	TES DISTRICT COURT TRICT OF CALIFORNIA
IN RE PRECIGEN, INC. SECURITIES LITIGATION	Lead Case No. 5:20-cv-06936-BLF CLASS ACTION
This Document Relates To: All Actions.	PLAINTIFF'S SECOND AMENDED CLASS ACTION COMPLAINT JURY TRIAL DEMANDED Courtroom.: 3 – 5th Floor Judge: Hon. Beth Labson Freeman

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Court-appointed Lead Plaintiff, Raju Shah, by and through his undersigned counsel, brings this

1 2 action under the Securities Exchange Act of 1934 (the "Exchange Act") on behalf of himself and a 3 class of other similarly situated investors against Precigen, Inc. ("Precigen" or the "Company") and other Defendants named herein.¹ Plaintiff alleges the following based upon personal knowledge as to 4 5 himself and his own acts, and upon information and belief as to all other matters. Plaintiff's 6 information and belief is based on the ongoing investigation of his undersigned counsel, which 7 includes review of Defendants' press releases, conference call transcripts, filings with the United States 8 Securities and Exchange Commission ("SEC"), and other public statements; news stories, analyst 9 reports, and other public information concerning Precigen and the industry within which it operates; 10 and interviews with former Precigen employees and/or others familiar with the Company.

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I. NATURE OF THE ACTION

1. This securities class action is brought on behalf of a class (the "Class") consisting of all persons or entities other than Defendants and their affiliated persons who purchased or otherwise acquired Precigen common stock between May 10, 2017 and September 25, 2020, inclusive (the "Class Period"). Plaintiff brings claims against Precigen and certain of its current and former officers and directors (collectively, "Defendants"). The claims arise under §§10(b) and 20(a) of the Exchange Act and Rule 10b-5 promulgated thereunder.

2. At all relevant times, Precigen's business involved developing chemical and energy technology platforms based on "synthetic biology" that sought to develop biologically based products. Of particular importance to Precigen investors was Precigen's methane bioconversion platform ("MBP"), which sought to transform certain enzymes – known as methanotrophs – into high carbon content compounds by having the methanotrophs metabolize a "feedstock" that contains methane (which is essential for the bioconversion process to take place). However, finding a way to efficiently separate methane from the other elements that are also contained in the most common methane-bearing

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the Company as Precigen, notwithstanding that it was called Intrexon prior to 2020.

renamed "Precigen, Inc." For ease of reference, this Second Amended Complaint generally refers to

Formerly known as Intrexon Corporation ("Intrexon"), on January 2, 2020, the Company was

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feedstocks – such as *natural gas* (which is far cheaper than *pure methane*) – poses significant technological challenges. Nonetheless, as detailed below, Defendants touted the ability of the Company's MBP program to use relatively cheap *natural gas* to convert methanotrophs, via bioconversion, into more valuable commercial end-products, including

- (i) isobutanol (used in gasoline blending);
- (ii) isobutyraldehyde (the primary component of methyl methacrylate ("MMA"), which is used in developing acrylics for automotive parts and in lighting for LED lighting and flat panel screens);
- (iii) 2,3 Butanediol ("2,3 BDO") (used in producing synthetic rubber); and
- (iv) 1,4 Butanediol ("1,4 BDO") (used in producing polyester).

Developing a commercially viable MBP program would mean potentially massive profits for Precigen, and accordingly, the success or failure of its MBP efforts was highly material to investors.

- 3. The three key metrics in assessing the commercial feasibility of a bioconversion platform (such as Precigen's MBP) are (1) *yield*, or the amount of useful product produced; (2) *productivity*, or how quickly the useful product could be made; and (3) *titer*, or the concentration of useful molecules (*i.e.*, the product) in relation to the byproducts (such as water) that had to be removed. Unfortunately, however, gains in one area would often come at the expense of detriments in another. In particular, titer and productivity "fight each other," meaning that improving titer tends to come at the expense of productivity and vice versa. Under the Company's "techno-economic" model, commercial viability required developing a commercial-scale production process that would achieve satisfactory results with respect to *each* of these key metrics using natural gas as the feedstock.
- 4. Starting on May 10, 2017 (the first day of the Class Period), Precigen began claiming that, using natural gas as its feedstock, its MBP had achieved isobutyraldehyde and 2,3 BDO yields sufficient for "site selection" a significant milestone that meant that development had reached a stage that justified the selection of a location to construct a facility to commence commercial production of the product in question. Precigen also reported on May 10, 2017, that it had increased its yield for 2,3 BDO by 30% in 1Q 2017, a level that would allow for profitable production based on "current natural"

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gas and product prices." In other words, as a result of this purported yield breakthrough, Defendants represented to investors that at least two of the Company's MBP-generated products were "in the money," i.e., commercially viable. Defendants also made clear that the Company's purported abilities to produce isobutyraldehyde and 2,3 BDO from its MBP "represent a multi- billion-dollar revenue opportunity for the Company," as there was a \$100 billion overall Total Addressable Market ("TAM") for the various MBP products (such as isobutyraldehyde and 2,3 BDO) that it sought to produce. As shown below, Defendants would continue to tout similarly positive claims regarding the purported success of its MBP program over the course of the Class Period.

- 5. Unbeknownst to investors, however, *Precigen had <u>not</u> utilized natural gas as the "feedstock" for its MBP* in connection with the highly positive results it reported but was instead reporting results based on the use of *pure methane* as the feedstock. And this was plainly a highly material distinction, as there is an *enormous* cost difference between the two. Indeed, as the SEC later stated in its September 2020 cease-and-desist order (the "SEC Order") entered against Precigen:
 - ¶6. Pure methane was purchased [by the Company] in canisters at a cost of approximately \$650 per one million British Thermal Units (MMBtu). At those prices, pure methane was not a commercially viable feedstock. Pure methane differs from natural gas in that it contains no ethane, which was inhibitory to the fermentation process. Natural gas could be purchased from the local utility company at a cost of approximately \$3 per MMBtu. At those prices, natural gas could provide a commercially viable feedstock. The problem with natural gas is that it is a composite chemical that contains small percentages of ethane, which again was inhibitory to the fermentation process. At the time of the laboratory experiments with pure methane as a feedstock, [the Company's] scientists were working on methods to achieve similar yields . . . with natural gas and, while they were optimistic, they had not done so at the time [the Company] made the relevant disclosures.
 - ¶7. Yields... reported internally from laboratory experiments using natural gas as a feedstock were substantially lower than those disclosed publicly by [the Company] using pure methane during the relevant period.

[Emphasis added.]

Accordingly, Precigen's reported "yields" for converting "natural gas" into various end-products were materially and patently false and misleading, as were the Company's Class Period statements regarding

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the purported readiness of its MBP program for "site selection" and commercial development at "in the money" yield levels.

- 6. Moreover, the Company also never achieved satisfactory results for all three of its key metrics – yield, productivity, and titer – under any single given MBP production method, whether at the lab testing level or at the pilot plant level, and thus, had no basis for claiming that the Company had developed any production process (let alone one that might be reasonably expected to be scalable to commercial production levels) that was "in the money."
- 7. Unfortunately for investors, the extent to which the Company had misrepresented the purported success of its MBP development only emerged over time. Indeed, the nature and extent of the Defendants' affirmative misrepresentations and material omissions – including that the Company (1) had been using costly *pure methane* (instead of natural gas) as its MBP feedstock, (2) had *not* achieved its stated "yields" on its MBP products using natural gas, and (3) had *failed* to produce MBP products that were "in the money" (i.e., commercially viable) – would not be fully revealed to the investing public until September 25, 2020 (the last day of the Class Period), when the SEC issued a cease-and-desist order that ordered Precigen to stop making "inaccurate [statements] concerning the company's purported success converting relatively inexpensive natural gas into more expensive industrial chemicals using [its] proprietary [MBP] program." [Emphasis added.]
- 8. As detailed below, Precigen's shares had, however, already began to decline significantly before the public announcement of the SEC Order in response to earlier partial disclosures that had the effect of gradually disclosing the extent of the failures and weaknesses in Precigen's MBP development efforts. Indeed, although the Company's share price was roughly \$23.62 per share at the start of the Class Period on May 10, 2017, by the end of the Class Period on September 25, 2020, its share price had fallen to only \$3.58 per share – a staggering decline of approximately 85%.
- 9. By this action, Plaintiff now seeks a recovery for himself and the Class he seeks to represent for the massive losses they have suffered as a result of Defendants' fraudulent and deceptive conduct.

II. JURISDICTION AND VENUE

- 10. The claims asserted herein arise under and pursuant to §§10(b) and 20(a) of the Exchange Act (15 U.S.C. §§78j(b) and 78t(a)) and Rule 10b-5 promulgated thereunder (17 C.F.R. §240.10b-5).
- 11. This Court has jurisdiction over the subject matter of this action pursuant to Section 27 of the Exchange Act (15 U.S.C. §78aa) and 28 U.S.C. §1331.
- 12. Venue is proper pursuant to 15 U.S.C. §78aa and 28 U.S.C. §1391(b) because, at all relevant times, a substantial part of the events or omissions giving rise to the claims at issue occurred in this District, including the preparation and dissemination of materially false and misleading information. At all relevant times, Precigen's research and development laboratory at which many of the salient events herein occurred was located at 329 Oyster Point Blvd., South San Francisco, CA 94080.
- 13. In connection with the acts alleged herein, Defendants, directly or indirectly, used the means and instrumentalities of interstate commerce, including, but not limited to, the U.S. mail, interstate telephone communications, and the facilities of national securities exchanges.

III. PARTIES

A. Plaintiff

14. Lead Plaintiff Raju Shah ("Shah" or "Plaintiff"), as set forth in his certification previously filed with the Court, purchased Precigen common stock during the Class Period and was damaged by Defendants' conduct as alleged herein.

B. Defendant Precigen

15. Defendant Precigen, Inc., is a corporation organized under the laws of the Commonwealth of Virginia and is headquartered at 20374 Seneca Meadows Parkway Germantown, Maryland 20876. The Company, then-known as Intrexon, went public in August 2013 on the New York Stock Exchange ("NYSE") under the ticker "XON." At the time, its IPO prospectus promoted the Company as a "leader in the field of synthetic biology" that targeted multiple industries, including (i) healthcare products like therapeutics, bioproduction, and diagnostics, (ii) food animals and

agriculture, (iii) energy and chemicals, and (iv) environmental sciences like biosensors, bioremediation, and specialty processes.

- 16. At all relevant periods, the Company maintained its synthetic biology research and development facility in a laboratory in South San Francisco, California. This location served as the Company's only synthetic biology facility.
- 17. At the close of the market on September 24, 2018, the Company's stock ceased trading on the NYSE and began trading on the Nasdaq Global Select Market ("Nasdaq") the following day under the same name (which was then Intrexon) and ticker symbol.
- 18. On February 1, 2020, the Company changed its name to "Precigen, Inc.," and changed its stock symbol to "PGEN."

C. The Individual Defendants

- 19. Defendant Randal J. Kirk ("Kirk") served as the Company's Chairman of the Board and Chief Executive officer ("CEO") throughout the entire Class Period until Kirk's departure from his role as CEO on January 1, 2020. Thereafter, Defendant Kirk continued to serve as the Company's Executive Chairman. On September 25, 2020, the Company announced that as of the day prior September 24, 2020 Defendant Kirk "is no longer an employee or executive officer of the Company," but that "Mr. Kirk remains the Executive Chairman of the Company." Defendant Kirk signed both SEC Form 10-Ks ("10-K") that contained material misstatements and uttered multiple misstatements on earnings calls and in press releases.
- 20. Defendant Rick L. Sterling ("Sterling") served as the Chief Financial Officer ("CFO") of the Company throughout the Class Period. Sterling signed each SEC Form 10-K, SEC Form 8-K ("8-K"), and SEC Form 10-Q ("10-Q") which is alleged herein to contain materially false or misleading statements.
- 21. Defendant Robert F. Walsh ("Walsh") served as the Company's Senior Vice President of Energy & Fine Chemical Platforms, from May 2013 to November 2019, and was a self-described "Section 16 Officer" (meaning that he was subject to the SEC's reporting requirements because he was the direct or indirect beneficial owner of more than 10% of the Company's equity). Defendant Walsh

- directed and led the Company's efforts to develop and commercialize its MBP program; regularly communicated key details of the program to other senior Company executives, including Defendant Kirk; and discussed the program on numerous quarterly earnings calls, during which he personally made several of the materially false and misleading statements at issue herein.
- 22. Defendant Andrew J. Last ("Last") was the Company's Chief Operating Officer ("COO") from August 2016 to December 2017. Defendant Last spoke on multiple earnings calls, presented on the Company's MBP program at the June 20, 2017 JMP Securities Life Science Conference, and also personally made several of the materially false and misleading statements at issue herein.
- 23. The Defendants named in ¶19-22 are collectively referred to herein as the "Individual Defendants." The Individual Defendants, by virtue of their positions with the Company, possessed the power and authority to control the contents of the Company's SEC filings, public statements, and presentations to securities analysts, investors, and other market participants. Each Individual Defendant was provided with copies of the Company's statements and public filings alleged herein to be materially false or misleading prior to, or shortly after, their issuance, and each had the ability and opportunity to prevent their issuance or cause them to be corrected. Because of their positions and access to material non-public information, each of these Defendants knew that the material adverse facts specified herein had not been disclosed to, and were being concealed from, the investing public, and that the positive representations which were being made were materially false and/or misleading when made. Each Individual Defendant is liable for the false statements pleaded herein, as those statements were each "group-published" information and the result of the collective actions of these Defendants pursuant to a common scheme and wrongful course of conduct.

