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**UNITED STATES DISTRICT COURT**  
**NORTHERN DISTRICT OF CALIFORNIA**

13 IN RE PRECIGEN, INC. SECURITIES  
14 LITIGATION

Lead Case No. 5:20-cv-06936-BLF

CLASS ACTION

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**PLAINTIFF'S THIRD AMENDED  
CLASS ACTION COMPLAINT**

17

This Document Relates To:

**JURY TRIAL DEMANDED**

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All Actions.

Courtroom.: 3 – 5th Floor  
Judge: Hon. Beth Labson Freeman

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1 Court-appointed Lead Plaintiff Raju Shah, by and through his undersigned counsel, brings  
2 this action under the Securities Exchange Act of 1934 (the “Exchange Act”) on behalf of himself  
3 and a class of other similarly situated investors against Precigen, Inc. (“Precigen” or the  
4 “Company”) and other Defendants named herein.<sup>1</sup> Plaintiff alleges the following based upon  
5 personal knowledge as to himself and his own acts, and upon information and belief as to all other  
6 matters. Plaintiff’s information and belief is based on the ongoing investigation of his undersigned  
7 counsel, including counsel’s review of Precigen’s press releases, transcripts of the Defendants’  
8 conference calls with analysts and other market participants, and Defendants’ filings with the U.S.  
9 Securities and Exchange Commission (“SEC”) and other public statements, as well as news stories,  
10 analyst reports, other public information concerning Precigen and the industry within which it  
11 operates, and interviews with former Precigen employees and/or others familiar with the  
12 Company.

### 13 I. NATURE OF THE ACTION

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

20 2. At all relevant times, Precigen’s business involved developing chemical and energy  
21 technology platforms based on “synthetic biology” that sought to develop biologically-based  
22 products. Of particular importance to Precigen investors was Precigen’s *methane bioconversion*  
23 *platform* (“MBP”), which sought to transform certain enzymes – known as methanotrophs – into  
24 commercially valuable high carbon content compounds by having the methanotrophs metabolize  
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27 <sup>1</sup> Formerly known as Intrexon Corporation (“Intrexon”), on January 2, 2020, the Company  
28 was renamed “Precigen, Inc.” For ease of reference, this Third Amended Complaint generally  
refers to the Company as Precigen, notwithstanding that it was called Intrexon prior to 2020.

1 a “feedstock” that contains methane (a compound that is essential for the bioconversion process to  
 2 take place).<sup>2</sup> However, finding a way to efficiently separate methane from the other elements that  
 3 are also contained in the most common methane-bearing feedstocks such as *natural gas* – which  
 4 is vastly cheaper than *pure methane* – poses significant technological challenges. Nonetheless, as  
 5 detailed below, Defendants touted the ability of the Company’s MBP program to use relatively  
 6 cheap *natural gas* to convert methanotrophs, via bioconversion, into more valuable commercial  
 7 end-products, including

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

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

16 3. The three key metrics in assessing the commercial feasibility of a bioconversion  
 17 platform (such as Precigen’s MBP) are (1) *yield*, or the amount of useful product produced;  
 18 (2) *productivity*, or how quickly the useful product could be made; and (3) *titer*, or the  
 19 concentration of useful molecules (*i.e.*, the product) in relation to the by-products (such as water)  
 20 that had to be removed. Unfortunately, however, gains in one area often come at the expense of  
 21 another. In particular, titer and productivity “fight each other” – meaning that improving titer  
 22 tends to come at the expense of productivity and vice versa. ***Under the Company’s “techno-  
 23 economic” model, commercial viability required developing a commercial-scale production  
 24 process that would achieve satisfactory results with respect to each of these key metrics using  
 25 natural gas as the feedstock.***

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26  
 27 <sup>2</sup> Pure methane is the simplest form of hydrocarbon, consisting of one carbon atom and four  
 28 hydrogen atoms.

1           4. Starting on May 10, 2017 (the first day of the Class Period), Precigen began  
2 claiming that, using natural gas as its feedstock, its MBP had achieved isobutyraldehyde and 2,3  
3 BDO yields sufficient for “site selection” – a significant milestone that meant that development  
4 had reached a stage that justified the selection of a location to construct a facility to commence  
5 commercial-scale (as opposed to mere laboratory-scale) production of the product in question.  
6 Precigen also reported on May 10, 2017 that it had increased its yield for 2,3 BDO by 30% in the  
7 first quarter of fiscal year 2017 (“1Q 2017”), a level that would allow for profitable commercial  
8 production based on “current natural gas and product prices.” In other words, as a result of  
9 Precigen’s purported yield breakthrough, Defendants represented to investors that at least two of  
10 the Company’s MBP-generated products were “*in the money*,” *i.e.*, commercially viable.  
11 Defendants also made clear that the Company’s purported abilities to produce isobutyraldehyde  
12 and 2,3 BDO from its MBP “represent a multi-billion-dollar revenue opportunity for the  
13 Company,” because there was a \$100 billion overall Total Addressable Market (“TAM”) for the  
14 various MBP products (such as isobutyraldehyde and 2,3 BDO) that the Company sought to  
15 produce. As shown below, Defendants continued to tout similarly positive claims regarding the  
16 purported success of its “in the money” MBP program over the course of the Class Period.

17           5. Unbeknownst to investors, however, *Precigen had not used natural gas as the*  
18 *“feedstock” for its MBP* in connection with achieving the highly positive results it reported – but  
19 was instead reporting results based on its use of *pure methane* as the feedstock. And this was  
20 plainly a highly material distinction, as there is an *enormous* cost difference between pure methane  
21 and natural gas. Indeed, as the SEC later stated in its September 2020 cease-and-desist order (the  
22 “SEC Order”) entered against Precigen:

23           ¶6. Pure methane was purchased [by the Company] in canisters at a cost of  
24 approximately \$650 per one million British Thermal Units (MMBtu). *At those*  
25 *prices, pure methane was not a commercially viable feedstock.* Pure methane  
26 differs from natural gas in that it contains no ethane, which was inhibitory to  
27 the fermentation process. *Natural gas could be purchased from the local*  
28 *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 . . .*

1            **with natural gas and, while they were optimistic, they had not done so at the**  
 2            **time [the Company] made the relevant disclosures.**

3            ¶7.    ***Yields . . . reported internally from laboratory experiments using***  
 4            ***natural gas as a feedstock were substantially lower than those disclosed***  
 5            ***publicly by [the Company] using pure methane during the relevant period.***

6 [Emphasis added.] Accordingly, Precigen’s reported “yields” for converting “natural gas” into  
 7 various end-products were materially and patently false and misleading, as were the Company’s  
 8 Class Period statements regarding the purported readiness of its MBP program for “site selection”  
 9 and commercial development at “in the money” yield levels.

10            6.        Moreover, unbeknownst to investors, the Company failed to disclose that it had  
 11 also never achieved satisfactory results for all three of its key metrics – yield, productivity, and  
 12 titer – under any single given MBP production method, whether at the lab testing level or at the  
 13 pilot plant level. Accordingly, Defendants had no basis for claiming that the Company had  
 14 developed **any** MBP production process (let alone one that might be reasonably expected to be  
 15 scalable to commercial production levels) that was “in the money.”

16            7.        Unfortunately for investors, the extent to which Defendants had misrepresented the  
 17 purported success of its MBP development only emerged over time. Indeed, the nature and extent  
 18 of the Defendants’ affirmative misrepresentations and material omissions – including that Precigen  
 19 (1) had been using costly **pure methane** (instead of natural gas) as its MBP feedstock, (2) had **not**  
 20 achieved its stated “yields” on its MBP products using natural gas, and (3) had **failed** to produce  
 21 MBP products that were “in the money” (*i.e.*, commercially viable), and similarly failed to  
 22 otherwise develop a process, using natural gas as a feedstock, that satisfied **each** of the three key  
 23 technical metrics (titer, yield, and productivity) needed to show commercial viability under  
 24 Precigen’s own “techno-economic” model – would not be fully revealed to the investing public  
 25 until September 25, 2020 (the last day of the Class Period), **when the SEC issued a cease-and-**  
 26 **desist order** that ordered Precigen to stop making “***inaccurate [statements]*** concerning the  
 27 company’s purported success converting relatively inexpensive natural gas into more expensive  
 28 industrial chemicals using [its] proprietary [MBP] program.” [Emphasis added.]



**III. PARTIES**

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**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’ acts and omissions 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 initial public offering (“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. These four areas – Healthcare, Food/Agriculture, Energy/Chemicals, and Environment – constituted the four business segments of Precigen’s business.

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

1 from his role as CEO on January 1, 2020. Thereafter, Defendant Kirk continued to serve as the  
2 Company's Executive Chairman. On September 25, 2020, the Company announced that as of the  
3 day prior – September 24, 2020 – Defendant Kirk “is no longer an employee or executive officer  
4 of the Company,” but that “Mr. Kirk remains the Executive Chairman of the Company.”  
5 Defendant Kirk signed both SEC Forms 10-K that contained material misstatements and uttered  
6 multiple misstatements on earnings calls and in press releases.

7 20. Defendant Robert F. Walsh (“Walsh”) served as the Company's Senior Vice  
8 President of Energy & Fine Chemical Platforms, from May 2013 to November 2019, and was a  
9 self-described “Section 16 Officer” (meaning that he was subject to the SEC's reporting  
10 requirements because he was the direct or indirect beneficial owner of more than 10% of the  
11 Company's equity). Defendant Walsh directed and led the Company's efforts to develop and  
12 commercialize its MBP program; regularly communicated key details of the program to other  
13 senior Company executives, including Defendant Kirk; and discussed the program on numerous  
14 quarterly earnings calls, during which he personally made several of the materially false and  
15 misleading statements at issue herein.

16 21. The Defendants named in ¶¶19-20 are collectively referred to herein as the  
17 “Individual Defendants.” The Individual Defendants, by virtue of their positions with the  
18 Company, possessed the power and authority to control the contents of the Company's SEC filings,  
19 public statements, and presentations to securities analysts, investors, and other market participants,  
20 including specifically with respect to the Company's MBP program. Each Individual Defendant  
21 was provided with copies of the Company's written statements and public filings alleged herein to  
22 be materially false or misleading prior to, or shortly after, their issuance, and each had the ability  
23 and opportunity to prevent their issuance or cause them to be corrected. Because of their positions  
24 and access to material non-public information, each of these Defendants knew that the material  
25 adverse facts specified herein had not been disclosed to, and were being concealed from, the  
26 investing public, and that the positive representations which were being made were materially false  
27 and/or misleading when made. Each Individual Defendant is liable for the false written statements  
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1 pleaded herein, as those statements were each “group-published” information and the result of the  
2 collective actions of these Defendants pursuant to a fraudulent common scheme and wrongful  
3 course of conduct, and/or were the result of said Defendants’ participation in acts, practices, or  
4 courses of business that operated as a fraud or deceit in connection with the purchase or sale of  
5 securities.

#### 6 IV. SUBSTANTIVE ALLEGATIONS

##### 7 A. Precigen and Its Efforts to Position Itself as a “Leader” in the Synthetic 8 Biology Field

9 22. “Synthetic Biology” is an emerging field that, in its most basic terms, applies  
10 engineering principles to biological systems. The focus of Precigen’s synthetic biology efforts  
11 was to research, develop, and commercialize the process of successfully transforming certain  
12 enzymes – known as methanotrophs – into organic compounds containing a higher carbon content.  
13 To do so, the methanotrophs would need to metabolize a “feedstock” by inducing a chemical  
14 reaction known as bioconversion. The “feedstock,” however, needs to contain methane for the  
15 bioconversion process to take place – and finding a way to efficiently and effectively separate  
16 methane from the other compounds and elements that are also contained in the most common  
17 methane-bearing feedstocks (such as what is commonly known as natural gas) poses very  
18 significant technological challenges.

19 23. As a “feedstock,” pure methane works best, because it *only* contains methane, *i.e.*,  
20 there are no impurities to separate. However, at all relevant times, the price of pure methane was  
21 prohibitively expensive at **\$650** per one million British Thermal Units (“MMBtu”), and therefore  
22 was not a commercially viable feedstock (because the commercially useful by-products of the  
23 resulting bioconversion process can be produced through far less expensive means).

24 24. Natural gas consists primarily of methane, and at a market price of only about **\$3**  
25 per MMBtu, it offers a dramatically cheaper source of methane compared to pure methane. The  
26 problem with natural gas, however, is that it also contains various other composite chemicals,  
27 notably ethane (which inhibits the desired fermentation/bioconversion process), which must be  
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1 separated from the methane for the desired bioconversion process to work. As a result of this  
2 separation problem, as of the start of the Class Period, no company had succeeded in developing  
3 a commercially viable way to utilize natural gas in the bioconversion process – although given the  
4 low \$3 per MMBtu price of natural gas, the commercial potential of such a technology could be  
5 extremely lucrative. Relatedly, the profitability of such a commercially viable technology would  
6 increase depending on its “yield,” *i.e.*, on the amount or percent of the feedstock that is converted  
7 into a desired end-product through the bioconversion process (as well as on the technology’s  
8 “productivity” and “titer” results).

9 25. Bioconversion offers the possibility of producing new products – such as fuel,  
10 medicines, and materials for making clothing (such as polyester) and cosmetics – as well as  
11 developing new applications for existing products (such as microorganisms that can be employed  
12 to clean pollutants from water, soil, and air).

13 26. From the start, the Company faced stiff competition in the synthetic biology field.  
14 For example, at the beginning of the Class Period, there were more than 350 companies worldwide  
15 – with a market value of approximately \$3.34 billion – that were engaged in various efforts to  
16 develop and commercialize synthetic biology products or applications.

17 27. According to the Company, its proprietary MBP positioned it as a “leader” in this  
18 field. As stated above, the objective and entire *raison d’etre* of Precigen’s MBP was to develop a  
19 commercially profitable technology for converting *natural gas* into commercial-end products,  
20 including (i) isobutanol (used in gasoline blending); (ii) isobutyraldehyde (used in producing  
21 methyl methacrylate for use in the production of automotive parts and LED flat panels and  
22 lighting); (iii) 2,3 BDO (used in producing synthetic rubber); and (iv) 1,4 BDO (used in producing  
23 polyester). Unfortunately for investors, however, the Company’s claims of being a “leader in the  
24 field of synthetic biology” ended up being built on a fabric of materially false and misleading  
25 public statements concerning the nature and purported “success” of its MBP program.

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1 **B. Immediately Before the Class Period, Precigen’s Loss of a Key Partner and**  
2 **Its Accelerating Losses Cast Doubt on Its Ability to Succeed in the Synthetic**  
3 **Biology Field**

4 28. Aside from inherent scientific challenges, Precigen’s efforts to develop a successful  
5 MBP program were complicated by two adverse developments immediately prior to the start of  
6 the Class Period.

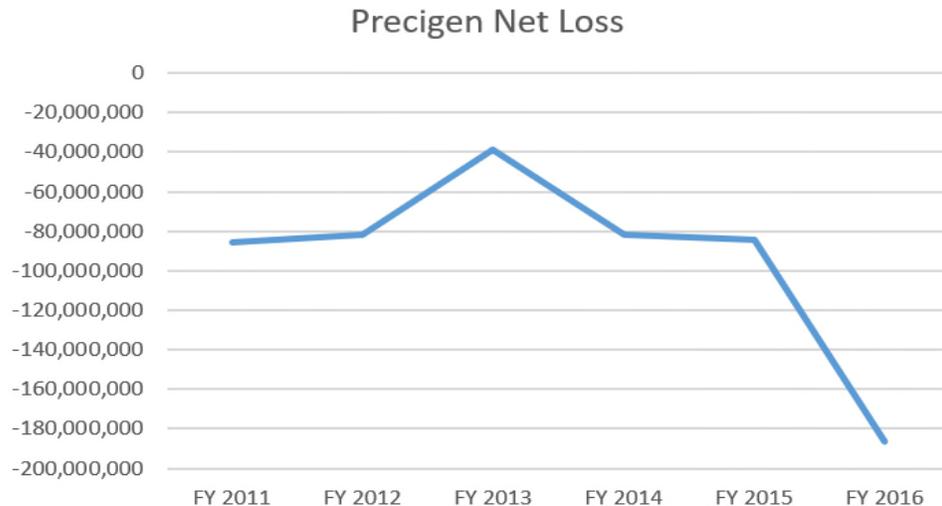
7 29. First, the Company lost the benefits of its partnership with Dominion Energy  
8 (“Dominion”). Precigen had previously touted the potential of an exclusive agreement entered in  
9 2015 between Dominion and Intrexon Energy Partners (“IEP”) – the subsidiary through which  
10 Precigen sought to build its MBP – to explore the potential development of commercial-scale  
11 biological conversion of natural gas to isobutanol. Dominion was one of the United States’ largest  
12 vertically integrated natural gas utility companies, operating across all segments of the natural gas  
13 industry. Moreover, in early 2016, Precigen announced that, in connection with this partnership,  
14 IEP would open a “pilot plant” at Precigen’s South San Francisco facility to pursue the goal of  
15 successfully achieving commercially viable yields of isobutanol – and in a May 10, 2016 earnings  
16 call Defendant Kirk stated:

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

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

24 30. Second, in the years following its IPO in 2013, Precigen not only continued to  
25 suffer losses (it has never turned a profit), but its losses *accelerated* – and in the spring of 2017 the  
26 Company reported that its net loss for fiscal year (“FY”) 2016 had more than doubled (from \$84.5  
27 million in FY 2015 to \$186.6 million in FY 2016). *See* Precigen Net Loss graph, below:  
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31. Indeed, when Precigen disclosed its bleak and sharply declining FY 2016 (negative) earnings on March 2, 2017, analysts such as JPM Securities LLC (“JMP”) expressed concern that “earnings [fell] below our and consensus estimates, driven by lower-than-expected revenues,” and 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.

32. 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, that narrative was materially false and misleading.

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

33. 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.

