

Oakwood Labs. LLC v. Thanoo

United States Court of Appeals for the Third Circuit

November 17, 2020, Argued; June 8, 2021, Filed

No. 19-3707

Reporter

2021 U.S. App. LEXIS 16973 *; __ F.3d __; 2021 WL 2325127

OAKWOOD LABORATORIES LLC, Appellant v. DR. BAGAVATHIKANUN THANOO;
AUROMEDICS PHARMA LLC; AUROBINDO PHARMA U.S.A. INC.; AUROBINDO PHARMA
LTD.

Prior History: [*1] On Appeal from the United States District Court for the District of New Jersey. (D.C. No. 3-17-cv-05090). District Judge: Hon. Peter G. Sheridan.

Oakwood Labs., LLC v. Thanoo, 2019 U.S. Dist. LEXIS 183347, 2019 WL 5420453 (D.N.J., Oct. 23, 2019)

Counsel: For Appellant: Michael J. Barrie [ARGUED], Kevin M. Capuzzi, Benesch Friedlander Coplan & Aronoff LLP, Wilmington, DE.

For Appellees: Jonathan D. Janow [ARGUED], Chance Lyman, Buchanan Ingersoll & Rooney, Washington, DC.

Judges: Before: JORDAN, KRAUSE, and RESTREPO, Circuit Judges.

Opinion by: JORDAN

Opinion

OPINION OF THE COURT

JORDAN, Circuit Judge.

In 2017, Oakwood Laboratories, L.L.C. ("Oakwood") sued its former Vice President of Product Development, Dr. Bagavathikanun Thanoo, as well as Dr. Thanoo's current employer, Aurobindo Pharma U.S.A., Inc. ("Aurobindo USA"), the parent of that company, Aurobindo Pharma Ltd. ("Aurobindo"), and a sister company, AuroMedics Pharma LLC ("AuroMedics") (collectively, "the Defendants"), asserting claims of trade secret misappropriation, breach of contract, and tortious interference with contractual relations. More than two years and four iterations of its complaint later, Oakwood was unable to get past the pleading stage of litigation. The District Court dismissed each version of the complaint for failure to state a claim. After each dismissal, [*2] Oakwood endeavored to address the problems the District Court perceived. Those efforts culminated in a Third Amended Complaint (generally referenced herein simply as the "Complaint") so factually detailed that, on appeal, we conclude it easily meets the pleading requirements of the Federal Rules of Civil Procedure and pertinent substantive law. We will, therefore,

vacate the District Court's dismissal and remand the case for further proceedings. In doing so, we endeavor to clarify the requirements for pleading a trade secret misappropriation claim under the [Defend Trade Secrets Act, 18 U.S.C. § 1836\(b\)](#) ("DTSA").

I. BACKGROUND

A. Factual Background¹

According to its Complaint, "Oakwood is a technology-based specialty pharmaceutical company focused on hard-to-develop generic and quasi-generic, sustained-release, and small molecule injectable drugs," including "the research and development of sustained release injectable drugs involving microsphere systems (collectively, the 'Oakwood Products')." ² (App. at 208, ¶ 17.) It "has devoted extensive time, money, and other resources to the research, design, and development of the Oakwood Products it manufactures[.]" including its processes for manufacturing, testing, research, quality assurance, [*3] and regulatory compliance. (App. at 209, ¶ 18.) Those processes "are not generally known outside Oakwood's organization, and Oakwood takes steps reasonable under the circumstances to keep such information confidential," such as requiring non-disclosure agreements ("NDAs") with its scientists, vendors, suppliers, and business partners prior to sharing information, as well as advising its employees "that such information must be held confidential, password protecting electronically stored information, and reasonably controlling access to such information." (App. at 209, ¶ 19.)

Accordingly, when Oakwood hired Dr. Thanoo in 1997 as its Senior Scientist "principally responsible for the development of the Oakwood Products" (App. at 212, ¶ 28), it required him to sign an NDA and related inventions agreement "[a]s a condition of [his] employment and to protect Oakwood from misuse and/or disclosure of proprietary information[.]" (App. at 210, ¶ 23.) As Senior Scientist and later as Vice President of Product Development, Dr. Thanoo "directly designed Oakwood's microsphere process technology" and "had extensive involvement in and knowledge of the design, development, and implementation of the [*4] Oakwood Products." (App. at 212-13, ¶ 28.) He "spent more than 80% of his tenure with Oakwood working on [what the company calls] the Microsphere Project" (App. at 218, ¶ 36), a project focused on "the design, research and development, and test methods for leuprolide and octreotide sustained released products, and other products, that rely on microsphere process technology[.]" ³ (App. at

¹ On plenary review of the District Court's dismissal under [Federal Rule of Civil Procedure 12\(b\)\(6\)](#), we "accept all factual allegations [in the complaint] as true[.]" [Bruni v. City of Pittsburgh, 824 F.3d 353, 360 \(3d Cir. 2016\)](#) (internal quotations omitted). Thus, we describe Oakwood's allegations as "facts" for the limited purpose of reviewing the order of dismissal.

² Oakwood says that "[a] microsphere is a highly sophisticated formulation method for sustained release of what might be a relatively simple active pharmaceutical ingredient." (Reply Br. at 13 (citing App. at 28, 208, 213-16).)

³ Both leuprolide and octreotide are peptides used as active pharmaceutical ingredients in microsphere sustained release products. Leuprolide is a synthetic peptide that helps slow or stop the growth of certain cancers. When leuprolide and octreotide are injected using a microsphere system, those peptides are sustainably released over an extended period of time as microspheres, made of polymers, erode. The peptides' release is "highly dependent on the interaction" between the specific peptide used and the polymer within which it is incorporated, among several other variables that contribute to the release profiles of each peptide drug from the microspheres. (App. at 213-17, ¶ 29.) As part of its Microsphere Project, Oakwood designed formulations based on those variables, "which were finally determined after extensive trial and error testing" and ultimately culminated in a microsphere system for drug delivery, including peptide-based drugs. (App. at 213-16, ¶ 29; *see also* App. at 804-08.)

