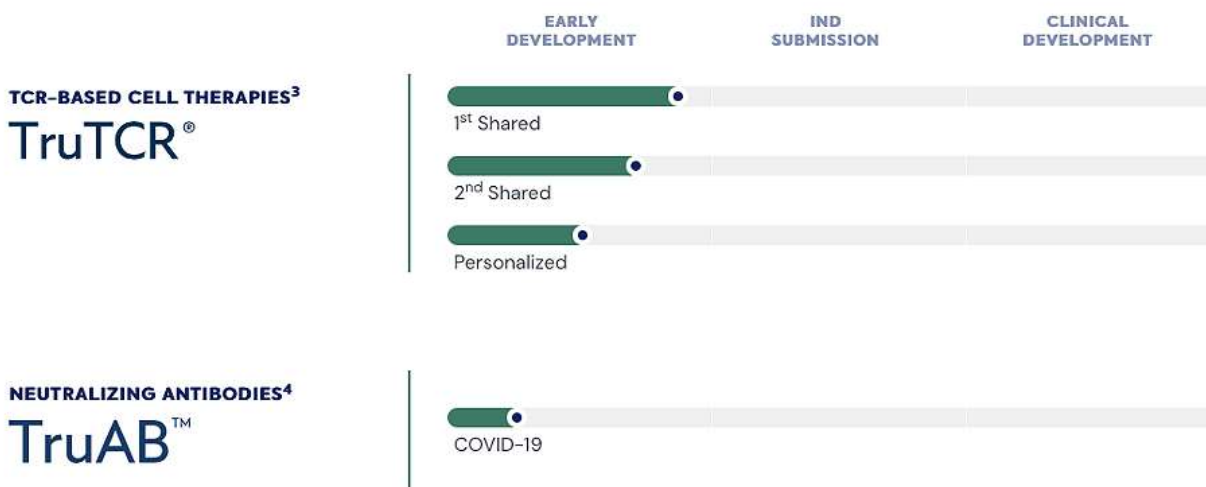


And this fuels the third line of business that has the largest upside – drug discovery.

Adaptive's decade-long push into R&D in the immune system culminated in a \$2.3 billion deal with biotechnology giant Genentech in 2019. Genentech is a wholly owned division of pharmaceutical powerhouse Roche following its acquisition for nearly \$47 billion back in 2009.

Adaptive's partnership with Genentech is to develop TCR-based cell therapies for the purpose of delivering personalized cancer therapies. Adaptive will develop a personalized cell therapy based on patient-specific T cell receptors. This is the definition of personalized and precision medicine.

Adaptive Biotechnologies' Drug Discovery Pipeline



Source: Adaptive Biotechnologies

The value of the deal with Genentech is hard to overstate. It's worth about half of Adaptive's current \$5 billion valuation. But the value of Adaptive's own in-house, personalized TCR-based cell therapies is ultimately worth much more.

And that's why I'm so excited about this recommendation...

A Dominant Patent Portfolio

No other company has developed as deep an understanding of the adaptive immune system as Adaptive Bio.

The company already has 386 issued patents across its "full stack" immune medicine platform and 65 more pending patent applications. Adaptive has a stated goal of ultimately generating a return on its patent portfolio.

Of course, most companies will say that they want to do this, but Adaptive reminds me a lot of our portfolio company Editas Medicine (EDIT). Its adaptive immune system patent portfolio is as valuable in its space as Editas' patent portfolio is to CRISPR genetic editing technology.

And a key part of Adaptive's story is its secret weapon for building its map of 58 billion immune receptors... artificial intelligence.

Back in December of 2017, Adaptive struck a deal with Microsoft to collaborate on mapping out the relationships of these T cell receptors with antigens.

The fact that it involved Microsoft wasn't what made it a smart deal. What I liked was the deal structure.

The "collaboration" was actually a \$45 million investment by Microsoft into Adaptive Bio. In exchange, Adaptive would receive access to Microsoft's machine learning technology and would agree to spend \$12 million over the seven-year term of the agreement on Microsoft Azure cloud services.

Microsoft is known for making these kinds of deals. I refer to them as "buying business." If that's how Microsoft has to win, I'm not impressed.

But for a company like Adaptive Bio, this was a smart deal. It received \$45 million and only needs to spend \$12 million of that on cloud services – which it needs to buy anyway.

Adaptive Bio is attempting to do for the immune system what genetic editing companies are doing for mutations in the human genome. By using artificial intelligence (machine learning), it is accelerating the process for both diagnostic purposes and drug discovery.

This is one of the single biggest stories of this decade.

Opportunistic Timing

So why invest in Adaptive Biotechnologies now?

Well, an overreaction gave us a perfect window to establish a position.

Adaptive Biotechnologies (ADPT)



Remember that strategic \$2.3 billion collaboration deal with Genentech? On March 2, Genentech announced that it had suspended the research on its first cancer target due to safety issues.

There weren't many details shared at all, and it was entirely Genentech's decision. This first target was still in pre-clinical stages. Therefore, it wasn't under review by the FDA.

In pre-clinical stages, these kinds of decisions are normal. Genentech has a list of potential candidates, and since it is the one paying, it is going to choose the targets that have the highest probability of success. The fact that it decided to pass on its first target is simply no big deal.

The key point is that there was no change at all to the collaboration between Adaptive and Genentech. They're going full steam ahead.

And from a financial perspective, only about \$4–5 million of revenue will slip from 2021 into 2022. The market was disappointed because it was expecting an investigational new drug (IND) application this quarter, but now we can expect that to happen in early 2022.

This resulted in a Goldman Sachs downgrade for this year... and thus a fantastic opportunity for us to step in at a good price and invest ahead of future growth catalysts.

This is one of the most important ways that we can stack the deck in our favor rather than being taken advantage of by Wall Street. When they make silly, short-term decisions, we pounce on great companies and hold for fantastic long-term capital gains.

When I look at a company like Adaptive, it reminds me of where messenger RNA (mRNA) companies were back in 2019. Moderna is a perfect example. It was roughly a \$5 billion company back in 2019 with what was perceived to be a very bloated and distracted portfolio of possible drug candidates. But its platform for mRNA was solid, and the company is now worth 10 times what it was back then.

Adaptive has the potential to do for the adaptive immune system over the next couple of years what Moderna was able to do with mRNA.

And while we likely won't have the rare confluence of events that happened around COVID-19 over the next two years (hopefully), Adaptive is already benefiting from renewed interest in the human immune system and the potential for accelerated immunotherapies. This is an investment with 5x return potential over the next few years.