IV. SUBSTANTIVE ALLEGATIONS

- A. The Company and Its Efforts to Position Itself as a "Leader" in the Field of Synthetic Biology
- 24. Synthetic Biology is an emerging field that, in its most basic terms, applies engineering principles to biological systems. The focus of Precigen's synthetic biology efforts was to research,

develop, and commercialize the process of successfully transforming certain enzymes – known as methanotrophs – into organic compounds containing a higher carbon content. To do so, the methanotrophs would need to metabolize a "feedstock" by inducing a chemical reaction known as bioconversion. The "feedstock," however, needs to contain methane for the bioconversion process to take place – and finding a way to efficiently and effectively separate the methane from the other elements that are also contained in the most common methane-bearing feedstocks poses significant technological challenges.

- 25. As a "feedstock," pure methane works best, because it *only* contains methane, *i.e.*, there is nothing to separate. However, at all relevant times, the price of pure methane was prohibitively expensive at \$650 per one million British Thermal Units ("MMBtu"), and therefore is not a commercially viable feedstock (because the commercially useful by-products of the resulting bioconversion process can be produced through far less expensive means).
- 26. Natural gas consists primarily of methane, and at a market price of only about \$3 per MMBtu, it offers a dramatically cheaper source of methane compared to pure methane. The problem with natural gas, however, is that it also contains various other composite chemicals, notably ethane (which inhibits the desired fermentation/bioconversion process), which must be separated from the methane for the desired bioconversion process to work. As a result of this separation problem, as of the start of the Class Period, no company had succeeded in developing a commercially viable way to utilize natural gas in the bioconversion process although given the low \$3 per MMBtu price of natural gas, the commercial potential of such a technology could be extremely lucrative. Relatedly, the profitability of such a commercially viable technology would increase depending on its "yield," *i.e.*, on the amount or percent of the feedstock that is converted into a desired end-product through the bioconversion process.
- 27. Bioconversion offers the possibility of producing new products such as fuel, medicines, and materials for making clothing (such as polyester) and cosmetics as well as developing new applications for existing products (such as microorganisms that can be employed to clean pollutants from water, soil, and air).

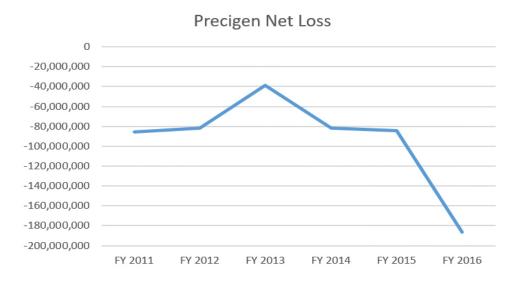
- 28. From the start, the Company has faced stiff competition in the synthetic biology field. For example, at the beginning of the Class Period, there were more than 350 companies worldwide with a market value of approximately \$3.34 billion that were engaged in various efforts to develop and commercialize synthetic biology products or applications.
- 29. According to the Company, its proprietary methane bioconversion platform ("MBP") positioned it as a "leader" in this field. As noted above, the objective of Precigen's MBP was to convert *natural gas* into commercial-end products, including (i) isobutanol (used in gasoline blending); (ii) isobutyraldehyde (used in producing methyl methacrylate for use in the production of automotive parts and LED flat panels and lighting); (iii) 2,3 BDO (used in producing synthetic rubber): and (iv) 1,4 BDO (used in producing polyester). Unfortnuately for investors, however, the Company's claims of being a "leader in the field of synthetic biology" ended up being built on a fabric of materially false and misleading public statements concerning the nature and purported "success" of its MBP program.
- B. Immediately Before the Class Period, Precigen's Loss of a Key Partner and Its Accelerating Losses Cast Doubt on the Company's Ability to Succeed in the Synthetic Biology Field
- 30. Aside from inherent scientific challenges, the Company's efforts to develop a successful MBP program was complicated by two adverse developments immediately prior to the start of the Class Period.
- 31. First, the Company lost the benefits of its partnership with Dominion Energy ("Dominion"). The Company had previously touted the potential of an exclusive agreement entered in 2015 between Dominion and Intrexon Energy Partners ("IEP") the subsidiary through which Precigen sought to build its MBP to explore the potential development of commercial-scale biological conversion of natural gas to isobutanol. Dominion was one of the United States' largest vertically integrated natural gas utility companies, operating across all segments of the natural gas industry. Moreover, in early 2016, the Company announced that in connection with this partnership, IEP would open a "pilot plant" at Precigen's South San Francisco facility to pursue the goal of successfully achieving commercially viable yields of isobutanol and in a May 10, 2016 earnings call,

Defendant Kirk stated:

[W]hen you see [IEP] and Dominion Resources go forward with site selection for the world's first commercial plant, that should signal to you that we believe that we're in the money. We are not yet there, but we are tracking according to plan and we are very, very excited by what we are seeing.

However, the Company's public aspirations for its Dominion partnership did not come to pass, as Dominion decided (without public explanation) in late January 2017, to let its option to construct, own, and operate two isobutanol production facilities with IEP expire.

32. Second, in the years following its IPO in 2013, the Company not only continued to suffer losses (it has never turned a profit), but its losses accelerated – and for FY 2016, the Company reported that its net loss had more than doubled (from \$84.5 million in FY 2015 to \$186.6 million in FY2016). *See* Precigen Net Loss graph, below:



33. When the Company disclosed its bleak FY 2016 earnings on March 2, 2017, analysts such as JMP Securities LLC ("JMP") expressed concern that "earnings [fell] below our and consensus estimates, driven by lower-than-expected revenues," and another analyst (Wunderlich Securities, Inc. ("Wunderlich")) similarly reported surprise at the Company's declining revenue, while also worrying that the "lapse" of the agreement with Dominion might require Precigen to find a new partner and would further delay its isobutanol development program.

34. Against this adverse backdrop, Defendants rolled out a significant shift in narrative, which painted a decidedly more positive picture of the Company's MBP program and prospects. Unfortunately, for investors, it was a materially false and misleading narrative.

C. Defendants Begin to Issue a Stream of Materially False and Misleading Statements Concerning the Purported Successes of Its MBP Program

- 35. The Class Period begins on May 10, 2017, just two months after the Company reported its record-setting FY 2016 losses and just three months after disclosing the breakup of the Company's partnership with Dominion. On that day, after the close of the markets, in both a press release and slideshow attached to the Company's SEC Form 8-K that discussed Precigen's 1Q 2017 earnings, Defendants purported to disclose what was effectively a breakthrough in the development of their MBP program.
- 36. More specifically, according to the press release and slideshow (1) the MBP had produced both 2,3 BDO and isobutyraldehyde at sufficiently high "yields" utilizing "natural gas" as the feedstock for the Company to be able to advance to the next significant phase of commercial development (namely "site selection"), and (2) that the yields effectively meant that the contemplated commercial production of those two products would be "in the money," i.e., profitable. The first product, 2,3 BDO, if successfully developed, is a precursor component of synthetic rubber. The second product, isobutyraldehyde, is the primary component of MMA, which is used in developing acrylics, which are a major component in automotive parts and lighting for LED and flat panels. In sum, Defendants claimed that it had four products "actively under development," including 2,3 BDO and isobutyraldehyde, with a TAM exceeding \$100 billion. As Defendants also stated, the Company had succeeded in showing "the profitable use of low cost natural gas" in bioconversion, with Defendant Walsh, on that day's earnings call, further stating:

[T]hat for two of these products, isobutyraldehyde and 2,3-butanediol, we've attained the yields necessary for the site selection of initial [Precigen] facilities. Additionally, we've had a greater than 30% increase in 2,3-butanediol yields during the first quarter 2017, which places this valuable chemical commodity in the money based on current natural gas prices.

- 37. The following day, May 11, 2017, analyst Wunderlich termed the Defendant's disclosures an "upside surprise," and gave the Company a "Buy" rating on the strength of the "long-term, large TAM opportunities in the Energy [market]." Analysts Griffin Securities ("Griffin") and JMP were similarly upbeat on the news, with the former reporting that "[t]wo chemical production systems are ready for commercialization and more are on the way," and also noting the huge estimated TAM for isobutyraldehyde and 2,3 BDO TAM.
- 38. In response to these disclosures and the related positive analyst commentary, on May 11, 2017, the Company's common shares closed at \$23.62, up 20.7% compared to the prior day's closing price.
- 39. The following month at the JMP Securities Life Science Conference on June 20, 2017, the Company's COO, Defendant Last, declared that the Company had achieved "a very breakthrough platform."
- 40. Unfortunately, Defendants' success story was not true and the May 10, 2017 statements were the first of a long series of materially false and misleading statements, in which the Defendants fundamentally mischaracterized the reported successes of the Company's MBP program, and materially mislead investors as to: (1) the actual feedstock (pure methane rather than natural gas) with which the Company had achieved its supposed success, (2) the actual (and *low*) yields the Company had supposedly achieved using natural gas as the feedstock, (3) the Company's inability to develop a *single* production method that would generate a potentially profitable outcome across each of three key metrics the Company tracked (yield, productivity, and titer) under the Company's own technoeconomic models for assessing commercial viability, and (4) the purported commercial ("in the money") viability of the MBP program.
- 41. For example, Defendants repeated and updated their misstatements on August 9, 2017, when the Company announced 2Q 2017 earnings after the market closed, repeating in the press release and slideshow attached to a Form 8-K that the Company had "attain[ed] commercially relevant yields

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on two high-value industrial molecules, isbobutyraldehyde [sic] and 2,3 butanediol (2,3 BDO)" and added that the Company "[o]bserved [a] 30% increase in 2,3 BDO yields on top of 30% increase achieved during the first quarter." On the earnings call that day, Defendant Last explained that "our yields on 2,3-BDO and isobutyraldehyde place these valuable unpartnered chemicals in the money based on the current natural gas prices" (emphasis added) – comments that caused analyst Northland Securities to praise the Company's success in "attain[ing] commercially relevant yields on two molecules, isbobutyraldehyde [sic] and 2,3 butanediol."

42. Similarly, in a November 9, 2017 press release and slideshow attached to the Company's Form 8-K that reported its 3Q 2017 earnings, Defendants claimed further yield increases in both 2,3 BDO – which Defendant Last described as reflecting "commercial robustness" – and in isobutanol. As Last stated:

[The Company's] proprietary methanotroph bioconversion platform continued to increase yield across multiple products including 2,3 butanediol, which increased approximately 15% during the quarter, and isobutanol, which increased 78%.

[Emphasis added.]. The comments on isobutanol were particularly significant, as the Company had previously touted only its purported 2,3 BDO and isobutyraldehyde successes and this was the product at the center of the break-up of the partnership with Dominion. Analysts again reacted positively to these disclosures, with Griffin writing that the MBP "has produced six high-value fuels/chemicals," including 2,3 BDO "which has demonstrated commercial robustness."

- 43. In later press releases, public comments, and SEC filings, Defendants continued to make additional material misstatements about its MBP program having successfully utilized natural gas as a feedstock to produce commercially viable products. These additional actionably false and misleading statements include those contained in
 - the Company's March 1, 2018 Annual Report for 2017 filed on Form 10-K;
 - in the Company's press releases and slideshows attached to the Form 8-Ks disclosing its 1Q, 2Q, and 3Q 2018 earnings, along with the accompanying earnings call commentaries made on May 10, August 9, and November 8, 2018, respectively;

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- the Company's press release attached to its Form 8-K reporting the Company's 4Q and FY 2018 earnings, released on February 28, 2019; and
- the Company's 2018 Annual Report filed on Form 10-K issued on March 1, 2019. See infra, §VI.
- 44. As the SEC Order later confirmed, (1) the Company's statements about its purported "2,3 BDO yields were based upon laboratory experiments using pure methane not natural gas as the feedstock," and (2) given the enormous difference in price between natural gas (\$3 per MMBtu) and pure methane (\$650 per MMBtu) and the Company's failure to achieve the stated yields with far less expensive natural gas (as opposed to the prohibitively expensive pure methane), Defendants' characterizations of the MBP program as "in the money" were also flatly false. Moreover, as the SEC Order further stated, while failing to achieve the stated yields on their MBP products using natural gas as the feedstock, the Company failed to disclose that it "was primarily using significantly more expensive pure methane for the relevant laboratory experiments[,] but was indicating that the results had been achieved using natural gas."
- 45. Further, in its 3Q 2018 Form 10-Q filed on November 8, 2018, in a section discussing a previously concluded SEC investigation, Defendants warned, for the first time, that there was the possibility that the SEC might initiate an investigation into the Company. Specifically, the Company's Form 10-Q stated that "[t]he Company may become subject to other claims, assessments and governmental investigations from time to time in the ordinary course of business." [Emphasis added.] However, this "warning" was itself materially misleading, as Defendants had known since at least October 2018 (a month before the release of the 3Q 2018 10-Q) that the Company had received an SEC subpoena and that it was *already under investigation* concerning the Company's materially untrue disclosures regarding its MBP platform. Defendants also repeated this materially misleading statement in the Company's 2018 Annual Report on Form 10-K filed on March 1, 2019, when they again misleadingly warned only about the mere *possibility* of "governmental investigations."
- 46. Further, as discussed below at §IV.D.1, the Company also lacked the ability to develop a single MBP production method that generated a potentially profitable outcome across each of the

three key metrics the Company tracked (yield, productivity, and titer) under the Company's own techno-economic models for assessing commercial viability, which further belied the Company's public claims that the MBP program was "in the money."