212-13, ¶ 28 (footnote omitted); *see also* App. at 213-17, ¶¶ 29-30.) The Microsphere Project forms the basis of Oakwood's trade secrets claim.

Oakwood had invested more than \$130 million, two decades, and the efforts of dozens of full-time employees in its Microsphere Project. By the fall of 2013, it had developed three lead product candidates based on that work. (App. at 219, ¶ 45.) All three of those products, which we will refer to as the "Leuprolide Products," are bioequivalent to a valuable brand-name drug called Lupron Depot®. (App. at 212 n.1, 219, ¶ 45.) At the time, there were "no approved generic versions of [Lupron Depot] in the US due to the high level of difficulty in developing and manufacturing such specialized products." (App. at 219, ¶ 45.)

Around the same time, Aurobindo "sought [*5] out Oakwood" to discuss an opportunity to collaborate on the Microsphere Project.⁴ (App. at 219, ¶ 43.) Aurobindo is a vertically integrated pharmaceutical company known for manufacturing active pharmaceutical ingredients. The companies "discussed a business venture in which Aurobindo USA would sell an [active pharmaceutical ingredient] to Oakwood for its Microsphere Project." (App. at 219, ¶ 44.) Aurobindo informed Oakwood during their discussions that "it had no prior experience with peptide based microsphere products." (App. at 220, ¶ 47.) As part of those discussions, Aurobindo and AuroMedics — Aurobindo's subsidiary in "the injectable business" (App. at 229, ¶ 77.a) — acquired some of Oakwood's trade secret information, information that both Aurobindo and AuroMedics contracted in a confidentiality agreement to keep "secret and confidential" and to use only for non-competitive purposes.⁵ (App. at 221, ¶ 52.) Much of that information was contained in what is referred to as the "Leuprolide Memo," "a 27-page memorandum explaining the [L]euprolide [P]roducts" involved in the Microsphere Project. (App. at 220, ¶ 50.) Among other things, the memo revealed

Oakwood's development of the microsphere-based [*6] [L]euprolide [P]roducts, including the specific ingredients of the formula used to develop the ... [Leuprolide Products], Oakwood's strategic plan to obtain regulatory approval of the Leuprolide Products, the results of its clinical trials of the Leuprolide Products and the alterations Oakwood made to the formula following its analysis of the clinical trial results, Oakwood's strategy to continue to refine the Leuprolide Products formula, the forecasted costs associated with launching the Leuprolide Products, and the manufacturing process for the Leuprolide Products.

(App. at 221, ¶ 51.)

Aurobindo's CEO also "visited Oakwood's headquarters [in November 2013] ... to discuss Aurobindo's and Aurobindo USA's capabilities[.]" during which he spoke with Dr. Thanoo. (App. at 220, ¶ 46.) Two days later, Aurobindo's CEO "connected via email Dr. Thanoo and ... [the] Vice President of Aurobindo, noting that the two were old friends and 'batch mate[s] at Madras University.'" (App. at 220, ¶ 48 (alteration in original).) Ultimately, however, after "having materially explored a business relationship with Oakwood," (App. at 222, ¶ 57), "Aurobindo informed Oakwood that it was not interested [*7] in pursuing the Microsphere Project and the Leuprolide Products with Oakwood due to financial considerations." (App. at 222, ¶ 56.)

⁴Based in India, Aurobindo "operates in ... the United States through its subsidiary Aurobindo USA[.]" (App. at 219, 223-24, ¶¶ 41, 62; *see also* App. at 479.)

⁵Aurobindo USA is not a party to that confidentiality agreement and Oakwood does not assert a breach of contract claim against it.

But talks evidently continued with Dr. Thanoo, because within about six months, in April 2014, Aurobindo USA hired him. According to Oakwood, the Aurobindo companies used him to misappropriate Oakwood's trade secrets relating to microsphere products. Dr. Thanoo had assured Oakwood that he "was going to Aurobindo USA to develop standard generic injectable drugs" and "that his work ... would not include microsphere system technology." (App. at 222, ¶ 59.) To the contrary, though, his work at Aurobindo USA does in fact include microsphere technology.

"Within months" of Aurobindo USA hiring Dr. Thanoo, AuroMedics had "formed a group in the United States to develop microsphere technology" and, more specifically, microsphere-based injectable products that Oakwood alleges are "substantially similar to and competitive with Oakwood's Microsphere Project using Oakwood's trade secret information[.]" (App. at 224-25, 231, ¶¶ 64-65, 82; *see also* App. at 672.) By May 2015, Aurobindo's managing director and AuroMedics's CEO were telling the companies' investors that AuroMedics [*8] was "currently working on" four microsphere products⁶ and expected it would begin submitting abbreviated new drug applications to the Food and Drug Administration ("FDA") for "these products probably end of calendar 2016 beginning 2017" and would obtain its "first [FDA] approval ... sometime in calendar year 2018 with the first product followed closely by the other three products." (App. at 225, ¶ 65; *see also* App. at 284.)