1           34. More specifically, according to the press release and slideshow (1) the MBP had  
2 produced both 2,3 BDO and isobutyraldehyde at sufficiently high “yields” – utilizing “*natural*  
3 *gas*” as the feedstock – for the Company to be able to advance to the next significant phase of  
4 commercial development (namely “site selection”), and (2) that the yields effectively meant that  
5 the contemplated commercial production of those two products would be “in the money,” *i.e.*,  
6 profitable. The first product, 2,3 BDO, if successfully developed, is a precursor component of  
7 synthetic rubber. The second product, isobutyraldehyde, is the primary component of MMA,  
8 which is used in developing acrylics, which are a major component in automotive parts and lighting  
9 for LED and flat panels. In sum, Defendants claimed that it had four products “actively under  
10 development,” including 2,3 BDO and isobutyraldehyde, with a TAM exceeding \$100 billion. As  
11 these materials also specifically stated, the Company had succeeded in showing “*the profitable*  
12 *use of low cost natural gas*” in bioconversion, with Defendant Walsh – the senior executive  
13 responsible who headed the MBP program – further stating on that day’s earnings call with  
14 analysts and investors as follows:

15           [T]hat for 2 of these products, isobutyraldehyde and 2,3-butanediol, *we’ve*  
16 *attained the yields necessary for the site selection of initial [Precigen]*  
17 *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.*

18 [Emphasis added.] On the call, Defendant Kirk also congratulated “[Defendant Walsh’s] team”  
19 for “tak[ing] us into such a high-yielding territory on 2,3-BDO and on the precursor to MMA [*i.e.*,  
20 isobutyraldehyde].” The Company also announced that “the current yields and business  
21 implications” had led it to retain the investment banking firm of Moelis & Company “to advise it  
22 on strategic and financial options with respect to its [MBP] bioconversion platform and specific  
23 products.”

24           35. The following day, May 11, 2017, analyst Wunderlich heralded Defendants’  
25 “positive updates in the energy segment” as an “upside surprise,” and gave Precigen a “Buy” rating  
26 on the strength of the “long-term, large TAM opportunities in the Energy [market].” The  
27 Wunderlich report further described the Company’s progress in 2,3 butanediol and  
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1 isobutyraldehyde as “each” presenting a “multi-billion dollar opportunity,” and reported that  
2 “Precigen expects to complete site selection by year-end and break ground in 2018.”

3 36. Analysts Griffin Securities (“Griffin”) and JMP Securities LLC (“JMP Securities”) were even more excited by these disclosures. For example, Griffin’s May 12, 2017 analyst report  
4 on Precigen was *headlined* “**Game Changing Breakthroughs – Commercial Production of**  
5 **Bioengineered Chemicals**” [emphasis in original],” and it further described Precigen’s MBP  
6 announcement as “most exciting news,” stating:  
7

8 Two chemical production systems are ready for commercialization and more are on the  
9 way. [Precigen’s] methanotroph program *for converting natural gas* (methane) into  
10 higher-value chemicals *has successfully reached commercial yields for production* of 2,3  
11 butanediol and isobutyraldehyde.... The conversion of natural gas to such higher-value  
12 products has *enormous potential value to [Precigen] and its investors*, since the market  
13 for the four chemicals being targeted (2,3 butanediol, isobutyraldehyde, 1,4 butanediol, and  
14 isobutanol) exceeds \$100 billion ....

15 37. Similarly, JMP Securities’ May 11, 2017 report highlighted that “the most notable  
16 update” from Precigen’s earnings call was that it had achieved sufficiently high yields to advance  
17 to site selection for both isobutyraldehyde and 2,3 BDO, and further described the reported 30%  
18 increase in yield for 2,3 BDO as “making the process profitable based on current natural gas  
19 prices” (while also noting the greater than \$100 billion estimated TAM for Precigen’s four MBP-  
20 targeted chemicals).

21 38. In response to these disclosures and the related positive analyst commentary, on  
22 May 11, 2017, the Company’s common shares closed at \$23.62, *up 20.7%* compared to the prior  
23 day’s closing price of \$19.56.

24 39. Unfortunately, Defendants’ success story was not true, and the May 10, 2017  
25 statements were simply the first in a long series of materially false and misleading statements in  
26 which Defendants fundamentally mischaracterized the reported successes of the Company’s MBP  
27 program, and materially mislead investors as to: (1) the actual feedstock (pure methane rather than  
28 natural gas) with which Precigen had achieved its supposed success, (2) the actual (and *low* and  
non-commercially viable) yields the Company had achieved when it used natural gas as the  
feedstock, (3) Precigen’s inability to develop any *single* production method – for any of its target

1 chemical products – that would generate a potentially profitable outcome across each of three key  
2 metrics (yield, productivity, and titer) that had to be met under the Company’s own “techno-  
3 economic” model for assessing commercial viability, and (4) the purported commercial (“in the  
4 money”) viability of the MBP program.

5 40. Indeed, from the outset of the Class Period, the Company did not hesitate to adopt,  
6 repeat, and tout in even more embellished terms its recent MBP results as a genuine  
7 “breakthrough”, with the Company’s Chief Operating Officer (“COO”), Andrew J. Last, falsely  
8 stating at the JMP Securities Life Science Conference on June 20, 2017 that Precigen had achieved  
9 “a very breakthrough platform.”<sup>3</sup>

10 41. Defendants also repeated and “updated” their misstatements to investors in their  
11 subsequent earnings reports and quarterly earnings calls. For example, on August 9, 2017, in the  
12 Company’s second quarter of FY 2017 (“2Q 2017”) earnings release and accompanying slideshow  
13 that were filed with the SEC on Form 8-K, the Company represented that it had “*attain[ed]*  
14 *commercially relevant yields on two high-value industrial molecules, isobutyraldehyde [sic]*  
15 *and 2,3 butanediol (2,3 BDO)*” – and further represented that it had “[o]bserved [another] 30%  
16 *increase in 2,3 BDO yields on top of [the] 30% increase achieved during the first quarter.*” On  
17 the earnings call that day, COO Last also reiterated that “*our yields on 2,3-BDO and*  
18 *isobutyraldehyde place these valuable unpartnered chemicals in the money based on the current*  
19 *natural gas prices.*” [Emphasis added.] In response, analyst Northland Securities praised the  
20 Company’s success in “attaining commercially relevant yields on two molecules,  
21 isobutyraldehyde [sic] and 2,3 butanediol,” and Griffin Securities, citing Precigen’s further “good  
22 results” from its developmental pilot plant, reported positively on the Company’s statements that  
23 it was beginning to draw up plans for a commercial-scale 2,3 BDO plant, which further confirmed  
24 that (after allowing for an 18-month construction period) Precigen was on track to start  
25 *commercial sales* of 2,3 BDO in 2019.

26  
27  
28 <sup>3</sup> Mr. Last joined Precigen as its COO in August 2016, but left the Company just 16 months  
later in December 2017.

1           42.       Similarly, in a November 9, 2017 press release and slideshow attached to the  
2 Company’s Form 8-K that reported its third quarter of FY 2017 (“3Q 2017”) earnings, Precigen  
3 claimed further yield increases in both 2,3 BDO – which COO Last described as reflecting  
4 “commercial robustness” – and in isobutanol. As COO Last stated:

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

8 [Emphasis added.] The comments on isobutanol were particularly significant, as isobutanol was  
9 the product at the center of the break-up of the partnership with Dominion, and was estimated to  
10 have a TAM of as much as \$80 billion. In addition, on Precigen’s analyst call later that day,  
11 Defendant Kirk described how, the Company’s MBP technology was now “very much in the  
12 money on 2,3-BDO,” and how the Company was continuing to target even further yield  
13 improvements for that product.

14           43.       Analysts again reacted positively to these disclosures and further progress in  
15 reported yields, with Griffin writing that the MBP “has produced six high-value fuels/chemicals,”  
16 including 2,3 BDO “which has demonstrated commercial robustness.” Similarly, in its November  
17 10, 2017 report, JMP Securities positively noted that “‘in the money’ yield was achieved earlier in  
18 this year [for 2,3 BDO] and subsequent improvements have further enhanced profitability.”

19           44.       In later press releases, public comments, and SEC filings, Defendants continued to  
20 make additional material misstatements about its MBP program having successfully utilized  
21 natural gas as a feedstock to produce commercially viable products. These additional actionably  
22 false and misleading statements include those contained in:

- 23                           • the Company’s press releases and slideshows attached to the Form 8-Ks disclosing  
24                           its 1Q, 2Q, and 3Q 2018 earnings, along with the accompanying earnings call  
25                           commentaries made on May 10, August 9, and November 8, 2018, respectively;  
26                           and
- 26                           • the Company’s 2018 Annual Report filed on Form 10-K, issued on March 1, 2019.

27 *See infra*, §VI.

28

1           45. As the SEC Order later confirmed, however, in reality (1) the Company's  
2 statements about its purported "2,3 BDO yields were based upon laboratory experiments using  
3 pure methane *not natural gas* as the feedstock" [emphasis added], and (2) given the enormous  
4 difference in price between natural gas (\$3 per MMBtu) and pure methane (\$650 per MMBtu) and  
5 the Company's failure to achieve the stated yields with far less expensive natural gas (as opposed  
6 to the prohibitively expensive pure methane), Defendants' characterizations of the MBP program  
7 as "in the money" were also flatly false. Similarly, as the SEC Order further stated, while failing  
8 to achieve the stated yields on their MBP products using natural gas as the feedstock, the Company  
9 failed to disclose that it "was primarily using significantly more expensive pure methane for the  
10 relevant laboratory experiments[,] but was indicating that the results had been achieved using  
11 natural gas."

12           46. Further, as discussed below, the Company was also never able to develop a *single*  
13 MBP production method that generated a commercially viable outcome across each of the three  
14 key metrics the Company tracked (yield, productivity, and titer) under the Company's own  
15 "techno-economic" model for assessing commercial viability, which further belied the Company's  
16 public claims that the MBP program was "in the money."

17       **D. The Defendants Also Mislead Investors About the Existence of an Active**  
18       **SEC Investigation into Their Material Misrepresentations About the MBP**  
19       **Program**

20           47. In its third quarter of FY 2018 ("3Q 2018") Form 10-Q filed on November 8, 2018,  
21 in a section discussing a previously concluded SEC investigation, Defendants warned, for the first  
22 time, that there was the *possibility* that the SEC might initiate an investigation into the Company.  
23 Specifically, the Company's Form 10-Q stated that "[t]he Company may become subject to other  
24 *claims, assessments and governmental investigations from time to time in the ordinary course*  
25 *of business.*" [Emphasis added.]

26           48. This "warning," however, was itself materially misleading. Indeed, Defendants had  
27 known since at least October 2018 (a month before the release of the 3Q 2018 10-Q) that the  
28 Company had received an SEC subpoena and that it was already under investigation concerning

1 the Company’s materially untrue disclosures regarding its MBP program. Defendants also  
2 repeated this materially misleading statement in the Company’s 2018 Annual Report on Form 10-  
3 K filed on March 1, 2019, when they again misleadingly warned only about the mere *possibility*  
4 of “governmental investigations.”

5 **E. The Undisclosed Truth About the Company’s MBP Program, Including Its**  
6 **Failure to Achieve Commercially Viable “In-The-Money” Results Using**  
7 **Natural Gas**

8 49. The MBP program’s inability to achieve commercially viable yields using natural  
9 gas as a feedstock at any point during the Class Period, in addition to being confirmed by the SEC  
10 Order (as discussed above), is also amply confirmed by multiple Confidential Witnesses (“CWs”)  
11 who were intimately familiar with the MBP program as a result of their work as former Precigen  
12 employees.

13 50. By way of background, Defendant Walsh, as the Company’s “Senior Vice President  
14 of Energy & Fine Chemicals Platforms,” oversaw and managed the Company’s MBP program  
15 from its South San Francisco location – where the MBP program was headquartered – and held  
16 those responsibilities from the start of the Class Period until he left Precigen in November 2019.  
17 At all relevant times, Walsh’s top lieutenant was Bryan Yeh (“Yeh”), the Company’s Vice  
18 President of Process Technologies, who reported directly to Walsh. Like Walsh, Yeh worked on-  
19 location in the South San Francisco facility until Yeh (like Walsh) also left the Company in  
20 December 2019. Walsh and his deputy, Yeh, managed (directly or indirectly) all of the CWs listed  
21 below from the start of the Class Period.

22 51. As confirmed by CW7, a Senior MBP Scientist who served at Precigen’s South San  
23 Francisco MBP headquarters from September 2013 through January 2018, *Precigen’s efforts to*  
24 *develop a way to use natural gas as the bioconversion feedstock had never obtained commercial*  
25 *viability during CW7’s tenure*. For example, after being read portions of the SEC’s 2020 Order,  
26 CW7 stated that there were “active projects and multiple tracks” during CW7’s tenure to achieve  
27 the same yields and titers – that had actually been obtained with the use of methane – by using  
28

1 natural gas instead. *However, CW7 confirmed that the yields and titers achieved using methane*  
2 *had not been obtained using natural gas during CW7's tenure.*

3 52. CW7 reported directly to Yeh, and oversaw roughly 20 to 30 MBP researchers  
4 during CW7's tenure at Precigen, and oversaw the development/genetic engineering and screening  
5 of the methanotrope strains that were the key bio-components in Precigen's efforts to produce  
6 high-value commercial chemicals (such as 2,3 BDO). CW7 also recalled weekly in-person  
7 meetings at the San Francisco MBP headquarters that were attended by the senior program  
8 engineers, including the MBP program's Senior Director of Engineering, its Associate Director of  
9 Metabolic Engineering, and its Associate Director of Fermentation and Microbial Physiology,  
10 among others. CW7 alternately referred to these meetings as "Project Meetings" and "Status  
11 Meetings," and noted that Yeh was present for these meetings on a fairly regular basis, and that  
12 Defendant Walsh also attended at times. During these meetings, the scientists discussed the status  
13 of their work on the MBP program, including the status of the program relative to Precigen's  
14 internal plan, and regularly discussed the various challenges that arose in developing and testing  
15 the various methanotroph strains. CW7 characterized these meeting as very "detail oriented,"  
16 where the science behind the business objectives was discussed at length.

17 53. CW7 also attended quarterly meetings, attended by most of the same senior  
18 scientists noted above – as well as Walsh, Yeh, and certain "other executives" (whom CW7 was  
19 not comfortable identifying) – the purpose of which was to more formally report to Defendant  
20 Walsh and Yeh and the "others" as to the progress of the MBP program. As CW7 stated, these  
21 quarterly meetings did not contain the same level of granularity as the more frequent weekly  
22 "Project" (or "Status") Meetings, and were geared more as high-level updates for Walsh and the  
23 "other executives." As CW7 also specifically confirmed, Precigen's commercial manufacturing  
24 targets were driven by the "Cost Model" – and whether Precigen was meeting its targets under that  
25 model were discussed at those meetings. CW7 further described how natural gas – unlike methane  
26 – contains various other chemical compounds (such as ethane), which generated by-products (such  
27 as acetate) during the bioconversion process, which "caused challenges" and raised questions as  
28

1 to the commercial viability of natural gas as a feedstock. Although this problem could “at least in  
2 theory” be resolved, it never was during CW7’s tenure.

3 54. In short, as CW7 confirmed, these specific challenges and the program’s status  
4 were communicated regularly to Defendant Walsh during both weekly in-person meetings (when  
5 Walsh attended them), as well as the higher-level quarterly meetings held specifically for Walsh  
6 and the “other executives.” Accordingly, Walsh and Yeh (and presumably the “other executives”  
7 that CW7 was not comfortable identifying) were aware that Precigen’s efforts to develop a way to  
8 use natural gas as the bioconversion feedstock had *not* obtained commercial viability at any time  
9 during CW7’s tenure.

10 55. CW7 also described how meeting the Company’s goals for being able to commence  
11 commercial manufacturing of any of the MBP’s target products were directly tied the MBP’s “Cost  
12 Model.” As CW7 explained, ‘if you want to sell a molecule at a certain price, you need to come  
13 under that in terms of manufacturing [cost] . . . there needs to be some [profit] margin associated  
14 with that.’ CW7 also identified one of the Company’s senior engineers, CW4, as being highly  
15 knowledgeable as to the titer, yield, and productivity “outputs” actually achieved, and CW7 further  
16 stated that CW4 – in addition to being a regular participant in the above-described quarterly  
17 meetings at which the status of efforts to meet the “Cost Model’s” requirements were discussed –  
18 was not only knowledgeable as to the status of the commercial viability of the MBP program, but  
19 was the most knowledgeable on this subject among *all* of Precigen’s management-level scientists  
20 and research engineers.

21 56. CW4 served as a Senior MBP Engineer and Senior MBP Manager in the  
22 Company’s South San Francisco facility from November 2016 until CW4’s departure in January  
23 2019, and also reported directly to Yeh (who in turn reported directly to Defendant Walsh). CW4  
24 had a significant role in overseeing the testing conducted on methanotroph bacteria strains, and in  
25 trying to adapt processes that had been tested in the lab setting for use at the pilot plant scale (which  
26 involved larger batches of strains) in the hope that a successful process could ultimately be  
27 developed for commercial production. For comparative purposes, CW4 noted that (1) experiments  
28

1 at the lab setting (or “bench scale”) would typically involve production of approximately one liter  
2 of product; (2) production at the Company’s in-house “pilot plant” was approximately 500 liters;  
3 and (3) commercial scale (if it could ever be achieved) would need to involve fermentation tanks  
4 with the capacity to hold *hundreds of thousands*, or as much as a million, liters of product.

5 57. CW4 further described how the process of determining whether a particular  
6 methanotroph production technology might be commercially viable was based on the Company’s  
7 “techno-economic” model. This model basically compared (A) the “upstream” costs of all the  
8 inputs required for creating a given end-product (such as 2,3 BDO) using the MBP technology  
9 against (B) the net “downstream” value (or costs) of the materials generated by conversion process,  
10 notably the desired end product, waste materials, water, and “biomass” (*i.e.*, the remnants of the  
11 methanotrophs). The model would document the specific amount of methanotrophs and feedstock  
12 (*e.g.*, pure methane or natural gas) required, reflect how much end-product (and waste by-product)  
13 would be produced, and take into account the pricing of all inputs (including the cost of equipment,  
14 labor and land, as well as the methanotrophs and feedstock), and then, based on pricing  
15 assumptions for the value of end-product generated, calculate a projected 20-year internal rate of  
16 return (or “IRR”) for the technology (which in turn would be used to determine a Net Present  
17 Value, or “NPV,” of the technology). CW4 further noted that in general technology products need  
18 to show an IRR of 20% to be profitable, but that new technologies need to show IRR’s of 30% or  
19 more to account for the inevitable setbacks and unexpected costs in trying to scale up even a  
20 promising technology from the lab stage to the pilot plant stage to the actual commercial  
21 production stage.<sup>4</sup>

22 58. CW4 noted that Yeh “led the effort” to develop and maintain the Company’s  
23 “techno-economic” model as it related to the MBP program. However, as CW4 further clarified,  
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26 <sup>4</sup> CW4 noted, for example, that when “scaling up” the methanotroph production process  
27 certain efficiencies are lost and complications are added. CW4 analogized to mixing a margarita:  
28 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.

