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RESEARCH

Company: Cibus Inc.
Industry: Agriculture Technology
Price (June 3, 2024 close): US\$ 13.28/share

Nasdaq: CBUS
URL: <https://www.cibus.com/>
Market Cap: ~US\$ 350 million

Cibus Inc. (“CBUS”) is a North American agricultural technology company that develops and licenses its unique plant traits to seed companies for royalty fees. Cibus’ primary objective is to increase yields for farmers while reducing the use of crop protection chemicals and fertilizers resulting in higher farmer profits. Founded in 2001, Cibus’ technology has a “*trait machine*” that includes/excludes certain desirable/undesirable genetic traits for a particular genome (such as pod shatter resistance, herbicide tolerance, drought tolerance, disease resistance, etc.) faster and cheaper than competing technologies.

We found no evidence that Cibus’ gene-editing technology brings desirable new crops to market. Instead, we found **farmer complaints of lower crop yields and lost revenues, along with multiple examples of large seed manufacturers and distributors walking away from joint ventures and partnerships with Cibus** for a variety of seed types and seed traits.

In 2019, Cibus made a shocking statement about its technology. While Cibus’ entire business model relied on its trait machine allowing for “*precision gene editing*”, **Cibus claimed its SU Canola wasn’t actually gene-edited, rather the result of an accident in a laboratory petri dish.** Shortly after, Cibus sold its SU Canola assets for a mere US\$ 2 million.

Dr. John Fagan, a senior author for GMWatch, said “*it is highly preposterous that a company that has invested tens of millions in developing a particular method of gene editing would turn around and claim that its first commercial product made using this gene-editing method was not actually the result of that method but happened accidentally via random mutagenesis.*” GMWatch further commented “*Assuming that Cibus’ claims about the canola being a product of random mutation are true, it would raise serious questions about whether it has misled investors... hope and speculation based on an unreliable and poorly controlled technology seems an unconvincing business model.*”

A study from Greens/EFA found that “*in cases where speed is important, gene editing is not the quickest or most reliable way to produce crops with desired traits. In contrast, conventional breeding has proven highly efficient and successful in producing such crops.*”

- 1. Failed Product Launches and Failed Partnerships with Little/No Revenues:** Cibus worked 20+ years to generate commercial interest for its technology. We found that Cibus had a **history of failed commercialized products that failed to generate any meaningful revenues including canola, rice, corn, potato, wheat, flax, yeast, bacteria, and microorganisms.** If Cibus’ technology was commercially viable, we expect any number of previous partnerships would have already licensed and implemented Cibus’ technology into their respective products, invest in, or possibly bid for Cibus itself.
- 2. Fierce Competition Already Exists for Canola Seed Pod Shatter Design Traits:** In August 2022 Cibus guided for a possible 2025 release date for its canola pod shatter design to partners. Cibus’ pod shatter design already faces significant competition in 2024 from manufacturers and distributors such as Arcadia Bioscience, Bayer, BrettYoung, Brevant, Brightseed, Canterra, Moolsec, Pioneer, and Winfield.
- 3. US\$ 250 Million Overpayment to Insiders for Assets:** At the time of its 2023 reverse merger, Cibus’ technology was valued at US\$ 750 million for goodwill and R&D intangible assets, yet unexpectedly in its first year as a public company Cibus wrote-down the carrying value of its intangible assets by US\$ 250 million. **If Cibus’ technology is so good, why did Cibus write-down 33% of the value of its R&D and trait pipeline within its first year as a public company?!?**
- 4. Chairman Accused of Misleading Investors:** Cibus’ Chairman and CEO Rory B. Riggs (“Riggs”) has a history being listed as a defendant in multiple lawsuits alleging insider trading, unjustly enrichment, misleading investors, and breaches of fiduciary duties. We think that Riggs is up to his old tricks of pumping Cibus stock. In addition to pledged CBUS shares for personal indebtedness, in March 2024, Riggs adopted a trading arrangement to sell up to 300,000 shares by July 12, 2024.

We think investors have been duped into believing a promotional management team about an **over-hyped technology previously tried, tested, and failed** by some of the world’s largest seed manufacturers and distributors to provide exit liquidity for early-stage Cibus investors. As of 1Q’24, Cibus burned ~US\$ 5 million in cash per month and generated less than ~US\$ 200,000 in monthly revenues. **With less than ~US\$ 24 million in cash as of March 31, 2024, we calculate that CBUS will need to either generate significant revenues or raise capital to satisfy ongoing operating expenses by September 2024.**

With little/no revenues from its technology, we are short CBUS and think that its stock is going significantly lower towards “zero”.

THIS RESEARCH REPORT EXPRESSES SOLELY OUR OPINIONS. WE ARE SHORT. WE ARE BIASED. DO YOUR OWN WORK. Use Bonitas Research LLC’s research opinions at your own risk. You should do your own research and due diligence before making any investment decisions. We have a short interest in CBUS stock and stand to realize significant gains in the event that the price of such instrument declines. Please refer to our full disclaimer located on the last page of this report.

LITTLE/NO REVENUES FROM LITTLE/NO COMMERCIAL INTEREST IN CIBUS PRODUCTS

Founded in 2001, Cibus has worked 20+ years to generate commercial interest for its technology.

Cibus' claimed its Rapid Trait Development System (RTDS) gene-editing technology was not genetically modified ("GMO") because it used a "*non-transgenic*" gene editing platform. Cibus claimed its Gene Repair OligoNucleotide (GRON) is a chemically-engineered combination of DNA and modified nucleotides and other end-protective chemistries contained no biologically derived material; rather produced with an automated chemical synthesizer and purified like any other chemical mutagen. Cibus used this argument to circumvent lengthy and expensive regulatory processes for new product releases, which facilitated its 3 to 5 year trait development timeline at 1/10th the price of competing technologies.¹

Cibus' 2023 10-K claimed its "*high-throughput process was currently operational for canola and rice, with plans to expand to soybeans by the end of 2024. By 2025, the company plans to use Trait Machine for corn and wheat.*"²

Cibus' FYE'23 conference call claimed 10 customers/partnerships with a potential backlog of US\$ 1.5+ billion in target market royalty sales for Cibus' unique canola and rice seed traits.

However, we found that Cibus has a **history of failed commercialized products** that had not generated any meaningful revenues to date.

We found little commercial gene-editing success from any market participants, calling into question the efficacy of the gene-editing trait machine business altogether.

To us, it appears that Cibus' value-add technology claims are bogus and unfounded, still experimental, and its unproven technology had produced very little value for customers.

Large companies have tried working with Cibus, did not like the outcomes, and the arrangements were terminated. Since then, large companies focused their efforts either internally or licensing trait technology elsewhere.

a. Failure in Canola

Cibus' SU Canola is an example of how **Cibus' trait technology was tried, tested, and commercially failed.**

On December 9, 2009 Cibus signed an agreement with Winnipeg seed distributor BrettYoung to launch canola seeds enhanced by Cibus' trait technology.³ Per the agreement, Cibus was to develop seed traits using its technology, and BrettYoung would bring the traits to market through its seed distribution network in Canada and the U.S.⁴

In 2010, Cibus partnered with Rotam to provide crop protection herbicides for SU Canola (Sulfonylurea Tolerant) in North America.⁵ In 2014, Cibus launched canola in the United States and expected a "*limited*" Canadian commercial release by 2016.⁶

According to Cibus, SU Canola's launch was a success, accounting for approximately a 4% share (measured by acres planted) of the U.S. canola market. "*U.S. sales of SU Canola have increased more than 200% year-over-year for each of 2017 and 2016, and it has sold out its inventory in each of its first three years on the market as demand from existing and new customers has exceeded our annual supply each year.*"⁷

In 2018, Cibus raised US\$ 70 million to support its SU Canola seed commercialization.