Besides boasting of a short development period for its new products, AuroMedics said that, by the end of the fiscal year, it expected to have invested about \$6 million in the microsphere products, for an "addressable market" of "\$3 billion in the US." (App. at 224-25, ¶¶ 64-65.) According to Oakwood, that \$6 million investment is remarkably small for the scientific advances claimed, especially since Aurobindo, Aurobindo USA, and AuroMedics had no prior experience developing, manufacturing, or selling microsphere technology before hiring Dr. Thanoo. (App. at 226, ¶¶ 67-69.) Oakwood further asserts that, without prior experience and given the more difficult nature of developing specialized microsphere products compared to other products, "the Microsphere Project is [*9] not something that could have been replicated in one-to-four years ... absent misappropriation of Oakwood's trade secrets." (App. at 218, ¶ 37; *see also* App. at 228, ¶ 73.) In other words, Oakwood says, "[i]t would be implausible for Aurobindo, AuroMedics, and Aurobindo USA to have developed the microsphere products in one-to-four years lacking Oakwood's trade secret information, when it has taken Oakwood nearly 20 years, \$130 million, and countless man-hours of 20-40 full-time employees to do the same." (App. at 231, ¶ 81.)

Moreover, during that same May 2015 investor call, Aurobindo emphasized that AuroMedics's microsphere "products would have limited competition unlike the typical products." (App. at 225, ¶ 65; *see also* App. at 299.) AuroMedics later explained, during an August 14, 2015 investor call, that "[n]ot every company can do these, but we have some very good experts working on these development projects and we are making significant progress." (App. at 226-27, ¶ 70; *see also* App. at 323.) Thus, in Oakwood's words, "AuroMedics had already built a team around Dr. Thanoo and was capitalizing on his microsphere experience gained at Oakwood on the peptide area[.]" (App. at 226, [*10] ¶ 70.) Dr. Thanoo was one of those "very good experts" AuroMedics referenced in its investor call and he was "engaged in the same type of work, research and/or development for Aurobindo, Aurobindo USA, and AuroMedics that he worked on for over 16 years at Oakwood[.]" (App. at 223, 226-27, ¶¶ 62, 70.) All of that is confirmed, says Oakwood, by Dr. Thanoo's LinkedIn profile, in which he lists his "[s]pecialties" as "[p]roduct and

⁶ "Aurobindo announced ... that it had microsphere-based products in development" earlier, "during a February 5, 2015 investor call" in which it further explained that it "was one of only a limited number of companies in the highly-specialized microsphere space[.]" (App. at 224, ¶ 64.)

process development of sustained release injectable drugs," including "[m]icrospheres," and includes the "[d]evelopment of complex generic injectable drugs" under his job description as Aurobindo USA's Vice President of R&D Injectables.⁷ (App. at 223-24, ¶¶ 61-63; *see also* App. at 256-57.)

Based on the foregoing factual allegations, Oakwood asserts that the "Defendants could not [have] develop[ed] [its] product within the rapid timeframe set forth above without Dr. Thanoo's assistance and his use of Oakwood's ... trade secret information related to the Microsphere Project." (App. at 232, ¶ 83.) Nor could they have done so "without Oakwood's trade secret information contained in the Leuprolide Memo that Oakwood sent to Aurobindo and AuroMedics" for the limited [*11] purpose of discussing a "potential business venture[.]" (App. at 232, ¶ 84.) Oakwood accordingly claims that the Defendants are liable for trade secret misappropriation, breach of contract, and tortious interference with contractual relations.

B. Procedural Background

Although it is the District Court's fourth order dismissing the Complaint that we address and vacate, a review of the several amended complaints highlights Oakwood's efforts to address issues the District Court identified. It also provides a more complete view of the District Court's construction of trade secret law and how it led to the dismissal of the last version of the Complaint.

1. Initial Complaint and First Dismissal

On July 12, 2017, Oakwood filed its Initial Complaint, asserting that its research, design, and development of its "sustained release injectable drugs involving microsphere systems" were trade secrets. (App. at 28-29, ¶¶ 16-18.) The District Court dismissed that complaint on November 28, 2017, saying "the list of actions allegedly constituting trade secret was not sufficiently specific." (App. at 87.) While the Court acknowledged that Oakwood "is not required to set forth a claim in heightened specificity" [*12] at the pleading stage, it explained that Oakwood "must still provide sufficient information to put Defendants on notice of the nature of the claim and to support the claim itself." (App. at 87.) Oakwood's failure to "identif[y] or point[] to a specific action, process, or formula that is the subject of this action" resulted in the Court concluding that Oakwood failed to sufficiently plead allegations supporting "the elements [necessary] to bring a claim for misappropriation." (App. at 87.) The Court also dismissed the remaining claims for contractual breach and tortious interference, citing again its "inability to discern what the trade secrets that were allegedly misappropriated are." (App. at 88.)

2. First Amended Complaint and Second Dismissal

Oakwood's First Amended Complaint incorporated several new factual allegations regarding its trade secrets, in response to the deficiencies the Court had said were in the Initial Complaint. Oakwood identified the trade secrets contained in the Leuprolide Memo, *supra* Section I.A., which Aurobindo had

⁷ According to his LinkedIn profile, Dr. Thanoo works in Dayton, New Jersey. Notably, Aurobindo has just one research and development facility in Dayton, New Jersey, and that facility, according to Aurobindo, has enhanced research and development capabilities for "[d]eveloping microsphere technology[-]based specialty injection products." (App. at 672.) None of the other enhanced research and development capabilities that Aurobindo lists for that facility mention injectables.

obtained under a confidentiality agreement. Oakwood also emphasized the confidential status of its Microsphere Project information and the high [*13] value of that information. Specifically, it highlighted the difficult and time-consuming nature of developing its trade secrets, which required "extensive experimentation" to produce a drug with "the correct release profile[.]" (App. at 100-01, ¶ 31.) Oakwood had "spent roughly 20 years developing bioequivalent microsphere-based versions of leuprolide and octreotide peptides[.]" both of which are central to the Microsphere Project. (App. at 100-01, ¶ 31.) And that project "required Oakwood to design formulations based on a number of variables [that] were finally determined after extensive trial and error testing[.]" (App. at 99, ¶ 29 (identifying those variables and describing each one respectively),) each of which may "interact with the other, and each can dramatically affect the release profile of the product and are proprietary to Oakwood." (App. at 100-01, ¶ 31.) "None of [that] information was generally known" and, therefore, "[g]iven the competitive nature of the microsphere-based sustained release injectable drug industry, that ... information derived ... independent economic value from" its confidential status. (App. at 100-01, ¶¶ 30, 33; *see also* App. at 96, ¶ 21.)