1 not only was CW4's department actually responsible for *building* that model, but CW4 was  
2 personally "in charge" of that effort – and accordingly CW4 stated that "*No one knew the Model*  
3 *better than me.*" Similarly, CW4 stated that CW4 was responsible for understanding the criteria  
4 (the three key elements of which – yield, productivity, and titer – are described below) that needed  
5 to be met to satisfy the model with respect to production of a desired MBP end-product. CW4 also  
6 confirmed that other management level MBP scientists and engineers would have understood the  
7 criteria that went into the "techno-economic" model.

8 59. CW4 further explained that, under the Company's "techno-economic" model, there  
9 were three particularly important pieces of information (or "inputs") that would show whether the  
10 technology would be profitable: (1) *yield*, or the amount of useful product produced; (2)  
11 *productivity*, or how quickly the useful product could be made; and (3) *titer*, or the concentration  
12 of useful molecules (*i.e.*, the product) in relation to the by-products (such as water) that had to be  
13 removed. If, however, any of these three elements of the model changed, the model's overall  
14 assessment of commercial viability (or lack thereof) would also change. Unfortunately, however,  
15 gains in one area would often come at the expense of detriments in another. In particular, titer and  
16 productivity "fight each other," meaning that improving titer tends to come at the expense of  
17 productivity and vice versa.

18 60. CW4 provided an analogy to help describe just how essential it was for the MBP  
19 program to develop a process for the production of one or more end-products (such as 2,3 BDO)  
20 where the *combination* of yield, productivity, and titer results, from the same process, would result  
21 in a finding of commercial viability under the Company's own internal "techno-economic" model.  
22 As CW4 put it, "Think of the Model as a stool. It has three legs: yield, titer, productivity. You  
23 pull one of the legs out, the stool falls. That's the Model – and [that was a] problem here." Indeed,  
24 – while CW4 was unable to recall whether the Company ever achieved satisfactory results for any  
25 of these three metrics after scaling up to the 500-liter pilot plant level – *CW4 confirmed that the*  
26 *Company never achieved satisfactory results to show commercial viability for all three of these*  
27  
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1 *metrics using any given production method, whether at the lab testing level or at the pilot plant*  
2 *level.*

3 61. After providing this context, CW4 explained that *Defendant Walsh's and the*  
4 *Company's public statements that the MBP technology was "in the money" were simply false*  
5 for at least three reasons. First, as noted above, the Company was *at best* able to run tests that met  
6 the levels of yield *or* productivity *or* titer required for profitability, but the company was *never*  
7 able to meet all three metrics – and thus generate an *overall* level of profitability – using any given  
8 methodology as part of the same experiment. In other words, at best such statements about being  
9 “in the money” were based on combining “cherry-picked” data from separate experiments to make  
10 the Company’s results seem as positive as possible, *without disclosing that the Company was*  
11 *never able to generate positive results for all three key metrics – yield, productivity, and titer –*  
12 *in the same experiment.* Accordingly, there was never a sound basis to represent to investors that  
13 the Company had developed a commercially viable (or potentially commercially viable) process.

14 62. Second, as CW4 also confirmed, even the Company’s “cherry-picked” test results  
15 (from separate experiments) could not be fairly described as “in the money” unless they could be  
16 replicated not simply at the lab (or “bench”) scale, but also at a 500-liter pilot plant (or larger)  
17 scale – something which the Company was never able to do. *See also* n.2 above. In short, at the  
18 500-liter pilot scale, the Company was never able to show that it had a commercially viable “in  
19 the money” MBP technology.

20 63. Third, like multiple other CWs discussed herein, CW4 also confirmed that all of  
21 the Company’s reported “positive” results – limited as they were – were based on the use of  
22 expensive pure methane as a feedstock, rather than on the use of natural gas. Indeed, at the bench  
23 scale, the Company’s labs lacked the equipment to feed the test strains natural gas (as opposed to  
24 pure methane) – and also lacked the ability to accurately measure yield because of limits on the  
25 ability to accurately measure the amount of excess methane that was being “wasted” in the lab  
26 experiments. And although the Company’s 500-liter pilot plant did have the capacity to use either  
27 pure methane or natural gas, the Company rarely used natural gas in its testing (except to keep the  
28

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

6 64. For all of the foregoing reasons, CW4 characterized Defendant Walsh’s and the  
7 Company’s statements about the Company’s MBP technology being “in the money” as a “farce.”

8 65. As CW4 also confirmed, both Walsh and Yeh were well aware of the facts that  
9 rendered the Company’s positive statements about its “in the money” MBP program materially  
10 false and misleading. Indeed, not only Walsh and Yeh, but effectively all of the scientists and  
11 managers who worked at the South San Francisco facility were fully aware of the MBP program’s  
12 shortcomings. Moreover, all data from the Company’s MBP experiments performed at the facility  
13 were recorded in the Company’s Lab Inventory Management System (“LIMS”), and were  
14 accessible to anyone working on the MBP program at any time – which would include data as to  
15 whether particular milestones had been met. Accordingly, word would spread very quickly  
16 throughout the facility when any significant test met, achieved, or failed to achieve a given  
17 benchmark MBP goal. Moreover, Walsh’s deputy, Yeh, who constantly “hovered” in the lab to  
18 monitor results, was routinely advised of test results and developments as soon as they became  
19 available.

20 66. CW4 also attended quarterly meetings with Defendant Walsh, Yeh, and other senior  
21 personnel, including the Company’s Director of Commercial Operations, to prepare Walsh for his  
22 regular briefings to the Company’s board of directors about the MBP program’s progress. Based  
23 on CW4’s description, these meetings appear to be the same as the quarterly meetings among the  
24 top MBP departmental managers, Defendant Walsh, and other “senior executives” that CW7 also

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1 recalled attending.<sup>5</sup> At these meetings, Walsh was fully briefed by the MBP’s senior managers on  
2 the MBP program’s progress and ongoing difficulties. For example, CW4 specifically recalled  
3 one such meeting during the second half of 2018, when it was discussed with Walsh and Yeh how  
4 the positive MBP data being cited in the Company’s public statements was being taken from  
5 separate experiments and did not reflect results that had been reached in any one single experiment.  
6 CW4 also recalled having spoken directly to Yeh at that time to express CW4’s concerns that the  
7 data being publicly presented was materially misleading because different elements of the data  
8 were coming from separate experiments, rather than reflective of results that had been obtained  
9 under any single experiment or production method. Yeh said that he (Yeh) understood this – but  
10 declined to discuss this further with CW4.<sup>6</sup>

11 67. Additionally, CW4 also occasionally met with the Company’s CEO, Defendant  
12 Kirk, who sporadically visited the South San Francisco facility to discuss the MBP program with  
13 the facility’s engineers and scientists. At one such meeting between Kirk and CW4 in the second  
14 half of 2018, CW4 informed Kirk about available space in a location immediately adjacent to the  
15 South San Francisco facility and suggested that the Company invest in a 20,000-liter facility there  
16 with a *different* reactor and fermenter design. Kirk responded approvingly, stating “do it,” and  
17 instructed CW4 to tour and assess the site next door. Shortly thereafter, however, Walsh vetoed  
18 the assessment plan, and told CW4 that because the Company had been unable to achieve the three  
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20  
21 <sup>5</sup> Given the passage of time, CW4 could not recall the specific dates on which these meetings  
22 were held, and CW4 stated that they were always held just before Precigen’s Board of Directors  
met, *i.e.*, “a day or two before [Precigen’s] Board meetings.”

23 <sup>6</sup> CW4, consistent with other CWs, described how there would be different types of regular  
24 meetings at the Company to discuss the status of the MBP program. At the lowest level, there  
25 were weekly “technical” meetings at the departmental level to discuss current projects,  
26 experiments, and test results, which would be attended by CW4 as well as the facility’s manager  
27 of fermentation operations, along with numerous scientists and engineers. One step up from those  
28 meetings were regular “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 – and which were almost certainly the same as the “Project/Status meetings” that  
CW7 and CW8 described and also attended. The highest level of meeting would be the quarterly  
meetings to brief Defendants Walsh (and other senior executives) on the status of the MBP  
program.

1 key metrics – yield, productivity, and titer – simultaneously at the 500-liter pilot plant level, “there  
2 was no way” the Company would invest in a 20,000-liter facility (even one with a *different* reactor  
3 and fermenter design) in the foreseeable future.

4 68. Based largely on what CW4 considered to be Walsh and Yeh’s unethical conduct,  
5 by the end of 2018 CW4 decided to leave the Company, and did so in early 2019. CW4 further  
6 noted that Yeh had a practice of scapegoating other people when test results fell short, firing  
7 researchers and sometimes shifting resources to a new project (for example, from the production  
8 of isobutanol to 2,3 BDO), and then would “rinse and repeat.” CW4 believes that, after CW4 left  
9 the Company in early 2019, the Company ultimately *fired* Walsh and Yeh because the Company’s  
10 Board had concluded that the primary problem with the MBP program was not with its research  
11 scientists and engineers, but with Defendant Walsh and his top deputy Yeh.

12 69. CW8, another MBP Engineer at the MBP’s South San Francisco headquarters from  
13 May 2015 through July 2018 and who reported directly to CW7, also confirmed that during CW8’s  
14 tenure the MBP program had failed to deliver the desired performance outcomes. CW8 also  
15 provided a detailed description of the various factors that dictated whether the MBP program had  
16 reached commercial viability. In particular, “titer” reflects the grams-per-liter of the molecule in  
17 question (*i.e.*, the concentration); “yield” reflects the percentage amount of the feedstock (whether  
18 pure methane or natural gas) that is converted into the desired finished end-product as a result of  
19 the bioconversion process; and “productivity” measures the rate at which the finished end-product  
20 is obtained (and is tracked as percentage based on grams-per-liter-per-hour). As CW8 noted, all  
21 of these inputs were required in order to arrive at a cost basis model, and to generate cost  
22 projections for the MBP program. CW8 also recalled participating in regular, weekly in-person  
23 meetings at Precigen’s South San Francisco facilities, attended by Defendant Walsh, Yeh, CW7,  
24 CW4 and CW8, among others, where CW7, CW4, and CW8 reported to Walsh and Yeh as to their  
25 respective progress – or lack thereof – with regard to their segments of the MBP program. At  
26 those meetings – which are almost certainly the same as the regular “interdepartmental” meetings  
27 also known as “Project/Status” meetings that CW4 and CW7 also recalled – CW8 stated that the  
28

1 use of pure methane versus natural gas as a feedstock, and the associated costs/challenges and  
2 benefits for each of the two feedstocks, was a recurring topic of discussion.

3 70. Similarly, CW8 confirmed that the participants in these weekly interdepartmental  
4 meetings discussed what the MBP program needed to accomplish in order to improve performance  
5 using natural gas a feedstock, the specific challenges and difficulties involved in using natural gas  
6 (notably the presence of ethane in natural gas, which generated performance-reducing acetate  
7 during the bioconversion process), and how these specific challenges – and problematic outcomes  
8 with natural gas – were communicated regularly to Defendant Walsh and Yeh during those  
9 meetings. Accordingly, as CW8 further stated, Defendant Walsh and Yeh were well aware that  
10 Precigen’s efforts in using natural gas as the feedstock were not where they needed to be in order  
11 to obtain the desired commercially viable outcomes – and that anyone who attended those meetings  
12 could easily deduce that the MBP program had not yet achieved commercial viability. CW8 also  
13 added that he recalled that the pressure to improve performance and hit certain results had  
14 increased by late 2017, and that the primary reason CW8 left the Company in early 2018 was that  
15 “I didn’t think we were going to get there, given the challenges that we had.”

16 71. Like CW7, CW8 also stated that CW4 was particularly knowledgeable as to the  
17 status of the MBP program from a commercial viability perspective. However, as CW8 further  
18 stated – based on the internal reporting on testing outcomes at both the small-scale fermentation  
19 test level and at the larger scale “pilot plant” test level and related discussions about the challenges  
20 involved in trying to achieve the program’s performance objectives (including generalized  
21 discussions about the MBP program’s commercial viability) – everyone who attended the weekly  
22 meetings while CW8 was at the Company could easily deduce that the MBP had not achieved  
23 commercial viability.

24 72. Unsurprisingly, therefore, CW8 confirmed their agreement with the primary theory  
25 of liability in this case – namely, that Precigen knowingly provided inaccurate public information  
26 with regard to its MBP program during the relevant timeframe.

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1           73. CW1, who worked as an MBP Research Director at the South San Francisco facility  
2 from May 2012 until departing in June 2017 and reported to CW8, also confirmed that Precigen’s  
3 researchers were simply not able to replicate the bioconversion data that they had obtained using  
4 pure methane when they tried to use natural gas as a feedstock instead. Although CW1 worked  
5 exclusively with pure methane as a feedstock, CW1 attended regular in-person meetings with other  
6 researchers, engineers, and senior managers at which the MBP program’s status – including the  
7 daunting and unsolved challenges of finding a commercially viable way to use natural gas (as  
8 opposed to pure methane) as a feedstock – were discussed. As CW1 recalled, these meetings  
9 occurred either weekly or bi-weekly, and one of the key issues discussed at these meetings  
10 revolved around challenges that needed to be overcome to get the relevant bacteria to respond to  
11 natural gas the same way they responded to pure methane. As CW1 put it, Yeh was “in the loop,”  
12 and although CW1 would state only that Yeh attended “at least some” of these meetings, CW1  
13 understood that Walsh would also be made aware of what was discussed at those meetings that  
14 Yeh did not attend.<sup>7</sup>

15           74. CW2, who served as a Senior MBP Scientist from September 2013 until September  
16 2020 at Precigen’s South San Francisco facility (and who reported directly to Yeh starting in  
17 January 2018), also confirmed that the MBP program simply failed to achieve bioconversion using  
18 natural gas as the feedstock at the internal target rates that the Company had established. Instead,  
19 the MBP program experienced a variety of “roadblocks” throughout CW2’s tenure, and Precigen’s  
20 efforts were simply never sufficient to overcome the challenges within the timelines set by the  
21 Company. Indeed, as CW2 stated, this inability to meet the Company’s internal milestones  
22 ultimately proved so problematic that it ultimately led to the Company terminating the MBP  
23 program. In the ordinary course of CW2’s duties, CW2 also held weekly or bi-weekly meetings  
24 with Yeh, Defendant Walsh’s top MBP lieutenant, to discuss the status of the MBP program.

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26 <sup>7</sup> Based on CW1’s description, the weekly meetings that CW1 recalled were attended by a  
27 larger and typically less senior group of researchers and managers than those described by CW4,  
28 CW7, and CW8, and thus appear to have been *separate* from the higher-level “Project/Status  
Meetings” that were also held on a weekly basis among the MBP’s more senior managers.

1           75.     Like CW2, CW3 also served in a management-level role, as a Senior MBP Engineer  
2 from July 2019 until May 2020 at Precigen’s South San Francisco facility, and also reported  
3 directly to Yeh, Walsh’s top MBP lieutenant. (Following Walsh’s and Yeh’s departure in  
4 November and December 2019, CW3 reported directly to Alex Mattana (“Mattana”), who served  
5 as chief lieutenant to Walsh’s successor, David Witte (“Witte”). As CW3 confirmed, all  
6 personnel at Precigen’s South San Francisco facility during CW3’s tenure were aware of the  
7 ongoing MBP program challenges, including the fact that it was not meeting specific internal  
8 program milestones. For example, CW3 explained that the use of natural gas as a feedstock in the  
9 bioconversion process created acetate, which materially reduced the feedstock’s productivity – a  
10 problem that called into question the commercial viability of Precigen’s entire MBP initiative. In  
11 CW3’s words, this challenge was “very apparent and discussed throughout the organization,” and  
12 “we were all aware of it” – including Yeh, and later Yeh’s and Walsh’s successors, Mattana and  
13 Witte.

14           76.     CW3 also attended regular meetings where CW3 and other Company engineers  
15 discussed the status of the MBP program and its ongoing challenges with senior management. For  
16 example, CW3 recalled that problems with the MBP program would be discussed weekly at  
17 meetings with Yeh, and that CW3 also attended larger (though less frequent) regular meetings at  
18 which the program’s issues were also discussed. At both sets of meetings, CW3 confirmed that  
19 the program’s *lack* of commercial viability – and the major challenges that still needed to be  
20 overcome in order to generate results that might potentially be commercially viable using natural  
21 gas (as opposed to pure methane) – were discussed. Accordingly, as CW3 stated, all of the  
22 attendees at these regular meetings were “well aware” of the MBP program’s failure to establish  
23 commercial viability at any time during CW3’s tenure.

24           77.     CW5 worked on the MBP program as an MBP Scientist at the Company’s South  
25 San Francisco facility from July 2018 through May 2020, when the program, by then known as  
26 MBP Titan, was shut down. CW5’s responsibilities included running analyses of methanotroph  
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1 sample strains in the effort to develop 2,3 BDO, one of the MBP program’s flagship products  
2 touted by Defendants throughout the Class Period as “in the money” (*i.e.*, commercially viable).

3 78. Like CW4, CW5 confirmed that the Company struggled to maintain the same level  
4 of productivity with larger batch sizes in laboratory testing – *i.e.*, “scaling up” – and that it  
5 experienced significantly decreased yields when results from larger batches were compared against  
6 those obtained from testing using smaller production samples. Moreover, CW5 also confirmed  
7 that the Company’s internal database – LIMS – tracked all data generated in the research.  
8 Additionally, CW5 only worked with pure methane, not natural gas. However, even with using  
9 pure methane as the feedstock, CW5 explained that the Company still struggled to meet its internal  
10 production goals.