- D. The Individual Defendants Closely Monitored the MBP Program and Were Therefore Well-Aware that the Class Period Statements Concerning the Purported Successes of the Company's MBP Program Were Materially False and Misleading
- 47. Throughout the Class Period, as confirmed by multiple Confidential Witnesses ("CWs"), the MBP program's inability to achieve commercially viable yields using natural gas as a feedstock was well known by the Individual Defendants and was indeed a fact that was "very apparent and discussed throughout the organization" as were the issues concerning the material differences between the yields using "pure methane" and those using natural gas.
 - 1. Defendant Walsh (and his Top Deputy) Oversaw the Company's MBP Program and Were Fully Aware of the Undisclosed Problems Plaguing that Program
- 48. As the Company's Senior Vice President of Energy & Fine Chemicals Platforms, Defendant Walsh oversaw and managed the Company's MBP program from its South San Francisco location where the MBP program was headquartered from the start of the Class Period until he left the Company in November 2019. Walsh's top lieutenant was Bryan Yeh ("Yeh"), the Company's Vice President of Process Technologies, who reported directly to Walsh. Like Walsh, Yeh worked on-location in the South San Francisco facility and managed (directly or indirectly) all of the CWs listed below from the start of the Class Period until Yeh left the Company in December 2019.
- 49. CW1 worked for the Company from before the Class Period as an MBP researcher at the Company's South San Francisco facility until departing in the middle of 2017. CW1 worked exclusively with pure methane as a feedstock.
- 50. CW1 attended regular weekly or bi-weekly in-person meetings with other researchers, engineers, and senior managers at which the MBP program's progress, and the daunting challenges of developing natural gas (as opposed to pure methane) as a commercially viable feedstock were discussed. As CW1 recalled, these meetings occurred either weekly or bi-weekly. As CW1 put it, Yeh was "in the loop" and aware of what was discussed at the meetings, and attended at least some of

- these meetings. As CW1 further recalled, one of the key issues discussed at these meetings revolved around challenges that needed to be overcome in order to get the relevant bacteria to respond to natural gas the same way they responded to pure methane. CW1 also confirmed that Precigen's researchers were having trouble replicating the bioconversion data meaning yield that they obtained using methane as a feedstock when they tried to use natural gas as a feedstock instead.
- 51. CW2 served as an MBP engineer from September 2013 until September 2020 at the Company's South San Francisco facility and starting in January 2018, reported directly to Yeh. In the ordinary course of CW2's duties, CW2 held weekly or bi-weekly meetings with Yeh, Defendant Walsh's top MBP lieutenant, to discuss the status of the MBP program.
- 52. As CW2 also confirmed, the MBP program failed to achieve bioconversion using natural gas as the feedstock at the internal target rates that the Company had established. Instead, the MBP program experienced a variety of "roadblocks" throughout CW2's tenure, and the Company's efforts were simply never sufficient to overcome the challenges within the timelines set by the Company. Indeed, as CW2 stated, this inability to meet the Company's internal milestones ultimately proved so problematic that it ultimately led to the Company terminating the MBP program.
- 53. CW3 served as a senior MBP engineer from July 2019 until May 2020 at the Company's South San Francisco facility, and also reported directly to Yeh, Defendant Walsh's top MBP lieutenant. Following Walsh's and Yeh's departure from the Company in November and December 2019, CW3 reported directly to Alex Mattana, who served as chief lieutenant to Defendant Walsh's successor, David Witte.
- 54. According to CW3, all personnel at the South San Francisco facility during CW3's tenure were aware of the ongoing MBP program challenges, including the fact that specific internal program milestones had not been met.
- 55. For example, CW3 explained that the use of natural gas as a feedstock in the bioconversion process created acetate, which materially reduced the feedstock's productivity and called into question the commercial viability of the initiative. *In CW3's words, this particular challenge was "very apparent and discussed throughout the organization," and "we were all aware*

of it" - including Yeh, and later Yeh's and Walsh's successors, Mattana and Witte. [Emphasis added.]

- 56. CW3 also attended regular meetings where CW3 and other Company engineers discussed the status of the MBP program and its ongoing challenges with more senior management. For example, CW3 recalled that problems with the MBP program would be discussed weekly at meetings with Yeh, and that CW3 also attended larger (though less frequent) meetings which CW3 recalled as occurring bi-monthly at which the program's issues were also discussed. At both sets of meetings, CW3 confirmed that the program's lack of commercial viability including the major challenges that needed to be overcome to generate results that might potentially be commercially viable using natural gas (as opposed to pure methane) were discussed. Accordingly, as CW3 stated, at least Yeh (and later Mattana and Witte) were "well aware" of the MBP program's failure to establish commercial viability at any time during CW3's tenure.
- 57. CW4 served as an engineer from prior to the start of the Class Period in the Company's South San Francisco facility until he left in 2019, and also reported directly to Yeh (who in turn reported directly to Defendant Walsh). CW4 had a significant role in overseeing the testing conducted on methanotroph bacteria strains, and in trying to adapt processes that had been tested in the lab setting for use at the pilot plant scale (which involved larger batches of strains) in the hope that a successful process could ultimately be developed for commercial production. For comparative purposes, CW4 noted that (1) experiments at the lab setting (or "bench scale") would typically involve production of approximately one liter of product; (2) production at the Company's in-house "pilot plant" was approximately 500 liters; and (3) commercial scale (if it could ever be achieved) would need to involve fermentation tanks with the capacity to hold *hundreds of thousands*, or as much as a million, liters of product.
- 58. CW4 further described how the process of determining whether a particular methanotroph production technology might be commercially viable was based on the Company's "techno-economic model." This model basically compared (A) the "upstream" costs of all the inputs required for creating a given end-product (such as 2,3 BDO) using the MBP technology against (B) the

net "downstream" value (or costs) of the materials generated by conversion process, notably the desired end product, waste materials, water, and "biomass" (*i.e.*, the remnants of the methanotrophs). The model would document the specific amount of methanotrophs and feedstock (*e.g.*, pure methane or natural gas) required, reflect how much end-product (and waste by-product) would be produced, and take into account the pricing of all inputs (including the cost of equipment, labor and land, as well as the methanotrophs and feedstock), and then, based on pricing assumptions for the value of end-product generated, calculate a projected 20 year internal rate of return (or "IRR") for the technology (which in turn would be used to determine a Net Present Value, or "NPV," of the technology). CW4 further noted that in general technology products need to show an IRR of 20% to be profitable, but that new technologies need to show IRR's of 30% or more to account for the inevitable setbacks and unexpected costs in trying to scale up even a promising technology from the lab stage to the pilot plant stage to the actual commercial production stage.² CW4 further noted that Yeh "led the effort" to develop and maintain the company's techno-economic models as they related to the MBP program.

59. CW4 further explained that, under the Company's techno-economic model, there were three particularly important pieces of information that would show whether the technology would be

59. CW4 further explained that, under the Company's techno-economic model, there were three particularly important pieces of information that would show whether the technology would be profitable: (1) *yield*, or the amount of useful product produced; (2) *productivity*, or how quickly the useful product could be made; and (3) *titer*, or the concentration of useful molecules (*i.e.*, the product) in relation to the byproducts (such as water) that had to be removed. If, however, any of these three elements of the model changed, the model's overall assessment of commercial viability (or lack thereof) would also change. Unfortunately, however, gains in one area would often come at the expense of detriments in another. In particular, titer and productivity "fight each other," meaning that improving titer tends to come at the expense of productivity and vice versa. Significantly – while CW4 was unable to recall whether the Company ever achieved satisfactory results for any of these three

² CW4 noted, for example, that when "scaling up" the methanotroph production process certain efficiencies are lost and complications are added. CW4 analogized to mixing a margarita: it is relatively easy to get the right proportions of ingredient mixed when preparing a single serving, but much more difficult to get the right mix when making a batch of margaritas large enough to fill a swimming pool.

metrics after scaling up to the 500-liter pilot plant level – CW4 confirmed that the Company *never* achieved satisfactory for all three of these metrics using any given production method, whether at the lab testing level or at the pilot plant level.

- 60. After providing this context, CW4 explained that Walsh's and the Company's public statements that the MBP technology was "in the money" were simply false for at least three reasons. First, as noted above, the Company was *at best* able to run tests that met the levels of yield OR productivity OR titer required for profitability, but the company was *never* able to meet all three metrics and thus generate an *overall* level of profitability using any given methodology as part of the same experiment. In other words, at best such statements about being "in the money" were based on combining "cherry-picked" data from separate experiments to make the Company's results seem as positive as possible, *without disclosing that the Company was never able to generate positive results for all three key metrics yield, productivity, and titer in the same experiment*. Accordingly, there was never a sound basis to represent to investors that the Company had developed a commercially viable (or potentially commercially viable) process.
- 61. Second, as CW4 also confirmed, even the company's "cherry-picked" test results (from separate experiments) could not be fairly described as "in the money" unless they could be replicated not simply at the lab (or "bench") scale, but also at a 500-liter pilot plant (or larger) scale something which the Company was never able to do. (*See also* fn. 2 above). In short, at the 500-liter pilot scale, the Company was never able to show that it had a commercially viable "in the money" MBP technology.
- 62. Third, like CW1 and CW3, CW4 also confirmed that all of the Company's reported "positive" results limited as they were were based on the use of expensive pure methane as a feedstock, rather than on the use of natural gas. Indeed, at the bench scale, the Company's labs lacked the equipment to feed the test strains natural gas (as opposed to pure methane) and also lacked the ability to accurately measure yield because of limits on the ability to accurately measure the amount of excess methane that was being "wasted" in the lab experiments. And although the Company's 500-liter pilot plant did have the capacity to use either pure methane or natural gas, the Company rarely

used natural gas in its testing (except to keep the plant operating over periods when it temporarily ran out of pure methane), because the methanotroph strains performed so much better using pure methane. And as CW4 also noted, because the technology was not meeting its milestones under the Company's techno-economic model using pure methane (which generated such decidedly better responses from the methanotrophs), the Company was clearly also not going to meet its milestones using natural gas.

- 63. For all of the foregoing reasons, CW4 characterized Walsh's and the Company's statements about the Company's MBP technology being "in the money" as a "farce."
- 64. As CW4 also confirmed, both Walsh and Yeh were well aware of the facts that rendered the Company's positive statements about its "in the money" MBP program materially false and misleading. Indeed, not only Walsh and Yeh, but effectively all of the scientists and managers who worked at the South San Francisco facility were fully aware of the MBP program's shortcomings. Moreover, all data from the Company's MBP experiments performed at the facility were recorded in the Company's Lab Inventory Management System ("LIMS"), and were accessible to anyone working on the MBP program at any time which would include data as to whether particular milestones had been met. Accordingly, word would spread very quickly throughout the facility when any significant test met, achieved, or failed to achieve a given benchmark MBP goal. Moreover, Walsh's deputy, Yeh, who constantly "hovered" in the lab to monitor results, was routinely advised of test results and developments as soon as they became available.
- 65. CW4 also attended quarterly meetings with Walsh, Yeh, and other senior personnel, including the Company's director of Commercial Operations to prepare Walsh for his regular briefings to the Company's board of directors about the MBP program's progress. At these meetings, Walsh was fully briefed on the MBP program's progress and ongoing difficulties. For example, CW4 specifically recalled one such meeting during the second half of 2018, when it was discussed with Walsh and Yeh how the positive MBP data being cited in the Company's public statements was being taken from separate experiments and did not reflect results that had been reached in any one single experiment. CW4 also recalled having spoken directly to Yeh at that time to express CW4's concerns that the data being publicly presented was materially misleading because different elements of the data

were coming from separate experiments, rather than reflective of results that had been obtained under any single experiment or production method. Yeh said that he (Yeh) understood this – but declined to discuss this further with CW4.³

- 66. Additionally, CW4 also occasionally met with the Company's CEO, Defendant Kirk, who sporadically visited the South San Francisco facility to discuss the MBP program with the facility's engineers and scientists. At one such meeting between Kirk and CW4 in the second half of 2018, CW4 informed Kirk about available space in a location immediately adjacent to the South San Francisco facility and recommended that the Company invest in a 20,000-liter facility there with a different reactor and fermenter design. Kirk responded approvingly, stating "do it," and instructed CW4 to tour and assess the site next door. Shortly thereafter, however, Walsh vetoed the assessment plan, and told CW4 that because the Company had been unable to achieve the three key metrics yield, productivity, and titer simultaneously at the 500-liter pilot plant level, "there was no way" the Company would invest in a 20,000-liter facility in the foreseeable future.
- 67. Based largely on what CW4 considered to be Walsh and Yeh's unethical conduct, by the end of 2018 CW4 decided to leave the company, and did so in early 2019. CW4 further noted that Yeh had a practice of scapegoating other people when test results fell short, firing researchers and sometimes shifting resources to a new project (for example, from the production of isobutenal to 2,3 BDO), and then would "rinse and repeat." CW4 believes that, after CW4 left the Company in early 2019, the Company ultimately fired Walsh and Yeh because the Company's Board had concluded that the primary problem with the MBP program was not with its research scientists and engineers, but with Walsh and his top deputy Yeh.

³ CW4, consistent with other CWs, described how there would be different types of regular meetings at the Company to discuss the status of the MBP program. At the lowest level, there were weekly "technical" meetings at the departmental level to discuss current projects, experiments, and test results, which would be attended by CW4 as well as the facility's manager of fermentation operations, along with numerous scientists and engineers. One step up from those meetings were monthly interdepartmental meetings, also attended by CW4, which would typically be led by Yeh and all department heads at which production milestones and goals were also discussed. The highest level of meeting would be the quarterly meetings to brief Walsh on the status of the MBP program.

- 68. CW5 worked on the MBP program as a scientist at the Company's South San Francisco facility from mid-2018 through mid-2020, when the program, by then known as MBP Titan, was shut down. CW5's responsibilities included running analyses of methanotroph sample strains in the effort to develop 2,3 BDO, one of the MBP program's flagship products touted by Defendants throughout the Class Period as "in the money" (*i.e.*, commercially viable).
- 69. Like CW4, CW5 confirmed that the Company struggled to maintain the same level of productivity with larger batch sizes in laboratory testing *i.e.*, "scaling up" and that it experienced significantly decreased yields when results from larger batches were compared against those obtained from testing using smaller production samples. Moreover, CW5 also confirmed that the Company's internal database LIMS tracked all data generated in the research. Additionally, CW5 only worked with pure methane, not natural gas. However, even with using pure methane as the feedstock, CW5 explained that the Company still struggled to meet its internal production goals.
- 70. CW5 also attended quarterly "town hall" meetings and confirmed that the results of tests comparing pure methane vs. natural gas as a feedstock were discussed at some of those meetings. All the departments in the MBP division were typically present at these town hall meetings, which were held live on location in South San Francisco, in a room which could seat 50 to 60 people. According to CW5, *Defendant Walsh led these meetings until his departure in 2019*. CW5 also stated that he believed that Walsh was well-aware of the MBP program's progress.
- 71. Given the Company's MBP program struggles using pure methane, CW5 also believed that the Company was behind on its goals for commercial viability using natural gas as a feedstock. Indeed, CW5 stated that, at multiple town hall meetings, it was stated that the MBP division's projected goal for achieving commercial viability was not until approximately the year 2023 or 2024, based on the Company's progress to date.
- 72. Additionally, according to CW5, *Defendant Kirk, the Company's CEO*, was aware of the substance of all of the town hall meetings. CW5 based this belief on the fact that Kirk not only visited the South San Francisco facility multiple times during CW5's tenure, but on the fact that Kirk also personally attended multiple town hall meetings himself.