In addition [*14] to better specifying and explaining the confidential information Oakwood claims as trade secrets, the First Amended Complaint also gave a more detailed description of Dr. Thanoo's access to and acquisition of those trade secrets during his employment with Oakwood, as well as Aurobindo's access to and acquisition of the same through its successful recruitment efforts of Dr. Thanoo and via the confidential Leuprolide Memo. (App. at 98, ¶¶ 27-28.) Dr. Thanoo "was principally responsible for the development of the Oakwood Products" and "directly designed Oakwood's microsphere systems technology, including ... the 'Microsphere Project[.]'" (App. at 98-99, ¶ 28.) And "[d]uring the period of 2013," prior to joining Aurobindo, he had "instructed subordinates to send to his personal email Oakwood's trade secret information regarding Oakwood Products, including trade secret information related to the testing and processing of Oakwood's microsphere systems technologies involving leuprolide." (App. at 105, ¶ 53.) Then, knowing that Dr. Thanoo "possessed a granular knowledge of ... Oakwood's proprietary and trade secret information related to the Microsphere Project[.]" Aurobindo recruited Dr. [*15] Thanoo and Aurobindo USA hired him as its "Vice President of R&D Injectables." (App. at 105, ¶¶ 50, 54.)

Oakwood further alleged in the First Amended Complaint that Aurobindo "us[ed] Oakwood's trade secret information, including secrets related to the Leuprolide Products," to develop a product competitive with the products Oakwood was working on in the Microsphere Project. (App. at 106, ¶ 56.) That competing product could not have been developed "within a two-year timeframe without Dr. Thanoo's assistance and use of" Oakwood's trade secrets. (App. at 106, ¶ 57.) Nor could it have been developed "without [the] trade secret information contained in the Leuprolide Memo." (App. at 106, ¶ 58.) That's because "Aurobindo had not developed [specialized microsphere products to deliver the leuprolide and octreotide peptides] prior to the hiring of Dr. Thanoo" (App. at 106, ¶ 55), and had previously represented to Oakwood that "it had no [other] prior experience with peptide based microsphere products." (App. at 103, ¶ 40.)

Despite those new allegations, the District Court again dismissed Oakwood's complaint. According to the Court, Oakwood did "not specifically identify and enumerate the secrets [*16] acquired and used by Thanoo during his employment at Aurobindo" nor did it "set forth facts about how the specific secrets were utilized by Thanoo at Aurobindo." (App. at 172.) Although the Court acknowledged Oakwood's allegations "review[ing] the long period of the testing [that] ... led Oakwood to develop [its] product[.]" the Court rejected the sufficiency of those allegations because Oakwood did "not mention the type of

polymer [it] used, ... provide a comparison to any polymer allegedly used by Defendant[,]" or "include specifics as to its findings, a comparison to what Defendants utilized in their product or any evidence of misappropriation of that data." (App. at 172-73.)

Moreover, Oakwood's "testing and achievement of the data d[id] not show misappropriation by Defendants, nor d[id] it narrow down the specific allegations of what was misappropriated." (App. at 173.) The Court described Oakwood's allegations of misappropriation as "conclusory." (App. at 173.) Specifically, it thought insufficient Oakwood's "broad" claim that "Defendants could not have developed their product without the information known by Thanoo and/or the information set forth in the confidential memo that [*17] was provided to Aurobindo in the midst of their tentative business transaction." (App. at 173.)

Because it was "unclear" to the District Court "exactly what [Oakwood] [was] alleging was misappropriated," it also found "unclear whether a contract was breached or interfered with." (App. at 175.) Thus, the Court thought that Oakwood "filed this Complaint seeking broad discovery about the products being developed for competition purposes." (App. at 175.)

3. Second Amended Complaint and Third Dismissal

Oakwood tried again, and its Second Amended Complaint described its trade secrets in further detail. It included as attachments to the new complaint eight highly confidential exhibits to support the trade secret descriptions, each exhibit containing a confidential chart or schematic relating to Oakwood's secrets associated with the Microsphere Project. But that was still not enough to satisfy the District Court. It recognized that those new allegations and supporting evidence did "list[] a number of trade secrets[.]" (App. at 201.) Nevertheless, it said Oakwood "ha[d] failed to identify which one or more of these trade secrets [D]efendants have misappropriated." (App. at 201.)

As the Court saw [*18] it, Oakwood's complaint did "not show if and how Defendants used these trade secrets" and, therefore, the pleading suffered from "the same defects that resulted in the dismissal of [the] first amended complaint[.]" (App. at 202.) "At best," the revised complaint merely alleged "that Thanoo left [Oakwood's] employ, and two years later, Aurobindo announced it would be developing a Leuprolide product." (App. at 200-01.) That did "little to resolve the issue of plausibility[.]" the District Court said, because the complaint did "not allege (1) which trade secrets were misappropriated to develop a product, (2) it d[id] not describe the product development, and (3) it d[id] not allege that [Oakwood's] research is the only source for such research." (App. at 201.) Nor had Oakwood "shown that it has been detrimentally affected to date, i.e. no such products have been launched." (App. at 201.) And because the District Court found it "unclear exactly what" Oakwood alleged to be misappropriated, it once again "could not discern any breach of contract or tortious interference[.]" and dismissed those claims too. (App. at 202.)

