

EXHIBIT 1

**UNITED STATES DISTRICT COURT
DISTRICT OF NEW JERSEY**

IN RE CELGENE CORPORATION
SECURITIES LITIGATION

Case No. 18-cv-04772 (JMV) (JBC)

DECLARATION OF DAVID I. TABAK, PH.D.

I. INTRODUCTION

1. My name is David I. Tabak. I have previously submitted reports in the class-certification phase of this case (an opening and a reply report) and in the merits phase of this case (also an opening and a reply report), and I was deposed at both the class-certification and merits stages of this case. I also consulted with counsel for Plaintiffs in their development of the plan of allocation for this matter.
2. I have been asked by counsel for Plaintiffs to provide information on my estimates of aggregate damages.

II. PER-SHARE DAMAGES

3. I began my calculation of aggregate damages with the per-share inflation figures that I previously calculated during the merits expert phase of this case and which are shown in my reply report on damages dated October 12, 2022 (“Damages Reply Report”). I adjusted those calculations so that the start date of the Ozanimod-related inflation now begins after the October 26, 2017 alleged misrepresentation rather than following the April 27, 2017 alleged misrepresentation, which I understand was dismissed by the Court as an inactionable statement at summary judgment. The inflation figures for both the Otezla and Ozanimod allegations are summarized in Exhibit 4 of the

Damages Reply Report. My opening damages report dated May 11, 2022 describes my analysis of per-share damages.¹

III. AGGREGATE DAMAGES

A. The Need to Model Aggregate Damages

4. To see why a model is needed to estimate aggregate damages, consider a simple hypothetical of a three-day class period where inflation is \$100 per share on Tuesday, Wednesday, and Thursday of a week. Further suppose that 1,000 shares trade on each of those three days.

5. Each of those purchases was made at a price that is inflated by \$100 in this hypothetical. If each of the purchases were held past Thursday, aggregate damages would be \$300,000 (3 days \times 1,000 shares per day \times \$100 per share). But, suppose, instead, that all of the 1,000 shares purchased on Tuesday were sold to new investors on Wednesday, and they, in turn, sold all 1,000 shares to new investors on Thursday. The investors who purchased on Tuesday would have overpaid by \$100 per share at the time of their purchase on Tuesday, but would also have received \$100 per share in extra proceeds when they sold their shares on Wednesday. Similarly, the Wednesday purchasers would have recouped their Wednesday overpayment when they sold on Thursday, and only the Thursday purchasers would have suffered any loss. Thus, in this scenario, aggregate damages would be \$100,000 (1,000 shares purchased on Thursday \times \$100 per share).

6. Because information on most traders' activity in the market is not publicly available, we must make some assumptions about investors' trading behavior. In terms of the above hypothetical, we want to know information such as how likely the shares

¹ The only difference between the per-share damages analyses in my opening damages report and the Damages Reply Report is the inclusion of data from one additional analyst in the calculations.

purchased by investors on Tuesday are resold that same day (i.e., day trading), how many are sold on Wednesday, how many are sold on Thursday, and how many are held past Thursday.

B. NERA's Aggregate-Trading Model

7. While some firms have taken a simplistic approach based on assumed parameters, NERA (the firm where I am employed) has based all the parameters of its model on either publicly available estimates or on our own calculations based on trading data obtained in prior securities litigations. While every case is different, these parameters are all based on empirical data and thus are more likely to be representative of the trading in this case than parameters that have no such empirical backing.

8. NERA's trading model first accounts for trading by ***market makers***. In many cases, when one investor sells and another buys, they do not trade directly with each other. Instead, the first investor may sell to a firm known as a "market maker" that holds onto those shares for some period of time before selling those shares to another investor. Market makers are not assumed to be relying on the true value of a stock but are essentially paid for providing liquidity (i.e., being willing to buy when someone wants to sell and being willing to sell when someone wants to buy). For Celgene, which traded on the Nasdaq Stock Market, we used a calculated figure of 54.76% of trading to represent market-maker activity.²

9. Next, we account for trading by ***institutional investors*** that file quarterly holding reports with the SEC. For example, if an institution reports holding 200,000 shares at the end of the first quarter and 250,000 shares at the end of the second quarter, we know that, on net, it has increased its holdings by 50,000 shares that quarter. We also know that it has made at least 50,000 in purchases.³ When necessary, we can also prorate the

² See Fernando Avalos and Marcia Kramer Mayer, "Dealer Participation on the New York Stock Exchange and Nasdaq," *NERA Working Paper*, May 2002.