11 79. CW5 also attended quarterly “town hall” meetings and confirmed that the results  
12 of tests comparing pure methane versus natural gas as a feedstock were discussed at some of those  
13 meetings. All the departments in the MBP division were typically present at these town hall  
14 meetings, which were held live on location in South San Francisco, in a room which could seat 50  
15 to 60 people. According to CW5, ***Defendant Walsh led these meetings until his departure in***  
16 ***2019***. CW5 also stated that he believed that Walsh was well-aware of the MBP program’s  
17 progress.

18 80. Given the Company’s MBP program struggles using pure methane, CW5 also  
19 believed that the Company was behind on its goals for commercial viability using natural gas as a  
20 feedstock. Indeed, as CW5 recalled, ***at multiple town hall meetings it was stated that the MBP***  
21 ***division’s projected goal for achieving commercial viability was not until approximately the year***  
22 ***2023 or 2024, based on the Company’s progress to date***. Indeed, according to CW5, ***Defendant***  
23 ***Kirk, the Company’s CEO, was aware of the substance of all of the town hall meetings***. CW5  
24 based this belief both on the fact that Kirk visited the South San Francisco facility multiple times  
25 during CW5’s two-year tenure, but also on the fact that Kirk ***also personally attended multiple***  
26 ***town hall meetings himself***.

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1           81.     CW6 worked on the MBP program as an MBP Systems Engineer and Researcher  
2 at the Company's South San Francisco facility from January 2015 through March 2019, reporting  
3 initially to CW2 and later to CW4 (both of whom in turn reported directly to Brian Yeh, Defendant  
4 Walsh's top MBP lieutenant). Echoing the same descriptions of the Company's MBP testing  
5 program made by the other CWs, CW6 stated that most of the Company's MBP testing and  
6 analysis utilized pure methane as a feedstock for the methanotrophs, rather than natural gas.

7           82.     According to CW6, the Company's internal MBP goals were set by Defendant  
8 Walsh and Yeh, and were often communicated by Walsh to the facility's employees at division-  
9 wide meetings.<sup>8</sup> CW6 recalled only one occasion when the Company may have met its internal  
10 production or yield targets. CW6 further recalled that at one point during their employment those  
11 targets had actually been lowered, because the Company recognized that they had been set too  
12 high at the beginning of the year. CW6 also stated that CW7 was responsible for trying to "push"  
13 the research and development staff to meet yield goals that had been set by Defendant Walsh and  
14 Yeh.

15           83.     Throughout CW6's time with the Company, CW6 believed the MBP program  
16 would not achieve commercial viability for at least several more years. CW6 also recalled that  
17 there was "a lot of backroom chatter" among the MBP scientists at the South San Francisco facility  
18 that the MBP program would not be commercially viable even within the time frame discussed at  
19 the division meetings, and that this view was widely shared among the facility's scientists. Indeed,  
20 as CW6 stated, most of the Company's scientists were skeptical of being able to meet the scientific  
21 goals or milestones that the Company's leadership presented. CW6 added that CW6 was not  
22 directly involved in analyzing the MBP program's commercial viability, but identified CW4 as  
23 one of the persons who would have been knowledgeable as to what the Company's assessment  
24 was regarding making the MBP technology commercially viable. Although CW6 was not  
25 responsible for analyzing commercial viability, CW6 did, however, express concern that "most"

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28 <sup>8</sup> CW6's reference to "Division Meetings" is likely a reference to what other CWs (such as  
CW5) described as "Town Hall" meetings led by Defendant Walsh.

1 of the testing and analysis that CW6 was aware of involved using pure methane as a feedstock for  
2 the methanotrophs, rather than natural gas.

3 84. CW6 also recalled that during CW6's more than four years with the MBP program,  
4 there were regular *intra*-departmental meetings, which appear to be what other CWs referred to as  
5 the weekly, more junior level "technical meetings." CW6 also recalled generally that the  
6 frequency of regular internal meetings changed from time-to-time, *e.g.*, from monthly to bi-  
7 weekly, or vice-versa – and did not recall why the frequency would change, but that the meetings  
8 CW6 recalled were held regularly throughout his tenure.

9 **F. The Truth About the Company's MBP Program Gradually Emerges**

10 85. The extent of difficulties confronting the Company's ongoing MBP development  
11 efforts emerged gradually, including through a series of partial corrective disclosures.

12 86. First, as more and more time passed (a) without any actual news of Precigen having  
13 actually developed (let alone implemented) any "strategic" or "financial" options to monetize any  
14 portion of the Company's purported MBP's successes or "in-the-money" technologies – whether  
15 in connection with its highly-touted retention Moelis & Co. or otherwise as a result of the  
16 "advanced" discussions with multiple possible MBP "strategic partners" that Precigen claimed to  
17 be involved in as late as August 2018, and (b) without Precigen having actually selected any sites  
18 for a small-scale commercial 2,3 BDO production facility, or having sent out for bidding any  
19 engineering designs for that plant, investors and financial markets gradually and increasingly  
20 inferred from this lack of reported positive activity that the MBP program was not nearly as "in-  
21 the-money" (if at all) as Defendants had previously represented. Indeed, in the six months between  
22 the end of August 2018 (when Precigen shares closed at \$15.38 per share) and February 28, 2019  
23 (when Precigen shares closed at \$8.28), the Company's stock price suffered through a period of  
24 steady declines that gradually reduced the value of Precigen shares by more than \$7.00 per share.

25 87. After the market closed on February 28, 2019, Defendants disclosed in a press  
26 release (attached to that day's Form 8-K) that "[b]ased on Intrexon's financial position . . . there  
27 is substantial doubt about [the Company's] ability to continue as a going concern." As Joel D.  
28

1 Liffmann, the Company’s Senior Vice President of Finance (“Liffmann”), explained on an analyst  
2 call later that same day:

3 ***[Our] financial statements include a going concern qualifier that reflects our***  
4 ***analysis that funding on hand is not adequate for operations beyond 12***  
5 ***months.*** Management is, of course, pursuing several options to address the  
going concern issue, including, as I mentioned earlier, potentially partnering  
and financing at the individual program or business unit level.

6 [Emphasis added.]

7 88. Later, in response to a question on the same February 28, 2019 call, Liffmann raised  
8 the possibility of “[a]sset sales, . . . additional securities offerings or other means of raising capital”  
9 to fund the Company’s operations, stating:

10 There is a black-and-white test that all companies perform in connection with  
11 their financial statements that is prescribed by the accounting standards, that  
12 one has to take a measure of your cash and available liquid assets to satisfy  
13 your operations. ***You have to have sufficient capital to operate the company***  
14 ***beyond a prescribed 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 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-and-white test.

15 [Emphasis added.]

16 89. For investors and analysts who had previously been accustomed to Defendants’  
17 rosy reports about increasing MBP yields, upcoming commercial production site selections, future  
18 MBP product partnerships, and a massive “total addressable market” for Precigen’s MBP products,  
19 Defendants’ disclosures concerning the Company’s cash burn constituted a confirmation of the  
20 prior six month’s concerns about the MBP’s true value, and partial further disclosure of just how  
21 far away the Company actually was from being able to successfully launch commercially viable  
22 technology for producing isobutanol, isobutyraldehyde, 2,3 BDO, 1,4 BDO, or any other MBP  
23 products.

24 90. In response, the next day, March 1, 2019, the Company’s common stock closed at  
25 \$5.06, representing a sharp one-day decline of 36.5% compared to its prior day’s closing price.

26 91. Further bad news indicating that the Company’s MBP program was not as  
27 promising or as successful as Defendants had portrayed emerged after markets closed on August  
28

1 8, 2019, when the Company issued a press release which disclosed, *inter alia*, that it planned to  
 2 spin-off its MBP program into a new company. As the press release stated:

3 *[The Company] entered into an agreement under which it will contribute its*  
 4 *Methane Bioconversion Platform, together with all its associated*  
 5 *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 . . . .

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

8 So the overall object here is [that] . . . *all of our interest in our methane*  
 9 *bioconversion platform, all of the facilities, all of the technologies that*  
 10 *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  
 11 ownership position. *But we do not believe that [] will hold.* In fact, the  
 12 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.*

13 [Emphasis added.]

14 92. Investors viewed this announcement as a negative development, and as additional  
 15 confirmation that efforts to develop commercially successful MBP products were further away  
 16 than what Defendants had previously represented. In response, the following trading day, August  
 17 9, 2019, the Company’s shares declined roughly 8.8% to \$6.95 per share, compared to its prior  
 18 trading day’s closing price.

19 93. After the close of the market on March 2, 2020, Defendants issued the Company’s  
 20 2019 Annual Report on SEC Form 10-K, which revealed perhaps the most stunning news yet  
 21 regarding the true state of the Company’s MBP program – as well as the Defendants’ prior active  
 22 role in affirmatively misrepresenting the program’s reported successes. Specifically, the  
 23 Company’s 2019 Form 10-K revealed that the Company had in fact been under investigation by  
 24 the SEC since at least *October 2018* (*i.e.*, for at least the last year and a half), and that the  
 25 investigation involved the Company’s disclosures concerning its MBP program. As the Form 10-  
 26 K stated:

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

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

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

11            94. Moreover, Defendants’ March 2, 2020 disclosure revealed, for the first time, that  
12 the Company’s prior “warning” statements of November 8, 2018 and March 1, 2019, were  
13 materially false and misleading, because they had misleadingly warned only about the mere  
14 possibility of “governmental investigations,” when in fact Defendants’ own March 2, 2020  
15 statement ***admitted*** that Defendants had known since at least October 2018, that the Company was  
16 ***already*** under investigation.

17            95. Investors reacted with understandable alarm to these disclosures. In response, the  
18 following day, March 3, 2020, Precigen’s shares fell over 17% compared to the closing price the  
19 previous day, closing down at \$3.24.

20            96. After the market closed on May 6, 2020, the Company issued a press release that  
21 reported its first quarter of FY 2020 results – and that effectively disclosed further new information  
22 as to just how little the Company’s MBP program was worth. *Inter alia*, while nominally  
23 attributing its actions to a realignment of priorities triggered by the COVID-19 pandemic, the  
24 release disclosed that the state of its MBP development efforts was so poor that the Company had  
25 recently “[c]ompleted [a] reduction in force at MBP Titan [formerly MBP LLC] to focus [our]  
26 resources on healthcare.” On that day’s subsequent earnings call, Precigen’s recently appointed  
27 new President and CEO Helen Sabzevari (“Sabzevari”), went even further, disclosing that the  
28 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:

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

16 [Emphasis added.]

17 97. Amidst the market tumult of the COVID-19 pandemic, analysts and investors  
18 largely gave the Company a pass. The following day, analyst JMP Securities, for example, wrote  
19 that “[m]anagement continues to closely control capital allocation and focus resources to lead  
20 therapeutics programs. In this context, it has achieved further cost reductions at its MBP Titan  
21 subsidiary.” Accordingly, in response to the Company’s disclosures of May 6, 2020, Precigen’s  
22 share price only fell 1.55%, to close the following trading day at \$3.17.

23 98. However, after the market closed on August 10, 2020, Precigen disclosed in its  
24 second quarter of FY 2020 Form 10-Q that, beyond a mere “suspension” of its MBP operations,  
25 “[t]he Company is assessing potential next steps related to [its MBP] intellectual property and  
26 MBP Titan’s other long-lived assets” – and that Precigen had also “determined” that the value of  
27 MBP Titan’s assets was impaired and “not fully recoverable.” As the Form 10-Q stated:

28 [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.

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

3 In the second quarter of 2020, Precigen spending, which includes segment  
4 adjusted EBITDA plus corporate costs, was approximately \$13 million versus  
5 \$30 million in the first quarter of 2020. *This decrease was primarily  
6 attributable to suspending operations at MBP Titan and streamlining our  
7 corporate functions to feed the narrower focus of the company. We expect  
8 the spend at MBP to continue to substantially reduce as we evaluate the  
9 strategic options for this platform.*

7 [Emphasis added.]

8 99. In an analyst report issued the following day, August 11, 2020, analyst JMP  
9 “removed \$500MM in value from MBP from our valuation” – a significant reduction, particularly  
10 given the Company’s recent sky-high statements concerning the size of the “total addressable  
11 market” for the Company’s purported MBP products.

12 100. In response to the news that the MBP program had actually failed so badly that the  
13 Company would have to take large write-downs on its related asset values, and the related negative  
14 analyst commentary, on August 11, 2020, Precigen’s share price fell over 10%, to close at \$4.60.

15 101. The full nature and extent of the truth finally emerged on September 25, 2020. On  
16 that day, after the market closed, Defendants issued a press release on Form 8-K disclosing that  
17 Precigen had “reached a final settlement with the Securities and Exchange Commission . . .  
18 regarding the Company’s methane bioconversion platform.” The release also tersely disclosed  
19 that, under the settlement, Precigen had (1) consented to entry of a cease-and-desist order  
20 prohibiting it from committing “any future violations” of SEC rules requiring the filing of accurate  
21 current reports with the SEC, and (2) agreed to pay a \$2.5 million penalty to the SEC.

22 102. Simultaneously, the SEC issued its cease-and-desist order against the Company.  
23 The SEC Order confirmed that, beginning in May 2017, the Company had made “inaccurate”  
24 statements concerning the MBP program’s “purported success [in] converting relatively  
25 inexpensive natural gas into more expensive industrial chemicals.” For example, as the SEC  
26 specifically found:

27 [O]n May 10, 2017, [the Company] publicly reported progress in the laboratory  
28 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

1 converting natural gas into 2,3 BDO in August and November 2017, which was  
 2 important information for investors and analysts at that time. [However, despite  
 3 Defendants' claims of success in utilizing *natural gas* as a feedstock, the  
 4 Company] was primarily using significantly more expensive *pure methane* for the  
 5 relevant laboratory experiments *but was indicating that the results had been  
 6 achieved using natural gas.*"

7 Similarly, as the SEC Order also found:

8 *At the time of the laboratory experiments with pure methane as a feedstock,  
 9 [the Company's] scientists were working on methods to achieve similar yields  
 10 . . . with natural gas and, while they were optimistic, they had not done so at  
 11 the time [the Company] made the relevant disclosures.*

12 Instead,

13 *[The Company] failed to disclose during the second and third quarters that  
 14 2,3 BDO yields were based upon laboratory experiments using pure methane  
 15 not natural gas as feedstock and that hurdles needed to be overcome to  
 16 increase yields from natural gas [- and that] Yields . . . reported internally  
 17 from laboratory experiments using natural gas as a feedstock continued to  
 18 be substantially lower than those disclosed publicly using pure methane.*

19 [All emphases added.]

20 103. As a result, in addition to the order that Defendants cease-and-desist from  
 21 misleading the public again and the \$2.5 million penalty, the SEC ordered – and Defendants agreed  
 22 – to refrain from arguing “that in any Related Investor Action, [Defendants] shall not argue that  
 23 [they] are entitled to, nor shall [they] benefit by, offset or reduction of any award of compensatory  
 24 damages by the amount of any part of [Defendants’] payment of a civil penalty in this action.”

## 25 V. ADDITIONAL SCIENTER ALLEGATIONS

26 104. In addition to the facts pleaded above (including, in particular, those alleged at  
 27 *supra*, §IV.E), the following additional facts support a strong inference of Defendants’ scienter.

### 28 A. Defendants Walsh and Kirk Closely Monitored the MBP Program and Were Well-Aware that Precigen’s Class Period Statements Concerning the Purported Successes of the Company’s MBP Program Were Materially False and Misleading

105. Throughout the Class Period, as confirmed by multiple CWs, the MBP program’s  
 inability to achieve commercially viable yields using natural gas as a feedstock – as well its

1 inability to ever develop a production technology for any candidate MBP end-product that what  
 2 satisfy the Company’s own internal models for reaching “commercial viability” or “in-the-money”  
 3 status – was well known by Defendants Walsh and Kirk. Similarly, it was well-known by  
 4 Defendant Walsh that the Company had *not* reached “in-the-money” yields (or any other key MBP  
 5 development criteria) using *natural gas*, and that it had instead fraudulently misled investors by  
 6 reporting ostensibly positive and “breakthrough” results based on vastly more “pure methane”  
 7 (rather than cheap natural gas). Moreover, Defendant Kirk’s knowledge or reckless disregard for  
 8 the truth as to the falsity of the Company’s statements that reported results had been achieved with  
 9 pure methane (rather than vastly cheaper natural gas) can be strongly inferred from his self-  
 10 admittedly close relationship and reliance on Defendant Walsh, as well as from Defendant Kirk’s  
 11 reckless failure to confirm the actual truth about the Company’s reporting of results following the  
 12 Company’s receipt of the SEC’s investigative subpoena in October 2018.

13 **1. Defendant Walsh (and His Top Deputy) Oversaw the Company’s MBP**  
 14 **Program and Was Present at Numerous Internal Meetings with**  
 15 **Precigen’s Senior Scientists and Engineers at Which the Failure to**  
 16 **Achieve Commercial Viability Using Natural Gas (as Opposed to Pure**  
 17 **Methane) Was Routinely Discussed**

18 106. As the Company’s Senior Vice President of Energy & Fine Chemicals Platforms,  
 19 Defendant Walsh oversaw and managed the Company’s MBP program from its South San  
 20 Francisco location – where the MBP program was headquartered – from the start of the Class  
 21 Period until he left the Company in November 2019. At all relevant times, Walsh’s top lieutenant,  
 22 the Company’s Vice President of Process Technologies, Yeh, reported directly to Walsh. Yeh also  
 23 worked on-location at the South San Francisco facility until Yeh (like Walsh) also left the  
 24 Company in December 2019. Walsh and his deputy, Yeh, managed (directly or indirectly) all of  
 25 the CWs listed below from the start of the Class Period.

26 *a. Walsh’s Regular Quarterly Briefings on the True State of the MBP Program*

27 107. As both CW7 and CW4 confirmed based on their personal attendance at such  
 28 meetings, the MBP program’s most senior scientists and engineers (which included CW7 and  
 CW4), gave a formal quarterly MBP briefing to Defendant Walsh, which CW4 noted were always

1 held just before Precigen’s regular Board meetings to help prepare Walsh, in turn, for his regular  
2 quarterly briefings to the Board. As CW7 stated, these quarterly meetings did not contain the same  
3 level of granularity as the senior staff’s more frequent weekly “Interdepartmental Meetings” with  
4 Walsh and/or Yeh, but were designed more as high-level updates for Walsh and “other executives”  
5 who also attended those meetings (but who CW7 was uncomfortable identifying).