4. Third Amended Complaint and Fourth Dismissal

In its fourth and final [*19] try, Oakwood attached to its Third Amended Complaint sixteen new exhibits in support of its amended factual allegations. This last version of the Complaint elaborates on why "the Microsphere Project is not something that could have been replicated in one-to-four years ... absent misappropriation of Oakwood's trade secrets." (App. at 218, ¶ 37.) Specifically, Oakwood alleges the

implausibility of Aurobindo developing microsphere products in that short time frame without Oakwood's trade secret information when (i) "Aurobindo, Aurobindo USA, and AuroMedics had no prior experience researching[,] "developing[,] "manufacturing[,] or "selling microsphere technology before hiring Dr. Thanoo" (App. at 225-26, ¶¶ 66-69); and (ii) "it has taken Oakwood nearly 20 years, \$130 million, and countless man-hours of 20-40 full-time employees to do the same." (App. at 231, ¶ 81.)

It also points out that "[i]t was Aurobindo that sought out Oakwood" to explore the "potential collaborative working relationship" associated with "Aurobindo USA ... sell[ing] an [active pharmaceutical ingredient] to Oakwood for its Microsphere Project." (App. at 219, ¶¶ 43-44.) And "[d]espite having materially explored a [*20] business relationship with Oakwood, Aurobindo instead recruited and hired Dr. Thanoo," (App. at 222, ¶ 57,) who had personally "spent more than 80% of his tenure with Oakwood working on the Microsphere Project" (App. at 218, ¶ 36), "thus terminating the need for a business relationship among the companies." (App. at 222, ¶ 57.)

While the District Court acknowledged that the "new documents" were "far more detailed than the facts [Oakwood] previously alleged," it still dismissed Oakwood's Complaint. (App. at 6.) Referring back to its third dismissal, in which "it indicated that '[Oakwood] ha[d] identified trade secrets, but d[id] not show if and how Defendants use these trade secrets[,]'" the Court said that "[t]he same holds true, once again." (App. at 5.) That is, the "new documents ... do not explain adequately whether Defendants acquired and misappropriated any of the trade secrets with knowledge of their confidentiality, if and how Defendants have used those trade secrets, or the resulting harm that Oakwood has purportedly suffered." (App. at 6.) Nor do those documents "reveal that Oakwood's trade secrets could have been the only source by which Aurobindo could have developed its [*21] microsphere product." (App. at 6.) And none "show that the Microsphere Project *was* replicated, that is, that the microsphere technology Aurobindo has been working on has been developed using Oakwood's trade secrets." (App. at 6 (emphasis in original).) The Court concluded that "any alleged harm is speculative" because the "Defendants have not launched any products, and, according to the Third Amended Complaint, Oakwood has not yet suffered any harm from missed partnerships or investment opportunities." (App. at 7.)

But, "[e]ven had Oakwood sufficiently alleged a detriment," the outcome would have been the same because the District Court continued to insist that "the critical missing component is any allegation of precisely how Defendants misappropriated [Oakwood's] trade secrets." (App. at 7.) And "[a] potential change in perception of competitive advantage" does not mean that such "change is the result of trade secret misappropriation" — it does not, in other words, reasonably imply misappropriation — because it "is merely the natural result of any new product development announcement by an industry competitor[.]" (App. at 7.)

On those bases, the District Court dismissed Oakwood's Complaint. [*22] ⁸ Notwithstanding its conclusion that another opportunity to amend would be "a futile endeavor ... in light of [Oakwood's] previous failed attempts[,] the District Court "dismissed without prejudice in the event that new evidence of misappropriation arises in the future." (App. at 8.) Treating the Court's fourth dismissal as final and

⁸In its final form, the Complaint asserts claims of trade secret misappropriation against the Defendants under the DTSA (Count I), and the [New Jersey Trade Secrets Act \("NJ TSA"\), N.J.S.A. § 56:15-1 et seq.](#) (Count II); breach of contract against Dr. Thanoo under his inventions agreement (Count III) and his NDA (Count IV); breach of contract against Aurobindo and AuroMedics under their confidentiality agreement (Count V); and tortious interference against Aurobindo and Aurobindo USA (Count VI).

stating that it stood "on its complaints, as each of them was sufficient ... to state a claim" for relief, Oakwood appealed. (App. at 1-2, 10.)

II. DISCUSSION⁹

As with any other claim, in considering whether Oakwood has stated a claim of trade secret misappropriation that is sufficient to survive a motion to dismiss under [Federal Rule of Civil Procedure 12\(b\)\(6\)](#), our analysis proceeds in three steps.¹⁰ First, we "tak[e] note of the elements a plaintiff must plead to state a claim." [Santiago v. Warminster Twp., 629 F.3d 121, 130 \(3d Cir. 2010\)](#) (alteration in original) (quoting [Ashcroft v. Iqbal, 556 U.S. 662, 675, 129 S. Ct. 1937, 173 L. Ed. 2d 868 \(2009\)](#)). Next, we "identify allegations that ... 'are not entitled to the assumption of truth'" because those allegations "are no more than conclusion[s]." *Id.* (quoting [Iqbal, 556 U.S. at 679](#)). Put another way, "we disregard threadbare recitals of the elements of a cause of action, legal conclusions, and conclusory statements." [James v. City of Wilkes-Barre, 700 F.3d 675, 681 \(3d Cir. 2012\)](#). Finally, "[w]hen there are well-pleaded factual allegations," we "assume [*23] their veracity," [Iqbal, 556 U.S. at 669](#), in addition to assuming the veracity of "all reasonable inferences that can be drawn from" those allegations, [Monroe v. Beard, 536 F.3d 198, 205 \(3d Cir. 2008\)](#), and, construing the allegations and reasonable inferences "in a light most favorable to the [plaintiff]," *id.*, we determine whether they "plausibly give rise to an entitlement to