Let's make sure to take advantage of this opportunity.

Action to Take: Buy shares in Adaptive Biotechnologies (ADPT) up to \$50 a share.

Risk Management: We will be holding this position without a stop loss. So let's remember to always keep our position size rational. And remember, I never recommend going "all in" on any one investment.

March 2021 Portfolio Update

The last month brought more stimulus than I thought was even possible in such a short period of time. We're printing trillions of dollars with no regard for debt and no intention to ever pay it back. At the same time, the Federal Reserve has explicitly guaranteed that interest rates will remain near zero for an extended period of time.

This will all end very badly, but for now we are in very bullish market conditions. There is more than \$2 trillion of dry powder just waiting to be invested. And there is nothing to be made in buying treasuries because the interest rates are so low. This means that the money will continue to flow into the markets, and of course into technology and biotechnology companies in particular as they offer the best return on invested capital.

I'll be the first to alert my subscribers when I think that market conditions are getting weak. But for now, conditions like these can last far longer than we expect. And we're going to take advantage of these market conditions. After all, as investors, when a government is indiscriminately printing money and devaluing its currency, our best defense is to grow our wealth at a rate that is much faster than the rate of the money printing.

And with regards to fixed assets like real estate, the smartest move is to lock in fixed rate 30-year loans. There is nothing better than paying back debt with devalued fiat currency. It also means that any income producing properties will continue to deliver higher capitalization rates year after year.

As for our *Exponential Tech* positions, it was another exciting month for our portfolio, and we have a lot to cover in our updates today. Many of our companies released their quarterly earnings reports this month. Our precision medicine companies provided some great pipeline updates. Desktop Metal also made a major announcement, and we even have two companies involved in a corporate bidding war, which is exciting to watch play out. The best part is that either way we win.

We'll go over all those developments in just a minute. But first I want to welcome those new subscribers who have just recently joined us.

Our mission at *Exponential Tech Investor* is to identify small- and sometimes micro-cap companies poised for exponential growth and breakout profits... before Wall Street catches on.

At the very minimum, we're investing in companies that have the potential to double or triple within 18–24 months. That's my expectation with every recommendation I make.

I also include tech companies with moonshot potential in our portfolio. These companies have the potential to 5x or even 10x our money within a few years as our investment theses play out and Wall Street piles in.

And we have built an exciting portfolio designed to take advantage of the top trends in technology today. 5G, artificial intelligence (AI), machine learning (ML), decentralized manufacturing, cloud computing, and of course, genetic editing and precision medicine. These are massive trends that are reshaping the world right before our eyes.

And before we get to our company-specific updates today, I want to highlight some big news from the world of fifth-generation (5G) wireless technology.

One of the primary misconceptions people have about 5G is that it doesn't work indoors. I have debunked this before, pointing out that the infrastructure build-out is still in its early stages. Once all the infrastructure is in place, 5G will work flawlessly indoors and outdoors.

And there are actually two ways that this can happen. Of course, large wireless operators like Verizon, AT&T, Vodafone, Telefonica, etc. can extend their network coverage to include small base stations inside of buildings to ensure continuity of coverage. This is exactly what happens with 4G by the way.

There will also be private 5G networks built out using a different kind of spectrum. And tower company Crown Castle just gave us an example of what this looks like.

Crown Castle just built a 5G wireless network inside one of New York City's Park Avenue skyscrapers. The company utilized the unlicensed 3.5 GHz Citizens Broadband Radio Service (CBRS) spectrum band, which will provide lightning-fast connectivity to tenants and employees in the building.

The key here is the CBRS spectrum. This is spectrum that the Federal Communications Commission (FCC) has set aside to be licensed on a case-by-case basis.

We have talked in my daily e-letter *The Bleeding Edge* about how major wireless operators like Verizon, AT&T, and T-Mobile have been gobbling up C-band, or mid-band spectrum in the FCC auctions this year. That gives those companies the exclusive right to build their 5G networks on the associated frequency bands.

The CBRS spectrum is separate from those auctions. In fact, it is reserved for specific use cases like the one Crown Castle just demonstrated.

And anyone with a good application – whether it's a company like Crown Castle or a local government – can apply to secure their own CBRS spectrum.

What CBRS does is enable smaller players to secure spectrum for their own networks and services. We can think of this as custom designed, private 5G networks that are purpose built to support a particular application, for example emergency services, or a private corporate wireless network.

So we will see all kinds of entities build out 5G networks inside of buildings where it makes sense to do so, or over geographic areas that provide coverage for a public or private organization.

And this is just more proof that the most explosive part of the 5G boom is still ahead of us. That's why we raised our buy-up-to prices on several of our 5G positions last week.

The new prices are reflected in our company updates section below. And I encourage subscribers who missed it to review the alert I sent out last week [right here](#).

Okay, let's get to our portfolio review.

5G Boom

Akoustis Technologies (AKTS): Akoustis was busy this month. We have several newsworthy items to discuss.

To start with, Akoustis inked yet another design win and volume order this month. This one came from its second CBRS customer. The new customer placed an order for Akoustis' 3.6 GHz XBAW filters to go into its CBRS infrastructure products.

Akoustis' design wins and volume orders are piling up at this point. We are going to see the company's revenue accelerate in the second half of the year as a result. And that will be great for its share price.

And Akoustis plans to double its manufacturing capacity based on all the demand it is seeing.

To that end, the company announced \$35.6 million in new equity financing this month. This includes the sale of 1.5 million shares of common stock to institutional investors priced at \$14.36 per share, and the sale of 823,439 shares of common stock priced at \$17.16 in an at-the-market offering.

This is a great move. Dilution will only be about 5%, and this will enable Akoustis to scale up manufacturing significantly. The market is starting to realize that its XBAW filters are the best choice for next-generation wireless technology.

Lastly, Akoustis announced that all of its convertible notes have been converted into equity and all liens have been released accordingly. The company has no more convertible debt outstanding.

As it stands, we are currently up almost 221% on our position in AKTS, and we are just getting into the explosive growth stage.

This fiscal year ending June 30 was the breakout year in terms of revenue, up more than 400% year over year. And next fiscal year we are going to see the same again with a forecasted 422% year on year growth.

Akoustis (AKTS) is a buy up to \$16.25 a share.

II-VI Inc. (IIVI): What an interesting month for II-VI.

Last month, we talked about how Lumentum announced plans to acquire Coherent for \$5.7 billion in cash and stock. Well, II-VI put in a competing bid valuing Coherent at \$6.5 billion this month, which Coherent agreed to accept... at first.