6 108. As CW7 confirmed, both (a) the serious ongoing scientific challenges facing the  
7 MBP Program, including the ongoing inability to reach desired results using natural gas (as  
8 opposed to pure methane), and (b) the Company’s ongoing failure, based on its own internal  
9 “techno-economic” model, to achieve commercial viability or “in-the-money” status with respect  
10 to *any* of its candidate end-products, were discussed and made clear at these meetings to Defendant  
11 Walsh (and the other attendees) throughout CW7’s tenure (from pre-class period to first quarter of  
12 FY 2018). Similarly, as confirmed by CW4 (who worked at Precigen from before the class period  
13 to first quarter of FY 2019), Walsh was fully briefed at these meetings by the MBP’s senior  
14 managers on the MBP program’s status and ongoing difficulties – and, based on CW4’s personal  
15 knowledge of what Defendant Walsh was told, CW4 characterized Defendant Walsh’s and the  
16 Company’s statements about the MBP program being “in-the-money” as a *farce*.

17 109. CW4 even recalled a specific quarterly meeting in the second half of 2018 where  
18 the misleading content of *the Company’s public statements* was raised, during which Walsh and  
19 Yeh were specifically advised that the positive MBP data being cited in the Company’s public  
20 statements were being taken from *separate* experiments and did *not* reflect results that had been  
21 reached in any one single experiment – which CW4 felt was materially misleading. Although even  
22 Walsh’s lieutenant, Yeh, admitted to CW4 that he understood this, neither Walsh nor Yeh would  
23 discuss this issue further with CW4. Based largely on what CW4 considered to be Walsh and  
24 Yeh’s unethical conduct, by the end of 2018, CW4 decided to leave the Company, and did so in  
25 early 2019.

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1                   b.       *Walsh's Attendance at Regular Interdepartmental Meetings*

2           110.   As CW7, CW4 and CW8 also confirmed based on their personal attendance at such  
3 meetings, the leaders of the MBP program's various departments – including the MBP program's  
4 Senior Director of Engineering, its Associate Director of Metabolic Engineering, and its Associate  
5 Director of Fermentation and Microbial Physiology also met regularly (typically weekly or  
6 biweekly, but not less than monthly) with Defendant Walsh and/or Yeh. Although it appears that  
7 Defendant Walsh attended these meetings less frequently than his lieutenant, Yeh, as CW8 put it,  
8 the purpose of these meetings was for the MBP's senior scientists/department heads to report to  
9 Walsh and Yeh as to their respective department's progress – or lack thereof. Similarly, CW7 and  
10 CW4 confirmed that, during these meetings, the program's senior scientists discussed the status of  
11 their work on the MBP program, including the status of the program relative to Precigen's internal  
12 plans, as well as the continuing scientific and technical challenges facing the program. As CW7  
13 noted, these discussions were at a much more "detail oriented" level than the quarterly meetings,  
14 and permitted the science behind the business objectives to be discussed at greater length (which  
15 may explain why Defendant Walsh did not attend such meetings as often as his lieutenant, Yeh).

16           111.   As CW8 also stated, CW8 and CW7 worked very closely together, and had closely  
17 aligned views regarding the serious issues facing the MBP program and the fact that the MBP's  
18 results had yet to hit commercially viable levels. However, there it was clear that Defendant Walsh  
19 and Yeh were equally closely aligned in rejecting CW7 and CW8's more sober and science-based  
20 assessments of the actual current condition and realistically achievable timetables for the MBP  
21 program. As CW8 put it, CW8 and CW7 on the one hand, and Defendant Walsh and Yeh on the  
22 other, "were like oil and water," and the relationship between these two groups was oftentimes  
23 strained and contentious. However, as CW8 stated, CW7 and CW8 "were not afraid of speaking  
24 truth to power" when communicating with Defendant Walsh (and Yeh) about the seriousness of  
25 the challenges that needed to be overcome. For these and the other reasons summarized above,  
26 CW8 agreed that the Company *knowingly* provided inaccurate public information about the MBP  
27 program.

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1           112. In sum, as CW4, CW7 and CW8 all confirmed, both (a) the serious ongoing  
2 scientific challenges facing the MBP Program, including the ongoing inability to reach desired  
3 results using natural gas (as opposed to pure methane), and (b) the Company’s ongoing failure,  
4 based on its own internal “techno-economic” model, to achieve commercial viability or “in-the-  
5 money” status with respect to *any* of its candidate end-products, were all regularly discussed and  
6 made clear at these meetings – including (as CW8 recalled) through use of PowerPoint  
7 presentations, spreadsheets, and other written materials. Similarly, even though Defendant Walsh  
8 may not have attended every such “Interdepartmental Meeting,” CW8 confirmed that the specific  
9 challenges and problematic outcomes with natural gas were communicated regularly to *both*  
10 Defendant Walsh and Yeh during these regular meetings, and accordingly both were well aware  
11 that Precigen’s efforts in using natural gas as a feedstock had *never* reached the point of  
12 commercial viability. Similarly, as CW7 made clear, given what was communicated to Defendant  
13 Walsh and Yeh at both these regular in-person meetings (as well as the previously referenced  
14 quarterly meetings), Walsh and Yeh were both aware, throughout CW7’s tenure at the Company,  
15 that Precigen’s efforts to use natural gas as a feedstock had not achieved commercial viability.

16           113. Indeed, as CW4 stated, not only were both Defendant Walsh and his deputy (Yeh)  
17 well aware of the facts that rendered the Company’s positive statements about its “in the money”  
18 MBP program materially false and misleading, but effectively *all* of the managers who worked at  
19 the South San Francisco facility were also aware of the program’s shortcomings. Moreover, as  
20 both CW4 and CW5 noted, all data from the Company’s MBP experiments were recorded in the  
21 Company’s LIMS system, and were accessible to anyone working on the MBP program at any  
22 time – which included data as to whether particular milestones had been met. Accordingly, as  
23 CW4 noted, word would spread very quickly throughout the facility when any significant test met,  
24 achieved, or failed to achieve a given benchmark MBP goal (and that Yeh, Walsh’s lieutenant,  
25 would routinely be advised of test results and developments as soon as they became available.

26           114. Similarly, CW3 (who joined Precigen in 2019 as a senior manager after CW4 and  
27 CW7 had resigned, and reported directly to Yeh) confirmed how during the latter part of the Class  
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1 Period CW3 also attended regular meetings where CW3 and other Company engineers discussed  
 2 the status of the MBP program and its ongoing challenges with more senior management –  
 3 including the program’s lack of commercial viability. Accordingly, as CW3 stated, at least Yeh  
 4 (and later Mattana and Witte, who replaced the terminated Yeh and Walsh, respectively, in late  
 5 2019) were “well aware” of the MBP program’s failure to establish commercial viability at any  
 6 time during CW3’s tenure. Although CW3’s tenure overlapped only briefly with Walsh before  
 7 Walsh resigned in November 2019, that Witte (Walsh’s replacement) was “well aware” of the  
 8 MBP’s failure to achieve commercial viability only further confirms that Defendant Walsh (who  
 9 *preceded* Witte) would have been no less aware of this failure throughout his (Walsh’s) own  
 10 tenure.

11 115. Moreover, CW6 recalled that, although the Company’s internal MBP goals were  
 12 set by Defendant Walsh and Yeh – and were often communicated by Walsh to the facility’s  
 13 employees at division-wide meetings<sup>9</sup> – CW6 recalled only one occasion when the Company may  
 14 have met its internal production or yield targets, and further recalled that at one point those targets  
 15 had actually been lowered because even the Company recognized that they had been set too high  
 16 to be attainable. CW6 also confirmed that there was “a lot of breakroom chatter” among the MBP  
 17 scientists at the San Francisco facility that the MBP program would not be commercially viable  
 18 even within the time frames discussed at the division meetings, and that this view was widely  
 19 shared among the facility’s scientists.

20 c. *That the Material Misrepresentations and Omissions at Issue Relate to*  
 21 *Basic Facts Involving the “Core Operations” of the Business that*  
 22 *Defendant Walsh Headed Further Supports a Stronger Inference of Walsh’s*  
 23 *Scienter*

24 116. In addition, Defendant Walsh, as Senior Vice President of Energy and Fine  
 25 Chemical Platforms, was responsible for Precigen’s Energy/Chemicals segment, and the  
 26 Company’s MBP program constituted the core focus of that segment. In fact, on the 1Q 2017

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27  
 28 <sup>9</sup> These appear to be the same as what some other CWs referred to as “town hall” meetings.

1 earnings call, held on May 10, 2017 at the start of the Class Period, Precigen’s CEO, Defendant  
2 Kirk, described the importance of the MBP to the Energy/Chemicals segment (and indeed to the  
3 Company as a whole) by stating: “The results that Bob Walsh disclosed a few minutes ago  
4 *represent the achievement of what I personally believe is probably the most valuable*  
5 *biotechnology in history.*” [Emphasis added.]

6 117. Achieving commercial viability for the use of cheap natural gas (rather than vastly  
7 more expensive pure methane) as the feedstock to create valuable chemical end-products (such as  
8 2,3 BDO, isobutyraldehyde, 1,4 butadienol, and isobutanol) was the *raison d’etre* of the entire  
9 MBP program. Accordingly, whether, *e.g.*, the MBP Program was achieving bioconversion results  
10 based on the use of natural gas or pure methane, and whether the Company’s results *using natural*  
11 *gas* had reached the point of establishing commercial viability under the Company’s own internal  
12 “techno-economic” model, were arguably the two most basic facts that any officer charged with  
13 overseeing the MBP program would be responsible for knowing at all material times during the  
14 Class Period. Similarly, given the key importance and centrality of the MBP program to the  
15 Energy/Chemicals business that Defendant Walsh headed, (even in the absence of any other  
16 scienter allegations) it can be readily and strongly inferred that Defendant Walsh had knowledge  
17 at all material times of the adverse facts and truth that were not disclosed to investors (or had  
18 reckless disregarded for the truth), as alleged herein.

19 **2. Defendant Kirk’s Knowing or Reckless Disregard for the Truth**

20 *a. Defendant Kirk Was Advised by CW4 that the MBP’s Existing Fermenter*  
21 *and Reactor Designs Had Thus Far Failed to Achieve Required Results,*  
22 *and that the Company Should Explore Using Redesigned Reactor Vats and*  
*Fermenters to Try to Obtain Needed Performance Improvements*

23 118. Additionally, CW4 also recalled having a discussion with Defendant Kirk in the  
24 second half of 2018, while Kirk was on one of his occasional visits to the MBP program’s South  
25 San Francisco headquarters, during which CW4 informed Kirk about a building located  
26 immediately adjacent to the MBP’s existing South San Francisco facility which might have the  
27 potential to house a 20,000-liter fermentation vessel. As CW4 explained to Kirk, the rationale for  
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1 looking into this neighboring building was that, in CW4’s opinion, the MBP program needed to  
2 explore different reactor and fermenter designs because the program needed to explore new  
3 approaches in order to try to get better outcomes, and CW4 hoped that a re-designed vat and  
4 fermenter would provide those needed improvements. Kirk’s response was “do it,” meaning that  
5 CW4 should tour and assess the site next door. Shortly thereafter, CW4 did tour the adjacent  
6 building – but Defendant Walsh thereafter told CW4 that because the existing MBP technology  
7 had been unable to perform and achieve all three necessary metrics (yield, productivity, and titer)  
8 at the 500-liter pilot plant level, there was no way that the Company would invest in a 20,000-liter  
9 facility (even one that was going to be used to try out reactor and fermenter designs that were  
10 different from the MBP’s existing 500-liter pilot plant, which had yet to produce satisfactory  
11 results).

12 *b. The Core Operations Doctrine Applies to Kirk*

13 119. Defendant Kirk, as Precigen’s CEO at all material times, was responsible for  
14 overseeing each of Precigen’s core operations. As discussed above, Precigen’s MBP business was  
15 not only a “core operation” of the Company’s Energy and Fine Chemicals unit, but by Defendant  
16 Kirk’s own admission, the MBP business was a “core operation” and *enormously* valuable  
17 component of Precigen’s overall business. In fact, on the 1Q 2017 earnings call, Defendant Kirk  
18 himself described the importance of the MBP program to the Company by stating: “The [MBP]  
19 results that Bob Walsh disclosed a few minutes ago *represent the achievement of what I*  
20 *personally believe is probably the most valuable biotechnology in history.*” [Emphasis added.]

21 120. Achieving commercial viability for the use of cheap natural gas (rather than vastly  
22 more expensive pure methane) as the feedstock to create valuable chemical end-products (such as  
23 2,3 BDO, isobutyraldehyde, 1,4 butadienol, and isobutanol) was the *raison d’etre* of the entire  
24 MBP program. Accordingly, whether, *e.g.*, the MBP Program was achieving bioconversion results  
25 based on the use of natural gas or pure methane, and whether the Company’s results *using natural*  
26 *gas* had reached the point of establishing commercial viability under the Company’s own internal  
27 “techno-economic” model, were arguably the two most basic facts that any officer charged with  
28

1 overseeing the MBP program would be responsible for knowing at all material times during the  
2 Class Period. Similarly, given the key importance and value of the MBP program to Precigen’s  
3 business as a whole – and given the outspoken role that Defendant Kirk played in repeatedly (and  
4 falsely) touting the Company’s purported results in using natural gas and in reaching commercial  
5 viability – it can be readily and strongly inferred that Defendant Kirk had knowledge at all material  
6 times of the adverse facts and truth that were not disclosed to investors – or at least had reckless  
7 disregarded for the truth – as alleged herein.

8 *c. Defendant Kirk’s Failure to Act Promptly in Response to Serious “Red*  
9 *Flag[s]”*

10 121. As the Company itself admitted in a 10-K filing with the SEC on March 2, 2020,  
11 the Company had known since at least October 2018, that it was under investigation by the SEC’s  
12 Division of Enforcement in connection with its public disclosures concerning its MBP program.  
13 Specifically, as that 10-K belatedly admitted:

14 *In October 2018, the Company received a subpoena from the*  
15 *Division of Enforcement of the SEC informing the Company of a non-*  
16 *public, fact-finding investigation concerning the Company’s disclosures*  
17 *regarding its methane bioconversion platform.*

18 122. It is inconceivable that the CEO of a publicly-traded company would not be notified  
19 by company general counsel immediately that such a subpoena had been served on the company  
(or it is at least strongly inferable that the CEO would receive such prompt notification).

20 123. Indeed, as set forth in the version of the SEC ENFORCEMENT MANUAL (dated  
21 November 28, 2017) (“SEC Manual”) that was in effect at the relevant time (available at  
22 <https://www.sec.gov/divisions/enforce/enforcementmanual.pdf>), investigative subpoenas may  
23 only be issued once the SEC has issued a Formal Order of Investigation – and such an Order can  
24 in turn only be issued by the SEC itself or (via authority delegated by the SEC) by the Director of  
25 the SEC’s Division of Enforcement. SEC ENFORCEMENT MANUAL (2017), §2.3.4. Moreover, as  
26 the SEC Manual further states, the primary criteria for whether to escalate an “informal”  
27 investigation (known as a Matter Under Investigation or “MUI”) into a formal investigation  
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1 (through issuance of a Formal Order of Investigation) is whether “the facts suggest a possible  
2 violation of the federal securities laws *involving fraud or other serious misconduct*,” and if so  
3 whether an investment of SEC staff resources is merited by “(a) the magnitude or nature of the  
4 violation, (b) the size of the victim group, [and] (c) the amount of potential or actual losses to  
5 investors,” and, if so, whether the violation is either ongoing or otherwise within the applicable  
6 statute of limitations. *Id.*, §2.3.2.

7 124. Defendant Kirk’s near-certain knowledge of the Company’s receipt in October  
8 2018 of the SEC’s investigative subpoena into *the Company’s* disclosures concerning the MBP  
9 program thus constituted an ominously bright “red flag” that the SEC was already in possession  
10 of information indicating that there was good cause to believe that the Company’s MBP  
11 disclosures were fraudulent and/or otherwise involved serious misconduct. Accordingly, even if  
12 Defendant Kirk did not himself already know that the Company’s statements about the MBP  
13 program were materially false or misleading, Defendant Kirk (and the Company) thereafter acted  
14 at least recklessly in (a) failing to promptly verify the truth with *current* senior MBP scientists and  
15 department heads (and by checking, independently of Defendant Walsh and Yeh, whether the MBP  
16 results actually achieved, as reflected in the LIMS database, satisfied the requirements for  
17 commercial viability under the Company’s internal “techno-economic” model) – or by contacting  
18 highly knowledgeable senior *former* employees, such as CW4, who had already left the Company  
19 in disgust at Walsh’s “unethical” behavior, and who was arguably the single most knowledgeable  
20 person about how the Company’s “techno-economic” model had been put together and whether  
21 its criteria for economic viability had in fact ever been met.

22 125. In addition, by October 2018, it had already been nearly a year and half since  
23 Defendant Kirk himself had announced (in May 2017) that Precigen had retained Moelis & Co to  
24 pursue “strategic . . . options” to allow the Company to either (a) monetize, in whole or in part, the  
25 purportedly huge value of the MBP program’s technological “breakthrough[s]” and its “very much  
26 in-the-money” status, or at least (b) find a strategic partner or other financing sources that could at  
27 least help share the enormous ongoing costs of continued MBP development efforts. For example,  
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1 according to Company SEC filings, in the second quarter ending June 30, 2018, the MBP Program  
2 had negative EBITDA (*i.e.*, losses) of \$7.63 million, and was on track to lose **over \$30 million** for  
3 the year. Moreover, as Defendant Kirk was also undoubtedly aware, by the fall of 2018 the  
4 Company was also rapidly beginning to run out of money, such that – as ultimately happened in  
5 February 2019 – the Company was forced to announce that its year-end financial statements would  
6 require a “going concern” qualification under “black-and-white” accounting rules for determining  
7 whether a company has sufficient capital and cash flow to operate over the next 12 months.