⁹ It is undisputed that the District Court had subject matter jurisdiction under [28 U.S.C. §§ 1331](#) and [1332\(a\)](#), and under [18 U.S.C. § 1836\(c\)](#). And, contrary to the Defendants' suggestion, the District Court dismissal of the operative complaint without prejudice does not deprive us of appellate jurisdiction. We retain jurisdiction under [28 U.S.C. § 1291](#) whenever a plaintiff manifests "a clear and unequivocal intent to decline amendment and immediately appeal." [Weber v. McGrogan, 939 F.3d 232, 240 \(3d Cir. 2019\)](#); see also [Frederico v. Home Depot, 507 F.3d 188, 192 \(3d Cir. 2007\)](#) (concluding that a district court's order granting a motion to dismiss "is a final order, notwithstanding its 'without prejudice' modifier" because "we employ a 'practical rather than a technical construction' of [§ 1291](#)'s finality requirement" and "a dismissal with leave to amend will be treated as a final order if the plaintiff has elected to 'stand upon the original complaint'" (citations omitted)). Oakwood did that here. "We review *de novo* a district court's dismissal under [Rule 12\(b\)\(6\)](#) for failure to state a claim on which relief may be granted." [Fischbein v. Olson Research Grp., Inc., 959 F.3d 559, 561 \(3d Cir. 2020\)](#) (citation omitted).

¹⁰ Oakwood also asserts claims of breach of contract and tortious interference with a contractual relationship, which the Court dismissed for the same reasons it dismissed Oakwood's trade secret misappropriation claims. (App. at 8 (The District Court could not "discern any breach of contract or tortious interference because, 'it is unclear exactly what [Oakwood] is alleging was misappropriated. Consequently, it is unclear whether a contract was breached or interfered with.'" (citation omitted)).) Breach of contract and tortious interference claims can survive even if a trade secret misappropriation claim does not, as long as the scope of the contractually-defined confidential information is broader than the statutorily-defined trade secret information. See, e.g., [Bro-Tech Corp. v. Thermax, Inc., 651 F. Supp. 2d 378, 418 \(E.D. Pa. 2009\)](#) ("[The] improper use of another's confidential information may qualify as unfair competition even if the conduct is not specifically actionable under the rules relating to ... misappropriation of trade secrets." (second alteration in original) (internal quotation marks and citations omitted)); [Mabrey v. SandStream, Inc., 124 S.W.3d 302, 315 \(Tex. Ct. App. 2003\)](#) (analyzing a contractual protection against disclosure on the basis of the contract language, not the tort law on trade-secret misappropriation where plaintiff asserted both breach-of-contract and trade-secret misappropriation claims); [Restatement \(Third\) of Unfair Competition § 42 cmt. g](#) (Am. Law Inst. 1995) (explaining that "a nondisclosure agreement prohibiting the use or disclosure of particular information can clarify and extend the scope of an employer's rights" beyond the protection afforded by trade secret statutes).

While Oakwood challenges the District Court's dismissal of all of its claims, its arguments are limited to the Court's trade secret misappropriation rulings. Oakwood has not challenged the dismissal of its breach of contract or tortious interference with contractual relations claims on any basis independent of the Court's misappropriation rulings. Any such argument is accordingly forfeited. [Halle v. W. Penn Allegheny Health Sys. Inc., 842 F.3d 215, 230 n.17 \(3d Cir. 2016\)](#) ("An appellant waives an argument in support of reversal if he does not raise that argument in his opening brief." (citation omitted)). For that reason, Oakwood's claims of breach of contract and tortious interference with a contractual relationship will only survive if its misappropriation claims survive, and we need only consider the sufficiency of Oakwood's claims of trade secret misappropriation.

relief." *Iqbal*, 556 U.S. at 679; see also *Bell Atlantic Corp. v. Twombly*, 550 U.S. 544, 556, 127 S. Ct. 1955, 167 L. Ed. 2d 929 (2007) ("[A] well-pleaded complaint may proceed even if it strikes a savvy judge that actual proof of those facts alleged is improbable and that a recovery is very remote and unlikely." (internal quotations omitted)).

Here, the parties agree that the plausibility standard recited above applies to trade secret misappropriation claims, but they dispute whether the District Court applied that standard correctly. According to Oakwood, the Court, influenced by "its factual skepticism" (Opening Br. at 22), and "without acknowledging that it was doing so, applied several ... heightened standards, in a shifting landscape of novel demands and expectations not arising from the [Federal Rules of Civil Procedure] or the case law." (Opening Br. at 18-19.) Meanwhile, the Defendants hang their hat on the District Court's correct recitation of the plausibility standard, [*24] but do so without actually considering whether the Court's analysis applied that standard.

Underlying the parties' dispute about the application of the plausibility standard is a more fundamental disagreement rooted in the parties' opposing interpretations of the elements of a trade secret misappropriation claim under the DTSA.¹¹ The DTSA requires a plaintiff to demonstrate (1) the existence of a trade secret, defined generally as information with independent economic value that the owner has taken reasonable measures to keep secret, *18 U.S.C. § 1839(3)*; (2) that "is related to a product or service used in, or intended for use in, interstate or foreign commerce[.]" *id. § 1836(b)(1)*; and (3) the misappropriation of that trade secret, defined broadly as the knowing improper acquisition, or use or disclosure of the secret, *id. § 1839(5)*. See *id. § 1836(b)(1), (3)* (recognizing a federal private cause of action for trade secret misappropriation and establishing remedies). That much, the parties agree on. They part ways primarily on the meaning and application of the first and third elements.¹² In explaining why Oakwood has the better of the arguments on both those elements, we look first at the level of specificity required to identify the allegedly [*25] misappropriated trade secrets. We then consider the sufficiency of the Complaint's allegations of misappropriation, and we discuss misappropriation as harm under the DTSA.