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- 73. CW6 worked on the MBP program as a researcher and engineer at the Company's South San Francisco facility from the beginning of 2015 through the first few months of 2019, reporting initially to CW2 and later to CW4 (both of whom in turn reported directly to Brian Yeh, Defendant Walsh's top MBP lieutenant). Echoing the same descriptions of the Company's MBP testing program made by the other CWs, CW6 stated that most of the Company's MBP testing and analysis utilized pure methane as a feedstock for the methanotrophs, rather than natural gas.
- 74. According to CW6, the Company's internal MBP goals were set by Defendant Walsh and Yeh, and were often communicated by Walsh to the facility's employees at division-wide meetings.⁴ CW6 recalled only one occasion when the Company may have met its internal production or yield targets. CW6 further recalled that at one point during their employment those targets had actually been lowered, because the Company recognized that they had been set to high at the beginning of the year.
- 75. Throughout CW6's time with the Company, CW6 believed the MBP program would not achieve commercial viability for at least several more years. CW6 also recalled that there was "a lot of backroom chatter" among the MBP scientists at the San Francisco facility that the MBP program would not be commercially viable even within the time frame discussed at the division meetings, and that this view was widely shared among the facility's scientists. Indeed, as CW6 stated, most of the Company's scientists were skeptical of being able to meet the scientific goals or milestones that the Company's leadership presented.

E. The Truth About the Company's MBP Program Gradually Emerges

- 76. The extent of difficulties confronting the Company's ongoing MBP development efforts emerged gradually through a series of partial disclosures.
- 77. First, after the market closed on February 28, 2019, Defendants disclosed in a press release (attached to that day's Form 8-K) that "[b]ased on Intrexon's financial position . . . there is substantial doubt about [the Company's] ability to continue as a going concern." As Joel D. Liffmann,

⁴ CW6 is likely referring to the same "town hall" meetings led by Defendant Walsh that CW5 attended.

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the Company's Senior Vice President of Finance ("Liffmann"), explained in an analyst call later that

2	same day:
3	[Our] financial statements include a going concern qualifier that reflects our analysis that funding on hand is not adequate for operations beyond 12 months.
4	Management is, of course, pursuing several options to address the going concern
5	issue, including, as I mentioned earlier, potentially partnering and financing at the individual program or business unit level.
6	[Emphasis added.]
7	78. Later, on the same call, in response to a question, Liffmann raised the possibility of
8	"[a]sset sales, additional securities offerings or other means of raising capital" to fund the
9	Company's operations, stating:
10	There is a black-and-white test that all companies perform in connection with their financial statements that is prescribed by the accounting standards, that one has to
11	take a measure of your cash and available liquid assets to satisfy your operations. You have to have sufficient capital to operate the company beyond a prescribed
12	time horizon, and absent that, you have a going concern opinion. And so that's where we are. That is a mathematical exercise. You cannot pro forma into that
13	exercise. Asset sales, you cannot pro forma into that exercise the likelihood of additional securities offerings or other means of raising capital. So it's a black-
14	and-white test.
15	[Emphasis added.]
16	79. For investors and analysts who had become accustomed to Defendants' rosy reports
17	about increasing MBP yields, upcoming site selections, future product partnerships, and the massive
18	"total addressable market" for the Company's MBP products, Defendants' disclosures concerning the
19	Company's cash burn constituted a partial disclosure of just how far away the Company actually was
20	from being able to successfully launch commercially viable technology for producing isobutanol,
21	isobutyraldehyde, 2,3 BDO, 1,4 BDO, or any other MBP products.
22	80. In response, the next day, March 1, 2019, the Company's common stock closed at
23	\$5.06, representing a sharp one-day decline of 36.5% compared to its prior day's closing price.
24	81. Further bad news indicating that the Company's MBP program was not as promising
25	or as successful as Defendants had portrayed emerged after markets closed on August 8, 2019, when
26	the Company issued a press release which disclosed, inter alia, that it planned to spin-off its MBP
27	program into a new company. As the press release stated:

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[The Company] entered into an agreement under which it will contribute its Methane Bioconversion Platform, together with all its associated technologies and facilities, to MBP, LLC, a newly formed company that will be headed by [former Texas Lt. Governor] David Dewhurst, who is purchasing equity capital in the venture[.]

[Emphasis added.]

On the earnings call later that day, Defendant Kirk stated that Precigen would initially retain an 80% ownership stake in the new entity, but would reduce its holdings over time:

So the overall object here is [that] . . . all of our interest in our methane bioconversion platform, all of the facilities, all of the technologies that support their platform, will be transferred to a new entity, MBP, LLC. . . . And so we began with a super majority position, over 80%, I believe, equity ownership position. But we do not believe that [] will hold. In fact, the subscription agreement of Governor Dewhurst alone will – I think that thing alone will take us down to I think something in the 60s and that's before anything else may happen. . . . But the point is over time, we expect to be dilutive in this enterprise, which is I think appropriate.

[Emphasis added.]

- 82. Investors viewed this announcement as a negative development, and as additional confirmation that efforts to develop commercially successful MBP products were further away than what Defendants had previously represented. In response, the following trading day, August 9, 2019, the Company's shares declined roughly 8.8% to \$6.95 per share, compared to their prior trading day's closing price.
- Annual Report on SEC Form 10-K, which revealed perhaps the most stunning news yet regarding the true state of the Company's MBP program as well as the Defendants' prior active role in affirmatively misrepresenting the program's reported successes. Specifically, the Company's 2019 Form 10-K revealed that the Company had in fact been under investigation by the SEC since at least *October 2018* (*i.e.*, for at least the last year and a half), and that the investigation involved the Company's disclosures concerning its MBP program. As the Form 10-K stated:

In October 2018, the Company received a subpoena from the Division of Enforcement of the SEC informing the Company of a non-public, fact-finding investigation concerning the Company's disclosures regarding its methane

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27 28 bioconversion platform. The Company has produced documents to, and met with, the staff of the SEC and is voluntarily cooperating with their investigation. In November 2019, the staff of the SEC informed the Company that its investigative work was largely completed. The Company and the staff of the SEC are currently in discussions, and there can be no assurance regarding the ultimate outcome of the investigation.

[Emphasis added.] The clear implication of this disclosure was that the Company's prior disclosures concerning its MBP program had affirmatively misrepresented it in a materially false positive light (and/or had omitted to disclose material adverse facts about it) which had the effect of materially misleading investors as to the purported successes of that program.

- 84. Moreover, Defendants' March 2, 2020 disclosure revealed, for the first time, that the Company's prior "warning" statements of November 8, 2018 and March 1, 2019, were materially false and misleading, because they had misleadingly warned only about the mere possibility of "governmental investigations," when in fact Defendants' own March 2, 2020 statement admitted that Defendants had known since at least October 2018, that the Company was *already* under investigation.
- 85. Investors reacted with understandable alarm to these disclosures. In response, the following day, March 3, 2020, Precigen's shares fell over 17% compared to the closing price the previous day, closing down at \$3.24.
- 86. After the market closed on May 6, 2020, the Company issued a press release that reported its 1Q 2020 results – and that effectively disclosed further new information as to just how little the Company's MBP program was worth. *Inter alia*, while nominally attributing its actions to a realignment of priorities triggered by the COVID-19 pandemic, the release disclosed that the state of its MBP development efforts was so poor that the Company had recently "[c]ompleted [a] reduction in force at MBP Titan [formerly MBP LLC] to focus [our] resources on healthcare." On that day's subsequent earnings call, Precigen's recently appointed new President and CEO Helen Sabzevari ("Sabzevari"), went even further, disclosing that the Company had suspended its MBP operations entirely and terminated MBP Titan's CEO - while still holding out hope "for a brighter economic situation." As Sabzevari stated:

The ongoing COVID-19 pandemic and the current state of the energy sector are especially challenging for the prospect and operation of [our MBP platform] business. We expect that progressing this non-health platform will require significant capital and efforts to secure such capital have been hampered by world events. As a result, we have made the difficult but necessary decision to suspend operations in our MBP Titan facility and minimize the expense of the operation while continuing to maintain the potential value of the platform for a brighter economic situation. Specifically, we have taken steps to significantly reduce our MBP Titan workforce and to cut operating costs, while at the same time prioritizing the preservation of intellectual property and technology. I also want to announce that by mutual agreement, David Witte, CEO of MBP Titan, is no longer with the company. I want to thank the entire MBP Titan team for their contribution in advancing our innovative Methane Bioconversion Platform. We will continue to evaluate options for this technology.

[Emphasis added.]

- 87. Amidst the market tumult of the COVID-19 pandemic, analysts and investors largely gave the Company a pass. The following day, analyst JMP, for example, wrote that "[m]anagement continues to closely control capital allocation and focus resources to lead therapeutics programs. In this context, it has achieved further cost reductions at its MBP Titan subsidiary." Accordingly, in response to the Company's disclosures of May 6, 2020, Precigen's share price only fell 1.55%, to close the following trading day at \$3.17.
- 88. However, after the market closed on August 10, 2020, Precigen disclosed in its 2Q 2020 Form 10-Q that, beyond a mere "suspension" of its MBP operations, "[t]he Company is assessing potential next steps related to [its MBP] intellectual property and MBP Titan's other long-lived assets" and that Precigen had also "determined" that the value of MBP Titan's assets was impaired and "not fully recoverable." As the Form 10-Q stated:

[T]he Company reviewed the related property, plant and equipment and right-of-use assets [of MBP Titan] for impairment. Based on the estimated undiscounted cash flows, the Company determined that the related asset values were not fully recoverable and calculated estimated fair values using market participant assumptions and discounted cash flow models. The estimated fair values were lower than the carrying values, and the Company recorded impairment losses of \$9,914[,000] related to property, plant, and equipment and \$2,492[,000] related to the right-of-use assets, which are included in impairment of assets on the accompanying condensed consolidated statements of operations.

[Emphasis added.] On the earnings call later that day, Sabzevari confirmed that the Company was effectively continuing to wind-down the operations of its MBP program, stating:

In the second quarter of 2020, Precigen spending, which includes segment adjusted EBITDA plus corporate costs, was approximately \$13 million versus \$30 million in the first quarter of 2020. This decrease was primarily attributable to suspending operations at MBP Titan and streamlining our corporate functions to feed the narrower focus of the company. We expect the spend at MBP to continue to substantially reduce as we evaluate the strategic options for this platform.

[Emphasis added.]

- 89. In an analyst report issued the following day, August 11, 2020, analyst JMP "removed \$500MM in value from MBP from our valuation" a significant reduction, particularly given the Company's recent sky-high statements concerning the size of the "total addressable market" for the Company's purported MBP products.
- 90. In response to the news that the MBP program had actually failed so badly that the Company would have to take large write-downs on its related asset values, and the related negative analyst commentary, on August 11, 2020, Precigen's share price fell over 10%, to close at \$4.60.
- 91. The full nature and extent of the truth finally emerged on September 25, 2020. On that day, after the market closed, Defendants issued a press release on Form 8-K disclosing that Precigen had "reached a final settlement with the Securities and Exchange Commission . . . regarding the Company's methane bioconversion platform." The release also tersely disclosed that, under the settlement, Precigen had (1) consented to entry of a cease-and-desist order prohibiting it from committing "any future violations" of SEC rules requiring the filing of accurate current reports with the SEC, and (2) agreed to pay a \$2.5 million penalty to the SEC.
- 92. Simultaneously, the SEC issued its cease-and-desist order against the Company. The SEC Order confirmed that, beginning in May 2017, the Company had made "inaccurate" statements concerning the MBP program's "purported success [in] converting relatively inexpensive natural gas into more expensive industrial chemicals." For example, as the SEC specifically found:

[O]n May 10, 2017, [the Company] publicly reported progress in the laboratory converting natural gas into a precursor component of synthetic rubber called '2,3 BDO.' The Company continued to publicly report the [C]ompany's progress converting natural gas into 2,3 BDO in August and November 2017, which was

1	important information for investors and analysts at that time. [However, despite Defendants' claims of success in utilizing <i>natural gas</i> as a feedstock, the Company]		
2	was primarily using significantly more expensive <i>pure methane</i> for the relevant laboratory experiments <i>but was indicating that the results had been achieved using</i>		
3	natural gas."		
4	Similarly, as the SEC Order also found:		
5	At the time of the laboratory experiments with pure methane as a feedstock, [the Company's] scientists were working on methods to achieve similar yields with		
6 7	natural gas and, while they were optimistic, they had not done so at the time [the Company] made the relevant disclosures.		
8	Instead,		
9	[The Company] failed to disclose during the second and third quarters that 2,3		
10	BDO yields were based upon laboratory experiments using pure methane not natural gas as feedstock and that hurdles needed to be overcome to increase yields		
11	from natural gas [and that] Yields reported internally from laboratory experiments using natural gas as a feedstock continued to be substantially lower		
12	than those disclosed publicly using pure methane.		
13	[All emphases added.]		
14	93. As a result, in addition to the order that Defendants cease-and-desist from misleading		
15	the public again and the \$2.5 million penalty, the SEC ordered – and Defendants agreed – to refrain		
16	from arguing "that in any Related Investor Action, [Defendants] shall not argue that [they] are entitled		
17	to, nor shall [they] benefit by, offset or reduction of any award of compensatory damages by the amount		
18	of any part of [Defendants'] payment of a civil penalty in this action."		
19	V. ADDITIONAL SCIENTER ALLEGATIONS		
20	94. In addition to the facts pleaded above (including, in particular, those alleged at <i>supra</i> ,		
21	§IV.B.1 (citing statements of multiple CWs)), the following additional facts support a strong inference		
22	of Defendants' scienter.		
23	A. Defendant Walsh Kept the Other Individual Defendants Regularly Appraised of the		
24	True State of the Company's MBP Program and Regularly Spoke on Behalf of the Company on Earnings Calls		
25	95. Defendant Walsh kept the other Individual Defendants, including Defendant Kirk, the		
26	CEO, regularly appraised of key aspects relating to the MBP program. Prior to the Class Period, on		
27			
28	29		