Then Lumentum came back and upped the ante, working out a revised offer to acquire Coherent at a \$6.6 billion valuation. Coherent agreed to accept this offer, and it appeared that Lumentum would in fact win the bid.

And then II-VI came back with a bid valuing Coherent at \$6.64 billion. Lumentum has until March 17 to counter.

It is always interesting to watch these corporate bidding wars play out. And the fact that II-VI and Lumentum are willing to go back and forth with bids tells us how valuable Coherent's laser technology is.

This is a fast-moving situation. As I write, Lumentum has not yet put in a counter bid, though it has until March 17 to do so. Rest assured, I'll be monitoring this situation closely. And it isn't always just about the largest number. Acquisitions can be all cash, all stock, or a combination of the two. And they almost always come with other restrictions and incentives for performance. And whether or not the combined entity will be successful also is highly relevant. If it is a bad deal, and a bad combination, the stock price will drop over time. All of these items are considered by the board of the company being acquired before deciding which deal to accept.

And irrespective of what happens with Coherent, II-VI is ramping up manufacturing as we speak.

II-VI just introduced its new platform for solid-state lasers and optical components for automotive LIDAR (light detection and ranging) applications this month. And the company announced that it will double its manufacturing capacity of optical filters for PCR instrumentation and 5G optical access networks over the next five years.

Clearly, II-VI is seeing big-time demand for its products. That's great to see.

We are now up about 79% on our position in IIVI, and we haven't yet reached the most explosive part of the 5G wireless boom.

II-VI Inc. (IIVI) is a buy up to \$86 a share.

Infinera (INFN): Infinera released its fourth-quarter 2020 earnings report this month. The stock pulled back in response as quarterly revenue fell short of analyst estimates, but the numbers were solid. In fact, Infinera generated significant free cash flow during Q4. That's great to see.

Here are the highlights:

- Quarterly revenue was \$353.5 million, down from \$384.6 million for the same period last year.
- Gross margin for the quarter was 7%, up from 29% for Q4 2019.
- Infinera was cash flow positive for the quarter, generating \$40 million in free cash flow.
- Infinera expects Q1 2021 revenue between \$319 and \$339 million.

And here is CEO David Heard:

We ended the year with another quarter of strong performance marked by solid execution across the board. Fourth quarter non-GAAP revenue was in line with our outlook, with non-GAAP gross margin and non-GAAP operating margin coming in above the guidance range. Further, we generated free cash flow in the quarter.

I am encouraged by the financial progress, operational improvements, and technology innovation delivered by the Infinera team in 2020. We believe our team's focused execution in 2020 positions us well towards achieving our target business model.

With this month's move we are now up almost 73% on our stake in INFN, and there's tremendous upside ahead.

Infinera (INFN) is a buy up to \$11.75 a share.

Lumentum (LITE): As I mentioned, we are watching to see if Lumentum puts in another bid for laser maker Coherent. Coherent will have to pay Lumentum a termination fee of \$217.6 million if it does accept II-VII's offer.

Also of note, Lumentum announced new high-power, high-efficiency five and six junction vertical cavity surface-emitting laser (VCSEL) arrays this month.

These components go into consumer electronic devices as well as automotive LIDAR to provide 3D-sensing functionality. And Lumentum's next-generation arrays will provide more power and better efficiency than anything else on the market today.

As it stands, we are now up over 50% on our position in LITE, and the company is still undervalued at these levels, regardless of whether it wins the Coherent bidding war or not.

Lumentum (LITE) is a buy up to \$95.25 a share.

MACOM Technology Solutions (MTSI): MACOM appointed John Ritchie as an independent Director this month. Mr. Ritchie brings 25 years of experience and leadership in the networking equipment and technology industry to MACOM's Board of Directors.

It was otherwise a quiet month from MACOM after last month's big earnings release.

As it stands, we are now up 269.5% on MTSI, and the stock still has room to run.

MACOM Technology Solutions (MTSI) is a buy up to \$69.25 a share.

SiTime (SITM): SiTime has not traded below our buy-up-to price of \$29 per share since our recommendation went out in May. We have not officially added the company to our portfolio for this reason.

We do recognize that many subscribers have established a position in this company, and that's great.

As a reminder, we use a conservative methodology in tracking overall portfolio performance, which requires our stock to close at or below our buy-up-to price before we can officially include it in our model portfolio. This ensures that all *Exponential Tech Investor* members have an opportunity to establish a position within range.

I will continue to track SITM in these updates, however.

And this month, SiTime announced a 3 million share common stock offering priced at \$127 per share. This will generate gross proceeds of about \$190.5 million for the company, and dilution will be less than 9%.

As it stands, readers who bought SITM after my recommendation on May 18 are now up over 287% on their position, nearly quadrupling their money. Congrats to those investors who were able to get in.

SiTime (SITM) is a buy up to \$29 a share.

AI Revolution

ACE Convergence Acquisition Corp. (ACEV): Achronix released its fourth-quarter 2020 earnings report this month. Here are the highlights:

- Achronix increased annual revenues to \$104.9 million for 2020.
- Its gross margin for the year was 79%.
- It released the first device in the Speedster7t 7nm high-performance data acceleration FPGA family for manufacturing.
- It added 12 new sales representative teams in key geographies to accelerate the adoption of Speedster7t FPGAs and Speedcore™ products worldwide.
- It's Speedster7t FPGA product received the Frost and Sullivan New Product Innovation Award for 2020 North American FPGAs for Data Centers.

And here is CEO Robert Blake:

2020 was a strong growth year for Achronix. Our new and highly differentiated Speedster7t FPGAs together with our innovative Speedcore eFPGA IP solutions for data acceleration have seen significant levels of new design activity across all of our target end-market applications.

We look forward to closing our merger with ACE Convergence Acquisition Corp. (ACE) in the second quarter of 2021 and completing our listing on Nasdaq under the new Achronix Semiconductor Corporation ticker symbol ACHX. Through this business combination, we intend to use the additional capital generated to help further accelerate the adoption of data acceleration solutions and strategic product development initiatives to drive long-term growth.

As Blake mentioned, we'll see the ACEV ticker convert to ACHX at some point in the next three months. And we can look forward to fantastic growth from Achronix in the years ahead.

ACE Convergence Acquisition Corp. (ACEV) is a buy up to \$11.50 a share.