³ The institution could have both purchased and sold shares in the quarter. Because our data are limited to the publicly reported quarterly holdings, we have to make an (continued)

institution's holdings over different points in the quarter. For example, if a class period started in the second quarter of this hypothetical and 20% of the total reported trading occurred before the start of the class period, we would assume that 20% of this institution's net purchases (10,000, or 20% of 50,000) occurred before the start of the class period and the remainder (40,000, or 50,000 less 10,000) occurred after the start of the class period.⁴

10. Finally, we turn to ***unidentified investors***, or typical retail investors whose individual trading is not publicly reported. We estimate the size of unidentified investors' holdings on each day in the Class Period by starting with shares outstanding and removing shares held by insiders and institutions. We also remove the estimated trading by institutions from reported trading volume to obtain estimates of trading by the unidentified investors.⁵

11. We also assume that 32.86% of trades within the unidentified sector are ***intraday trades*** by investors.⁶ These trades have no claim as the per-share inflation is always constant over each day in the Class Period.

assumption. Here, we assume that institutions did not purchase and sell the same security in the same quarter.

⁴ For purposes of these aggregate-damages calculations, institutional trades are paired on a LIFO (last-in, first-out) basis while the plan of allocation uses a FIFO (first-in, first-out) pairing methodology. I typically use LIFO to measure actual losses because that is consistent with accounting for intraday trading in the model, providing for an internally consistent trading model. (Under FIFO, an investor with a positive position who then engages in intraday trading may not have their intraday trades offset each other). It is my understanding that many courts have accepted the use of FIFO because it treats each purchase transaction as a separate damages claim.

⁵ There are also additional adjustments to account for issues such as short selling and changes in shares outstanding that I do not go into here.

⁶ See Marcia Kramer Mayer, "Best-Fit Estimation of Damaged Volume In Shareholder Class Actions: The Multi-Sector, Multi-Trader Model of Investor Behavior," *NERA Working Paper*, October 2000. The figure presented above is an update from the one in this paper based on data collected since the paper was published.

12. We then separate out the unidentified investors into two hypothetical groups: a high-activity group and a low-activity group. To see why this matters, consider an extreme case where all trading by unidentified investors occurred between just two investors selling the same single share back and forth. In that case, only that one share could be damaged, with whichever investor that made the last purchase before a corrective disclosure potentially having a claim.⁷ On the other hand, if the shares are widely distributed among the low-activity traders, it may be that once such traders acquire a share, they do not resell it within the class period (because they are “low-activity” traders), and nearly the entire purchase volume in the unidentified sector represents a damageable share. Thus, the distribution of holdings and the relative trading rates of the low-activity and high-activity traders will determine how many shares in the unidentified sector are eligible for a damages claim.

13. Based on data collected from brokerage firms in prior securities class actions, NERA has estimated that one can model the trading activity within the unidentified sector with the following parameters: (1) 68.35% of shares are held by the low-activity traders and 31.65% of shares are held by the high-activity traders and (2) 19.10% of volume is accounted for by the low-activity traders and 80.90% of volume is accounted for by the high-activity traders.⁸

C. Aggregate Damages in this Matter

14. By combining the trading model with the per-share inflation estimates for both the Otezla and Ozanimod allegations, we are able to obtain estimates of aggregate damages for the Otezla claims, the Ozanimod claims, and for the combined set of claims. The

⁷ If there were an even number of transactions, even that investor would have no claim because with every pair of two transactions cancels out (e.g., A sells the share to B and then B sells the share back to A).

⁸ See Marcia Kramer Mayer, "Best-Fit Estimation of Damaged Volume In Shareholder Class Actions: The Multi-Sector, Multi-Trader Model of Investor Behavior," *NERA Working Paper*, October 2000 for a general discussion. The figures presented above are updates from those in this paper based on data collected since the paper was published.

damages for any purchased share retained to the end of the Class Period are limited by the “bounce-back” or “look-back” cap in the 1995 Private Securities Litigation Reform Act (“PSLRA”).

15. See the attached exhibit to this declaration for those figures. In summary, (a) total damages are approximately \$2.78 billion, assuming that the Class Period ends on April 27, 2018, (b) damages for just the Otezla-related allegations are approximately \$1.52 billion, and (c) damages for just the Ozanimod-related allegations are approximately \$1.30 to \$1.90 billion, depending on whether damages arise from just the February 27, 2018 corrective disclosure or both the February 27 and April 29, 2018 corrective disclosures.⁹

I declare under penalty of perjury that the foregoing is true and correct. Executed in New York, NY on November 11, 2025.