1	the 2Q 2016 earnings call, held on August 9, 2016, Defendant Kirk explained that "I spend a lot of
2	time with Bob Walsh, who [is] Head of our Energy Sector. We think that this is probably our largest
3	single team deployed to one single object in the entire Company." [Emphasis added.]
4	96. Throughout the Class Period, Defendant Kirk praised Defendant Walsh's work and
5	informed the public how regularly Walsh kept the other Individual Defendants informed of the MBP
6	program.
7	97. On the 2Q 2017 earnings call, held on August 9, 2017, in response to a question about
8	the MBP program, for example, Defendant Kirk stated:
9 10	It's a really good question. And I have to tell you, when Bob Walsh and his team produced the data, they've showed us that we really have a technical success in – on 2 of these significant molecules.
11	[Emphasis added.]
12	98. Further, on the 3Q 2017 earnings call, held on November 9, 2017, Defendant Kirk
13	detailed recent conversations with Defendant Walsh.
14 15 16 17	So when we are talking about targeted commercial yield, it's informed by those models. And so that's what we think is – that's what we think the potential is. So without getting into whether or not we are in the money today on isobutanol, <i>the truth is, as Bob Walsh has explained to me</i> , look, if you built a plant based on the characteristics of a particular organism at a particular point in time and then later improved that organism, you'd find that you had built the plant incorrectly. * * * *
19 20 21 22 23	So we're very much in the money on 2,3-BDO, right? But we're at 60% of where we think we can go. I personally have been frustrated by this because I'm thrilled to be so far in the money, so I go to Bob Walsh. And I say, "Bob, let's go build this plant, let's get going." And he says, "How much water do you want to boil?" Right? It's ridiculous. If we continue to improve the strain on the path we're on, he explains to me, right, then we'll find that that's not the plant we want. We'll want another plant.
24	[Emphasis added.]
25	99. Again, on the 4Q and FY 2017 earnings call, held on March 1, 2018, Defendant Kirk
26	explained that "[w]e press Bob all the time for – to tell us that we are solidly in the money in isobutanol.
27	And look, we're very conservative and Bob's even more so." [Emphasis added.]
28	30
	-

100. Moreover, Defendant Kirk trusted Defendant Walsh, as Kirk explained on the 3Q 2018 earnings call, held on November 8, 2018.

I sing the highest praise to Bob Walsh and his team there in South San Francisco, because it was very difficult work. As he – as Bob mentioned in his comments, the prior literature actually said you couldn't engineer this organism.

[Emphasis added.]

- 101. Given the MBP program's centrality to the Company's success (see supra, §IV.A), the repeated insistence by Defendant Kirk that there was constant communication between Defendant Walsh and the other Individual Defendants about the MBP program served to bolster the program's importance. In fact, on the 1Q 2017 earnings call, held on May 10, 2017, Defendant Kirk explained, "The results that Bob Walsh disclosed a few minutes ago represent the achievement of what I personally believe is probably the most valuable biotechnology in history." [Emphasis added.]
- 102. Moreover, as discussed above (*supra*, §IV.C), Defendant Walsh repeatedly spoke on behalf of the Company on earnings calls and, as discussed above (*supra*, §III.C) was a self-described "Section 16 Officer," meaning he was subject to SEC reporting requirements because of his significant beneficial holdings of the Company's equity.
- B. Precigen's Need to (i) Obtain Shareholder Approval of a Merger, (ii) Raise Additional Cash, and (iii) Allow Key "Selling Securityholders" the Ability to Cash Out at Inflated Market Prices Show Additional Motive and Opportunity to Commit Fraud
- 103. Defendants' numerous and repeated misstatements directly served Defendants' financial interests throughout the Class Period. Defendants acted with scienter in that Defendants knew, or recklessly disregarded, that the public documents and statements issued or disseminated in the name of the Company were materially false and misleading; knew that such statements or documents would be issued or disseminated to the investing public; and knowingly and substantially participated or acquiesced in the issuance or dissemination of such statements and documents as primary violations of the federal securities laws. Defendants, by virtue of their association with, and control over, the Company, which made them privy to confidential information, fraudulently misled investors about (a) Precigen's inability to obtain the stated yields in its MBP utilizing natural gas as

the feedstock and only obtained the stated results using pure methane; and (b) the existence of an SEC investigation into Precigen's MBP.

104. By reason of Defendants' repeated material misstatements, Precigen's common stock was artificially inflated throughout the Class Period and Defendants took full advantage in order to facilitate a number of key transactions and share issuances that would have otherwise been more expensive, difficult, and/or impossible without an artificially inflated share price. In sum, throughout the Class Period, Defendants utilized their inflated common stock price to facilitate approximately \$523 million-worth of transactions, including: (1) shareholder approval of an acquisition; (2) two secondary public offerings; (3) a debt offering; and (4) the sale of common stock on behalf of former beneficial owners of shares of recently acquired subsidiaries, pursuant to merger and/or securities purchase agreements.

105. In each instance, Defendants pursued their transactions *almost immediately after* issuing materially misleading statements about the Company's MBP and/or financial condition that artificially inflated its common stock price and put each respective transaction on a glide path to approval and success.

106. On May 12, 2017, two days after Defendants issued their first misleading statements about the Company's MBP program, the Company issued a Proxy Statement/Prospectus on SEC Form 424B3 (the "May 12, 2017 Proxy Statement") asking shareholders of a target biotech company – GenVec, Inc. ("GenVec") – to approve a merger proposal in which Precigen would acquire GenVec. The May 12, 2017 Proxy Statement informed investors that if they approve the merger, each share of GenVec common stock would be converted into 0.297 shares of Precigen common stock, plus payments stemming from certain milestone and royalty earnings GenVec may receive. In sum, Precigen issued approximately \$13.4 million worth of common stock to GenVec shareholders.

107. In issuing the May 12, 2017 Proxy Statement, the Company benefited from its elevated share price because if the market knew the truth about its MBP program and financial condition, Precigen's common stock would have traded at a significantly lower price, thus making it less likely that GenVec's shareholders would approve the merger.

108.

17, 2018, Precigen issued a Prospectus Supplement on SEC Form 424B5 for a secondary public offering (the "First SPO") registering 6,900,000 shares of common stock at a public offering price of \$12.50 per share. In total, the Company raised over \$86 million.

109. Again, Precigen benefited from an elevated share price. Had the Company fully

Shortly after the November 9, 2017 misstatements about Precigen's MBP, on January

109. Again, Precigen benefited from an elevated share price. Had the Company fully disclosed that its MBP program only achieved the stated yields through the utilization of pure methane – instead of natural gas – as a feedstock, the Company's common stock would have traded a significantly lower price, reducing the amount of money the Company would have raised in the First SPO.

110. Shortly after the March 1 and May 10, 2018 misstatements about the Company's MBP program, on June 28, 2018, Precigen issued two more Prospectus Supplements on SEC Form 424B5 for (i) another secondary public offering (the "Second SPO") registering 7,479,431 shares of common stock a public offering price of \$13.37 per share and (ii) registering \$200 million of debt in the form of 3.50% convertible senior notes ("Notes Offering"). In total, the Company raised \$300 million.

111. Once again, Precigen benefited from an elevated share price. Had the Company fully disclosed the truth about its MBP program, Precigen's common stock would have traded at a significantly lower price and reduced the amount of money the Company would have raised in the Second SPO and impacted the terms of the Notes Offering – by, for example, requiring the Company to offer investors a higher rate of interest – and/or reducing the total amount of notes the Company would have been able to sell.

and the existence of an investigation into the MBP revolving around the Company's MBP disclosures, on November 26, 2018, the Company issued a Prospectus Supplement on SEC Form 424B7 for the sale of 1,933,737 shares of Precigen common stock by a group of "selling securityholders." These "selling securityholders" were former beneficial owners of a share of T1D Partners, LLC ("T1D Partners"), a joint venture pharmaceutical company that Precigen had a stake in, who received shares of Precigen following T1D Partners' complete acquisition by Precigen on November 20, 2018. In

total, this selling securityholders offering (the "First SSO"), conducted pursuant to the Company's T1D Partners merger agreement, raised approximately \$18.2 million for the selling securityholders.

- 113. Again, Precigen benefited from an elevated share price that resulted from material misstatements. Had the market known the truth at the time of the First SSO, the Company's shares would have traded at a lower price, impacting its T1D Partners merger agreement by, for example, requiring the Company to issue additional shares to the selling securityholders and would have made the Company's acquisition of T1D Partners more difficult.
- 114. Only weeks after the March 1, 2019 materially false and misleading statements about both Precigen's MBP program and the existence of an investigation into the MBP, on April 12, 2019, the Company issued a Prospectus Supplement on SEC Form 424B7 for the sale of 20,640,119 shares of Precigen's common stock by another "selling securityholder." This single "selling securityholder" was the former beneficial owner of Ziopharm Oncology, Inc. ("Ziopharm Oncology"), a pharmaceutical company that Precigen collaborated with and which Precigen acquired on December 28, 2018. In total, this second selling securityholder offering (the "Second SSO"), conducted pursuant to Precigen's securities purchase agreement with the selling securityholder, raised approximately \$105 million for the selling securityholder.
- 115. Once again, the Company benefited from an elevated share price caused by Defendants' repeated misstatements. Had the full truth about the MBP program and the SEC investigation been known at the time of the Second SSO, Precigen's shares would have traded at a lower price, impacting the Company's Ziopharm Oncology acquisition by, for example, requiring Precigen to issue additional shares to the selling securityholder and would have made the acquisition more difficult.

VI. DEFENDANTS' MATERIALLY FALSE AND MISLEADING STATEMENTS

116. Throughout the Class Period, in numerous SEC filings and public statements Defendants issued materially false and misleading statements about the progress of the Company's MBP program. Specifically, Defendants claimed (i) that the feedstock with which the Company had achieved its supposed MBP success was natural gas (rather than pure methane); (ii) that the Company had achieved certain high yields in its MBP products using natural gas as the feedstock (rather than

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pure methane); and (iii) that the Company's MBP program as to multiple end-products was "in the money," *i.e.*, commercially viable (when it was not). Beginning in late 2018, Defendants also (iv) materially misrepresented that the Company might become the subject of "governmental investigations" (when it knew that it had already become the subject of an SEC investigation by October 2018). Defendants' actionably false or misleading Class Period statements are separately enumerated below.

A. May 10, 2017 Press Release, Slideshow, and Earnings Call

- 117. After the market closed on May 10, 2017, Defendants issued a press release and slideshow attached to the Company's SEC Form 8-K disclosing the Company's 1Q 2017 earnings and also conducted an earnings call, during which Defendants purported to a disclose a breakthrough in the development of the MBP.
- 118. According to the press release, on two products representing "multi-billion dollar" opportunities (isobutyraldehyde and 2,3 BDO), while utilizing "natural gas" as the feedstock, the MBP had achieved the targeted "yields" needed for the Company to advance to the next milestone of commercial development and, were "in the money," *i.e.*, able to be produced at a profit. As the release stated:

Intrexon's proprietary methanotroph bioconversion platform has achieved yields necessary for site selection on two molecules, isbobutyraldehyde [sic] and 2,3 butanediol (2,3 BDO), each of which represent a multi-billion dollar revenue opportunity for the Company. Yields for 2,3 BDO, a precursor to butadiene, increased by greater than 30% during the first quarter of 2017. This yield level produces a positive "in the money" gross margin based on current natural gas and product prices. While additional yield improvements and scaling milestones must be met, the current yields and business implications have led the Company to retain Moelis & Company to advise it on strategic and financial options with respect to its bioconversion platform and specific products.

[Emphasis added.]

119. The slideshow (see slide immediately below) informed investors that Precigen's (Intrexon's) MBP had succeeded in achieving "the profitable use of low cost natural gas":

Industrial Products Division

Intrexon Methane Bioconversion Platform

Intrexon has developed disruptive MBP technology that enables the profitable use of low cost natural gas to replace oil as the feedstock for several high value industrial products.



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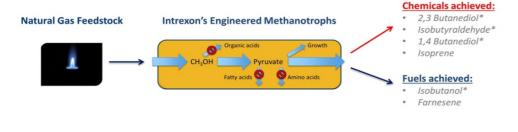
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120. The slideshow (see slide immediately below) also emphasized the potential of the Company's target market, advising analysts and investors that four of the molecules the Company had "actively under development," including isobutyraldehyde and 2,3 BDO, had a cumulative TAM *exceeding* \$100 billion.

Industrial Products Division

Significant Gas-to-Liquids Opportunity through MBP

MBP platform has achieved six different molecules to date. The four molecules actively under development (*) with Intrexon's MBP technology have a cumulative **Total Addressable Market of over \$100 billion.**



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121. Finally, speaking to the butadiene – BDO – market specifically, in another slide, Defendants claimed that with growing global demand this market alone represented a \$22 billion opportunity for the Company:

Butadiene: \$22B Addressable Market with MBP

Intrexon's on-purpose butadiene process:

Butadiene Market:

- Global demand for butadiene estimated to be 10.8M metric tons per year in 2015, and projected to reach 12.4M tons by 2020. Total market of butadiene is approximately \$22B
- Synthetic rubber production accounts for 62% of consumption.
- >95% of butadiene supply comes from byproduct of ethylene production by steam cracking of naphtha.
- The US shale revolution has caused US ethylene producers to switch to the cheaper ethane feedstock, which produces much less butadiene as a co-product.