Ambarella (AMBA): Ambarella put out its fiscal fourth-quarter 2021 earnings release this month. Both revenue and earnings beat analyst estimates, as did Ambarella's forward guidance. Here are the highlights:

- Quarterly revenue was \$62.1 million, an increase of 9% year-over-year.
- Quarterly gross margin was 60.8%, up from 58.2% for the same period last year.
- Fiscal year 2021 revenue was \$223 million, down from \$228.7 million for fiscal year 2020.
- Fiscal year gross margin was 60.8%, up from 58% for fiscal year 2020.
- Ambarella announced that it expects fiscal Q1 2022 revenue between \$67 and \$70 million, which is materially higher than the Street's \$56.41 million estimate.

Here's CEO Fermi Wang:

Demand for our AI vision silicon products accelerated in FY21 with more than 175 unique customers purchasing engineering parts and/or development systems, including more than 40 who reached production volumes. Cumulatively, we expect to have shipped more than 2 million computer vision SoCs by the end of Q1, with more than 300,000 CV SoCs shipped into the automotive market.

And we saw some analyst activity in response:

- Exane BNP Paribas raised its price target to \$150 per share, maintaining its 'Outperform' rating.
- Cowen raised its price target to \$140 per share, maintaining its 'Outperform' rating.

These targets are 18% and 27% above where the stock trades today.

We are now sitting on gains of 164.7% with AMBA. Let's continue to hold.

Ambarella (AMBA) is a buy up to \$46 a share.

Schrödinger (SDGR): Schrödinger released its fourth-quarter and fiscal year 2020 financial results this month. Here are the highlights:

- Quarterly revenue was \$33 million, an increase of 28% year-over-year.
- Software revenue for the quarter was \$25 million, an increase of 42% year-over-year.
- Software gross margin for the quarter was 77%, down from 79% for the same period last year.
- Fiscal year 2020 revenue was \$108.1 million, an increase of 26% over 2019.
- Software revenue for fiscal year 2020 was \$92.5 million, an increase of 39% over 2019.
- Software gross margin for fiscal year 2020 was 81%, up from 80% in 2019.
- Total annual contract value (ACV) was \$92.1 million in 2020, an increase of 22% over 2019.
- Schrödinger grew its number of customers with over \$1 million in ACV to 16 in 2020, up from 10 in 2019.
- It grew its number of customers with over \$100,000 in ACV to 153 in 2020, up from 131 in 2019.
- It grew its active customers with over \$1,000 in ACV to 1,463 in 2020, up from 1,266 in 2019.

- It expects fiscal year 2021 revenue to be between \$124 and \$142 million, which fell short of the \$177.25 million analyst estimate.
- It expects fiscal year 2021 software revenue to be between \$102 and \$110 million, representing at least 10% year-on-year growth.
- It ended Q4 2020 with cash and cash equivalents of \$643.2 million.
- It plans to add new programs to its own development pipeline this year.
- It is on track to submit three IND filings in 2022.

The stock initially pulled back as Schrödinger's quarterly revenue missed analyst estimates, as did its forward guidance. However, the numbers were solid.

This was just a case of SDGR needing to cool off. After all, the stock had just doubled from November 2020 to February 2021.

And in case any subscribers missed [my alert](#) from last week, we used this temporary pullback to raise our buy-up-to price. Schrödinger is a company that I want to make sure every *Exponential Tech Investor* has exposure to.

We are now showing gains of 35.8% on SDGR, and the convergence of AI and biotechnology is in the early stages of a decade-long trend. Investors who haven't yet established a position in this company should do so at these levels.

Schrödinger (SDGR) is a buy up to \$82.25 a share.

Yext (YEXT): Yext put out its fiscal fourth-quarter 2021 earnings release this month. The numbers were strong as both sales and earnings beat analyst estimates. Here are the highlights:

- Quarterly revenue was \$92.2 million, an increase of 13% year-over-year.
- Quarterly gross margin was 76.6%, up from 74.3% for the same period last year.
- Fiscal year 2021 revenue was \$354.7 million, an increase of 19% over fiscal year 2020.
- Fiscal year 2021 gross margin was 75.6%, up from 74.2% in fiscal year 2020.
- Annual recurring revenue (ARR) was \$354 million as of January 31, 2021 – an 8% year-over-year increase.
- Yext expects fiscal first quarter 2022 revenue to be between \$87 and \$89 million, which fell short of analyst estimates of \$95.02 million.
- It expects fiscal year 2022 revenue to be between \$375 and \$380 million, which fell short of analyst estimates of \$411.04 million.
- The company grew its customer count to over 2,400, an increase of 21% year-on-year.
- It announced that its "Orion" search algorithm update will go live on March 17, enabling advanced extractive question answering.

We are now sitting on gains of almost 9% with our position in YEXT, and the company trades just within buy range. Investors who haven't yet established a position should do so at these levels.

Yext (YEXT) is a buy up to \$16.80 a share.

Cybersecurity

CyberArk Software (CYBR): We were finally able to establish a position in CyberArk on March 4 as the stock traded below our \$140 buy price for the first time. And shares of CYBR closed below \$140 on the next two trading days – March 5 and March 8. That gave investors a

great window to establish a position.

Patience almost always pays off in establishing a position. It is rare for there not to be some natural volatility that allows us to build a position at a good price.

I'm very excited to have CyberArk back in the portfolio. Given the recent SolarWinds cyberattack, there is an incredible amount of attention on cybersecurity right now both in the public and private sectors.

And there was some very interesting deal activity in the privileged access management space, which is where CyberArk is the dominant player. Private equity giant TPG acquired Thycotic and then decided to merge it with another private equity-owned company called Centrify (owned by Thoma Bravo). The goal is to create something large enough to be able to compete with CyberArk.

But these kinds of fabricated mergers rarely work well. Private equity firms merge the companies to drive "synergies," which is corporate speak for cutting costs and employees. Product lines need to be cut as it doesn't make sense to have two products doing the same thing. This upsets customers and employees. Plus, there is turn over, and it is a painful, multiyear road before everything gets sorted out. And the two companies combined don't even have half the revenue of CyberArk.

Perhaps the private equity firms should just acquire CyberArk for a nice premium as I have already predicted will happen...

CyberArk (CYBR) is a buy up to \$140 a share.

Decentralized Manufacturing

Desktop Metal (DM): Big-time news from Desktop Metal this month. In partnership with Uniformity Labs, DM has developed a breakthrough powder that enables aluminum sintering for binder jetting 3D-printing technology. Here's CEO Ric Fulop on what this means for the company:

This breakthrough represents a major milestone in the development of aluminum for binder jetting and a significant step forward for the AM industry as it is one of the most sought-after materials for use in automotive, aerospace and consumer electronics.