David I. Tabak
November 11, 2025

⁹ The sum of the Otezla-related inflation and the Ozanimod-related inflation is larger than the total inflation. This is because the damages cap in the PSLRA limits total damages regardless of inflationary losses. So, for example, if the Otezla-related damage was \$5, the Ozanimod-related damage was \$6, and the PSLRA cap was \$8, damages for Otezla alone would be \$5 (the lesser of \$5 and \$8), damages for Ozanimod alone would be \$6 (the lesser of \$6 and \$8), but damages for the combined Otezla and Ozanimod claims would be \$8 (the lesser of \$11 (the sum of \$5 and \$6) and \$8).

Celgene Corporation
Summary of Damages for Common Stock Under Rule 10b-5
Using the Multi-Sector, Multi-Trader Model and LIFO for Institutions
After the Application of the Bounceback Rule¹ and the *Dura Cap*²
Market Model Estimation Period: April 27, 2016 to April 26, 2017³
Assuming Per-Share Inflation Adjusted From the Tabak Damages Reply Report⁴

Constant Dollar Inflation Scenarios ^{5,6,7}	Damages		Total Damages ¹⁰ (4) (2) + (3)
	Institutional ⁸ (2)	Unidentified ⁹ (3)	
<i>in millions</i>			
I. Assuming All Three Corrective Disclosures with Inflation from Ozanimod-Related Disclosures Starting on October 26, 2017 and Inflation from the Otezla-Related Disclosure Starting on April 27, 2017^{11,12}	\$ 1,320.5	\$ 1,457.4	\$ 2,777.8
II. Assuming Inflation from only the Otezla-Related Disclosure Starting on April 27, 2017¹³			
	\$ 785.9	\$ 736.2	\$ 1,522.0
III. Assuming Inflation from only the February 27, 2018 Ozanimod-Related Disclosure Starting on October 26, 2017¹⁴			
	\$ 565.9	\$ 729.1	\$ 1,295.0
IV. Assuming Inflation from only Ozanimod-Related Disclosures Starting on October 26, 2017¹⁵			
	\$ 815.1	\$ 1,080.2	\$ 1,895.3

Notes and Sources:

Data obtained from Bloomberg L.P., FactSet Research Systems Inc., and SEC filings.

Daily trading volume is adjusted down by 54.76% for the NASDAQ market-maker participation rate, as obtained from Fernando Avalos and Marcia Kramer Mayer, "Dealer Participation on the New York Stock Exchange and Nasdaq," *NERA Working Paper*, May 2002.

The Multi-Sector, Multi-Trader Model uses reported institutional holdings data and empirical information on the behavior of unidentified investors who are not all equally likely to trade a share. For more information, see Marcia Kramer Mayer, "Best-Fit Estimation of Damaged Volume In Shareholder Class Actions: The Multi-Sector, Multi-Trader Model of Investor Behavior," *NERA Working Paper*, October 2000.

¹ For all scenarios, the Class Period is assumed to end on the last trading day prior to the final disclosure, and the end of the bounceback period is assumed to be 90 calendar days following the end of the Class Period.

² The *Dura Cap* limits losses attributable to the disclosures to economic loss suffered (purchase inflation minus sale inflation).

³ Celgene predicted stock price returns used in the calculation of market-adjusted price movements are obtained using a regression of the returns of Celgene common stock on the returns of the stripped Nasdaq Biotechnology Index run over the period from April 27, 2016 to April 26, 2017. This period represents the year prior to April 27, 2017, the start of the Class Period certified in the Order on Class Certification dated November 25, 2020. As Celgene was a member of the Nasdaq Biotechnology Index, the index was reconstituted to show returns as if Celgene was not a member. The raw weight of Celgene in the Nasdaq Biotechnology Index on day x is calculated as: [(closing market cap of Celgene on day x-1) / (closing market cap of the Nasdaq Biotechnology Index on day x-1)]. For the first trading day in March, June, September, and December of each year, the weight of Celgene is adjusted to be the smaller of the raw weight of Celgene on that day and 8%, as detailed in the Index Rebalancing section of the Nasdaq Biotechnology Index Methodology, available online at: https://indexes.nasdaqomx.com/docs/methodology_NBI.pdf. For all other trading days, the weight of Celgene in the Nasdaq Biotechnology Index on a day is adjusted to reflect the rebalance as: [(raw weight of Celgene on the previous day) / (raw weight of Celgene on that day)] × (adjusted weight of Celgene on the previous day). The daily returns of Celgene are then removed from the daily returns of the Nasdaq Biotechnology Index based on its adjusted weight.

⁴ Inflation figures in Exhibit 4 of the Tabak Damages Reply Report are adjusted so that the start date of the Ozanimod-related inflation now begins after the October 26, 2017 alleged misrepresentation.