26 SOURCE: ICIS, IHS reports



122. Likewise, on the earnings call held later that day, Defendants repeated many of the same misstatements, with Defendant Walsh reiterating that:

[F]or two of these products, isbobutyraldehyde [sic] and 2,3-butanediol, we've attained the yields necessary for the site selection of initial Intrexon facilities. Additionally, we've had a greater than 30% increase in 2,3-butanediol yields during the first quarter 2017, which places this valuable chemical commodity in the money based on current natural gas prices.

[Emphasis added.]

- 123. Similarly, on the same call Defendant Kirk declared that "now that [Walsh's] team has taken us into such a high-yielding territory on 2,3-BDO and on the precursor to MMA [isobutyraldehyde], we're going to take a moment to talk with other talk with people in the industry and take the advice of Moelis & Company."
- 124. The foregoing statements in \P 117-23 were materially false and misleading because, at the time they were made:

1		(a)	the feedstock with which the Company had achieved its supposed MBP success
2			was pure methane, not natural gas;
3		(b)	the Company had not achieved the stated yields in its MBP products with
4			natural gas as the feedstock;
5		(c)	due to the cost differences between natural gas and pure methane, Defendants'
6			claims about the commercial viability $-i.e.$, the "in the money" characterization
7			– of the MBP program were not true; and
8		(d)	the Defendants' claims of having developed a commercially viable MBP
9			program were also materially false or misleading because the Company had also
10			not been able to develop a single production method that would generate a
11			potentially profitable outcome across each of its three key metrics (yield,
12			productivity, and titer) under the Company's own techno-economic models for
13			assessing commercial viability.
14	B. June 2	20, 201	7 Presentation at the JMP Securities Life Science Conference
15	125.	On Jur	ne 20, 2017, at the JMP Securities Life Science Conference, Defendant Last, the
16	Company's CO	O, rep	eated the Defendants' May 10, 2017 misstatements and added that the Company
17	had achieved "a	a very	breakthrough platform." As Last stated:
18			on energy, and in this particular, petrochemical industry. [The
19	_	-	s spent a lot of time investing in a very breakthrough platform based - methanotroph bacteria platform. The situation with the petroleum
20			ry obvious. It's very significant, whether it be the eco impact, the of using petrochemicals, the high costs of converting gas to liquid
21	products, high-value molecules that are used in other industry segments.		
22			significant success in developing this methanotroph platform to
23	_		ntally the cheapest source of carbon on the planet, natural gas, methane roughly, through different engineering approaches of the
24	bacteria	a to pro	ch-value molecules. And to date, we've been able to achieve th-value molecules from this platform. And the addressable market
25		_	molecules that we have worked on so far is in excess of \$100 billion.
26	So we'r	e activ	ve. We have engaged Moelis to act as strategic advisers with us on
27			ecules as we work through the best approach to maximize the value throughs.
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1	[Emphasis added.]			
2	126.	The foregoing statements in ¶125 were materially false and misleading because, at the		
3	time they wer	re made:		
4		(a) the feedstock with which the Company had achieved its supposed MBP success		
5		was pure methane, not natural gas;		
6		(b) the Company had <i>not</i> achieved the stated yields in its MBP products with		
7		natural gas as the feedstock;		
8		(c) due to the cost differences between natural gas and pure methane, Defendants'		
9		claims about the commercial viability $-i.e.$, the "in the money" characterization		
10		- of the MBP program were not true; and		
11		(d) the Defendants' claims of having developed a commercially viable MBP		
12		program were also materially false or misleading because the Company had also		
13		not been able to develop a single production method that would generate a		
14		potentially profitable outcome across each of its three key metrics (yield,		
15		productivity, and titer) under the Company's own techno-economic models for		
16		assessing commercial viability.		
17	C. Aug	ust 9, 2017 Press Release, Slideshow, and Earnings Call		
18	127.	On August 9, 2017, Defendants announced the Company's 2Q 2017 earnings after the		
19	market closed	l, repeating the news about the Company's MBP in a press release and slideshow attached		
20	to that day's	Form 8-K and on an earnings call.		
21	128.	Specifically, the press release, stated that:		
22	After attaining commercially relevant yields on two high-value industrial			
23	retain	ules, isbobutyraldehyde [sic] and 2,3 butanediol (2,3 BDO), [the Company] ed Moelis & Company to advise on strategic and financial options, later		
24	conve	rting the assignment to a transactional objective.		
25	[Emphasis ad	ded.]		
26	129.	The August 9, 2017 slideshow included almost identical slides as the May 10, 2017		
27	slideshow tha	t touted the Company's MBP program, and also included the below updated slide about		
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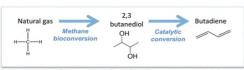
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the Company's purported 2,3 BDO progress, which referenced a "30% increase in 2,3 BDO yields on top of 30% increase achieved during the first quarter[,]" as well as the Company's anticipation of "site selection." [Emphasis added.]

2,3 Butanediol (BDO) Progress Update



Intrexon's on-purpose butadiene process anticipated to have COGS sub \$1,000 per metric ton



Intrexon's 500L Pilot Plant

- Observed 30% increase in 2,3 BDO yields on top of 30% increase achieved during the first quarter
- 2,3 BDO test production runs completed in pilot plant
- Providing 2,3 BDO produced to chemical catalyst companies for conversion to butadiene and quality testing
- Anticipate site selection for smallscale facility by year end and subsequently initiating design of plant with projected ground breaking in 2018

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130. Defendants repeated these representations on the earnings call later that day when Defendant Last reiterated to investors and analysts that:

As discussed on our last conference call, our yields on 2,3-BDO and isobutyraldehyde place these valuable unpartnered chemicals in the money based on the current natural gas prices. This achievement led [the Company] to retain Moelis & Company during the second quarter to advise us on strategic and financial options with respect to our platform and the specific products being generated, and this engagement is proceeding.

We are pleased to report that on top of the 30% increase in 2,3-BDO yields achieved during the first quarter, we have maintained solid momentum and achieved an additional 30% improvement in 2,3-BDO yields achieved during the second quarter.

[Emphasis added.]

131. Additionally, on the call, Defendant Kirk again referenced the Company's supposed success in developing 2,3-BDO and isobutyraldehyde from its MBP. As Kirk stated:

1	[A]s we reported at our – on our last call, we are very much in the money,			
2	commercial – with commercially significant yields, on two very significant multibillion-dollar molecules. And this led us to hire – we've named the banker, I think, publicly, right. So we have Moelis & Company.			
3				
4	[Emphasis ad	dded.]		
5	132.	The f	foregoing statements in ¶¶127-31 were materially false and misleading because, at	
6	the time they	were n	nade:	
7		(a)	the feedstock with which the Company had achieved its supposed MBP success	
8			was pure methane, not natural gas;	
9		(b)	the Company had not achieved the stated yields in its MBP products with	
10			natural gas as the feedstock;	
11		(c)	due to the cost differences between natural gas and pure methane, Defendants'	
12			claims about the commercial viability $-i.e.$, the "in the money" characterization	
13			- of the MBP program were not true; and	
14		(d)	the Defendants' claims of having developed a commercially viable MBP	
15			program were also materially false or misleading because the Company had also	
16			not been able to develop a single production method that would generate a	
17			potentially profitable outcome across each of its three key metrics (yield,	
18			productivity, and titer) under the Company's own techno-economic models for	
19			assessing commercial viability.	
20	D. Nov	ember	9, 2017 Press Release, Slideshow, and Earnings Call	
21	133.	In rep	porting the Company's 3Q 2017 earnings on November 9, 2017, Defendants again	
22	touted the Co	ompany	's supposed MBP success in the release and slideshow attached to Form 8-K and	
23	in an earning	s call.		
24	134.	In the	e press release, Defendants claimed further yield increases in both 2,3 BDO and	
25	isobutanol, tl	ne produ	act at the center of the break-up of the partnership with Dominion. Previously, the	
26	Company ha	d only t	outed its 2,3 BDO and isobutyraldehyde success. As the release stated:	
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[The Company] proprietary methanotroph bioconversion platform continued to increase yield across multiple products including 2,3 butanediol, which increased approximately 15% during the quarter, and isobutanol, which increased 78%.

[Emphasis added.]

135. The slideshow (*see* slide immediately below) reiterated the \$100 billion TAM that Precigen [Intrexon] was targeting and the fact that it had attained "[c]ommercially relevant yields" for 2,3 BDO and isobutyraldehyde.

Intrexon's Methane Bioconversion Platform (MBP)







Intrexon has developed disruptive MBP technology enabling profitable use of natural gas to produce high value industrial products via fermentation

- → MBP has achieved six different high value chemicals with a total addressable market that exceeds \$100 billion
- → Commercially relevant yields for 2,3 Butanediol and isobutyraldehyde
- → Moelis & Co engaged to advise on strategic/financial options for MBP and its products

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136. In the following slide, Defendants provided a "Progress Update" on both 2,3 BDO – including a further 15% yield increase and site selection underway – and, on isobutanol, as to which the Company simply wrote "Increased yield by 78% during 3Q."

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2,3 Butanediol (BDO) and Isobutanol Progress Update



Intrexon's on-purpose 2,3 BDO process anticipated to have COGS sub \$1,000 per metric ton

2,3 BDO

- Yield increased by 15% during Q3 reaching over 60% of first commercial scale plant target
- · Commercial robustness of strain demonstrated with continuous production runs >400 hours
- Purity >99% for 2,3 BDO produced in 500 liter pilot plant
- · Site selection for small scale 2,3 BDO plant underway and expect construction to begin in 2018



<u>Isobutanol</u>

· Increased yield by 78% during 3Q

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137. On the earnings class held later that day, Defendant Last provided the same update:

During the quarter, we continued to make solid progress on our lead candidate, 2,3-butanediol, 2,3-BDO yield increased by 15%, reaching over 60% of our targeted yield. The commercial robustness of the strain was also demonstrated with continuous production runs exceeding 400 hours. Additionally, the 2,3-BDO produced in the 500-liter pilot plant had a purity exceeding 99%.

We also increased our yield in our isobutanol strain by 78%.

[Emphasis added.]

- 138. The foregoing statements in ¶¶133-37 were materially false and misleading because, at the time they were made:
 - the feedstock with which the Company had achieved its supposed MBP success (a) was pure methane, not natural gas;
 - (b) the Company had *not* achieved the stated yields in its MBP products with *natural gas* as the feedstock;
 - (c) due to the cost differences between natural gas and pure methane, Defendants'

1	claims about the commercial viability $-i.e.$, the "in the money" characterization
2	– of the MBP program were not true; and
3	(d) the Defendants' claims of having developed a commercially viable MBP
4	program were also materially false or misleading because the Company had also
5	not been able to develop a single production method that would generate a
6	potentially profitable outcome across each of its three key metrics (yield,
7	productivity, and titer) under the Company's own techno-economic models for
8	assessing commercial viability.
9	E. March 1, 2018 Form 10-K
10	139. In the Company's 2017 Annual Report filed on Form 10-K, released on March 1, 2018,
11	Defendants again reiterated the purported progress the Company had made utilizing natural gas as a
12	feedstock, its "proven production" of six products, including isobutanol and 2,3 BDO, and the massive
13	TAM for those products. As the Annual Report stated:
14	In energy, we are working to create novel, highly engineered bacteria that utilize
15	specific energy feedstocks, typically pipeline grade natural gas, to synthesize commercial end products, such as isobutanol for gasoline blending, 2,3
16	Butanediol for conversion to synthetic rubber and 1,4 Butanediol for polyester. Today these target markets are estimated to represent over \$100 billion in
17	aggregate commercial opportunity.
18	* * *
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20	To date we have proven biological production of six valuable and large market fuel and chemical products. <i>These products are isobutanol for gasoline blending</i> , 2,3
21	Butanediol and isoprene for conversion to synthetic rubber, 1,4 Butanediol for
22	polyester, farnesene for diesel fuel and lubricants and isobutyraldehyde for acrylics. In aggregate, we estimate that these products represent greater than a
23	\$100 billion market opportunity.
24	[Emphasis added.]
25	140. The foregoing statements in ¶139 were materially false and misleading because, at the
26	time they were made:
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1	(a) the feedstock with which the Company had achieved its supposed MBP success		
2	was pure methane, not natural gas;		
3	(b) the Company had <i>not</i> achieved the stated yields in its MBP products with		
4	natural gas as the feedstock;		
5	(c) due to the cost differences between natural gas and pure methane, Defendants'		
6	claims about the commercial viability $-i.e.$, the "in the money" characterization		
7	– of the MBP program were not true; and		
8	(d) the Defendants' claims of having developed a commercially viable MBP		
9	program were also materially false or misleading because the Company had also		
10	not been able to develop a single production method that would generate a		
11	potentially profitable outcome across each of its three key metrics (yield,		
12	productivity, and titer) under the Company's own techno-economic models for		
13	assessing commercial viability.		
14	F. May 10, 2018 Press Release, Slideshow, and Earnings Call		
15	141. On May 10, 2018, the Company reported its 1Q 2018 earnings and performance in both		
16	a press release and slideshow attached to its Form 8-K and held an earnings call.		
17	142. The May 10, 2018 press release now included a statement about the Company's success		
18	with yet another product, 1,3 butadiene (which is developed from 2,3 BDO), as well as updates about		
19	2,3 BDO and isobutanol.		
20	[The Company's] Energy team demonstrated successful third party catalytic		
21	conversion of 2,3 BDO to 1,3 butadiene. The conversion efficiency exceeded both the Company's financial model and synthetic rubber industry product quality		
22	expectations.		
23	* * *		
24	2,3 BDO yields are up 25% since last reported and the rate of yield improvement		
25	is in line with [the Company's] expectations and supports the Company's plans to break ground on a 40,000 ton/year facility by year end;		
26	Isobutanol yields are again improving and are up about 40% since last reported.		
27	This return to yield improvements for isobutanol was the result of the re-design of		
28	a promiscuous enzyme that was degrading product and making further optimization 45		

of the production pathway challenging;

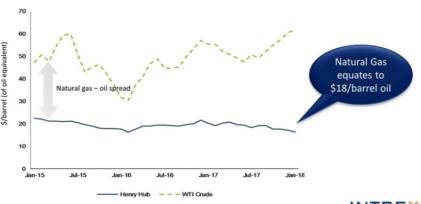
Partnering activity concerning Intrexon's methane bioconversion platform is robust with multiple parties engaged. Potential partners include both strategic and financial companies[.]