The global aluminum castings market is more than \$50 billion per year, and it is ripe for disruption with binder jetting AM solutions. These are the best reported properties we are aware of for a sintered 6061 aluminum powder, and we are excited to make this material available exclusively to Desktop Metal customers as part of our ongoing partnership with Uniformity Labs.

So this opens the door to a massive addressable market. That will drive significant revenue growth in the coming years.

Also of note, Desktop Metal just released its fourth quarter and fiscal year 2020 earnings report after the market closed today. I will go through everything in the earnings release and report back with the key highlights next month.

As it stands, we have gained 85.8% on DM. Let's continue to hold.

Desktop Metal (DM) is a buy up to \$11 a share.

Precision Medicine

Arcturus Therapeutics (ARCT): Arcturus released its fourth quarter 2020 earnings report this month. Here are the key highlights:

- Arcturus confirmed that ARCT-021 – its COVID-19 vaccine – is on track to enter a Phase 3 clinical trial in the second quarter.
- The company plans to apply for emergency use authorization (EUA) for ARCT-021 in the second half of the year.

- It is on track to begin the Phase 2 multiple dose study for ARCT-810 for Ornithine Transcarbamylase (OTC) Deficiency in the second quarter.
- It ended 2020 with cash and cash equivalents of \$463 million, which will provide runway for more than 24 months.

The company also announced that it has acquired an exclusive license from Alexion Pharmaceuticals for mRNA manufacturing technology related to nucleic acid purification. This won't impact Arcturus' lead therapies, but it could lead to some great new development candidates in the near future.

This month's pullback has brought ARCT back down into buy range. Investors who weren't able to establish a position after our buy alert in January should do so at these levels.

Arcturus Therapeutics (ARCT) is a buy up to \$64.50 per share.

Beam Therapeutics (BEAM): This month, Beam announced the acquisition of Guide Therapeutics for \$120 million in common stock. Guide Tx develops nonviral drug delivery vehicles for genetic medicines, which can help Beam target new tissues and diseases with its therapies.

This was a smart deal done with excellent timing. With an all stock deal, Beam used its recent run up in share price to its advantage to acquire a company with technology that is valuable to its core business. At it did so at a "cost" with a nominal impact to Beam.

Here's CEO John Evans on the move:

We believe that the innovative scientists and technology at GuideTx will enable us to broaden the reach of gene editing even further. This investment represents a significant expansion of Beam's ongoing investment in a full suite of innovative delivery technologies for genetic medicines, and potential lifelong cures, for a wide range of diseases.

Also of note, Wells Fargo initiated coverage on Beam Therapeutics this month with an 'Overweight' rating and a \$145 price target. That's about 53% above where BEAM trades today.

We are now sitting on gains of 301.4% on our position in BEAM. Let's continue to hold.

Beam Therapeutics (BEAM) is a buy up to \$42 a share.

CRISPR Therapeutics (CRSP): CRISPR released its quarterly earnings report a few days after our February issue of *Exponential Tech Investor* went out. Here are the key highlights:

- CRISPR Therapeutics announced that more than 20 patients have now been dosed with CTX001 across both the sickle cell disease and beta thalassemia trials. Both trials will complete their enrollment this year.
- It expects to report additional data from the Phase 1 trial of CTX110 for relapsed or refractory B-cell malignancies later this year.
- It expects to report topline data from the Phase 1 trial of CTX120 for relapsed/refractory multiple myeloma later this year.
- It also expects to report topline data from the Phase 1 trial of CTX130 for solid tumors and certain hematologic malignancies later this year.
- It plans to initiate the Phase 1/2 clinical trial of its allogeneic cell-derived therapy for Type 1 diabetes, in partnership with ViaCyte, later this year.
- It ended fiscal year 2020 with \$1.69 billion in cash and cash equivalents.

And we saw a flurry of analyst activity in response:

- Oppenheimer raised its price target for CRSP to \$187 per share, maintaining its 'Outperform' rating.
- Chardan raised its price target to \$175 per share, maintaining its 'Buy' rating.
- JMP Securities initiated coverage on the company with an 'Outperform' rating and a \$160 price target.
- Barclays raised its price target to \$140 per share, maintaining its 'Overweight' rating.

These targets are 5-40% above where the stock trades today.

We have now gained 144.5% on CRSP. Let's continue to hold.

CRISPR Therapeutics (CRSP) is a buy up to \$54.50 a share.

Editas Medicine (EDIT): Editas released its fourth quarter 2020 earnings report and pipeline update this month. Here are the highlights:

- Editas Medicine confirmed that it has dosed the first patient in the mid-dose cohort of the EDIT-101 trial.
- It remains on track to present initial data from the EDIT-101 trial later this year.
- It is currently enrolling patients for the Phase 1/2 trial of EDIT-301 for sickle cell disease – first patient dosing will happen later this year.
- It plans to file an Investigational New Drug application (IND) with the Food and Drug Administration (FDA) later this year to move forward with a Phase 1/2 study of EDIT-301 in beta thalassemia patients.
- It expects to name a development candidate for the treatment of Retinitis Pigmentosa Type 4 (adRP4) by year-end.
- It continues to advance internal and external manufacturing capabilities to support its portfolio of in vivo and ex vivo cell medicines.
- It ended 2020 with \$512 million in cash and cash equivalents, which will provide cash runway into 2023.

Editas Medicine also announced that it will participate in a few upcoming medical conferences. They are:

- American Association of Cancer Research Annual Meeting taking place April 10-15
- Association for Research in Vision and Ophthalmology (ARVO) Annual Meeting taking place May 1-7

In response, Chardan adjusted its price target to \$75 per share, maintaining its 'Buy' rating. That's about 58% above where the stock trades today.

My gears started turning when I saw that Editas will participate at the ARVO 2021 annual meeting. That's purely a medical conference, which is often where critical research and data is presented and discussed. Plus, the chief scientists at biotech companies are typically more comfortable at these industry-specific events than they are at investor conferences held by the big Wall Street firms.

So we'll keep an eye on the ARVO meeting closely. There's a chance Editas will provide a little more insight on how the EDIT-101 trial is going.

In the meantime, we are now up 157.1% on our position in EDIT. Let's continue to hold.

Editas (EDIT) is a buy up to \$56.28 a share.