¹ <https://www.sec.gov/ix?doc=/Archives/edgar/data/1705843/000162828024012546/cbus-20231231.htm>

² <https://www.sec.gov/ix?doc=/Archives/edgar/data/0001705843/000162828024012546/cbus-20231231.htm>

³ <https://www.cibus.com/press/press120909.php>

⁴ <https://www.agcanada.com/daily/brettyoung-cibus-plan-high-speed-canola-breeding>

⁵ <https://www.cibus.com/press/press121410.php>

⁶ <https://www.agcanada.com/daily/sulfonylurea-tolerant-canola-eyed-for-2016-launch> ; <https://www.cibus.com/press/press111914.php>

⁷ <http://pdf.secdatabase.com/913/0001140361-19-002341.pdf>

Cibus boasted of partnerships with large agribusiness companies, such as Cargill Inc. (“Cargill”) and Bunge Ltd. (“Bunge”) to provide farmers with premium prices when they delivered grain produced from Cibus’ SU Canola seed to their crushing facilities.⁸

In 2018 Cibus also claimed a developmental partnership with Pioneer/Dupont (now Corteva Agriscience “Corteva”).⁹

In February 2019, Cibus filed an S-1 that promoted its SU Canola as its primary initial commercial strategy. Cibus’ 2019 S-1 claimed it established “*deep supply channel relationships with key distribution partners (Wilbur-Ellis Holdings, Inc. and West Central Distribution, LLC) and processor business partners (Cargill and Bunge). These partnerships provide a mechanism for seed distribution and guaranteed offtake, and they deliver important financial incentives to farmers purchasing SU Canola. Wilbur-Ellis Holdings, Inc. (through John Deere Financial) offers interest-free financing to qualified customers for purchases of SU Canola.*”¹⁰

In 2019, farmers using Cibus’ SU Canola experienced **significant crop damage** and filed for insurance coverage for their property losses. According to a lawsuit, **farmers complained about the poor performance of Cibus’ SU Canola seeds as the primary reason for crop losses.**¹¹

In October 2020, Cibus sold substantially all its intangible assets related to its SU Canola breeding program to Farmers Business Network (<https://www.fbn.com/>) for US\$ 2 million in upfront payments plus the potential for additional success royalty fees which never materialized.¹²

On September 7, 2020, Greenpeace (www.greenpeace.org) and others announced an open source detection test for the first gene-edited crop on the market, SU Canola, to distinguish between genetically-edited seeds and genetically modified seeds. Greenpeace encouraged EU governments to use the new detection method in their routine GMO testing to avoid GMO seeds from entering the food and feed supply chains illegally.¹³

Cibus made a shocking statement. In response to the publication of Greenpeace’s detection test, a Cibus official claimed that the varieties currently sold in the U.S. or Canada were “*not gene-edited.*” Instead, the Cibus official claimed that the intended mutation had “*occurred spontaneously in cell culture.*”¹⁴

While Cibus’ entire business model relies on its trait machine allowing for “*precision gene editing*”, **Cibus claimed its SU Canola wasn’t gene-edited after all, rather the result of an accident in a laboratory petri dish.**¹⁵

Greenpeace concluded from the company’s various statements that Cibus appears to be deliberately engaging in a “*confusion game.*”¹⁶

Dr John Fagan, senior author of the paper reporting the development of the detection method, said “*it is highly preposterous that a company that has invested tens of millions in developing a particular method of gene editing would turn around and claim that its first commercial product made using this gene-editing method was not actually the result of that method but happened accidentally via random mutagenesis.*”¹⁷

GMWatch raised serious questions about Cibus’ technology claims: “*Assuming that Cibus’ claims about the canola being a product of random mutation are true, it would raise serious questions about whether it has misled investors. Cibus has long promoted its herbicide-tolerant canola to the business press as a triumph of gene-editing.*”¹⁸

⁸ <http://pdf.secdatabase.com/913/0001140361-19-002341.pdf>

⁹ <https://www.youtube.com/watch?v=IoreoAUTi38>

¹⁰ <http://pdf.secdatabase.com/913/0001140361-19-002341.pdf>

¹¹ <https://casetext.com/case/hous-cas-co-v-cibus-us-llc-5>

¹² <https://www.sec.gov/Archives/edgar/data/1705843/000119312523105072/d401831d424b3.htm> ; <https://www.realagriculture.com/2020/10/fbn-moves-into-canola-breeding-buying-haplotech-and-cibus-canola-assets/>

¹³ <https://www.greenpeace.org/eu-unity/issues/nature-food/45028/gene-edited-crop-cant-stand-the-light-of-day/>

¹⁴ <https://www.greenpeace.org/eu-unity/issues/nature-food/45028/gene-edited-crop-cant-stand-the-light-of-day/>

¹⁵ <https://gmwatch.org/en/106-news/latest-news/19535-company-denies-first-commercial-gene-edited-crop-is-gene-edited>

¹⁶ <https://www.greenpeace.org/eu-unity/issues/nature-food/45028/gene-edited-crop-cant-stand-the-light-of-day/>

¹⁷ <https://gmwatch.org/en/106-news/latest-news/19535-company-denies-first-commercial-gene-edited-crop-is-gene-edited>

¹⁸ <https://gmwatch.org/en/106-news/latest-news/19535-company-denies-first-commercial-gene-edited-crop-is-gene-edited>

In November 2020, researchers at North Carolina State University requested for a coalition initiative “to work together to provide basic information about gene-edited crops to lift the veil on how plants or plant products are modified and provide greater transparency on the presence and use of gene editing in food supplies... This initiative is timely in light of the biotech company Cibus's obfuscation over the origins of its gene-edited herbicide-tolerant canola. **Cibus promoted the canola for years as a triumph of its proprietary "precision" gene-editing technology. But as soon as the canola became detectable through the development of a public test, Cibus did a U-turn and claimed that the herbicide tolerance was the result of an accidental mutation rather than gene editing. We might speculate that Cibus's turnaround came because the gene-edited canola does not have EU approval under the GMO regulations and thus any presence in EU imports would be illegal.**”¹⁹

GMWatch (www.gmwatch.org), an independent organization that provides publicly available news and commentary on GMO foods and crops and their associated pesticides, concluded that “**Cibus' SU Canola is a GMO. The inevitable conclusion is that the presence of this canola in EU imports is illegal and must be screened for using the new test.**”²⁰

GMWatch commented that “it is possible that the Farmers Business Network or a sub-licensee will wait to relaunch the product, in the hope that the EU will change its laws to allow gene-edited products to be sold without safety checks or GMO labelling. But **hope and speculation based on an unreliable and poorly controlled technology seems an unconvincing business model.**”²¹

In August 2022, GeneWatch UK (<http://www.genewatch.org/>), a not-for-profit group that monitors developments in genetic technologies from a public interest, human rights, environmental protection, and animal welfare perspective, highlighted the timeline of Cibus' SU Canola failures.