[Emphasis added.]

143. Further, the slideshow (*see* slide immediately below) referenced the Company's choice to purportedly emphasize the utilization of "natural gas" as a feedstock.

Methane Upgrading - A 90 Year Effort

Natural gas is an attractive "feedstock" for the production of liquid fuel and industrial starting materials. Natural gas is the cheapest readily available source of carbon and North America has 100+ years of reserves



INTREXON

144. Thomas Shrader, the Company's Vice President of Communications & Strategy, made the same points on that day's earnings call, informing investors that:

[O]f the six products we have proven we can make and the three we have – on which we focus[:] isobutanol, 2,3-BDO and 1,4-BDO. As you can see, all are significant markets. 2,3-BDO is now considered our lead product because progress in the program was rapid, and *we reached profitable yields of 2,3-BDO* before isobutanol, despite starting much later.

* * *

For the quarter, we had several advances. The major advance this quarter was about a 25% increase in the yields of 2,3-BDO, our lead product.

[Emphasis added.]

145. Additionally, on the earnings call, Defendant Kirk added a new eye-popping TAM into

1 the mix, valuing the isobutanol market at an astounding \$900 billion. 2 I think what that observation was really pointing up was just the financial significance of being able to produce isobutanol, which is 98% of the energy 3 density of gasoline that you can transport through at precisely the same facility is actually where the small adjustment to our fuel injectors. We could actually just 4 use it as a gasoline substitute, assuming regulatory approval or you're in a market where that would allow that. But the point is it's a great starting point for 5 gasoline. And the size – just the revenue size of that market, it's something like 6 **\$900** billion in total. So, we're very excited about this development. 7 [Emphasis added.] 8 146. The foregoing statements in ¶¶141-45 were materially false and misleading because, at 9 the time they were made: the feedstock with which the Company had achieved its supposed MBP success 10 (a) 11 was pure methane, not natural gas; (b) the Company had *not* achieved the stated yields in its MBP products with 12 *natural gas* as the feedstock; 13 14 (c) due to the cost differences between natural gas and pure methane, Defendants' claims about the commercial viability -i.e., the "in the money" characterization 15 16 – of the MBP program were not true; and (d) the Defendants' claims of having developed a commercially viable MBP 17 program were also materially false or misleading because the Company had also 18 19 not been able to develop a single production method that would generate a 20 potentially profitable outcome across each of its three key metrics (yield, 21 productivity, and titer) under the Company's own techno-economic models for 22 assessing commercial viability. G. 23 August 9, 2018 Press Release, Slideshow, and Earnings Call 24 147. On August 9, 2018, the Company released its 2Q 2018 results in a press release and 25 slideshow attached to a Form 8-K and held an earnings call. 26 148. The press release repeated a number of familiar themes: 27 2,3, BDO yields are up 22% since last reported and continue to support the Company's stated plan to break ground on a 40,000 ton/year plant by year end; 28 47

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Intrexon scientists continue to engineer the methanotrophic organism to improve the utilization of *natural gas* as a carbon source;

Intrexon remains engaged in advanced discussions with multiple strategic partners for the methane bioconversion platform[.]

[Emphasis added.]

149. Likewise, the slideshow (*see* slide immediately below) impressed upon viewers the astounding market size (TAM) of the end products that the Company's MBP program targeted.

intrexon's MBP Potential – Large Markets for Relatively Simple Products







- ✓ Targeting C4 or C5 products was viewed as an optimized point in the product-value vs. synthesis complexity landscape
- Isobutanol is attractive as a less corrosive, more potent, and more valuable gasoline additive relative to 2-carbon ethanol
- Expansion into specialty chemicals once major carbon flux pathways are optimized

Source: IHS Chemical, ICIS, Markets and Markets, MicroMarket Monitor, Grandview Research, Transparency Market Research

1. Currently limited to \$80bn by regulations, IEA World Outlook 2016 data; IEA World Energy Outlook 2016 data; Market size for 1-butene and isobutene, the main application for bindiane.

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150. Further, on the earnings call held later that day, Defendant Walsh touted the second quarter's "scientific advances," including (a) increased 2,3 BDO yield that, "pu[t] this program further in the money," and showed "improve[d] utilization of natural gas," and (b) an additional demonstration "of [the] commercial viability" of 1,3 butadiene. As Walsh stated:

In the second quarter, there were measurable scientific advances. For 2,3-BDO, we saw an additional 22% increase in yield, putting this program further in the money. Intrexon's scientists continue to engineer the organism to improve utilization of natural gas as a carbon source, improving the potential operating margin. Further utilizing our proprietary toolbox, our scientists have developed strains with improved utilization components present in methane such as ethane that are typically burnt in the off gas. Please note that the economics I previously mentioned since components other than methane are burnt in the off gas. As we mentioned on our last call, we successfully converted 2,3-BDO into on

1	specification 1,2-butadiene [sic ⁵], which is the beginning point of synthetic rubber, and we did so at an efficiency of over 90%. This milestone provides further evidence of commercial viability and has expanded our partnering effectiveness.			
2				
3				
4	[Emphasis added.]			
5	151. The foregoing statements in ¶¶147-50 were materially false and misleading because, at			
6	the time they were made:			
7	(a) the feedstock with which the Company had achieved its supposed MBP success			
8	was pure methane, not natural gas;			
9	(b) the Company had <i>not</i> achieved the stated yields in its MBP products with			
10	natural gas as the feedstock;			
11	(c) due to the cost differences between natural gas and pure methane, Defendants'			
12	claims about the commercial viability $-i.e.$, the "in the money" characterization			
13	– of the MBP program were not true; and			
14	(d) the Defendants' claims of having developed a commercially viable MBP			
15	program were also materially false or misleading because the Company had also			
16	not been able to develop a single production method that would generate a			
17	potentially profitable outcome across each of its three key metrics (yield,			
18	productivity, and titer) under the Company's own techno-economic models for			
19	assessing commercial viability.			
20	H. November 8, 2018 Press Release, Slideshow, Earnings Call, and Form 10-Q			
21	152. On November 8, 2018, the Company released its 3Q18 results on Form 8-K in a press			
22	release and slideshow, held an earnings call, and released a Form 10-Q.			
23	153. In the press release, Defendants again praised their ability to successfully produce 2,3			
24	BDO utilizing natural gas as a feedstock. As the release stated:			
25 26	[The Company] continues discussions with several major energy companies concerning partnering of its Methane Bioconversion Platform;			
27	Defendant Walsh incorrectly refers to <i>1,3</i> butadiene here as <i>1,2</i> butadiene.			
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	-			

Site selection on [the Company's] first 2,3 BDO plant is on track for year end; 1 2 3 From [the Company's] methane bioconversion platform, the Company now is producing 2,3, BDO from natural gas at roughly 50% of the theoretical target 4 yield, has demonstrated performance at 500X scale-up and has conducted sustained 5 production runs exceeding 1,000 hours[.] 6 [Emphasis added.] 7 154. The slideshow was substantially similar to the August 9, 2018 slideshow – especially 8 in repeating the outsized TAM the Company's MBP targeted – but it also provided investors an update 9 as to the Company's purported BDO advances. 10 11 Q3 Advances 12 13 Producing BDO from natural gas at roughly 50% of the theoretical 14 final target yield Demonstrated performance at 15 500X scale-up 16 Sustained production runs exceeding 1,000 hours without 17 reduction in output 18 19 20 On the earnings call later that day, Defendant Walsh further highlighted the Company's 155. 21 2,3 BDO success. As Walsh stated: 22 Now I'd like to provide an update on our Methane Bioconversion Platform and pick our progress against several key objectives. First, in our lead program, 2,3-BDO, 23 we are now producing BDO from natural gas and roughly 50% of the theoretical final target yield for our commercial scale facility and well above our target yield 24 to select the site and break ground for a 40,000-ton, 2,3-BDO capacity, smallscale commercial plant. This would result in approximately 26,000 tons of the 25 final product after the catalytic step to produce butadiene. 26

[Emphasis added.]

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1	156.	Later,	that same day, Defendants filed with the SEC the Company's Form 10-Q for 3Q	
2	2018. That Fe	orm 10	-Q, while discussing a previously concluded SEC investigation, for the first time,	
3	also warned o	of the pa	ossibility of future SEC investigations. As the Form 10-Q stated:	
4			2018, the Division of Enforcement informed the Company that it had	
5	does n		investigation of these matters and that the Division of Enforcement nd to recommend enforcement action against the Company based on ion.	
6			ny <u>may</u> become subject to other claims, assessments and	
7	goveri	nmenta	l investigations from time to time in the ordinary course of business. are subject to many uncertainties and outcomes are not predictable	
8	with assurance. The Company accrues liabilities for such matters when it is probable that future expenditures will be made and such expenditures can be			
9			timated.	
10	[Emphasis ad	ded.]		
11	157.	The fo	pregoing statements in ¶¶152-56 were materially false and misleading because, at	
12	the time they	were m	ade:	
13		(a)	the feedstock with which the Company had achieved its supposed MBP success	
14			was pure methane, not natural gas;	
15		(b)	the Company had not achieved the stated yields in its MBP products with	
16			natural gas as the feedstock;	
17		(c)	due to the cost differences between natural gas and pure methane, Defendants'	
18			claims about the commercial viability $-i.e.$, the "in the money" characterization	
19			- of the MBP program were not true; and	
20		(d)	the Defendants' claims of having developed a commercially viable MBP	
21			program were also materially false or misleading because the Company had also	
22			not been able to develop a single production method that would generate a	
23			potentially profitable outcome across each of its three key metrics (yield,	
24			productivity, and titer) under the Company's own techno-economic models for	
25			assessing commercial viability.	
26	Moreover, the	e staten	nents in ¶156 were materially false and misleading because they misrepresented	
27	that the Comp	oany m	erely faced a "risk" of possible government investigations in the future, when in	
28			51	

1	fact, the Company was <i>already</i> under investigation by the SEC concerning Defendants' inadequat			
2	disclosures regarding its MBP program.			
3	I. February 28, 2019 Press Release			
4	158. On February 28, 2019, the Company released results for 4Q and FY 2018 on Form 8			
5	K via press release, yet again promoting the supposed success of its MBP in achieving yield in 2,			
6	BDO utilizing natural gas as a feedstock.			
7 8	Intrexon's methane bioconversion platform is being employed to produce 2,3 BDO from <i>natural gas</i> and has achieved 80% of the goal for the first small-scale plant operations;			
9 10 11 12	Detailed engineering design for Intrexon's first-of-a-kind small-scale methane bioconversion facility to 2,3 BDO is currently being bid out, discussions with partners for sites are ongoing. The overall schedule is still consistent as the sites under consideration are brownfield which require less engineering time than the original greenfield concept[.]			
13	[Emphasis added.]			
14	159. The foregoing statements in ¶158 were materially false and misleading because, at the			
15	time they were made:			
16	(a) the feedstock with which the Company had achieved its supposed MBP success			
17	was pure methane, not natural gas;			
18	(b) the Company had <i>not</i> achieved the stated yields in its MBP products wit			
19	natural gas as the feedstock; and			
20	(c) due to the cost differences between natural gas and pure methane, Defendants			
21	claims about the commercial viability $-i.e.$, the "in the money" characterization			
22	– of the MBP program were not true.			
23	J. March 1, 2019 Form 10-K			
24	160. On March 1, 2019, the Company filed its 2018 Annual Report on Form 10-K, reiteratin			
25	that,			
26 27	[W]e are working to create novel, highly engineered bacteria <i>that utilize specific energy feedstocks, typically pipeline grade natural gas</i> , to synthesize commercial end products, such as isobutanol for gasoline blending, 2,3 Butanediol for			
28	52			

1 2	conversion to synthetic rubber and 1,4 Butanediol for polyester. In aggregate, the value of such fuel and chemical products are significant, representing the potential of billions of dollars in estimated market opportunity.		
3			
4	[Emphasis added.]		
	161. The Company's 2018 Form 10-K also included another warning about the <i>possibility</i>		
5	of "governmental investigations," stating:		
6 7 8 9 10	We may become subject to other claims, assessments and governmental investigations from time to time in the ordinary course of business. Such matters are subject to many uncertainties and outcomes are not predictable with assurance. We accrue liabilities for such matters when it is probable that future expenditures will be made and such expenditures can be reasonably estimated. We do not believe that any such matters, individually or in the aggregate, will have a material adverse effect on our business, financial condition, results of operations, or cash flows.		
11	[Emphasis added.]		
12	162. The foregoing statements in ¶¶160-61 were materially false and misleading because, at		
13	the time they were made:		
14	(a) the feedstock with which the Company had achieved its supposed MBP success		
15	was pure methane, not natural gas;		
16	(b) the Company had <i>not</i> achieved the stated yields in its MBP products with		
17	natural gas as the feedstock; and		
18	(c) due to the cost differences between natural gas and pure methane, Defendants'		
19	claims about the commercial viability $-i.e.$, the "in the money" characterization		
20	– of the MBP program were not true.		
21	Moreover, the statements in ¶¶160-61 were materially false and misleading because they represented		
22	that the Company merely faced a "risk" of possible government investigations in the future, when in		
23	fact, the Company was <i>already</i> under investigation by the SEC over Defendants' inaccurate disclosures		
24	about its MBP program.		
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VII. LOSS CAUSATION

- 163. Defendants' wrongful conduct, as alleged herein, directly and proximately caused the economic losses suffered by Plaintiff and members of the Class (defined herein). During the Class Period, Plaintiff and Class members purchased Precigen common stock at artificially inflated prices caused by Defendants' misconduct. The price of the Company's common stock declined significantly when the substantial problems and risks misrepresented and concealed by Defendants were disclosed and Defendants' material misrepresentations and omissions were revealed to the market, causing investors' losses.
- 164. Throughout the Class Period, investors had been unaware of the following material facts about Precigen that were known to Defendants throughout the Class Period:
 - (a) the feedstock with which the Company had achieved its supposed MBP success was *pure methane*, not *natural gas*;
 - (b) the Company had *not* achieved the stated yields in its MBP products with *natural gas* as the feedstock;
 - (c) due to the cost differences between natural gas and pure methane, Defendants' claims about the commercial viability -i.e., the "in the money" characterization of the MBP program were not true;
 - (d) the Defendants' claims of having developed a commercially viable MBP program were also untrue because the Company had never been able to develop a single production method that would generate a potentially profitable outcome across each of its three key metrics (yield, productivity, and titer) under the Company's own techno-economic models for assessing commercial viability; and
 - (e) the Company was under investigation by the SEC over Defendants' disclosures about the MBP program.