Heron Therapeutics (HRTX): Heron also put out its after its fourth quarter 2020 earnings release. Here are the key highlights:

- Heron confirmed that its NDA for HTX-011 is under FDA review. The Prescription Drug User Fee Act (PDUFA) date is May 12.
- It is currently building-out manufacturing capacity for HTX-011 to meet anticipated commercial demand in the U.S., Europe, and the rest of the world.
- It is also developing a global marketing strategy to launch HTX-011 in markets as regulatory approval is received.
- It expects to start the Phase 2 clinical trial for HTX-034 during the first quarter of this year.
- It generated \$20.6 million in quarterly revenue from the CINV franchise in Q4 2020, down from \$35.1 million for Q4 2019.
- It generated annual revenues of \$88.6 million from the CINV franchise in 2020, down from \$146 million for 2019.
- It expects the CINV franchise to do between \$130 and \$145 million in revenues this year.
- It is on track to submit an NDA for HTX-019 for post-operative nausea and vomiting in the fourth quarter of this year.
- It ended 2020 with \$208.5 million cash and cash equivalents, which gives Heron plenty of runway to launch HTX-011 in the U.S.

The key takeaway here is that it is just a waiting game until the PDUFA data of May 12. That's when the FDA should announce approval of HTX-011, which will send shares of HRTX higher.

So investors who have not yet established a position in HRTX should do so at these levels. We are less than two months away from our big catalyst, and shares of Heron Therapeutics will likely gain steam in the coming weeks. Very exciting...

Heron Therapeutics (HRTX) is a buy up to \$23.50 a share.

Sorrento Therapeutics (SRNE): Sorrento made several moves this month.

First, the company announced that it has received FDA approval to start a Phase 1b clinical trial of STI-6643 in various solid and hematologic cancers.

Sorrento also announced that it will acquire Aardvark Therapeutics' proprietary formulation for the treatment of chronic pain, fibromyalgia, and chronic post-COVID syndrome. Sorrento expects to initiate a Phase 2 trial for fibromyalgia this year based on the work Aardvark has done in this area.

And Sorrento also announced that it has entered into an exclusive license agreement for a collection of antibodies with COVID-19 neutralizing properties developed by Mount Sinai. The license also paves the way for the two entities to collaborate on the development of monoclonal antibody therapies in the future.

We are now up 102.2% on our position in SRNE. Let's continue to hold.

Sorrento Therapeutics (SRNE) is a buy up to \$6.20 a share.

Spero Therapeutics (SPRO): Spero Therapeutics put out its fourth quarter 2020 and fiscal year 2020 earnings release. Here are the key highlights:

- Spero Therapeutics remains on track to submit the New Drug Application (NDA) for tebipenem HBr in the second half of the year.

- It is currently working with the FDA to determine the best development pathway for SPR720.
- It received a \$2 million milestone payment from Everest Medicines based on the positive results from the Phase 1 clinical trial of SPR206.
- It ended the quarter with \$126.9 million in cash and cash equivalents, which would provide runway into the second quarter of 2022.

And hours after this earnings release, Spero filed a registration statement for the sale of up to \$300 million in securities at a later date. This is a great sign. This tells us that Spero is gearing up for the commercialization of tebipenem HBr.

Right now, the company's cash reserves can only support operations into the second quarter of next year. And that's without factoring in what it would cost to take a drug to market, which includes hiring an experienced sales and marketing team.

So Spero plans to raise the capital it needs to staff up for the launch of tebipenem HBr. Clearly, the company is confident that it will receive FDA approval after the NDA is submitted.

And that's the big catalyst we are waiting on.

So it's still just a waiting game with Spero Therapeutics right now. We are currently up 47% on our investment. Let's continue to hold.

Spero Therapeutics (SPRO) is a buy up to \$22.75 a share.

The Cloud

Cloudera (CLDR): Cloudera released its fourth quarter and fiscal year 2021 earnings report last week. The numbers were solid as both sales and earnings beat analyst estimates. Here are the highlights:

- Quarterly revenue was \$226.6 million, an increase of 7% year-over-year.
- Subscription revenue was \$206.8 million, an increase of 14% year-over-year.
- Subscription gross margin for the quarter was 87%, up from 84% for the same period last year.
- Fiscal year 2021 revenue was \$869.3 million, an increase of 9% year-over-year.
- Fiscal year 2021 subscription revenue was \$782.8 million, an increase of 17% year-over-year.
- Annualized recurring revenue (ARR) at the end of fiscal year 2021 was \$778 million, representing 10% year-over-year growth.
- Cloudera repurchased 26 million shares of its own common stock this quarter.
- It partnered with Nvidia to accelerate processing for enterprise data engineering and data science workflows on Cloudera Data Platform.
- It launched Applied Machine Learning (ML) Prototypes with pre-built AI apps for CDP machine learning.
- It expects fiscal first quarter 2022 revenue between \$216 and \$218 million, which fell short of the Street's \$226.8 million estimate.
- It expects fiscal year 2022 revenue between \$907 and \$927 million, which was short of the Street's \$947.6 million estimate.

Cloudera's share price did pull back in response to its forward guidance coming in below estimates. That's not something I'm concerned about at all, however.

Cloudera runs an incredibly high-margin business, yet it is only valued at about 4.1 times sales right now. That's a fantastic bargain in this market, and it makes Cloudera a prime acquisition target.

We are now up 150.7% on CLDR, and the company remains an attractive acquisition target at these levels. Let's continue to hold.

Cloudera (CLDR) is a buy up to \$7 a share.

Nutanix (NTNX): Nutanix released its fiscal second quarter 2021 earnings report this month. The numbers were solid, and the company demonstrated record ACV billings growth. Here are the highlights:

- Annual contract value (ACV) billings were \$159.2 million, an increase of 14% year-over-year.
- Run-rate ACV was \$1.38 billion, an increase of 28% year-over-year.
- Quarterly revenue was \$346.4 million, compared to \$346.8 million for fiscal Q2 2020.
- Quarterly gross margin was 79.5%, up from 78.3% for the same period last year.
- Quarterly free cash flow was negative \$28.5 million, up from negative \$73.7 million in Q2 2020.

Here's CFO Duston Williams:

We delivered record ACV billings with growth of 14% year-over-year, bolstered by the strength of our emerging products. We continued to make progress on our transition to subscription and maintained our disciplined approach to managing operating expenses, which were lower than expected this quarter. We look forward to continuing to execute on our transformation and are confident Nutanix is well positioned for long-term value creation.

And we saw some bullish analyst activity in response:

- RBC Capital raised its price target for NTNX to \$45 per share, maintaining its 'Outperform' rating.
- Needham raised its price target to \$43 per share, keeping its 'Buy' rating.
- KeyBanc raised its price target to \$42 per share, maintaining its 'Overweight' rating.