A. Oakwood sufficiently identifies its trade secrets

To plead the existence of a trade secret in a misappropriation claim brought under the DTSA, Oakwood must sufficiently identify the information it claims as a trade secret and allege facts supporting the assertion that the information is indeed protectable as such. See *18 U.S.C. §§ 1836(b), 1839(3)*. In determining whether allegations about the identified information plausibly support its having protected status as a trade secret, courts consider whether the owner of the information "has taken reasonable measures to keep ... [it] secret" and whether the "information derives independent economic value, actual or potential, from not being generally known to, and not being readily ascertainable through proper means

¹¹ Because the DTSA and the NJTSA are substantially similar as a whole and because they include identical or almost identical definitions for each statutory term at issue here, our analysis of the DTSA also applies to Oakwood's claims under the NJTSA. See, e.g., *Austar Int'l Ltd. v. AustarPharma LLC*, 425 F. Supp. 3d 336, 355-57 (D.N.J. 2019) (consolidating the analysis of the DTSA and NJTSA claims).

¹² It is undisputed that the information at issue, if protected as trade secrets, relates to a product intended for use in interstate or foreign commerce.

by, another person who can obtain economic value from the disclosure or use of the information[.]” *Id.* § [1839\(3\)](#).

The District Court concluded in its dismissal of the second amended complaint that Oakwood had adequately pled the existence of its trade secrets but “failed to identify [*26] which one or more of th[o]se trade secrets [D]efendants have misappropriated.”¹³ (App. at 201.) In essence, it said you may have something that’s a trade secret, Oakwood, but you have not identified what trade secret is involved in this case. When the Third Amended Complaint was under review, the District Court again agreed that Oakwood had sufficiently identified its trade secrets and pled facts supporting the information’s protected status, but it again faulted Oakwood for not “identify[ing] which one or more of [its] trade secrets” were misappropriated. (App. at 201.)

The District Court was correct that information alleged to be a misappropriated trade secret must be identified with enough specificity to place a defendant on notice of the bases for the claim being made against it. See [DeRubeis v. Witten Techs., Inc., 244 F.R.D. 676, 680 \(N.D. Ga. 2007\)](#) (citation omitted). But a plaintiff need not “spell out the details of the trade secret to avoid” dismissal. [Diodes, Inc. v. Franzen, 260 Cal. App. 2d 244, 252, 67 Cal. Rptr. 19 \(Cal. Ct. App. 1968\)](#) (citation omitted). Rather, the subject matter of the trade secret must be described “with sufficient particularity to separate it from matters of general knowledge in the trade or of special knowledge of those persons who are skilled in the trade, and to permit the defendant [*27] to ascertain at least the boundaries within which the secret lies.”¹⁴ [Diodes, 260 Cal. App. 2d at 253](#); see also [Dow Chem. Canada, Inc. v. HRD Corp., 909 F. Supp. 2d 340, 346 \(D. Del. 2012\)](#) (citation omitted).

Beyond those outer boundaries, however, deciding “whether a plaintiff has sufficiently disclosed its trade secrets is ‘a fact-specific question to be decided on a case-by-case basis.’” [Vesta Corp. v. Amdocs Mgmt. Ltd., 147 F. Supp. 3d 1147, 1155 \(D. Or. 2015\)](#) (citation omitted). Admittedly, competing policies protecting plaintiffs and defendants in trade secret misappropriation cases “can make resolving this type of dispute difficult.” [DeRubeis, 244 F.R.D. at 681](#); see also [id. at 680-81](#) (describing seven competing policies that bear on the plausibility of trade secret claims). But, in our view, this is not one of those difficult cases. The factual allegations in Oakwood’s Complaint — at least the Third Amended Complaint and arguably earlier versions as well — are plainly sufficient to identify the trade secrets at issue and, if

¹³ The Defendants do not challenge the protected status afforded to Oakwood’s trade secret information, and they simply reiterate the District Court’s conclusions. (Answering Br. at 25 (“[A]lthough it contains facts about the existence of trade secrets, the [Complaint] contains no facts showing what information was actually disclosed or used, or when or how it was disclosed or used. At bottom, there are no facts showing any trade secrets were actually disclosed or used at all.”).) Put differently, the Defendants do not dispute the sufficiency of Oakwood’s allegations identifying the existence of its trade secrets generally. Rather, the Defendants emphasize what they perceive as a difference between Oakwood’s identification of its *existing* trade secrets and Oakwood’s identification of its *misappropriated* trade secrets. That is a perception we do not share, since the trade secrets Oakwood has identified are the very ones that a fair reading of the Complaint implies are the ones that have been misappropriated. In any event, we reject what seems to be the Defendants’ effort to blend together the identification-of-a-trade-secret element and the misappropriation element. Thus, we address the identification element here to note its distinct status and to separate it from the misappropriation element.

¹⁴ The discussion in *Diodes* regarding trade secret identification serves to explicate substantive law, not merely procedure, as it deals with what constitutes a plausible pleading of one of the elements of a trade secret misappropriation claim. As such, it has been “widely adopted by federal courts.” [Pellerin v. Honeywell Intern., Inc., 877 F. Supp. 2d 983, 988 \(S.D. Cal. 2012\)](#); see also [Dow Chem. Canada, Inc. v. HRD Corp., 909 F. Supp. 2d 340, 346 \(D. Del. 2012\)](#) (“[I]dentification must be particular enough as to separate the trade secret from matters of general knowledge in the trade or of special knowledge of persons skilled in the trade.” (citation omitted)).

taken to be true, the allegations establish the Defendants' knowledge of those trade secrets' protected status and the Defendants' incentive to access and use the secrets.¹⁵

To recap, Oakwood alleged its trade secrets to be the information laying out its design, research and development, test methods and results, manufacturing processes, quality assurance, [*28] marketing strategies, and regulatory compliance related to its development of a microsphere system for drug delivery, including peptide-based drugs. It also identified as trade secrets the variables that affect the development of its microsphere products, including the data, peptide-specific release profiles, and other discoveries associated with those variables, which it collected through "extensive trial and error testing." (App. at 213, ¶ 29.) Oakwood gave a very precise example by pointing to a particular document, the Leuprolide Memo, that it had disclosed to Aurobindo under a confidentiality agreement, and it specified the contents of that document as containing trade secrets. It attached other documents specifying in detail secrets related to the Microsphere Project that Oakwood accuses the Defendants of taking and using. The Defendants here unquestionably are on notice of the trade secret information that is at issue.