The company Cibus has developed a sulfonylurea (SU) herbicide tolerant canola supposedly by ODM⁴ which they tried to commercialise and market under the trade name Falco™. Cibus originally wanted to launch the canola as early as 2007 (Cookson, 2006). In 2010, founder and former CEO Keith Walker claimed they were going to launch the SU canola in the coming weeks in California and North Dakota (Bigelow, 2010). In 2016 they were however still struggling with yield and quality issues (Cross, 2016). Although the Cibus canola traits were already approved in Canada by 2013, the canola still hadn't received the required varietal registration: this was a problem because, “...the product's oil content is lower than the minimum threshold of the Canadian canola quality standard” (Danielson & Watters, 2017). In 2018, Cibus raised \$70 million to support the SU canola commercialisation (Einstein-Curtis, 2018). They tried to commercialise and market the canola under the trade name Falco™ with the complementary herbicide Draft® from Rotam North America. The active ingredients of Draft are Thifensulfuron-Methyl and Tribenuron-Methyl (both herbicides from the family of sulfonylureas). Cibus and Rotam recommended using the Falco canola plus Draft herbicide growing system in rotation with glyphosate tolerant crops in order to manage glyphosate resistant volunteer weeds the following year (Cibus, 2019a; Rotam, 2019). However, apart from Common Ragweed, Draft does not control the most widespread and most economically damaging glyphosate resistant weeds, such as Palmer Amaranth, Tall waterhemp and Canadian horseweed (Rotam, n.d.). Furthermore, Cibus and Rotam do not address the likelihood of cross resistance arising, which is relevant as glyphosate and ALS resistant weeds are both widespread. Taken together, it was very questionable from the start whether the Falco-Draft system will help farmers to better manage their weeds, even in the short term. The new HT cropping system also failed commercially. Despite big plans to introduce the SU canola in China, Europe, and Australia (Bigelow, 2017), as of 2021, Cibus does not mention the Falco brand anymore on their website and the Falco seed website has been made private. Furthermore, the website of Valley Oils Partners LLC, a company funded by Cibus, Rotam and Sealey & Co. which was licensed to sell Cibus' products (Cibus, 2019b), has meanwhile disappeared.

Source: <http://www.genewatch.org/uploads/f03c6d66a9b354535738483c1c3d49e4/ht-report-lowres-fin.pdf>

As of today, Cibus' SU Canola seed website is defunct.²²

Cibus' 2023 10-K did not mention Cargill or Bungee, and listed Corteva as a primary competitor, not a partner.²³

Neither Cibus' 424b3 merger prospectus or its 2023 10-K mentioned Wilbur-Ellis or West Central Distribution.²⁴

¹⁹ <https://www.gmwatch.org/en/main-menu/news-menu-title/archive/100-2020/19610-more-transparency-demanded-for-gene-edited-crops>

²⁰ <https://www.gmwatch.org/en/106-news/latest-news/19535-company-denies-first-commercial-gene-edited-crop-is-gene-edited>

²¹ <https://www.gmwatch.org/en/106-news/latest-news/20142-has-another-gene-edited-pioneer-crop-disappeared-from-the-market>

²² <https://web.archive.org/web/20200923052439/https://www.falcoseed.com/ca/technology/>

²³ <https://www.sec.gov/ix?doc=/Archives/edgar/data/0001705843/000162828024012546/cbus-20231231.htm>

²⁴ <https://www.sec.gov/Archives/edgar/data/1705843/000119312523105072/d401831d424b3.htm>

b. Failure in Rice, Corn, Potato, Wheat, and Flax

As early as 2008, Cibus publicly discussed working on herbicide tolerant rice.

Despite 16 years of investment, Cibus has yet to commercially launch an herbicide tolerant rice product.

GeneWatch UK highlighted the timeline for Cibus' failures of its herbicide tolerant rice seed.

*“Cibus has worked on herbicide tolerant rice, corn, potato and wheat. As of November 2019, these crops were in the ‘Trait Development’, ‘Trait Validation’ or ‘Crop Platform Development’ phase, respectively (Cibus, 2019c). **Three years later, none of these crops have been commercialized yet and potato is not in their development pipeline anymore.** Their focus currently lies on soybean, canola and rice. Cibus claims to be working with three different herbicides but does not disclose which ones. Currently they are conducting greenhouse and field trials with these herbicides (Cibus, 2021b). **Cibus originally expected to market the herbicide tolerant rice as early as 2008 (Cookson, 2006). By 2018, this date had been postponed to 2020-2023 (Gelinsky, 2018).**”²⁵*

In 2010, Cibus collaborated with the Flax Council of Canada to develop flax seed using Cibus' technology.

After investing nearly US\$ 3 million of a total US\$ 5.5 million commitment, the Flax Council of Canada stopped working with Cibus because Cibus was **“unable to meet certain technical thresholds for the project.”**

GeneWatch UK highlighted the timeline for Cibus' failures of its herbicide tolerant flax seed.

*“In 2010, Cibus and the Flax Council of Canada started to collaborate in developing the glyphosate tolerant variety of flax (Flax Council of Canada, 2016). Cibus had originally announced the HT system would come to the market in 2015 (Pratt, 2014b). In 2014 however, only a few weeks after having received \$3 million from the Canadian government to invest in the project, the Flax Council of Canada decided to **withdraw its funding agreement because Cibus, “...was unable to meet certain technical thresholds for the project...”**. The Council, which was to pay \$5.5 million to Cibus, had at this point already invested \$2.86 million in the project. Don Kerr, then president of the Flax Council, stated **“We didn’t see that putting more money towards it at that point was going to be beneficial.”** (Government of Canada, 2014; Pratt, 2014b).”²⁶*

In 2018, Cibus highlighted its pipeline included herbicide-tolerant rice as well as a potato crop resistant to *Phytophthora*, the fungal disease that caused the Great Famine in Ireland.²⁷

Cibus' 2023 10-K mentioned that Cibus remained *“open to partner-funded program opportunities with its previously established platforms such as Flax, Peanut, and Potato,”* however without partners funding the program, Cibus appears to have abandoned its flax, peanut, and potato projects.²⁸

GeneWatch UK suggested that Cibus' trait machine technology could possibly create even more weed resistance instead of aiding farmers with herbicide tolerant seed benefits.