8 126. Accordingly, it may be strongly inferred that by no later than October 2018 – if not  
9 well before – Defendant Kirk would have been highly attuned to the status of any efforts or plans  
10 to monetize the value of MBP or obtain a strategic partner for it on favorable terms. That no such  
11 plans ever materialized was another “red flag” that, but for Defendant Kirk’s knowing or reckless  
12 disregard for the truth, would have alerted Defendant Kirk to the true dismal state of the MBP  
13 program and its lack of commercial viability.

14 *d. Kirk’s Knowing or Reckless Failure to Correct Precigen’s Prior False*  
15 *Statements Following the Company’s Receipt of the SEC Subpoena in*  
16 *October 2018 – While Instead Concealing and Misrepresenting the Actual*  
*Existence of the SEC’s Investigation – Further Support a Strong Inference*  
*of His Scienter*

17 127. As alleged above, both the SEC’s October 2018 subpoena and the Company’s  
18 ongoing inability to attract a desirable strategic partner or buyer for the MBP program by that time  
19 both constituted “red flag[s]” such that, to the extent that Defendant Kirk had not already acquired  
20 actual knowledge or been recklessly indifferent to the true state of Precigen’s touted MBP  
21 program, Kirk’s continued failure to ascertain the truth was plainly at least reckless.

22 128. Further strengthening this already strong inference of scienter is that – instead of  
23 disclosing the existence of the SEC Subpoena (or simply saying nothing about the state of any  
24 pending investigations) – Precigen and Kirk instead chose to materially mislead investors as to the  
25 existence of ongoing SEC Division of Enforcement investigations into the Company’s practices.  
26 Specifically, as stated above, on November 8, 2018, the Company issued a Form 10-Q which (a)  
27 stated that the SEC had **closed** a recent investigation into it, but (b) then proceeded to misleadingly  
28

1 represent that the Company “may” become subject to “other . . . governmental investigations from  
2 time to time in the ordinary course of business” – when in fact Kirk *knew* that the Company had  
3 been served with the SEC Subpoena in connection with a formal SEC investigation into the  
4 Company’s disclosures *about the MBP program*. Such further misleading actions by Kirk and  
5 the Company, and the context in which they were made, further support a strong inference of  
6 Kirk’s scienter.

7       129. Moreover, although the underlying truth about (a) the Company’s prior public  
8 attributions of specific positive MBP results to testing with natural gas (rather than pure methane),  
9 and (b) and the Company’s false claims of having attained “in-the-money” status, were both  
10 demonstrably false – and could be readily determined to be so by (i) talking to the MBP program’s  
11 past or current department heads and senior scientists, (ii) verifying the nature of data (natural-gas  
12 based or methane based) against the Company’s LIMS database, or (iii) running the best available  
13 single process, natural gas-generated yield, titer, and productivity results through the Company’s  
14 “techno-economic” model – at no time during the nearly two-year period from the Company’s  
15 receipt of the SEC Subpoena in October 2018 through the end of the Class Period in September  
16 2020 did Defendant Kirk cause Precigen to correct any of the Company’s prior false and  
17 misleading statements. Defendant Kirk’s (and the Company’s) failure to promptly verify these  
18 statements not only constituted a further actionable harm to Plaintiff and the members of the Class  
19 in violation of §10(b) and Rule 10b-5, but also further supports a strong inference of their scienter.

20 **B. Defendants’ Scienter with Respect to Precigen’s Materially Misleading**  
21 **“Warnings” that an SEC Investigation Was Merely “Possible,” When Such**  
22 **an Investigation Was in Fact Already Underway**

23       130. For the reasons previously summarized above, the inference is compelling that  
24 Defendant Kirk (as well as the Company) *knew* – at the time the Company was “warning” investors  
25 that it was only “possible” that the Company might be subject to future governmental  
26 investigations “from time to time in the ordinary course” – that the Company had recently been  
27 served with an undisclosed SEC Subpoena as part of a formal SEC Investigation Order into the  
28 Company’s MBP disclosures. The obviousness of the risk that the Company’s affirmative legal

1 disclosures of November 2018 and March 2019 would mislead a reasonable investor into believing  
2 that the Company was not aware of *any* ongoing government investigations (let alone a formal  
3 SEC investigation into the veracity of its disclosures about the MBP’s purported “breakthrough”)  
4 further supports a strong inference of Kirk’s (and the Company’s) scienter.

5 **C. Precigen’s Need to (i) Obtain Shareholder Approval of a Merger, (ii) Raise**  
6 **Additional Cash, and (iii) Allow Key “Selling Securityholders” the Ability to**  
7 **Cash Out at Inflated Market Prices Constitute Motive and Opportunity to**  
8 **Commit Fraud that Further Supports a Strong Inference of Fraud as to All**  
9 **Defendants**

10 131. Defendants’ numerous and repeated misstatements directly served Defendants’  
11 financial interests throughout the Class Period.

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

21 133. In each instance, Defendants pursued their transactions *almost immediately* after  
22 issuing materially misleading statements about the Company’s MBP and/or financial condition  
23 that artificially inflated its common stock price, and thereby putting each of the transactions  
24 referenced immediately above on a significantly easier and more favorable path for consummation  
25 on materially more favorable terms than would have been the case had Defendants not misled the  
26 investing public.

27 134. On May 12, 2017, two days after Defendants issued their first misleading  
28 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

1 shareholders of a target biotech company – GenVec, Inc. (“GenVec”) – to approve a merger  
2 proposal in which Precigen would acquire GenVec. The May 12, 2017 Proxy Statement informed  
3 investors that if they approve the merger, each share of GenVec common stock would be converted  
4 into 0.297 shares of Precigen common stock, plus payments stemming from certain milestone and  
5 royalty earnings GenVec may receive. In sum, Precigen issued approximately \$13.4 million worth  
6 of common stock to GenVec shareholders.

7 135. In issuing the May 12, 2017 Proxy Statement, the Company benefited from its  
8 elevated share price because, had the market known the truth about its MBP program and financial  
9 condition, Precigen’s common stock would have traded at a significantly lower price, thus making  
10 it materially less likely that GenVec’s shareholders would approve the merger.

11 136. Shortly after the November 9, 2017 misstatements about Precigen’s MBP, on  
12 January 17, 2018, Precigen issued a Prospectus Supplement on SEC Form 424B5 for a secondary  
13 public offering (the “First SPO”) to register and sell 6,900,000 shares of common stock at a public  
14 offering price of \$12.50 per share. In total, the Company ultimately raised over \$86 million in this  
15 SPO.

16 137. Again, Precigen benefited from an elevated share price. Had the Company fully  
17 disclosed that its MBP program only achieved the stated yields through the utilization of pure  
18 methane – instead of natural gas – as a feedstock, the Company’s common stock would have traded  
19 at a significantly lower price, and materially reduced the amount of money the Company would  
20 have raised in the First SPO.

21 138. Shortly after the March 1 and May 10, 2018 misstatements about the Company’s  
22 MBP program, on June 27, 2018, Precigen issued two more Prospectus Supplements on SEC Form  
23 424B5 for (i) another secondary public offering (the “Second SPO”) of a further 7,479,431 shares  
24 of common stock a price of \$13.37 per share, and (ii) a public offering of \$200 million of 3.50%  
25 senior notes that were convertible into Precigen common stock (the “Convertible Notes Offering”)  
26 whose market value was, in part, based on the value of Precigen’s common stock. In total, the  
27 Company raised \$300 million in the Second SPO.

28

1           139. Once again, Precigen benefited from an elevated share price. Had the Company  
2 fully disclosed the truth about its MBP program, Precigen’s common stock would have traded at  
3 a significantly lower price and reduced the amount of money Precigen raised in the Second SPO,  
4 and Precigen would have been forced to offer the Convertible Notes on less favorable terms (for  
5 example, by having to offer investors a higher rate of interest).

6           140. On November 26, 2018 – just after Defendants’ misleading November 8 statements  
7 that further misrepresented the truth about the MBP program (and falsely downplayed the “risks”  
8 of any government investigations while concealing the existence of the ongoing formal SEC  
9 investigation into Precigen’s prior MBP disclosures), the Company issued a Prospectus  
10 Supplement on SEC Form 424B7 for the sale of 1,933,737 shares of Precigen common stock by a  
11 group of “selling securityholders.” These “selling securityholders” were former large beneficial  
12 owners of T1D Partners, LLC (“T1D Partners”), a joint venture pharmaceutical company that  
13 Precigen had a stake in, and who had received Precigen shares in connection with the completion  
14 of Precigen acquisition of T1D Partners earlier that month. In total, this selling securityholders  
15 offering (the “First SSO”), which was conducted pursuant to the terms of the parties’ acquisition  
16 agreement, raised approximately \$18.2 million for the selling securityholders.

17           141. Again, Defendants benefited from the inflated share price caused by their material  
18 misstatements. Had the market known the truth at the time of the First SSO, Precigen shares would  
19 have traded at a lower price, which in turn would have adversely impacted Defendants’ ability to  
20 negotiate favorable terms for the T1D Partners acquisition – for example, by requiring Precigen to  
21 issue additional shares to the selling securityholders.

22           142. On April 12, 2019 – only weeks after Defendants issued their materially false and  
23 misleading March 1, 2019 statements, the Company issued a Prospectus Supplement on SEC Form  
24 424B7 for the sale of 20,640,119 shares of Precigen common stock by another “selling  
25 securityholder.” This “selling securityholder” was the former owner of Ziopharm Oncology, Inc.  
26 (“Ziopharm”), a pharmaceutical company that Precigen had acquired on December 28, 2018. In  
27 total, this second selling securityholder offering (the “Second SSO”), conducted pursuant to  
28

1 Precigen’s securities purchase agreement with the selling securityholder, raised approximately  
2 \$105 million for the selling securityholder.

3 143. Once again, the Company benefited from an elevated share price caused by  
4 Defendants’ repeated misstatements. Had the full truth about the MBP program and the SEC  
5 investigation been known at the time of the Second SSO, Precigen’s shares would have traded at  
6 a lower price, which in turn would have adversely impacted the Company’s ability to acquire  
7 Ziopharm on favorable terms – for example, by requiring Precigen to issue additional shares to the  
8 selling securityholder – and would have made the acquisition more difficult.

9 **VI. DEFENDANTS’ MATERIALLY FALSE**  
10 **AND MISLEADING STATEMENTS**

11 144. Throughout the Class Period, in numerous SEC filings and public statements,  
12 Defendants issued materially false and misleading statements about the status and results of the  
13 Company’s MBP program. Most notably, Defendants falsely (and repeatedly) represented that the  
14 Company’s MBP program had (a) achieved certain high yields using natural gas as the feedstock  
15 (when in fact those results had only been achieved using pure methane) and (b) reached “in the  
16 money” status, *i.e.*, demonstrated commercial viability, with respect to various end-products (when  
17 in fact the MBP program had *never* attained commercial viability under the Company’s own  
18 “techno-economic” model with respect to *any* desired end-product). Beginning in November  
19 2018, Defendants also (c) materially misled investors by representing only that the Company  
20 *might* become the subject of future governmental investigations “from time to time” and in the  
21 “ordinary course of business” (when in fact the Company was already the subject of a formal SEC  
22 investigation into its prior false disclosures about its MBP program). Defendants’ actionably false  
23 or misleading Class Period statements are separately enumerated below.

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

25 145. After the market closed on May 10, 2017, Defendants issued a press release and  
26 accompanying slideshow as part of the Company’s SEC Form 8-K disclosing its 1Q 2017 earnings,  
27 signed by the Company’s Chief Financial Officer (“CFO”), Rick L. Sterling (“Sterling”). That  
28

1 same day, the Company also conducted an earnings call with analysts, during which Defendants  
 2 purported to disclose certain “breakthrough” MBP developments.

3 146. According to the press release, for two products that represented “multi-billion  
 4 dollar” opportunities – isobutyraldehyde and 2,3 BDO – the MBP program, using “*natural gas*”  
 5 as the feedstock, had achieved sufficient “yields” to reach “in the money” status, *i.e.*, to be  
 6 produced at a profit. As the release stated:

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

18 [Emphasis added.]

19 147. The slideshow (*see* slide immediately below) similarly represented that Precigen’s  
 20 (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.**

 <p>High Capex &amp; High Opex</p>		
Gas-to-liquids conversion currently relies on costly, energy-intensive processes	Oil supplies destined for depletion Negative eco-impact from gas flaring	Need for cleaner burning fuels in automotive and other industries

22

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1 148. The slideshow (*see* slide immediately below) also emphasized the massive, \$100  
 2 billion+ size of the TAM for the four molecules (including isobutyraldehyde and 2,3 BDO) that  
 3 the Company had under actively development:

*Industrial Products Division*

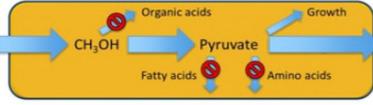
## Significant Gas-to-Liquids Opportunity through MBP

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.**

Natural Gas Feedstock



Intrexon's Engineered Methanotrophs



**Chemicals achieved:**

- 2,3 Butanediol\*
- Isobutyraldehyde\*
- 1,4 Butanediol\*
- Isoprene

**Fuels achieved:**

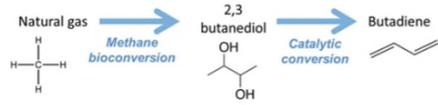
- Isobutanol\*
- Farnesene

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16 149. Similarly, the slideshow noted that the TAM for the butadiene (or “BDO”) market  
 17 alone was \$22 billion:

## 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.

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26 SOURCE: ICIS, IHS reports

1           150. On the earnings call with analysts held later that day, Defendants repeated many of  
2 the same misstatements, with Defendant Walsh stating:

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

8 [Emphasis added.]

9           151. Similarly, on the same call, Defendant Kirk declared that “now that [Walsh’s] team  
10 has taken us into such a high-yielding territory on 2,3-BDO and on the precursor to MMA  
11 [isobutyraldehyde], we’re going to take a moment to talk with other – talk with people in the  
12 industry and take the advice of Moelis & Company.”

13           152. The foregoing statements in ¶¶146-147, 150-151 were materially false and  
14 misleading because, at the time they were made:

- 15           (a) the feedstock with which the Company had achieved its supposed MBP  
16 success was ***pure methane***, not ***natural gas***;
- 17           (b) the Company had ***not*** achieved the stated yields in its MBP products with  
18 ***natural gas*** as the feedstock;
- 19           (c) due to the cost differences between natural gas and pure methane,  
20 Defendants’ claims about the commercial viability – *i.e.*, the “in the money”  
21 characterization – of the MBP program were not true; and
- 22           (d) the Defendants’ claims of having developed a commercially viable MBP  
23 program were also materially false or misleading because the Company had  
24 also not been able to develop a single production method that would  
25 generate a potentially profitable outcome across each of its three key metrics  
26 (yield, productivity, and titer) under the Company’s own “techno-  
27 economic” models for assessing commercial viability.  
28

1 **B. June 20, 2017 Presentation at the JMP Securities Life Science Conference**

2 153. On June 20, 2017, at the JMP Securities Life Science Conference, the Company's  
 3 COO, Andrew J. Last ("Last"), repeated the Defendants' May 10, 2017 misstatements and added  
 4 that the Company had achieved "*a very breakthrough platform.*" These statements reinforced the  
 5 prior misstatements and analyst commentary that the Company had successfully developed two  
 6 molecules and had a platform that was "in the money." As Last stated:

7 Now focusing on energy, and in this particular, petrochemical industry. [*The*  
 8 *Company*] *has spent a lot of time investing in a very breakthrough platform*  
 9 *based on a bacteria – methanotroph bacteria platform.* The situation with the  
 10 petroleum industry is very obvious. It's very significant, whether it be the eco  
 11 impact, the sustainability of using petrochemicals, the high costs of converting  
 12 gas to liquid products, high-value molecules that are used in other industry  
 13 segments.

14 *So we've had significant success in developing this methanotroph*  
 15 *platform to take fundamentally the cheapest source of carbon on the planet,*  
 16 *natural gas, which is 98% methane roughly, through different engineering*  
 17 *approaches of the bacteria to produce high-value molecules.* And to date,  
 18 we've been able to achieve 6 different high-value molecules from this platform.  
 19 And the addressable market just for these 6 molecules that we have worked on  
 20 so far is in excess of \$100 billion.

21 So we're active. We have engaged Moelis to act as strategic advisers  
 22 with us on these two molecules *as we work through the best approach to*  
 23 *maximize the value of these breakthroughs.*

24 [Emphasis added.]

25 154. The foregoing statements in ¶153 were materially false and misleading because, at  
 26 the time they were made:

27 (a) the feedstock with which the Company had achieved its supposed MBP success  
 28 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; and

1 (d) the Defendants’ claims of having developed a commercially viable MBP  
2 program were also materially false or misleading because the Company had also  
3 not been able to develop a single production method that would generate a  
4 potentially profitable outcome across each of its three key metrics (yield,  
5 productivity, and titer) under the Company’s own techno-economic models for  
6 assessing commercial viability.

7 **C. August 9, 2017 Press Release, Slideshow, and Earnings Call**

8 155. On August 9, 2017, Defendants announced the Company’s 2Q 2017 earnings after  
9 the market closed, repeating the news about the Company’s MBP program in a press release and  
10 slideshow attached to that day’s Form 8-K, signed by the Company’s CFO, Sterling.

11 156. Specifically, the press release, stated that:

12 *After attaining commercially relevant yields on two high-value industrial*  
13 *molecules, isobutyraldehyde [sic] and 2,3 butanediol (2,3 BDO), [the*  
14 *Company] retained Moelis & Company to advise on strategic and financial*  
*options, later converting the assignment to a transactional objective.*

15 [Emphasis added.]

16 157. The August 9, 2017 slideshow included almost identical slides as the May 10, 2017  
17 slideshow. First, the slideshow repeated that “Intrexon has developed disruptive MBP technology  
18 that enables the profitable use of low cost natural gas to replace oil as the feedstock for several  
19 high value industrial products”:

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## 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.

High Capex & High Opex

Gas-to-liquids conversion currently relies on costly, energy-intensive processes

Oil supplies destined for depletion  
Negative eco-impact from gas flaring

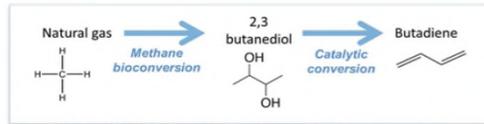
Need for cleaner burning fuels in automotive and other industries

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158. Next, the slideshow repeated the “Significant Gas-to-Liquids Opportunity through MBP” (see slide after ¶148).