⁵ Inflation scenarios are based on the market-adjusted stock price movements following the disclosures obtained from the Third Amended Consolidated Complaint dated March 1, 2022.

October 26, 2017: "Celgene stunned the market by announcing that, in light of the dismal Otezla sales numbers, the Company had slashed the 2017 guidance by more than \$250 million—providing updated guidance of \$1.25 billion compared to the \$1.5 billion to \$1.7 billion range Defendants reaffirmed just weeks earlier." ¶208 The 1-day market-adjusted stock price movement was (\$18.72). Inflation for OTEZLA is assumed to end on October 25, 2017.

February 27, 2018: After market hours, "Celgene once again stunned the market by disclosing that it had received an RTF letter in response to its Ozanimod NDA submission." ¶340 The 1-day market-adjusted stock price movement was (\$7.77).

April 29, 2018: "Morgan Stanley issued a strongly negative report based on its detailed review of certain obscure data related to Ozanimod's other metabolites. Morgan Stanley's April 29, 2018 report entitled, 'More Bread Crumbs Yield Less Confidence in Ozanimod,' stated that its 'analysis of prior ozanimod pre-clinical studies suggest [that] CC112273 concentrations in prior pre-clinical work is unlikely to approximate human clinical doses' and '[t]herefore we believe it is increasingly likely mgt. will need to complete new preclinical work on CC112273 setting up a 1 to 3 year delay [emphasis removed]'." ¶449 The 1-day market-adjusted stock price movement from April 27, 2018 to April 30, 2018 was (\$2.82). Inflation for Ozanimod is assumed to end on April 27, 2018, the last trading day prior to April 29, 2018.

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⁶ In Scenarios I and II, inflation attributable to the Otezla allegations from the October 26, 2017 disclosure is assumed to be \$12.37 out of the full \$18.72 market-adjusted price decline following the disclosure. See Exhibit 3 of the Tabak Damages Reply Report for more information about the adjustment to the October 26, 2017 price decline.

⁷ In Scenarios I and IV, inflation attributable to the Ozanimod allegations from the April 29, 2018 disclosure is assumed to begin on October 30, 2017, four calendar days after October 26, 2017.

⁸ Institutional shares transactions were tracked using the last-in, first-out (LIFO) method which matches disposition transactions with the most recent initiating transactions.

⁹ Unidentified share damages are composed of in-and-out damages, calculated using shares that were purchased during the class period, held past at least one corrective disclosure, and sold at a later date during the class period and retention damages, calculated using shares that were purchased during the class period and held through the end of the class period.

¹⁰ Total damages may not equal precisely the sum of institutional and unidentified sector damages due to rounding.

¹¹ In this scenario, constant dollar inflation from April 27, 2017 to October 25, 2017 is \$12.37, constant dollar inflation from October 26, 2017 to October 29, 2017 is \$7.42, constant dollar inflation from October 30, 2017 to February 27, 2018 is \$10.58, and constant dollar inflation from February 28, 2018 to April 27, 2018 is \$2.82. Additionally the *Dura Cap* is assumed to be \$12.37 from April 27, 2017 to October 25, 2017, \$7.42 from October 26, 2017 to October 29, 2017, \$10.58 from October 30, 2017 to February 27, 2018, and \$2.82 from February 28, 2018 to April 27, 2018.

¹² Due to varying Bounceback period ends, Scenario I damages do not equal the sum of damages in Scenarios II and IV.

¹³ In this scenario, constant dollar inflation from April 27, 2017 to October 25, 2017 is \$12.37. Additionally, the *Dura Cap* is assumed to be \$12.37 from April 27, 2017 to October 25, 2017.

¹⁴ In this scenario, constant dollar inflation from October 26, 2017 to October 29, 2017 is \$7.42 and constant dollar inflation from October 30, 2017 to February 27, 2018 is \$7.77. Additionally, the *Dura Cap* is assumed to be \$7.42 from October 26, 2017 to October 29, 2017 and \$7.77 from October 30, 2017 to February 27, 2018.

¹⁵ In this scenario, constant dollar inflation from October 26, 2017 to October 29, 2017 is \$7.42, constant dollar inflation from October 30, 2017 to February 27, 2018 is \$10.58, and constant dollar inflation from February 28, 2017 to April 27, 2018 is \$2.82. Additionally, the *Dura Cap* is assumed to be \$7.42 from October 26, 2017 to October 29, 2017, \$10.58 from October 30, 2017 to February 27, 2018, and \$2.82 from February 28, 2018 to April 27, 2018.