*“Non-transgenic genome editing of herbicide resistant crops relies on mutating essential plant enzymes in order to render them resistant to the corresponding herbicide. The hope is to use ALS inhibitors to effectively combat glyphosate tolerant volunteer crops and weeds. However, **conventional ALS tolerant crops have long been commercialized.** This shows that **novel techniques are used to pursue the same decades-old approach.** Given that the inserted mutations are often based on single amino acid substitutions, that the ALS enzyme is highly prone to spontaneous mutations and that there are already almost 170 ALS herbicide tolerant weeds known today, it seems evident that **this approach is not a solution but will likely increase today’s problem with weed resistance.**”²⁹*

²⁵ <http://www.genewatch.org/uploads/f03c6d66a9b354535738483c1c3d49e4/ht-report-lowres-fin.pdf>

²⁶ <http://www.genewatch.org/uploads/f03c6d66a9b354535738483c1c3d49e4/ht-report-lowres-fin.pdf>

²⁷ <https://web.archive.org/web/20210226011807/https://xconomy.com/san-diego/2018/06/27/cibus-raises-70m-for-marketing-of-gene-edited-canola-more-rd/>

²⁸ <https://www.sec.gov/ix?doc=/Archives/edgar/data/1705843/000162828024012546/cbus-20231231.htm>

²⁹ <http://www.genewatch.org/uploads/f03c6d66a9b354535738483c1c3d49e4/ht-report-lowres-fin.pdf>

c. Failure in Yeast, Bacteria, Microorganisms

Cibus' 2019 S-1 disclosed that its technology was used outside agricultural crop traits for a project called Nucleis. By 2019, Cibus claimed it developed its first yeast product, ergosterol, expected to launch in 2019.

*“We are pursuing the **commercialization of ergosterol through a collaboration with Fermic S.A. de C.V. (Fermic), a Mexican company that has world class fermentation and downstream manufacturing equipment and processing expertise. In this relationship, we provide a higher-yielding route to ergosterol, with reduced production costs. Fermic will sell the ergosterol through their existing market channels and Nucleis will receive royalties on these sales.**”³⁰*

Cibus' 2023 10-K does not mention “Fermic”, “bacteria” or “yeast” which suggests, to us, that the projects were abandoned.³¹

In 2018, Cibus attempted to develop bacterial strains using its technology for an unnamed Chinese specialty ingredients producer. As of 2021, that contract was completed and Cibus had received a total of US\$ 300,000 in revenues.³²

d. Calyxt Failure in Soybean

Calyxt, the company Cibus merged with, failed to successfully commercialize its soybean seed solution. GMWatch found that *“the adoption by farmers seems to be hindered by lower crop yields.”*³³

GMWatch highlighted that *“Calyxt was the first to market gene-edited soybeans in 2019. The beans are genetically engineered to produce high oleic oil... But Calyxt’s “speedy development cycle” turned out to equal not just delayed product launches but finally a crash... Calyxt’s crash made nonsense of GMO industry lobby claims that gene editing is a fast and reliable route to desirable crops but that over-stringent regulations are holding them back. **The evidence on the ground shows that gene editing is a problematic, still experimental, and unproven technology that up to now has produced nothing of value.**”*³⁴

e. Sanatech’s Japanese Tomato – The Sole Market Representative of a Gene-Editing Crop

We found only one example of a gene-edited food product that took 15 years to develop, roughly the same time it takes to produce a conventionally bred crop, calling into question the efficacy of the entire gene-editing trait machine business. In December 2020, Japan authorised the commercial release of a genome-edited tomato created by Sanatech Seed (<https://sanatech-seed.co.jp/en>) with higher levels of a blood pressure-lowering compound. The Sicilian Rouge High GABA tomato was voluntarily labelled as “gene-edited,” but had not yet been commercialised, reportedly due to food producers shying away from the technology in the face of consumer rejection.³⁵

*“A survey of about 10,000 people by the University of Tokyo found that 40% to 50% did not want to eat gene-edited crops or animal products, with just 10% showing interest in trying them.”*³⁶

Interest appeared so low that Sanatech was prepared to give away the seeds for free to consumers to drive interest in the hopes commercial interest would follow from consumer demand for the product. A Sanatech Seed representative stated that *“The seedlings will be distributed free of charge to home gardeners and if people like the product they will hopefully share their experience and help spread the word...we opened up a campaign via our website inviting people to join and so far we’ve had 5,000 applicants, each of whom will be given five seedlings to plant. We’re in no rush to introduce the tomato commercially, the important thing is to win over the consumer.”*³⁷

³⁰ <http://pdf.secdatabase.com/913/0001140361-19-002341.pdf>

³¹ <https://www.sec.gov/ix?doc=/Archives/edgar/data/1705843/000162828024012546/cbus-20231231.htm>

³² <https://www.sec.gov/Archives/edgar/data/1705843/000119312523105072/d401831d424b3.htm>

³³ <https://www.gmwatch.org/en/106-news/latest-news/19784>

³⁴ <https://www.gmwatch.org/en/106-news/latest-news/20106>

³⁵ <https://www.nfuonline.com/updates-and-information/what-you-need-to-know-about-gene-editing-in-agriculture/>

³⁶ <https://extranet.greens-efa.eu/public/media/file/9065/6779>

³⁷ <https://www.gmwatch.org/en/106-news/latest-news/19738-uk-targeted-for-experimental-gene-edited-tomato>

FAILED PARTNERSHIP WITH MAKHTESHIM-AGAN

If Cibus' technology was commercially viable, we expect any number of previous partnerships would have already licensed and implemented Cibus' technology into their respective products, invest in, or possibly bid for Cibus itself.

ADAMA Agricultural Solutions (formerly Makhteshim Agan Industries) ("MAI") ("ADAMA") (<https://www.adama.com/us/en>) is an Israeli chemical manufacturer that specializes in pesticides.

MAI is currently owned by ChemChina, the state-owned China National Chemical Corporation and traded on the Shenzhen Stock Exchange. MAI's website currently lists multiple crops services by its products: Citrus, Corn, Cotton, Cucurbits, Fruiting Vegetables, Grapes, Peanuts, Pome Fruit, Potatoes, Rice, Sorghum, Soybeans, Stone Fruit, Tobacco, Tree Nuts, Wheat & Barley.³⁸

In September 2009, Cibus signed a strategic collaboration agreement with MAI whereby MAI would invest US\$ 37 million over five years to develop proprietary crop traits with Cibus in five major crops with a European focus.

MAI was enthusiastic about Cibus' technology and its prospects. MAI signed a separate Strategic Equity Alliance that allowed MAI to gradually acquire up to 50.1% of CIBUS' equity if the project was a success.³⁹

On July 25, 2013, both Cibus' strategic collaboration agreement and its investment agreement were both cancelled.

The project was a failure and resulted in legal proceedings between MAI and Cibus.

E. Legal proceedings that have concluded

In September 2009, the Company signed a strategic collaboration agreement whereby it will invest up to \$37 million, according to milestones, in a joint venture with Cibus, the objective of which is to develop improved traits in connection with five key agricultural crops. In addition, on the same date, an investment agreement was signed by the parties, whereby the Company was given several future options to convert the said investment into shares in Cibus. Due to disputes between the parties arising out of reciprocal claims of breach, Cibus started an arbitration proceeding. On July 25, 2013, the Company and Cibus signed a compromise agreement according to which the arbitration proceeding was cancelled. The strategic collaboration agreement and the investment agreement were cancelled and the Company was released from all its obligations thereunder.

<https://www.adama.com/en/media/3406/download?attachment>

³⁸ <https://www.adama.com/us/en>

³⁹ <https://www.agribusinessglobal.com/agrochemicals/makhteshim-agan-and-cibus-global-announce-proprietary-crop-protection-traits-agreements/>

FAILED CALYXT PARTNERSHIP WITH BAYER

In December 2013, Calyxt entered into a research and commercial license agreement with a Bayer subsidiary.