These targets are 51-62% above where the stock trades today.

We have now gained 26.4% on our position in NTNX, and the stock is currently in buy range. Investors who haven't yet established a position should do so at these levels.

Nutanix (NTNX) is a buy up to \$35 a share.

PagerDuty (PD): It was a quiet month for PagerDuty as the company is gearing up to release its fourth quarter and fiscal year 2021 earnings report on Wednesday. I'll have those highlights in our portfolio review next month.

The only item of note is that Credit Suisse assumed coverage on the company with a \$42 price target this month. Of course, it appears that Credit Suisse was being too conservative, as PD has already taken out that price target. Still, it is great to see our companies getting bullish coverage on Wall Street.

As it stands, we are now up 74.3% on PD, and the company is just on the brink of massive adoption. Investors who haven't established positions in PagerDuty should do so while it trades below \$43.50.

PagerDuty (PD) is a buy up to \$43.50 a share.

Ping Identity (PING): Ping Identity released its fourth quarter 2020 earnings report this month. The stock initially pulled back as quarterly sales came in below analyst expectations and the company issued forward guidance that was less aggressive than expected. That said, the numbers that matter were strong.

- Annual Recurring Revenue (ARR) was \$259.1 million, up 15% year-over-year.
- Quarterly revenue was \$63.3 million, down from \$68.2 million for Q4 2019.
- Annual revenue for 2020 was \$243.6 million, up from \$242.9 for 2019.
- Unlevered free cash flow for the year was \$8.8 million, up from negative \$1.2 million in 2019.
- Ping Identity ended 2020 with 51 customers with greater than \$1 million in ARR, an increase of 34% over 2019.
- It ranked first in all use cases in the Gartner 2020 Critical Capabilities for Access Management report.

Here's CEO Andre Durand:

We exceeded our expectations in the quarter related to our Annual Recurring Revenue – the key measure of our growth. With the growth and rising demand for our cloud offerings, we now have more than half of our customers accessing our solutions in the cloud and a rapidly growing portion of our ARR from SaaS. This is a key indicator that our investments related to cloud and new product innovations are gaining strong traction in the market.

We continue to roll out new services on our SaaS platform at an accelerated pace. Our latest SaaS service, PingOne Verify, leverages the capabilities of our ShoCard acquisition we completed in 2020. For our most forward-thinking enterprise customers with cloud-first mandates, we're seeing accelerating demand for our advanced services running on our cloud platform. Helping these enterprises achieve Zero Trust, seamless digital experiences, and passwordless authentication while driving to the cloud is becoming our number one focus and we're directing our investments into these areas.

And we did also see a little bit of analyst activity this month. RBC Capital raised its price target to \$38 per share, maintaining its 'Outperform' rating. That's about 62% above where the stock trades today.

Also of note, Ping announced that it has joined the Decentralized Identity Foundation (DIF) to help develop open standards for protecting digital identities. Here's CEO Andre Durand on the move:

Open standards allow our customers to gain the most value from their investments in identity products and services. It gives organizations greater independence over the technologies they choose, and users more control over their identities. An open, standards-based approach to digital identity management holds the key to better privacy, lower fraud, and better user experiences for both employees and customers.

I love this move. Decentralized identities represent the next generation of identity services. The companies who crack the code in this space stand to do very well.

That said, Ping Identity is one of the most undervalued companies in the entire *Exponential Tech Investor* portfolio right now. I encourage all investors who haven't yet established a position in PING to do so at these levels.

Ping Identity is a buy up to \$35 a share.

Zuora (ZUO): Zuora released its fourth quarter and fiscal year 2021 earnings report. The numbers were solid and both sales and earnings beat analyst estimates.

- Quarterly revenue was \$79.3 million, an increase of 13% year-over-year.
- Quarterly subscription revenue was \$65.1 million, an increase of 19% year-over-year.
- Quarterly free cash flow was \$2.1 million, compared to negative \$4.5 million for the same period last year.
- Fiscal year 2021 revenue was \$305.4 million, an increase of 11% year-over-year.
- Fiscal year 2021 subscription revenue was \$242.3 million, an increase of 17% year-over-year.
- Fiscal year 2021 free cash flow was negative \$0.9 million, compared to negative \$25 million for fiscal year 2020.
- Zuora ended the fiscal year with \$186.6 million in cash and cash equivalents.
- It grew its customers with Annual Contract Value (ACV) of \$100,000 or more to 676, which represents 8% year-over-year growth.
- Its dollar-based retention rate was 100%.
- It grew customer use of Zuora solutions by 30% year-over-year, with \$17 billion in transaction volume during the fiscal year.
- It expects fiscal first quarter 2022 revenue between \$78 and \$80 million, compared to the Street's estimate of \$79.4 million.

As I write, ZUO is trading just within our buy range. Investors who have not yet built a position in this stock should do so at these levels. Zuora is likely to gain momentum as we move into 2021.

Zuora (ZUO) is a buy up to \$17.50 a share.

ICO Recommendations

Sweetbridge (SWC): There were no new developments this month.

Witnet (WIT): Witnet released a critical upgrade called Rust 1.1.3 late in February. This was in response to an error that disrupted the mining process. Anyone running a Witnet node should implement this upgrade immediately.

The fact that the Witnet team could respond so quickly to the problem is very encouraging. This has been one of the top projects in the blockchain industry for years now, and this shows us why.

There's not much else to note with Witnet this month as the project continues to get its sea legs. We'll continue to keep a close eye on the project's progress going forward.

Blockchain Terminal: There were no new developments this month.

Coin: This month Coin announced that it has deployed cross-chain exchanging support for Bitcoin, Ethereum, ERC20 tokens, and its own digital asset COIN on its decentralized exchange.

This will enable users to swap one digital asset for another right from the same wallet. Talk about convenient.

So I remain very excited about Coin's foray into the realm of decentralized finance (DeFi). This is a high-quality team and a high-quality product.

TrustToken: TrustToken rolled out version 2 of its TrueFi protocol this month. And the platform has quickly risen as one of the leaders in uncollateralized lending on the blockchain with \$57.5 million of unsecured loans.

TrueFi 2.0 will include an improved staking model for TRU tokens, a tweak to help reduce slippage for users exiting the lending pool, and the launch of full on-chain governance.

So far the TrueFi platform has been a big success, which solidifies TrustToken even more as one of the top blockchain players in the industry.