Following the multiple disclosures (discussed *supra*, §IV.E) leading up to the revelation of the full truth, the market reacted negatively. As a result, Precigen's common stock dropped from \$23.62 per

share at the close of the market on May 11, 2017, to \$3.58 at the close of the market on September 25, 2020, a drop of approximately 85%.

165. The timing and magnitude of the decline in the price of Precigen's common stock, following the corrective disclosures as alleged herein and referenced above, negates any inference that the loss suffered by investors was caused by changed market conditions, macroeconomic or industry factors, or other facts unrelated to Defendants' fraudulent conduct. Defendants' false and misleading statements, as set forth above, proximately caused foreseeable losses to the members of the Class.

VIII. NO SAFE HARBOR

166. The federal statutory safe harbor provided for forward-looking statements under certain circumstances does not apply to any of the allegedly false statements pled herein, as the statements alleged to be false and misleading herein all relate to then-existing facts and conditions. In addition, to the extent any of the statements alleged to be false may be characterized as forward-looking, they were not identified as "forward-looking statements" when made and were unaccompanied by meaningful cautionary statements that identified important factors that could cause actual results to differ materially from those in the purportedly forward-looking statements.

167. Alternatively, to the extent that the statutory safe harbor is found to apply to any forward-looking statements pleaded herein, Defendants are nonetheless liable for such statements because, at the time each such statements were made, the speaker had actual knowledge that it was materially false or misleading, and/or the statement was authorized or approved by an executive officer of Precigen who knew that the statements were materially false or misleading when made.

IX. CLASS ACTION ALLEGATIONS

168. Plaintiff brings this action as a class action pursuant to Federal Rule of Civil Procedure 23(a) and 23(b)(3) on behalf of a Class consisting of all those who purchased or otherwise acquired shares of Precigen common stock between May 10, 2017 and September 25, 2020, inclusive (the "Class Period"), and were damaged thereby. Excluded from the Class are Defendants, Precigen's current and former officers, directors, parents, and subsidiaries, their immediate family members, legal

1	representatives, heirs, successors, or assigns of any such excluded person, and any entity in which
2	Defendants have or had a controlling interest.
3	169. The members of the Class are so numerous that joinder of all members is impracticable.
4	Throughout the Class Period, Precigen common stock was actively traded on the NYSE and then the
5	Nasdaq. While the exact number of Class members is unknown to Plaintiff at this time, and can be
6	ascertained only through appropriate discovery, Plaintiff believes that there are hundreds or thousands
7	of members in the proposed Class. Stock owners and other members of the Class may be identified
8	from records maintained by Precigen or its transfer agent and may be notified of the pendency of this
9	action by mail, using the form of notice similar to that customarily used in securities class actions.
10	170. Plaintiff's claims are typical of the claims of other Class members, as all members of
11	the Class were similarly affected by Defendants' wrongful conduct in violation of federal laws as
12	alleged herein.
13	171. Plaintiff will fairly and adequately protect Class members' interests and has retained
14	competent counsel experienced in class actions and securities litigation. Plaintiff has no interests
15	antagonistic to, or in conflict with, those of the Class.
16	172. Common questions of law and fact exist as to all Class members and predominate over
17	any questions solely affecting individual Class members. Common questions include:
18	(a) whether Defendants violated the federal securities laws as alleged herein;
19	(b) whether Defendants made public statements during the Class Period that were
20	materially false, misleading, or incomplete or otherwise omitted material facts;
21	(c) whether the Individual Defendants caused Precigen to issue false and
22	misleading statements;
23	(d) whether Defendants acted knowingly or recklessly in issuing false and
24	misleading statements;
25	(e) whether the price of Precigen common stock during the Class Period was
26	artificially inflated because of the Defendants' wrongful conduct as complained
27	of herein; and
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1		(f)	whether the members of the Class have sustained damages and, if so, what is		
2			the proper measure of damages.		
3	173.	A cla	ass action is superior to all other available methods for the fair and efficient		
4	adjudication	of this	action because joinder of all Class members is impracticable. Additionally, the		
5	damages suffered by some individual Class members may be relatively small so that the burden and				
6	expense of individual litigation make it impossible for them to individually redress the wrong done to				
7	them. There will be no difficulty in the management of this action as a class action.				
8	174. Plaintiff will rely, in part, upon the presumption of reliance established by the fraud-				
9	on-the-market doctrine in that:				
10		(a)	Defendants made public misrepresentations and failed to disclose material facts		
11			during the Class Period;		
12		(b)	the omissions and misrepresentations were material;		
13		(c)	Precigen's common stock is traded in an efficient market;		
14		(d)	Precigen's shares were liquid and traded with moderate to heavy volume during		
15			the Class Period;		
16		(e)	Precigen traded on the NYSE and then the Nasdaq, both of which are highly		
17			efficient stock markets;		
18		(f)	Precigen was covered by multiple securities analysts;		
19		(g)	the misrepresentations and omissions alleged would tend to induce a reasonable		
20			investor to misjudge the value of Precigen's common stock; and		
21		(h)	Plaintiff and Class members purchased or acquired Precigen common stock		
22			without knowledge of the omitted or misrepresented facts.		
23	175.	Based	d upon the foregoing, Plaintiff and the members of the Class are entitled to a		
24	presumption	of relia	nce upon the integrity of the market.		
25	176.	Alter	natively, Plaintiff and the members of the Class are entitled to the presumption of		
26	reliance established by the Supreme Court in Affiliated Ute Citizens of the State of Utah v. United				
27	States, 406	U.S. 12	28 (1972), as Defendants omitted material information in their Class Period		
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statements in violation of a duty to disclose such information, as detailed above.

X. CAUSES OF ACTION

Violation of Section 10(b) of the Exchange Act and Rule 10b-5 Promulgated Thereunder (Against All Defendants)

- 177. Plaintiff repeats and realleges each allegation contained above as if fully set forth herein. This claim is asserted on behalf of all members of the Class against Precigen and the Individual Defendants.
- 178. During the Class Period, Defendants, by their acts and omissions as alleged herein, carried out a plan, scheme, and course of conduct, which was intended to, and, throughout the Class Period, did: (i) deceive the investing public, including Plaintiff and the other Class members; (ii) artificially inflate and maintain the market price of Precigen common stock; and (iii) cause Plaintiff and Class members to purchase and hold Precigen common stock at artificially inflated prices as Defendants cashed out causing a sharp decrease in value.
- 179. Defendants: (a) employed devices, schemes, and artifices to defraud; (b) made untrue statements of material fact and/or omitted to state material facts necessary to make the statements not misleading; and (c) engaged in acts, practices, and a course of business which operated as a fraud and deceit upon the purchasers of Precigen common stock in an effort to maintain artificially high market prices for shares of Precigen common stock in violation of §10(b) of the Exchange Act and Rule 10b-5 promulgated thereunder. Defendants are sued as primary participants in the wrongful conduct charged herein.
- 180. Pursuant to the above plan, scheme, conspiracy, and course of conduct, each of the Defendants participated directly or indirectly in the preparation and/or issuance of the materially false, misleading, and incomplete statements detailed above.
- 181. By virtue of their positions at Precigen, Defendants had actual knowledge of the materially false and misleading statements and material omissions alleged herein, and intended thereby to deceive Plaintiff and the other members of the Class; alternatively, Defendants acted with reckless disregard for the truth in that they recklessly failed to ascertain and disclose such facts as would reveal

the materially false and misleading nature of the statements made, even though such facts were readily

the truth is peculiarly within Defendants' knowledge and control. As Precigen's senior officers and/or

complained of herein. Because of their positions of control and authority, the Individual Defendants

directors, the Individual Defendants had knowledge of the details of Precigen's internal affairs.

Information showing that Defendants acted knowingly or with reckless disregard for

The Individual Defendants are liable both directly and indirectly for the wrongs

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available to Defendants.

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were able to, and did, directly or indirectly, control the content of the statements of Precigen. As officers and/or directors of a publicly-held company, the Individual Defendants had a duty to disseminate timely, accurate, and truthful information with respect to Precigen's businesses,

false and misleading reports, releases and public statements, the market price of Precigen common shares was artificially inflated throughout the Class Period. In ignorance of the adverse facts

operations, future financial condition, and future prospects. As a result of the dissemination of the

concerning Precigen's business and financial condition, which were concealed by Defendants, Plaintiff

and the other members of the Class purchased or otherwise acquired Precigen common shares at artificially inflated prices in reliance on the integrity of the market for such securities, and were

damaged thereby.

184. During the Class Period, Precigen common stock traded on an active and efficient market. Plaintiff and the other members of the Class, relying on the materially false and misleading statements described herein, purchased or otherwise acquired shares of Precigen common stock at prices artificially inflated by Defendants' wrongful scheme and course of conduct. Had Plaintiff and the other members of the Class known the truth, they would not have purchased or otherwise acquired said securities or would not have purchased or otherwise acquired them at the inflated prices that were paid. At the time of the purchases and/or acquisitions by Plaintiff and the Class, the true value of Precigen common stock was substantially lower than the prices paid by Plaintiff and the other members of the Class. The market price of Precigen common stock declined sharply upon public disclosure of the facts alleged herein, causing injury to Plaintiff and Class members. Plaintiff and the Class have

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suffered damages in that, in reliance on the integrity of the market, they paid artificially inflated prices for the shares of Precigen common stock that they purchased during the Class Period, which inflation was removed from its price as the true facts became known.

- 185. As a direct and proximate result of these Defendants' wrongful conduct, Plaintiff and the other members of the Class have suffered damages in connection with their purchases of Precigen common stock during the Class Period.
- 186. By reason of the conduct alleged herein, Defendants violated Section 10(b) of the Exchange Act and Rule 10b-5 promulgated thereunder.

Violation of Section 20(a) of the Exchange Act (Against the Individual Defendants)

- 187. Plaintiff repeats and realleges each allegation contained above as if fully set forth herein.
- 188. This Count is asserted on behalf of Plaintiff and all members of the Class against the Individual Defendants for violations of Section 20(a) of the Exchange Act ("Section 20(a)"), 15 U.S.C. §78t(a).
- 189. The Individual Defendants were and acted as controlling persons of Precigen within the meaning of Section 20(a), as alleged herein. By virtue of their high-level positions with the Company, participation in, and/or awareness of the Company's operations and/or intimate knowledge of the Company's actual performance, these Defendants had the power to influence and control and did influence and control, directly or indirectly, the decision-making of the Company, including the content and dissemination of the various statements which Plaintiff contends are false and misleading. Each of these Defendants was provided with, or had unlimited access to, copies of the Company's reports, press releases, public filings, and other statements alleged by Plaintiff to be misleading prior to and/or shortly after these statements were issued, and had the ability to prevent the issuance of the statements or cause the statements to be corrected.

1	190. In addition, the Individual Defendants had direct involvement in the day-to-day					
2	operations of the Company and, therefore, are presumed to have had the power to control or influence					
3	the transactions giving rise to the securities violations as alleged herein and exercised the same.					
4						
5	Rule 10b-5 by their acts and omissions as alleged in this Second Amended Complaint. By virtue of					
6	their control over Precigen, the Individual Defendants are also liable for Precigen's violation of Section					
7	10(b) pursuant to Section 20(a).					
8	XI. PRAYER FOR RELIEF					
9	WHEREFORE, Plaintiff prays for relief and judgment as follows:					
10	A. Declaring the action to be a proper class action pursuant to Rule 23(a) and (b)(3) of the					
11	Federal Rules of Civil Procedure on behalf of the Class defined herein;					
12	B. Awarding all damages and other remedies available under the Exchange Act in favor					
13	of Plaintiff and the members of the Class against Defendants in an amount to be proven at trial,					
14	including interest thereon;					
15	C. Awarding Plaintiff and the Class their reasonable costs and expenses incurred in this					
16	action, including attorneys' fees and expert fees; and					
17	D. Such other and further relief as the Court may deem just and proper.					
18	XII. JURY DEMAND					
19	Plaintiff demands a trial by jury.					
20						
21	DATED: September 27, 2021 SCOTT+SCOTT ATTORNEYS AT LAW LLP					
22	s/ John T. Jasnoch					
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CERTIFICATE OF SERVICE I hereby certify that on September 27, 2021, I caused the foregoing to be filed with the Clerk of the Court using the CM/ECF system, which will send notification of such filing to the email addresses denoted on the Electronic Mail Notice List. Executed on September 27, 2021, at San Diego, California. s/ John T. Jasnoch JOHN T. JASNOCH (CA 281605)