159. Then the slideshow touted 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” [emphasis added], as well as the Company’s anticipated “site selection” by the end of 2017:

## 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 small-scale facility by year end and subsequently initiating design of plant with projected ground breaking in 2018

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15

12 160. Additionally, on the call with analysts held later that day, Defendant Kirk reiterated  
13 the Company's supposed success in developing 2,3-BDO and isobutyraldehyde to commercially  
14 viable, "in-the-money" levels. As Kirk stated:

15 [A]s we reported at our – on our last call, ***we are very much in the money,***  
16 ***commercial – with commercially significant yields, on 2 very significant***  
17 ***multibillion-dollar molecules.*** And this led us to hire – we've named the  
banker, I think, publicly, right. So we have Moelis & Company.

18 [Emphasis added.]

19 161. On the same call, Precigen's COO, Andrew J. Last, similarly reiterated to investors  
20 and analysts that:

21 As discussed on our last conference call, ***our yields on 2,3-BDO and***  
22 ***isobutyraldehyde place these valuable unpartnered chemicals in the money***  
23 ***based on the current natural gas prices.*** This achievement led [the Company]  
24 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.

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

[Emphasis added.]

1           162. The foregoing statements in ¶¶156-157, 159-161 were materially false and  
2 misleading because, at the time they were made:

- 3           (a) the feedstock with which the Company had achieved its supposed MBP  
4 success was *pure methane*, not *natural gas*;
- 5           (b) the Company had *not* achieved the stated yields in its MBP products with  
6 *natural gas* as the feedstock;
- 7           (c) due to the cost differences between natural gas and pure methane,  
8 Defendants’ claims about the commercial viability – *i.e.*, the “in the money”  
9 characterization – of the MBP program were not true; and
- 10          (d) the Defendants’ claims of having developed a commercially viable MBP  
11 program were also materially false or misleading because the Company had  
12 also not been able to develop a single production method that would  
13 generate a potentially profitable outcome across each of its three key metrics  
14 (yield, productivity, and titer) under the Company’s own “techno-  
15 economic” models for assessing commercial viability.

16 **D. November 9, 2017 Press Release, Slideshow, and Earnings Call**

17           163. In reporting the Company’s 3Q 2017 earnings on November 9, 2017, Defendants  
18 again touted the Company’s supposed MBP program success in a press release and accompanying  
19 slideshow attached to Form 8-K, signed by the Company’s CFO, Sterling.

20           164. In the press release, Defendants claimed further yield increases in both 2,3 BDO  
21 and isobutanol, the product at the center of the break-up of the partnership with Dominion.  
22 Previously, the Company had only touted its 2,3 BDO and isobutyraldehyde success. As the  
23 November 9, 2017 release stated:

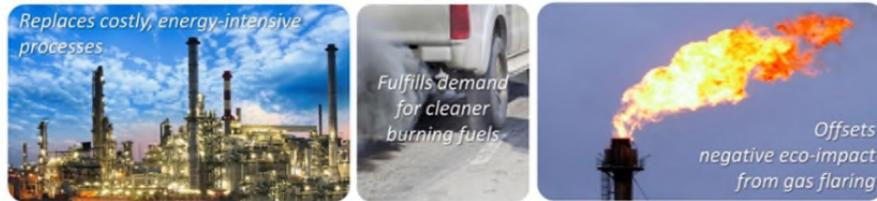
24           ***[The Company’s] proprietary methanotroph bioconversion platform***  
25           ***continued to increase yield across multiple products including 2,3 butanediol,***  
26           ***which increased approximately 15% during the quarter, and isobutanol,***  
27           ***which increased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

28 [Emphasis added.]

1           165. The slideshow (*see* slide immediately below) also reiterated the highly lucrative,  
2 \$100 billion+ TAM that the Company was targeting, and the fact that it had attained  
3 “[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 attained
- Moelis & Co engaged to advise on strategic/financial options for MBP and its products

20

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16           166. In the next slide, Defendants also provided a “Progress Update” on both 2,3 BDO  
17 – including a further 15% yield increase and site selection underway – and, on isobutanol, as to  
18 which the Company simply wrote “Increased yield by 78% during 3Q.”

## 2,3 Butanediol (BDO) and Isobutanol Progress Update



Market Size: c.\$22bn

*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



Market Size: c.\$80bn

### Isobutanol

- Increased yield by 78% during 3Q

21 ICIS, HIS Reports

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167. In addition, on the subsequent analyst call held later that day, Defendant Kirk reiterated the purported profitability that the Company had allegedly shown with respect to its 2,3 BDO technology, with Defendant Kirk representing that “we’re *very much in the money* on 2,3-BDO.” Indeed, according to Defendant Kirk, the issue with the Company’s 2,3 BDO technology was not any lack of profitability, but whether the Company should delay making a commitment to the current “in-the-money” production process because the Company purportedly believed that it was still at only “60% of where we think we can go,” and the Company could not yet be certain what precise type of plant design would produce optimal results – a situation that Kirk described as having “personally . . . frustrated” him because he was “thrilled to be so far in the money” already while also believing that that this already profitably technology could still reach a targeted yield that would be even higher. Below is the full Q-and-A:

**[Q:]** The 2,3-BDO comment about 60% of target yield, is that the same as in-the-money? Or why are those numbers not the same, the target yield and the in-the-money yield?

1 [A:] Yes. That was the point I was just trying – Tom, R.J. here, I was try to  
 2 get to with Tycho. So we’re very much in the money on 2,3-BDO, right? But  
 3 we’re at 60% of where we think we can go. I personally have been frustrated  
 4 by this because I’m thrilled to be so far in the money, so I go to Bob Walsh.  
 5 And I say, “Bob, let’s go build this plant, let’s get going.” And he says, “How  
 6 much water do you want to boil?” Right? It’s ridiculous. If we continue to  
 7 improve the strain on the path we’re on, he explains to me, right, then we’ll  
 8 find that that’s not the plant we want. We’ll want another plant. So the  
 9 genomic engineering is actually a lot less expensive than building a lot of  
 10 hardware. And I think he’s right, especially given the progress they’re making.  
 11 They’re proving to us that he was right, okay? So when we say 60% of target  
 12 yield, that means that was the yield that was predicted by our model, which has  
 13 been holding up quite well. So look, we have a lot of computational biology.  
 14 You’ve been to our lab in South San Francisco, I think. You know, we have a  
 15 lot of computational biology and bioinformaticians there. The models that  
 16 they’ve constructed have been holding up quite well, as I said, and so we have  
 17 a lot of – we attach a lot of credibility to their work. And so we’re going to  
 18 continue to improve this yield while we talk with partners – potential partners,  
 19 on 2,3-BDO and on isobutyraldehyde. So did that answer your question?

20 168. The foregoing statements in ¶¶164-167 were materially false and misleading  
 21 because, at the time they were made:

- 22 (a) the feedstock with which the Company had achieved its supposed MBP  
 23 success was *pure methane*, not *natural gas*;
- 24 (b) the Company had *not* achieved the stated yields in its MBP products with  
 25 *natural gas* as the feedstock;
- 26 (c) due to the cost differences between natural gas and pure methane,  
 27 Defendants’ claims about the commercial viability – *i.e.*, the “in the money”  
 28 characterization – of the MBP program were not true; and
- (d) the Defendants’ claims of having developed a commercially viable MBP  
 program were also materially false or misleading because the Company had  
 also not 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.

1 **E. May 10, 2018 Press Release, Slideshow, and Earnings Call**

2 169. On May 10, 2018, the Company reported its first quarter of FY 2018 earnings and  
3 performance in both a press release and slideshow attached to its Form 8-K, signed by the  
4 Company's CFO, Sterling.

5 170. The May 10, 2018 press release reported another success with yet another product,  
6 1,3 butadiene (which is developed from 2,3 BDO), as well as updates about further improvements  
7 in 2,3 BDO and isobutanol yields.

8 *[The Company's] Energy team demonstrated successful third party catalytic*  
9 *conversion of 2,3 BDO to 1,3 butadiene. The conversion efficiency exceeded*  
10 *both the Company's financial model and synthetic rubber industry product*  
11 *quality expectations.*

12 \* \* \*

13 *2,3 BDO yields are up 25% since last reported* and the rate of yield  
14 improvement is in line with [the Company's] expectations and supports the  
15 Company's plans to break ground on a 40,000 ton/year facility by year end;

16 *Isobutanol yields are again improving and are up about 40% since last*  
17 *reported.* This return to yield improvements for isobutanol was the result of  
18 the re-design of a promiscuous enzyme that was degrading product and making  
19 further optimization of the production pathway challenging;

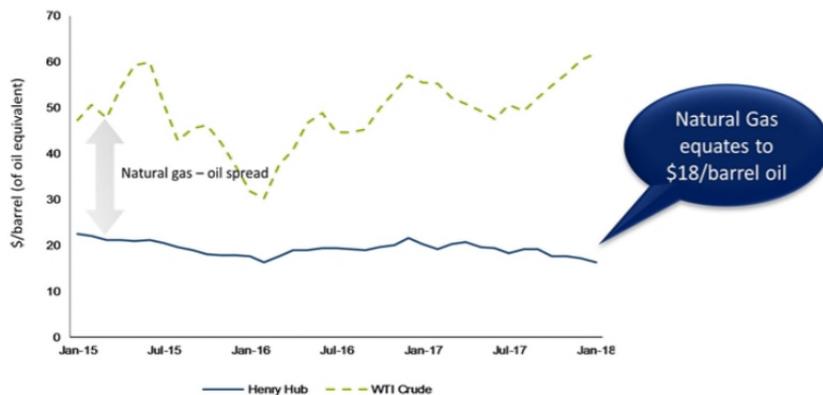
20 Partnering activity concerning Intrexon's methane bioconversion platform is  
21 robust with multiple parties engaged. Potential partners include both strategic  
22 and financial companies[.]

23 [Emphasis added.]

24 171. The May 2018 slideshow (*see* slide immediately below) also further reinforced the  
25 Company's prior statements emphasizing how the Company's MBP work had been and continued  
26 to be geared to using cheap natural gas (and not expensive pure methane) as the feedstock in the  
27 commercial production of all of its proposed end-products:  
28

## 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



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172. On the analyst call held later that day, Thomas E. Shrader, the Company’s Vice President of Communications & Strategy, also reiterated Defendants’ misstatements that the Company had reached commercial viability with respect to both 2,3 BDO and isobutanol, while having also made further significant improvements in previously reported 2,3 BDO yields:

[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.]

173. The foregoing statements in ¶¶170, 172 were materially false and misleading because, at the time they were made:

- (a) the feedstock with which the Company had achieved its supposed MBP success was ***pure methane***, not ***natural gas***;

- 1 (b) the Company had *not* achieved the stated yields in its MBP products with  
2 *natural gas* as the feedstock;
- 3 (c) due to the cost differences between natural gas and pure methane,  
4 Defendants’ claims about the commercial viability – *i.e.*, the “in the money”  
5 characterization – of the MBP program were not true; and
- 6 (d) the Defendants’ claims of having developed a commercially viable MBP  
7 program were also materially false or misleading because the Company had  
8 also not been able to develop a single production method that would  
9 generate a potentially profitable outcome across each of its three key metrics  
10 (yield, productivity, and titer) under the Company’s own “techno-  
11 economic” models for assessing commercial viability.

12 **F. August 9, 2018 Press Release, Slideshow, and Earnings Call**

13 174. On August 9, 2018, the Company released its 2Q 2018 results in a press release and  
14 slideshow attached to a Form 8-K, signed by the Company’s CFO, Sterling.

15 175. The press release repeated a number of familiar themes:

16 **2,3, BDO yields are up 22% since last reported** and continue to support the  
17 Company’s stated plan to break ground on a 40,000 ton/year plant by year end;

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

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

[Emphasis added.]

22 176. Likewise, the slideshow (*see* slide immediately below) again emphasized the  
23 materiality of the enormous market size (TAM) of the end-products that the Company’s MBP  
24 program targeted:

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## 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 applications for butylene.

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177. Further, on the earnings call held later that same day, Defendant Walsh also 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 Defendant 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. . . . As we mentioned on our last call, we successfully converted 2,3-BDO into on specification 1,2-butadiene [sic<sup>10</sup>], 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.*

[Emphasis added.]

178. The foregoing statements in ¶¶175, 177 were materially false and misleading because, at the time they were made:

<sup>10</sup> Defendant Walsh incorrectly refers to 1,3 butadiene here as 1,2 butadiene.

- 1 (a) the feedstock with which the Company had achieved its supposed MBP
- 2 success 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,
- 6 Defendants' claims about the commercial viability – *i.e.*, the “in the money”
- 7 characterization – 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
- 10 also not been able to develop a single production method that would
- 11 generate a potentially profitable outcome across each of its three key metrics
- 12 (yield, productivity, and titer) under the Company's own “techno-
- 13 economic” models for assessing commercial viability.

14 **G. November 8, 2018 Press Release, Slideshow, Earnings Call, and Form 10-Q**

15 179. On November 8, 2018, the Company released its 3Q 2018 results on Form 8-K in

16 a press release and slideshow, held an earnings call, and released a Form 10-Q.

17 180. In the press release, signed by the Company's CFO, Sterling, Defendants again

18 praised their ability to successfully produce 2,3 BDO utilizing natural gas as a feedstock. As the

19 release stated:

20 [The Company] continues discussions with several major energy companies

21 concerning partnering of its Methane Bioconversion Platform;

22 Site selection on [the Company's] first 2,3 BDO plant is on track for year end;

23 \* \* \*

24 From [the Company's] methane bioconversion platform, *the Company now is*

25 *producing 2,3, BDO from natural gas at roughly 50% of the theoretical target*

26 *yield*, has demonstrated performance at 500X scale-up and has conducted

sustained production runs exceeding 1,000 hours[.]

27 [Emphasis added.]

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1 181. On the earnings call later that day, Defendant Walsh further highlighted the  
2 Company's 2,3 BDO success. As Walsh stated:

3 Now I'd like to provide an update on our Methane Bioconversion Platform and  
4 pick our progress against several key objectives. *First, in our lead program,*  
5 *2,3-BDO, we are now producing BDO from natural gas and roughly 50% of*  
6 *the theoretical final target yield for our commercial scale facility and well*  
7 *above our target yield to select the site and break ground for a 40,000-ton,*  
8 *2,3-BDO capacity, small-scale commercial plant.* This would result in  
approximately 26,000 tons of the final product after the catalytic step to  
produce butadiene.

8 [Emphasis added.]

9 182. Later, that same day, Defendants filed with the SEC the Company's Form 10-Q for  
10 3Q 2018. That Form 10-Q, while discussing a previously concluded SEC investigation, for the  
11 first time, also warned of the *possibility* of future SEC investigations. As the Form 10-Q, signed  
12 by Defendant Kirk, stated:

13 In September 2018, the Division of Enforcement informed the Company that it  
14 had concluded its investigation of these matters and that the Division of  
15 Enforcement does not intend to recommend enforcement action against the  
16 Company based on the investigation.

17 *The Company may become subject to other claims, assessments and*  
18 *governmental investigations from time to time in the ordinary course of*  
19 *business.* Such matters are subject to many uncertainties and outcomes are not  
predictable with assurance. The Company accrues liabilities for such matters  
when it is probable that future expenditures will be made and such expenditures  
can be reasonably estimated.

19 [Emphasis added.]

20 183. The foregoing statements in ¶¶180-181 were materially false and misleading  
21 because, at the time they were made:

- 22 (a) the feedstock with which the Company had achieved its supposed MBP  
23 success was *pure methane*, not *natural gas*;
- 24 (b) the Company had *not* achieved the stated yields in its MBP products with  
25 *natural gas* as the feedstock;
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1 (c) due to the cost differences between natural gas and pure methane,  
 2 Defendants' claims about the commercial viability – *i.e.*, the “in the money”  
 3 characterization – of the MBP program were not true; and

4 (d) the Defendants' claims of having developed a commercially viable MBP  
 5 program were also materially false or misleading because the Company had  
 6 also not been able to develop a single production method that would  
 7 generate a potentially profitable outcome across each of its three key metrics  
 8 (yield, productivity, and titer) under the Company's own “techno-  
 9 economic” models for assessing commercial viability.

10 Moreover, the statements in ¶182 were materially false and misleading because they  
 11 misrepresented that the Company merely faced a “risk” of possible government investigations in  
 12 the future, when in fact, the Company was *already* under investigation by the SEC concerning  
 13 Defendants' inadequate disclosures regarding its MBP program.

14 **H. March 1, 2019 Form 10-K**

15 184. The Company's 2018 Form 10-K, like its prior November 2018 10-Q, represented  
 16 as follows:

17 In December 2016, XY filed a complaint for patent infringement and  
 18 trade secret misappropriation against Trans Ova in the District Court of Waco,  
 Texas. . . .

19 *We may become subject to other claims, assessments and*  
 20 *governmental investigations from time to time in the ordinary course of*  
 21 *business.* Such matters are subject to many uncertainties and outcomes are not  
 22 predictable with assurance. We accrue liabilities for such matters when it is  
 23 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.

24 [Emphasis added.]

25 185. The foregoing statements in ¶184 were materially false and misleading because, at  
 26 the time they were made, they represented that the Company merely faced a “risk” of possible  
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1 government investigations in the future, when in fact, the Company was *already* under  
2 investigation by the SEC over Defendants' inaccurate disclosures about its MBP program.

3 186. In addition, the Company, as well as Defendant Kirk throughout his tenure with the  
4 Company, had a continuing duty under §10(b) of the Exchange Act to correct any prior historical  
5 statements, believed by the Company or Kirk to be true at the time, once such prior statements  
6 were later determined to have been materially false or misleading when made. As alleged herein,  
7 although all Defendants are alleged to have acted knowingly or with reckless disregard for the  
8 truth at the time the actionable statements herein were made, to the extent that the Company or  
9 Defendant Kirk is ultimately found to have acquired knowledge of any given statement's false or  
10 misleading nature only at a later date within the Class Period, each such Defendant is liable for  
11 having failed to promptly correct such statements upon learning that they were actionably false or  
12 misleading.