Regards,

Jeff Brown
Editor, *Exponential Tech Investor*

Mobile Notifications

Brownstone Research now has a smartphone app. You can use it to get instant notifications whenever we publish something new, access all your subscriptions, view portfolio pages, and more.

To make sure you don't miss any time-sensitive alerts, updates, or monthly issues, download the **Brownstone Research app** for [Android](#) or [iOS](#).

This feature is available for international and U.S. subscribers and aims to send alerts instantaneously to all members. Make sure push notifications are enabled through your phone settings to receive alerts from the app.

Important note about emails and text messages: We strive to deliver all of our alerts as quickly as possible. Due to the nature of email, SMS, and app notifications, we aren't able to guarantee each user will receive our communications at exactly the same time. Deliverability depends on your location, your internet service provider, and internet traffic, among other variables.

5G Boom

Investment	Open Date	Open Price	Recent Price	Dividends	Returns	Stop Loss	Notes
Akoustis Technologies (AKTS)	11/06/18	\$4.45	\$12.07	\$0.00	171.3%	-	Buy up to \$16.25
Lumentum (LITE)	04/09/19	\$59.11	\$90.40	\$0.00	52.9%	-	Buy up to \$95.25
II-VI Inc (IIVI)	04/09/19	\$39.95	\$74.35	\$0.00	86.1%	-	Buy up to \$86
MACOM Technology Solutions (MTSI)	04/09/19	\$17.94	\$58.09	\$0.00	223.8%	-	Buy up to \$69.25
Infinera (INFN)	06/16/20	\$5.70	\$9.87	\$0.00	73.1%	-	Buy up to \$11.75

AI Revolution

Investment	Open Date	Open Price	Recent Price	Dividends	Returns	Stop Loss	Notes
------------	-----------	------------	--------------	-----------	---------	-----------	-------

Investment	Open Date	Open Price	Recent Price	Dividends	Returns	Stop Loss	Notes
Ambarella (AMBA)	03/19/19	\$42.99	\$104.57	\$0.00	143.2%	-	Buy up to \$46
Yext (YEXT)	10/22/19	\$14.57	\$14.70	\$0.00	0.9%	-	Buy up to \$16.80
Schrödinger (SDGR)	11/17/20	\$59.54	\$75.30	\$0.00	26.5%	-	Buy up to \$82.25
ACE Convergence Acquisition Corp. (ACEV)	02/11/21	\$11.50	\$9.99	\$0.00	-13.1%	-	Buy up to \$11.50

Cybersecurity

Investment	Open Date	Open Price	Recent Price	Dividends	Returns	Stop Loss	Notes
CyberArk Software (CYBR)	03/04/21	\$139.72	\$133.34	\$0.00	-4.6%	-	Buy up to \$140

Decentralized Manufacturing

Investment	Open Date	Open Price	Recent Price	Dividends	Returns	Stop Loss	Notes
Desktop Metal (DM)	10/20/20	\$11.00	\$14.00	\$0.00	27.3%	-	Buy up to \$11

Precision Medicine

Investment	Open Date	Open Price	Recent Price	Dividends	Returns	Stop Loss	Notes
Editas Medicine (EDIT)	02/03/16	\$18.00	\$40.40	\$0.00	124.4%	-	Buy up to \$56.28
Spero Therapeutics (SPRO)	06/19/18	\$11.39	\$12.79	\$0.00	12.3%	-	Buy up to \$22.75
Heron Therapeutics (HRTX)	01/21/20	\$23.01	\$17.17	\$0.00	-25.4%	-	Buy up to \$23.50
CRISPR Therapeutics (CRSP)	03/05/20	\$53.41	\$118.53	\$0.00	121.9%	-	Buy up to \$54.50
Sorrento Therapeutics (SRNE)	05/22/20	\$5.07	\$7.58	\$0.00	49.5%	-	Buy up to \$6.20
Beam Therapeutics (BEAM)	08/06/20	\$24.52	\$74.37	\$0.00	203.3%	-	Buy up to \$42

Investment	Open Date	Open Price	Recent Price	Dividends	Returns	Stop Loss	Notes
Arcturus Therapeutics (ARCT)	01/07/21	\$64.50	\$38.55	\$0.00	-40.2%	-	Buy up to \$64.50
Adaptive Biotechnologies (ADPT)	03/16/21	\$44.26	\$40.63	\$0.00	-8.2%	-	Buy up to \$50

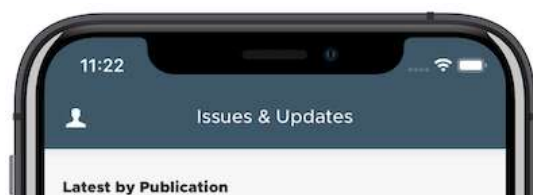
The Cloud

Investment	Open Date	Open Price	Recent Price	Dividends	Returns	Stop Loss	Notes
Cloudera (CLDR)	06/11/19	\$5.09	\$12.34	\$0.00	142.4%	-	Buy up to \$7
Zuora Inc (ZUO)	07/16/19	\$15.76	\$15.03	\$0.00	-4.6%	-	Buy up to \$17.50
PagerDuty (PD)	12/17/19	\$24.24	\$42.21	\$0.00	74.1%	-	Buy up to \$43.50
Ping Identity (PING)	07/20/20	\$34.81	\$21.59	\$0.00	-38.0%	-	Buy up to \$35
Nutanix (NTNX)	09/22/20	\$21.64	\$27.26	\$0.00	26.0%	-	Buy up to \$35

ICO Portfolio

Investment	Open Date	Open Price	Recent Price	Dividends	Returns	Stop Loss	Notes
Sweetbridge (SWC)	02/20/18	\$0.00	\$0.00	\$0.00	%	-	ICO Closed - Awaiting Token Generation
Witnet (WIT)	03/05/18	\$0.00	\$0.00	\$0.00	%	-	Hold
Blockchain Terminal (BCT)	03/16/18	\$0.00	\$0.00	\$0.00	%	-	ICO Closed - Tokens Not Trading Yet
TrustToken (TRU)	07/16/18	\$0.00	\$0.00	\$0.00	%	-	ICO Closed - Awaiting Token Generation
Coin (\$COIN)	05/21/18	\$0.64	\$0.32	\$0.00	-49.3%	-	Hold

(T) = Trailing Stop
(H) = Hard Stop



Brownstone Research now has a smartphone app.

To make sure you don't miss any time-sensitive alerts, updates, or monthly issues, download the Brownstone Research app for Android or iOS.