The partnership failed, and in 2018, Calyxt sued Bayer due to a material breach in their agreement.

Bayer agreed to settle the lawsuit and destroy any technology, related product and confidential information obtained while working with Calyxt.⁴⁰

In August 2023, Cibus claimed Bayer was evaluating gene editing opportunities with Cibus.⁴¹

Cibus' 2023 10-K did not mention an agreement with Bayer but did list Bayer as a likely competitor.⁴²

Bayer's recent 10-K disclosed a collaboration with Cibus "to explore opportunities to enhance seeds through precision breeding capabilities. Bayer also signed a five-year cooperation agreement with Cibus competitor, Pairwise Plants LLC, to jointly optimize gene-edited productivity traits in corn. Bayer wrote "*This new program leverages Pairwise's Fulcrum™ platform and builds on the success of the two companies' initial five-year collaboration for corn, soy, wheat, cotton and canola.*"⁴³

A study from the Greens/EFA (<https://www.greens-efa.eu/en/>), a member group within the European Parliament found that "***gene editing is not a fast or reliable route to desired outcomes ... There are many lengthy steps in bringing a gene-edited product to market, even without considering regulation, and conventional breeding is more successful in achieving desired traits... In cases where speed is important, gene editing is not the quickest or most reliable way to produce crops with desired traits. In contrast, conventional breeding has proven highly efficient and successful in producing such crops.***"⁴⁴

"Gene editing is promoted as the fastest and most efficient way to achieve plant breeding goals.^{1,2} According to Corteva, "CRISPR-produced plants can be developed in just a few years versus what often takes decades",³ and Bayer insists that useful crops can be developed "in a fraction of the time compared to older methods."⁴⁵

In February 2024, a call with a former Senior Bayer Science Fellow at Bayer Crop Sciences explained that Bayer and other large companies have their own trait machines and that CRISPR systems are preferable for quality output.⁴⁶

"Bayer has put an awful lot of effort into low-cost, high throughput production systems, more of the trait machine in corn, soybean type realm."

"Corteva has certainly put a lot of effort into genotype independents with some of their morphogene technology."

"In Monsanto, we've had herbicide tolerance traits ready to go in wheat for a long time."

"If I didn't have to worry about any of the IP issues and it's just a matter of have my own lab set up and want to get something as quickly as possible, the CRISPR system is pretty hard to beat."

⁴⁰ <https://ir.cibus.com/node/6436/html>

⁴¹ <https://www.agriculturediver.com/news/bayer-cibus-gene-editing-partnership-precision-breeding/691503/>

⁴² <https://www.bayer.com/en/agriculture/genome-editing>

⁴³ <https://www.bayer.com/sites/default/files/2024-03/bayer-annual-report-2023.pdf>

⁴⁴ <https://extranet.greens-efa.eu/public/media/file/9065/6779>

⁴⁵ <https://extranet.greens-efa.eu/public/media/file/9065/6779>

⁴⁶ Tegus Network Call

FIERCE COMPETITION ALREADY EXISTS FOR CANOLA SEED POD SHATTER DESIGN TRAITS

In August 2022, Cibus guided for a possible 2025 release date for its canola pod shatter design to partners.⁴⁷

In 2024, Cibus' pod shatter design already faces significant competition today from manufacturers and distributors such as Arcadia Bioscience, Bayer, BrettYoung, Brevant, Brightseed, Canterra, Moolsec, Pioneer, and Winfield.⁴⁸

Distributor (Brand)	Name	Shatter rating
Bayer (DEKALB)	DK400TL	7.2
Bayer (DEKALB)	DK800LL	7.3
Bayer (DEKALB)	DK801LL	7.3
Bayer (DEKALB)	DK900TF	7
Bayer (DEKALB)	DK901TF	5.4
Bayer (DEKALB)	DK902 TF	5.6
Bayer (DEKALB)	DK903TF	5
Bayer (DEKALB)	DKLL 82 SC	7.5
Bayer (DEKALB)	DKLL 83 SC	7
Bayer (DEKALB)	DKLL 84 CRSC	5.3
Bayer (DEKALB)	DKTF 98 CR	3.6
Bayer (DEKALB)	DKTF 99 SC	5.4
Bayer (DEKALB)	DKTFLL 21 SC	7.6
Bayer (DEKALB)	DKTFLL 22 CRSC	5.9
BrettYoung	BY 5125CL	4.2
BrettYoung	BY 6211TF	7.2
BrettYoung	BY 6214TF	5
BrettYoung	BY 6216TF	5.1
BrettYoung	BY 6217TF	8
BrettYoung	BY 7102LL	4
BrettYoung	BY 7204LL	7.5
Brevant Seeds	1028 RR	5
Brevant Seeds	2028 CL	5
Brevant Seeds	B1030N	5
Brevant Seeds	B3010M	6
Brevant Seeds	B3011	5
Brevant Seeds	B3012	7
Brevant Seeds	B3014	5
Brevant Seeds	B3016	6
Brevant Seeds	B3017N	3
Brevant Seeds	B3018N	7
Brevant Seeds	B3019	6
Brevant Seeds	B3020	7*
Brevant Seeds	B4015	7
Brevant Seeds	D3158CM	7
Canterra Seeds	CS2600 CR-T	5
Canterra Seeds	CS2700 CL	4
Canterra Seeds	CS2800 CL	4
Canterra Seeds	CS3000TF	5
Canterra Seeds	CS3100 TF	7
Canterra Seeds	CS3200 TF	7
Canterra Seeds	CS4000 LL	6
Pioneer	44H44	6
Pioneer	45CM39	7
Pioneer	45CS40	3
Pioneer	45H42	5
Pioneer	45M35	7
Pioneer	P501L	4
Pioneer	P505MSL	7
Pioneer	P506ML	6
Pioneer	P508MCL	7
Pioneer	P509L	5
Pioneer	P510G	5
Pioneer	P511G	7
Pioneer	P514CL	6
Pioneer	P515G	7
Pioneer	P519L	6
Pioneer	P520L	7*
Pioneer	P612L	7
Pioneer	P617SL	6
Winfield United (CROPLAN)	CP21L3C	5
Winfield United (CROPLAN)	CP21T3P	8.5
Winfield United (CROPLAN)	CP22T1C	7.7
Winfield United (CROPLAN)	CP24L3C**	7

Source: <https://www.canolacouncil.org/canola-encyclopedia/history-of-canola-seed-development/canola-seed-traits/>

⁴⁷ <https://www.producer.com/crops/shattering-design-to-release-ahead-of-combine/>

⁴⁸ <https://www.canolacouncil.org/canola-encyclopedia/history-of-canola-seed-development/canola-seed-traits/>

US\$ 250 MILLION OVERPAYMENT FOR CIBUS' INTANGIBLE ASSETS

To us, Cibus insiders were overpaid with inflated stock valuations from its 2023 reverse merger.

In May 2023, Cibus valued its goodwill and intangible assets at US\$ 585 million and US\$ 135 million, respectively.