13 **VII. THE DEFENDANTS' LIABILITY FOR MAKING AND/OR**  
14 **CREATING THE COMPANY'S MATERIALLY FALSE AND**  
15 **MISLEADING STATEMENTS AND RELATED CULPABILITY**  
16 **IN CONNECTION WITH THE FRAUD**

17 187. Both Individual Defendants named are liable as makers, or co-makers, of each of  
18 the written statements alleged herein to be materially false or misleading.

19 188. As the Company's CEO, Defendant Kirk had sufficient authority over the content  
20 and manner of dissemination of each of the written statements at issue to be deemed to have made  
21 the statement, including but not limited to with respect to the contents of the Company's periodic  
22 10-K and 10-Q filings, as well as the Company's quarterly earnings releases and accompanying  
23 slideshow materials that were publicly disseminated to analysts and investors via public newswire  
24 services and publicly accessible filings with the SEC on Form 8-K.

25 189. Defendant Walsh, the Company's Senior Vice President of Energy & Fine  
26 Chemical Platforms, also had sufficient authority over the content and manner of dissemination of  
27 each of the written statements at issue to be deemed to have made the statement, including but not  
28 limited to with respect to the contents of the Company's periodic 10-K and 10-Q filings, as well

1 the Company's quarterly earnings releases and accompanying slideshow materials that were  
2 publicly disseminated to analysts and investors via public newswire services and publicly  
3 accessible filings with the SEC on Form 8-K, insofar as they related to any discussion of the MBP  
4 program. In particular, as the Company's most senior officer (other than Defendant Kirk, who  
5 was the CEO of the entire Company) with respect to the management, supervision, and operations  
6 of the MBP program, Defendant Walsh was responsible for providing and approving the  
7 substantive content that was contained in the Company's written press releases, slideshow  
8 presentations, and SEC filings, regardless of whether Defendant Walsh was listed as an author or  
9 co-author of such documents or as a signer or co-signer of relevant SEC filings.

10 190. Similarly, with respect to any false and/or misleading oral statements alleged herein  
11 that were uttered by other senior officers of the Company on quarterly analyst calls or investment  
12 conferences, Defendant Walsh should also be deemed to be a co-maker of such statements to the  
13 extent that they related to the MBP program. More particularly, the substance of such oral  
14 statements was made based on pre-prepared talking points or scripts (if not read directly from such  
15 talking points or scripts) that, with respect the MBP program, were provided and approved by  
16 Defendant Walsh.

17 191. Defendant Walsh's responsibility and authority over the Company's statements  
18 regarding the MBP is further confirmed by, *inter alia*, the evidence that Defendant Kirk consulted  
19 closely with Walsh on all matters relating to the MBP program. For example, as Defendant Kirk  
20 stated on August 9, 2016 during a pre-Class Period call to discuss the Company's second quarter  
21 of FY 2016 earnings with analysts, Kirk stated "I spend a lot of time with Bob Walsh, who [is]  
22 Head of our Energy Sector. We think that this is probably our largest single team deployed to one  
23 single object in the entire Company." On the later 2Q 2017 earnings call, on August 9, 2017, Kirk  
24 similarly identified Defendant Walsh as the source of the MBP information that the Company and  
25 its senior officers presented to the market. *See, e.g.*, Kirk's comment that, "I have to tell you, when  
26 Bob Walsh and his team produced the data, they've showed us that we really have a technical  
27 success . . . on 2 of these significant molecules." And during the Company's fourth quarter of FY  
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1 2017 earnings call, held March 1, 2018, Defendant Kirk similarly identified Defendant Walsh as  
2 the person that the Company’s most senior officers looked to for substantive content regarding the  
3 status of the MBP program’s efforts to achieve commercially viable, in-the-money results. *See,*  
4 *e.g.,* Kirk’s comment that “[w]e press Bob all the time for – to tell us that we are solidly in the  
5 money in isobutanol.” Accordingly – and including without limitation, the press releases and  
6 slideshows that were nominally filed with the SEC and signed only by Company CFO Sterling –  
7 Defendant Walsh (as well as Defendant Kirk) were also co-makers of such statements insofar as  
8 they relate to the MBP program.

9 192. Moreover, Defendant Walsh was given the responsibility for briefing the  
10 Company’s Board (chaired by Defendant Kirk) on such matters, confirming his central role (with  
11 Kirk) in providing and approving the substantive content of, if not also the precise wording of, all  
12 of the Company’s public statements concerning the MBP program that are alleged herein to be  
13 materially false or misleading.

14 193. In addition, and even to the extent that Defendant Walsh is deemed not to have been  
15 a “maker” of one or more of the Company’s actionable statements at issue regarding the MBP  
16 program, Defendant Walsh is nonetheless liable and responsible for them, pursuant to §10(b) of  
17 the Exchange Act and SEC Rule 10b-5(a) promulgated thereunder, 17 C.F.R. §240.10b-5(a),  
18 which makes it unlawful “to employ any device, scheme, or artifice to defraud.” Here, Defendant  
19 Walsh’s actions in providing, reviewing, and approving the content of the Company’s public  
20 statements at issue, with scienter as alleged herein, constituted unlawful and actionable  
21 employment of “device[s], scheme[s], or artifice[s] to defraud” within the meaning of Rule 10b-  
22 5(a).

23 194. In addition, and even to the extent that Defendant Walsh is deemed not to have been  
24 a “maker” of one or more of the Company’s actionable statements at issue regarding the MBP  
25 program, Defendant Walsh is nonetheless liable and responsible for them, pursuant to §10(b) of  
26 the Exchange Act and SEC Rule 10b-5(c) promulgated thereunder, 17 C.F.R. §240.10b-5(c),  
27 which makes it unlawful “to engage in any act, practice, or course of business which operates or  
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1 would operate as a fraud or deceit . . . in connection with the purchase or sale of any security.”  
2 Here, Defendant Walsh’s actions in providing, reviewing, and approving the content of the  
3 Company’s public statements at issue, with scienter as alleged herein, constituted unlawful and  
4 actionable engagement in “act[s], practice[s], or [a] course of business which operates or would  
5 operate as a fraud or deceit . . . in connection with the purchase or sale of any security” within the  
6 meaning of Rule 10b-5(c).

7 195. Similarly, and even to the extent that Defendant Kirk is deemed not to have been a  
8 “maker” of one or more of the Company’s actionable statements at issue regarding the MBP  
9 program, Defendant Kirk is nonetheless liable and responsible for them, pursuant to §10(b) of the  
10 Exchange Act and SEC Rule 10b-5(a) and (c) promulgated thereunder.

### 11 VIII. LOSS CAUSATION

12 196. Defendants’ wrongful conduct, as alleged herein, directly and proximately caused  
13 the economic losses suffered by Plaintiff and members of the Class (defined herein). During the  
14 Class Period, Plaintiff and Class members purchased Precigen common stock at artificially inflated  
15 prices caused by Defendants’ misconduct. The price of the Company’s common stock declined  
16 significantly when the substantial problems and risks misrepresented and concealed by Defendants  
17 were disclosed and Defendants’ material misrepresentations and omissions were revealed to the  
18 market, causing investors’ losses.

19 197. Throughout the Class Period, investors had been unaware of the following material  
20 facts about Precigen that were known to Defendants throughout the Class Period:

- 21 (a) the feedstock with which the Company had achieved its supposed MBP  
22 success was *pure methane*, not *natural gas*;
- 23 (b) the Company had *not* achieved the stated yields in its MBP products with  
24 *natural gas* as the feedstock;
- 25 (c) due to the cost differences between natural gas and pure methane,  
26 Defendants’ claims about the commercial viability – *i.e.*, the “in the money”  
27 characterization – of the MBP program were not true;

1 (d) the Defendants' claims of having developed a commercially viable MBP  
2 program were also untrue because the Company had never been able to  
3 develop a single production method that would generate a potentially  
4 profitable outcome across each of its three key metrics (yield, productivity,  
5 and titer) under the Company's own "techno-economic" models for  
6 assessing commercial viability; and

7 (e) the Company was under investigation by the SEC over Defendants'  
8 disclosures about the MBP program.

9 Following the multiple disclosures (discussed *supra*, §IV.F) leading up to the revelation of the full  
10 truth, the market reacted negatively. As a result, Precigen's common stock dropped from \$23.62  
11 per share at the close of the market on May 11, 2017, to \$3.58 at the close of the market on  
12 September 25, 2020, a drop of approximately 85%.

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

### 19 IX. NO SAFE HARBOR

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

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

6                                   **X. CLASS ACTION ALLEGATIONS**

7           201. Plaintiff brings this action as a class action pursuant to Federal Rule of Civil  
8 Procedure 23(a) and 23(b)(3) on behalf of a Class consisting of all those who purchased or  
9 otherwise acquired shares of Precigen common stock between May 10, 2017 and September 25,  
10 2020, inclusive (the “Class Period”), and were damaged thereby. Excluded from the Class are  
11 Defendants, Precigen’s current and former officers, directors, parents, and subsidiaries, their  
12 immediate family members, legal representatives, heirs, successors, or assigns of any such  
13 excluded person, and any entity in which Defendants have or had a controlling interest.

14           202. The members of the Class are so numerous that joinder of all members is  
15 impracticable. Throughout the Class Period, Precigen common stock was actively traded on the  
16 NYSE and then the Nasdaq. While the exact number of Class members is unknown to Plaintiff at  
17 this time, and can be ascertained only through appropriate discovery, Plaintiff believes that there  
18 are hundreds or thousands of members in the proposed Class. Stock owners and other members  
19 of the Class may be identified from records maintained by Precigen or its transfer agent and may  
20 be notified of the pendency of this action by mail, using the form of notice similar to that  
21 customarily used in securities class actions.

22           203. Plaintiff’s claims are typical of the claims of other Class members, as all members  
23 of the Class were similarly affected by Defendants’ wrongful conduct in violation of federal laws  
24 as alleged herein.

25           204. Plaintiff will fairly and adequately protect Class members’ interests and has  
26 retained competent counsel experienced in class actions and securities litigation. Plaintiff has no  
27 interests antagonistic to, or in conflict with, those of the Class.

28

1           205. Common questions of law and fact exist as to all Class members and predominate  
2 over any questions solely affecting individual Class members. Common questions include:

- 3           (a) whether Defendants violated the federal securities laws as alleged herein;  
4           (b) whether Defendants made public statements during the Class Period that  
5 were materially false, misleading, or incomplete or otherwise omitted  
6 material facts;  
7           (c) whether the Individual Defendants caused Precigen to issue false and  
8 misleading statements;  
9           (d) whether Defendants acted knowingly or recklessly in issuing false and  
10 misleading statements;  
11           (e) whether the price of Precigen common stock during the Class Period was  
12 artificially inflated because of the Defendants' wrongful conduct as  
13 complained of herein; and  
14           (f) whether the members of the Class have sustained damages and, if so, what  
15 is the proper measure of damages.

16           206. A class action is superior to all other available methods for the fair and efficient  
17 adjudication of this action because joinder of all Class members is impracticable. Additionally,  
18 the damages suffered by some individual Class members may be relatively small so that the burden  
19 and expense of individual litigation make it impossible for them to individually redress the wrong  
20 done to them. There will be no difficulty in the management of this action as a class action.

21           207. Plaintiff will rely, in part, upon the presumption of reliance established by the fraud-  
22 on-the-market doctrine in that:

- 23           (a) Defendants made public misrepresentations and failed to disclose material  
24 facts during the Class Period;  
25           (b) the omissions and misrepresentations were material;  
26           (c) Precigen's common stock is traded in an efficient market;

- 1 (d) Precigen's shares were liquid and traded with moderate to heavy volume
- 2 during the Class Period;
- 3 (e) Precigen traded on the NYSE and then the Nasdaq, both of which are highly
- 4 efficient stock markets;
- 5 (f) Precigen was covered by multiple securities analysts;
- 6 (g) the misrepresentations and omissions alleged would tend to induce a
- 7 reasonable investor to misjudge the value of Precigen's common stock; and
- 8 (h) Plaintiff and Class members purchased or acquired Precigen common stock
- 9 without knowledge of the omitted or misrepresented facts.

10 208. Based upon the foregoing, Plaintiff and the members of the Class are entitled to a  
11 presumption of reliance upon the integrity of the market.

12 209. Alternatively, Plaintiff and the members of the Class are entitled to the presumption  
13 of reliance established by the Supreme Court in *Affiliated Ute Citizens of Utah v. United States*,  
14 406 U.S. 128 (1972), as Defendants omitted material information in their Class Period statements  
15 in violation of a duty to disclose such information, as detailed above.

## 16 XI. CAUSES OF ACTION

### 17 Violation of §10(b) of the Exchange Act and Rule 10b-5 18 Promulgated Thereunder (Against All Defendants)

19 210. Plaintiff repeats and realleges each allegation contained above as if fully set forth  
20 herein. This claim is asserted on behalf of all members of the Class against Precigen and the  
21 Individual Defendants.

22 211. During the Class Period, Defendants, by their acts and omissions as alleged herein,  
23 carried out a plan, scheme, and course of conduct, which was intended to, and, throughout the  
24 Class Period, did: (i) deceive the investing public, including Plaintiff and the other Class members;  
25 (ii) artificially inflate and maintain the market price of Precigen common stock; and (iii) cause  
26 Plaintiff and Class members to purchase and hold Precigen common stock at artificially inflated  
27 prices as Defendants cashed out causing a sharp decrease in value.

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1           212. Defendants: (a) employed devices, schemes, and artifices to defraud; (b) made  
2 untrue statements of material fact and/or omitted to state material facts necessary to make the  
3 statements not misleading; and (c) engaged in acts, practices, and a course of business which  
4 operated as a fraud and deceit upon the purchasers of Precigen common stock in an effort to  
5 maintain artificially high market prices for shares of Precigen common stock in violation of §10(b)  
6 of the Exchange Act and Rule 10b-5 promulgated thereunder. Defendants are sued as primary  
7 participants in the wrongful conduct charged herein.

8           213. Pursuant to the above plan, scheme, conspiracy, and course of conduct, each of the  
9 Defendants participated directly or indirectly in the preparation and/or issuance of the materially  
10 false, misleading, and incomplete statements detailed above.

11           214. By virtue of their positions at Precigen, Defendants had actual knowledge of the  
12 materially false and misleading statements and material omissions alleged herein, and intended  
13 thereby to deceive Plaintiff and the other members of the Class; alternatively, Defendants acted  
14 with reckless disregard for the truth in that they recklessly failed to ascertain and disclose such  
15 facts as would reveal the materially false and misleading nature of the statements made, even  
16 though such facts were readily available to Defendants.

17           215. Information showing that Defendants acted knowingly or with reckless disregard  
18 for the truth is peculiarly within Defendants' knowledge and control. As Precigen's senior officers  
19 and/or directors, the Individual Defendants had knowledge of the details of Precigen's internal  
20 affairs.

21           216. The Individual Defendants are liable both directly and indirectly for the wrongs  
22 complained of herein. Because of their positions of control and authority, the Individual  
23 Defendants were able to, and did, directly or indirectly, control the content of the statements of  
24 Precigen. As officers and/or directors of a publicly-held company, the Individual Defendants had  
25 a duty to disseminate timely, accurate, and truthful information with respect to Precigen's  
26 businesses, operations, future financial condition, and future prospects. As a result of the  
27 dissemination of the false and misleading reports, releases and public statements, the market price  
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1 of Precigen common shares was artificially inflated throughout the Class Period. In ignorance of  
2 the adverse facts concerning Precigen's business and financial condition, which were concealed  
3 by Defendants, Plaintiff and the other members of the Class purchased or otherwise acquired  
4 Precigen common shares at artificially inflated prices in reliance on the integrity of the market for  
5 such securities, and were damaged thereby.

6       217. During the Class Period, Precigen common stock traded on an active and efficient  
7 market. Plaintiff and the other members of the Class, relying on the materially false and misleading  
8 statements described herein, purchased or otherwise acquired shares of Precigen common stock at  
9 prices artificially inflated by Defendants' wrongful scheme and course of conduct. Had Plaintiff  
10 and the other members of the Class known the truth, they would not have purchased or otherwise  
11 acquired said securities or would not have purchased or otherwise acquired them at the inflated  
12 prices that were paid. At the time of the purchases and/or acquisitions by Plaintiff and the Class,  
13 the true value of Precigen common stock was substantially lower than the prices paid by Plaintiff  
14 and the other members of the Class. The market price of Precigen common stock declined sharply  
15 upon public disclosure of the facts alleged herein, causing injury to Plaintiff and Class members.  
16 Plaintiff and the Class have suffered damages in that, in reliance on the integrity of the market,  
17 they paid artificially inflated prices for the shares of Precigen common stock that they purchased  
18 during the Class Period, which inflation was removed from its price as the true facts became  
19 known.

20       218. As a direct and proximate result of these Defendants' wrongful conduct, Plaintiff  
21 and the other members of the Class have suffered damages in connection with their purchases of  
22 Precigen common stock during the Class Period.

23       219. By reason of the conduct alleged herein, Defendants violated §10(b) of the  
24 Exchange Act and Rule 10b-5 promulgated thereunder.

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

220. Plaintiff repeats and realleges each allegation contained above as if fully set forth herein.

221. This Count is asserted on behalf of Plaintiff and all members of the Class against the Individual Defendants for violations of §20(a) of the Exchange Act, 15 U.S.C. §78t(a).

222. The Individual Defendants were and acted as controlling persons of Precigen within the meaning of §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.

223. In addition, the Individual Defendants had direct involvement in the day-to-day operations of the Company and, therefore, are presumed to have had the power to control or influence the transactions giving rise to the securities violations as alleged herein and exercised the same.

224. As set forth above, Precigen and the Individual Defendants each violated §10(b) and Rule 10b-5 by their acts and omissions as alleged in this Third Amended Complaint. By virtue of their control over Precigen, the Individual Defendants are also liable for Precigen’s violation of §10(b) pursuant to §20(a).

**XI. PRAYER FOR RELIEF**

WHEREFORE, Plaintiff prays for relief and judgment as follows:



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**CERTIFICATE OF SERVICE**

I hereby certify that on August 1, 2022, 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 August 1, 2022, at San Diego, California.

s/ John T. Jasnoch  
JOHN T. JASNOCH (CA 281605)