As of September 30, 2023, Cibus recorded no impairment charges relating to acquired goodwill or indefinite lived intangible assets.⁴⁹

Unexpectedly, in 4Q2023, Cibus concluded it was more likely than not that the carrying values of its reporting unit and in-process R&D indefinite-lived intangible assets exceeded their fair values.

Cibus determined its goodwill and in-process R&D indefinite-lived intangible assets were impaired by \$150.4 million and \$99.0 million, respectively, for the year ended December 31, 2023.⁵⁰

Paying US\$ 750 million for goodwill and intangibles only to write-down its carrying value by US\$ 250 million is a 33% reduction in value in a very short period of time for a supposedly high-value, fast-growing business.

If Cibus' technology is so good, why would Cibus write-down 33% of the value of its R&D and trait pipeline in its first year as a public company?

Cibus disclosed that it used a discounted cash flow method to calculate the fair value for its goodwill and the multi-period excess earnings method to calculate the fair value of its indefinite-lived intangible assets.

Cibus disclosed that its cash flow projections looked several years into the future and include assumptions on based on variables such as future royalties and operating margins, economic conditions, probability of success, market competition, inflation, and discount rates.

Cibus' 2019 S-1 claimed its technology was protected by 300+ patents issued or pending.⁵¹

In March 2023, Cibus claimed its technology was backed by more than 400 patents and patents pending, while Calyxt was backed by over 1,050+ patents and patents pending for its technology IP.⁵²

In June 2023 Cibus' claimed its technology post-merger with Calyxt was backed by 1,000+ patents issued or pending.⁵³

Cibus' 2023 10-K claimed its technology was protected by 500+ patents issued or pending.⁵⁴

EspaceNet worldwide search revealed <150 patents (<60 for Cibus, <25 for Calyxt and <70 for Collectis).⁵⁵

It is unclear to us why there is such a significant patent count discrepancy in FYE 2023.

To us, Cibus management saddled new investors with a excessive purchase price for Cibus' goodwill and intangible assets that were written down after its first annual review.

We question whether any intangible value existed at Cibus or whether its Up-C reverse merger was merely a way to create exit liquidity for early-stage investors.

⁴⁹ <https://www.sec.gov/ix?doc=/Archives/edgar/data/1705843/000162828023038279/cbus-20230930.htm>

⁵⁰ <https://www.sec.gov/ix?doc=/Archives/edgar/data/1705843/000162828024012546/cbus-20231231.htm>

⁵¹ <http://pdf.secdatabase.com/913/0001140361-19-002341.pdf>

⁵² <https://www.sec.gov/Archives/edgar/data/1705843/000119312523105072/d401831d424b3.htm>

⁵³ <https://investor.cibus.com/node/8781/pdf>

⁵⁴ <https://www.sec.gov/ix?doc=/Archives/edgar/data/1705843/000162828024012546/cbus-20231231.htm>

⁵⁵ <https://worldwide.espacenet.com/patent/search?q=ia%20%3D%20%22cibus%22;>

<https://worldwide.espacenet.com/patent/search?q=ia%20%3D%20%22calyxt%22;>

<https://worldwide.espacenet.com/patent/search?q=ia%20%3D%20%22collectis%20SA%22>

US\$ 165 MILLION ABUSIVE ROYALTY OBLIGATIONS PAYABLE TO RELATED PARTIES

If Cibus ever generates meaningful future sales, there exists a significant royalty obligation liability payable to insiders, management and early stage investors ahead of public shareholders interests.

Post-merger, Cibus' early stage investors retained royalty obligation rights associated with future sales of any commercially successful traits generated from Cibus' technology.

Cibus' series A convertible preferred shareholders were given warrants exchangeable for future royalty payments equal to 10% of revenues.⁵⁶

Management forecasted revenue assumptions facilitated a scheme to justify exponential increases in royalty payments to related parties.

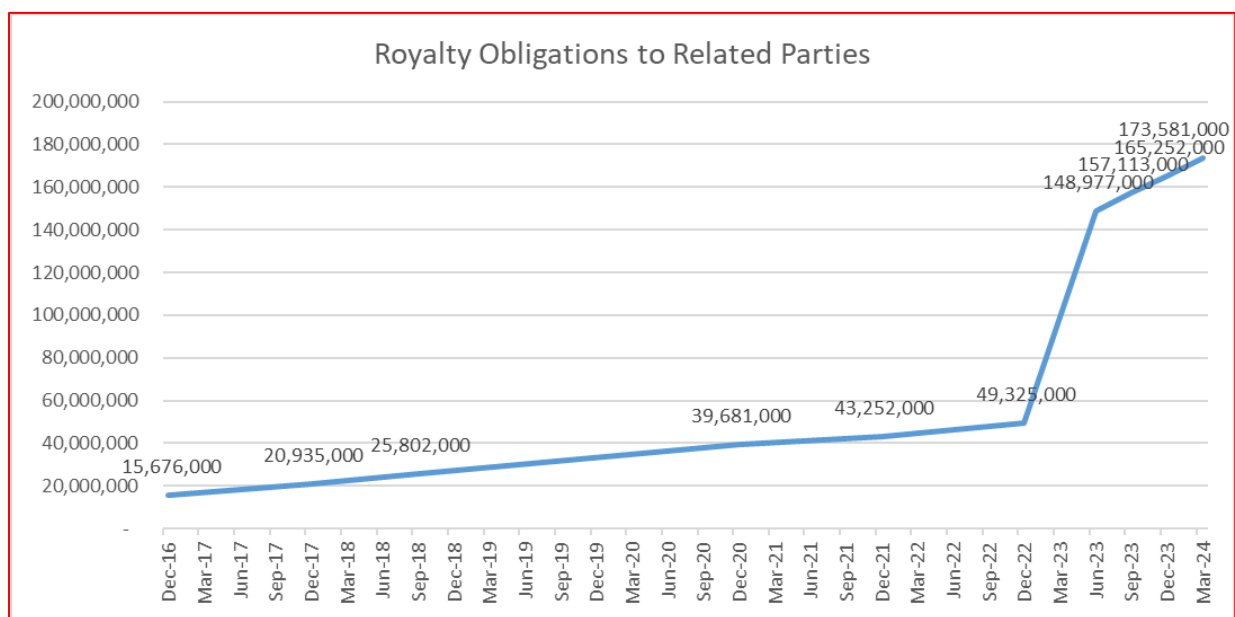
Management generated assumptions for future business that doesn't even exist to increase their own payouts.

“Our estimate resulted in an effective annual interest rate of 27% and 9% for the years ended December 31, 2022 and 2021, respectively... As the Royalty Liability is calculated based on certain management assumptions including future projected revenues through the life of the Warrant Exchange Agreement, potential material adjustments to the Royalty Liability could occur in future periods if these estimates are incorrect.”⁵⁷

Inexplicably, after the merger was completed, the royalty liability jumped from US\$ 49 million as of December 2022 to US\$ 146 million as of June 2023, up from US\$ 25.8 million as of September 2018.

As of 1Q'24, Cibus' royalty obligations to related parties were a whopping US\$ 174 million.

To us, if Cibus ever actually generates any meaningful future sales, a clear conflict exists whereby management and early stage investors will reap the benefits before the interests of minority public shareholders.



Source: CBUS filings, Bonitas Chart

⁵⁶ Revenues include all revenues earned by the Company, including consideration attributable to canola seed products and other crop traits developed using the Company's RTDS, but excluding specifically, (i) revenues attributable to the Nucelis product line, (ii) amounts received from the sale or disposition of the Company's assets to the extent the purchaser agrees to be bound by the Agreement, (iii) payments for the Company's capital stock, and (iv) as well as revenues attributable to collaboration and research projects.

⁵⁷ <https://www.sec.gov/Archives/edgar/data/1705843/000119312523105072/d401831d424b3.htm>

CHAIRMAN ACCUSED IN MULTIPLE LAWSUITS FOR MISLEADING INVESTORS

Cibus Chairman and CEO Rory B. Riggs (“Riggs”) has a history being listed as a defendant in multiple lawsuits alleging insider trading, unjust enrichment, misleading investors, and breaches of fiduciary duties.

We think Riggs is up to his old tricks of pumping Cibus stock.

In March 28, 2024, Riggs, entered into a written plan for the sale of an aggregate of up to 300,000 shares of the Company's Class A Common Stock, which is scheduled to terminate no later than July 12, 2024.

Cibus disclosed that **Riggs pledged his holdings as collateral to secure personal loans.**

Cibus’ Insider Trading policy generally prohibits all employees and board members from holdings securities in a margin account or pledging Cibus securities as collateral. However, “*the Board approved an exception to our insider trading policy for approximately 79,417 shares of Class A Common Stock and 1,505,967 shares of Class B Common Stock issued to Rory Riggs in conjunction with the completion of the Merger Transactions in exchange for approximately 7,900,000 Cibus Global units owned by Mr. Riggs and pledged by Mr. Riggs prior to completion of the Merger Transactions as collateral to secure certain personal indebtedness.*”⁵⁸

Riggs is also a direct beneficiary of Cibus’ royalty obligations from his ownership of Series A Preferred Warrants.

In 2000, Riggs was named as a defendant along with Biomatrix, Inc. whereby the plaintiff claimed Riggs engineered a merger to monetize his investment at artificially high prices.

*“the merger was engineered by Defendants Balazs, Riggs, and Janet L. Denlinger, Biomatrix’s Executive VP, in order to cash out their investment in Biomatrix without driving down the price of the shares in the process. Additionally, Plaintiffs allege that as a result of the company’s enormous production capacity coupled with the low end-user demand for Synvisc, Biomatrix was faced with the possibility of stagnant or decreasing sales and net earnings, which would prevent a runup in the price of the company’s shares. To solve this problem, Plaintiffs contend that Defendants repeatedly represented to investors that Synvisc was an innovative product, that end-user sales were steadily increasing, and that the company was reporting increasing revenues from its sales of Synvisc. Plaintiffs assert that investors did not know that the medical community was not using Synvisc to any great extent, and that throughout 1999, Biomatrix was selling Synvisc to its partner Wyeth faster than Wyeth could distribute it. By building inventory at Wyeth, Biomatrix allegedly accelerated a huge portion of 2000 end-user sales into 1999 reported revenue, thereby leading investors to believe that end-user demand was increasing.”*⁵⁹

In 2018, a class action lawsuit alleged that Fibrogen provided a falsehoods about the efficacy of its drugs and their progression through the approval processes with regulatory bodies.

In 2021, Riggs was listed as a defendant for false and misleading statements while director of Fibrogen.

“Verified Stockholder Derivative Complaint for violations of securities laws, breach of fiduciary duty, waste of corporate assets, unjust enrichment, and insider trading. Plaintiff... The Individual Defendants were motivated to engage in this campaign to tout Roxadustat’s clinical trial data, claim that the drug had met certain objectives, and allow the Company to manipulate data to make FDA approval of the drug appear likely. This had the effect of artificially inflating the Company’s stock price. Meanwhile, certain defendants sold over \$52 million worth of their stock in the Company at inflated prices.”

Source: Case 1:21-cv-01811-UNA

⁵⁸ <https://www.sec.gov/ix?doc=/Archives/edgar/data/1705843/000162828024016939/cbus-20240419.htm>

⁵⁹ <https://casetext.com/case/arthur-fields-and-hardy-fields-on-behalf-of-themselves-and-all-others-similarly-situated-plaintiffs-v-biomatrix-inc-andre-a-balazs-and-rory-b-riggs-defendants-john-snyder-on-behalf-of-themselves-and-all-others-similarly-situated-plaintiffs-v-biomatri>

Fibrogen acknowledged Tuesday that the company has been touting false heart-safety data for its experimental anemia pill for at least two years — a shocking revelation that raises even more questions about the drug’s approvability. Shares of Fibrogen fell 27% to \$25 in Tuesday’s after-hours trading session as investors questioned the credibility of the company’s management team and mulled the ramifications of revised heart-safety data that may no longer be strong enough to pass muster with the Food and Drug Administration...Fibrogen was expecting the FDA to complete its review of roxadustat and render an approval decision by March 20. But in a surprising — and concerning — move announced just three weeks before that deadline, the FDA instead decided to convene a meeting of outside experts to review the drug’s clinical data. The FDA advisory panel meeting is tentatively scheduled for July 15.

But Tuesday, Fibrogen said that while preparing for the FDA advisory panel, it discovered the post-hoc changes to the heart safety “stratification factors.” **When those changes were removed and roxadustat’s heart-safety data were analyzed as pre-specified in the analysis plan, the results are less robust.**

CLASS ACTION COMPLAINT FOR VIOLATIONS OF THE FEDERAL SECURITIES LAWS

11

Case 3:21-cv-02623-EMC Document 1 Filed 04/12/21 Page 13 of 22

Across three studies involving dialysis patients, Fibrogen said it can no longer conclude that roxadustat reduces the risk of cardiovascular events or hospitalization compared to a currently approved anemia injection used as a control.

Source: Case 3:21-cv-02623-EMC

In 2017, Intra-Cellular Therapies, Inc. (“Intra-Cellular”, “ITCI”) was involved in a class action lawsuit alleging the company of making false statements or failing to disclose important information related to the safety concerns of their drugs. In 2022, Riggs was listed as a defendant in a lawsuit claiming excessive compensation while a board member of Intra-Cellular.

*“Since fiscal year 2021, the members of Intra-Cellular’s Board of Directors (the “Board”) have chosen to **grossly overcompensate themselves in relation to peer companies** of comparable market capitalization and size, through a compensation plan that otherwise fails to take into account any relevant metrics, such as revenue and profit, in setting and/or limiting its compensation. 2. The compensation plan not only awards directors well-above-market compensation, but it also fails to consider relevant performance metrics that typically influence director compensation, such as the Company’s revenue and net income (or, in this case, negative net income). 3. Despite the Company’s substantial cumulative loss since fiscal 2012, its nonemployee directors are paid far beyond the range of compensation of their peers at similarly-sized public companies. 4. Plaintiff brings this action to **recoup the excessive compensation paid to the NonEmployee Director Defendants** (defined infra), and to force meaningful corporate governance reforms that will **both restrict the Non-Employee Director Defendants’ ability to award themselves egregious compensation** and align the factors driving compensation (including grants of options to purchase the Company’s stock) with the Company’s performance and long-term objectives.”⁶⁰*

Chairman Rigg’s history as a listed defendant in multiple lawsuits alleging complaints about misleading investors.

⁶⁰ <https://www.nflp.com/documents/Cases/Intra-Cellular/ITCI-Derivative-Complaint.pdf>

ODDLY TWO “INDEPENDENT” DIRECTORS ARE ALSO “MAJOR INVESTORS” IN CIBUS

While technically share ownership is not a violation of Nadsaq director independence, we question the existing conflicts of interest inherent when “*independent*” board members just so happen to be “*major investors*” in Cibus.

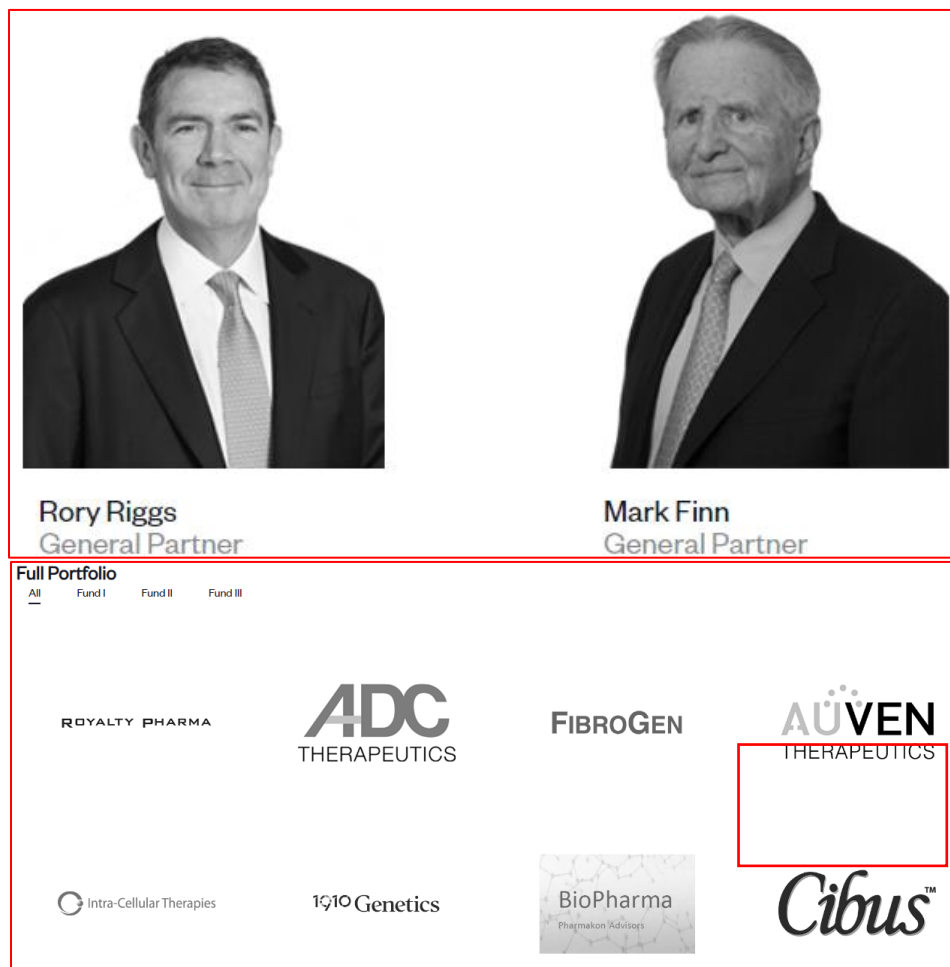
Mark Finn (“Finn”) serves as Cibus Board’s “*Lead Independent*” Director and Chairman of Cibus’ Audit, Nominating and Corporate Governance Committees and a member of Cibus’ Compensation Committee.⁶¹

Jean-Pierre Lehmann (“Lehmann”) is an “*Independent*” Director and a member of Cibus’ Audit, Nominating, Corporate Governance and Compensation Committees.⁶²

Cibus’ April 2024 Schedule 14A proxy statement disclosed that Lehmann and Finn own 7.8% and 5.8% of CBUS stock, respectively.⁶³

Lehmann is also listed as a major investor in Cibus’ warrant agreement that allows Lehmann to benefit from certain future royalty revenues from Cibus.

Finn is a founding member of “*New Ventures Fund*” (currently called “*Scientia Ventures*”) and listed as a general partner along with Cibus Chairman and CEO Rory Riggs (“Riggs”).



Source: <https://www.scientiavc.com/people> ; <https://www.scientiavc.com/portfolio>

⁶¹ <https://www.sec.gov/ix?doc=/Archives/edgar/data/1705843/000162828024016939/cbus-20240419.htm>

⁶² <https://www.sec.gov/ix?doc=/Archives/edgar/data/1705843/000162828024016939/cbus-20240419.htm>

⁶³ <https://www.sec.gov/ix?doc=/Archives/edgar/data/1705843/000162828024016939/cbus-20240419.htm>

**SCHEDULE 1
MAJOR INVESTORS**

- Richard Spizzirri
- DTC CFBO Richard Spizzirri IRA
- Rory Riggs
- Rory Riggs Family Trust
- Jean-Pierre Lehmann
- New Ventures Holdings, Inc.

Source: <https://www.sec.gov/ix?doc=/Archives/edgar/data/1705843/000162828024012546/cbus-20231231.htm>

Name of Beneficial Owner	Class A Common Stock		Class B Common Stock		Class A Common Stock and Class B Common Stock	
	Number of Shares	Percentage of Class	Number of Shares	Percentage of Class	Number of Shares	Percentage of Class
Directors and Named Executive Officers:						
Rory Riggs ⁽⁷⁾	3,177,678	14.7 %	1,388,084	44.2%	4,565,762	19.8 %
Peter Beetham, Ph.D. ⁽⁸⁾	378,934	1.8 %	3,503	*	382,437	1.8 %
Greg Gocal, Ph.D. ⁽⁹⁾	320,844	1.5 %	—	*	320,844	1.5 %
Mark Finn ⁽¹⁰⁾	1,222,566	5.7 %	25,396	*	1,247,962	5.8 %
Jean-Pierre Lehmann	1,687,071	7.8 %	—	*	1,687,071	7.8 %
Gerhard Prante, Ph.D.	71,785	*	—	*	71,785	*
Keith Walker, Ph.D.	84,183	*	14,518	*	98,701	*
Michael A. Carr ⁽¹¹⁾	33,174	*	—	*	33,174	*
Travis J. Frey, Ph.D. ⁽¹¹⁾	19,060	*	—	*	19,060	*
Debra Frimerman ⁽¹¹⁾	18,772	*	—	*	18,772	*

Source: <https://www.sec.gov/ix?doc=/Archives/edgar/data/1705843/000162828024016939/cbus-20240419.htm>

DISCLAIMER

We are short sellers. We are biased. So are long investors. So is CBUS. So are the banks that raised money for CBUS. If you are invested (either long or short) in CBUS, so are you. Just because we are biased does not mean that we are wrong. We, like everyone else, are entitled to our opinions and to the right to express such opinions in a public forum. We believe that the publication of our opinions about the public companies we research is in the public interest.

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