Given the allegations of the Complaint, a reasonable inference — one might say the only reasonable inference — is that the trade secrets identified in the Complaint are the ones Oakwood is claiming were misappropriated. The District Court's demand for further precision [*29] in the pleading is thus misplaced and ignores the challenges a trade secret plaintiff commonly faces when only discovery will reveal exactly what the defendants are up to. *DeRubeis*, 244 F.R.D. at 680 ("[I]f the trade secret plaintiff is forced to identify the trade secrets at issue without knowing which of those secrets have been misappropriated, it is placed in somewhat of a 'Catch-22': Satisfying the requirement of detailed disclosure of the trade secrets without knowledge [of] what the defendant is doing can be very difficult. If the list is too general, it will encompass material that the defendant will be able to show cannot be trade secret. If instead it is too specific, it may miss what the defendant is doing." (second alteration in original) (citations omitted)).

While we agree with the District Court that care must be taken to not allow a plaintiff in a trade secret misappropriation case to make generalized claims that leave a defendant wondering what the secrets at issue might be, there was no risk of that here, given the specificity of the allegations in the Third Amended Complaint.

B. Oakwood sufficiently alleges that the Defendants misappropriated its trade secrets

The District Court also declared [*30] that "the critical missing component" from Oakwood's Complaint "is any allegation of precisely how Defendants misappropriated [Oakwood's] trade secrets." (App. at 7.) There are three ways to establish misappropriation under the DTSA: improper acquisition, disclosure, or use of a trade secret without consent. *18 U.S.C. § 1839(5)*. The District Court considered Oakwood's allegations inadequate to show any of those things. It said they merely demonstrate that Aurobindo was developing a microsphere product that involved the same two peptides as Oakwood's trade secret microsphere products. According to the District Court, the allegations do not "explain adequately whether Defendants acquired and misappropriated any of the trade secrets with knowledge of their

¹⁵ As explained in Section II.B.2, *infra*, we hold that the Third Amended Complaint states a trade secret misappropriation claim, so we need not review the sufficiency of the pleading in the earlier complaints. We note, however, that with each iteration in response to the District Court's shifting criticism, the allegations became increasingly detailed and that a complaint could no doubt feature far fewer supporting factual allegations and still survive dismissal.

confidentiality[.]” (App. at 6.) Nor do they specify “which trade secrets were misappropriated to develop a product,” “describe the product development,” or reveal that Oakwood’s trade secrets are “the only source” by which Aurobindo could have developed its microsphere product. (App. at 201 (District Court’s dismissal of the Second Amended Complaint); *see also* App. at 6-7 (repeating similar determinations in the District Court’s dismissal of the Third [*31] Amended Complaint).) The District Court went on to say in its decision dismissing the Third Amended Complaint that a competitor’s announcement of its new product development does not reasonably imply misappropriation because a change in competitive advantage naturally occurs with such an announcement.

That reasoning fails for at least two distinct reasons. First, it excludes a broad scope of activity that amounts to misappropriation under the DTSA, including “use” of a trade secret.¹⁶ Second, it focuses on Aurobindo’s actual product development and mandates a heightened level of pleading specificity about which trade secrets were used, how they were used, and whether they needed to be used in order for Aurobindo to develop its product or products. We address each error in turn.

1. “Use” of a trade secret

The District Court stated that Oakwood needed to “show that the Microsphere Project *was* replicated, that is, that the microsphere technology Aurobindo has been working on has been developed using Oakwood’s trade secrets.” (App. at 6.) In saying so, the District Court erroneously equated the concept of “use” with replication. That singular emphasis on actual product development — and specifically [*32] replication — is contrary to the ordinary meaning of “use” and inconsistent with the text of the DTSA and the broad meaning that courts have attributed to the term “use” under state laws that address trade secret misappropriation. *See Bragdon v. Abbott, 524 U.S. 624, 645, 118 S. Ct. 2196, 141 L. Ed. 2d 540 (1998)* (“When ... judicial interpretations have settled the meaning of an existing statutory provision, repetition of the same language in a new statute indicates, as a general matter, the intent to incorporate its ... judicial interpretations as well.” (citation omitted)).

The DTSA does not define the term “use.” “In the absence of such a definition, we construe a statutory term in accordance with its ordinary or natural meaning.” *F.D.I.C. v. Meyer, 510 U.S. 471, 476, 114 S. Ct. 996, 127 L. Ed. 2d 308 (1994)*. “Use” ordinarily means “[t]o employ for the accomplishment of a purpose,” *Use*, BLACK’S LAW DICTIONARY (10th ed. 2014),¹⁷ or to “benefit from,” *Use*, OXFORD: LEXICO (also defining use to mean “[t]ake, hold, or deploy (something) as a means of accomplishing a

¹⁶ While improper acquisition, disclosure, or use of a trade secret without consent may each independently establish misappropriation, *18 U.S.C. § 1839(5)*, we will focus here only on the “use” of a trade secret. That is because all of Oakwood’s allegations regarding acquisition and disclosure reference events that took place prior to May 11, 2016, the date when the DTSA became effective. Thus, those allegations may not independently support misappropriation claims for improper acquisition or disclosure under the DTSA. Pub. L. No. 114-153, § 2(e) (“The amendments made by this section [*§ 1836*] shall apply with respect to any misappropriation of a trade secret ... for which any act occurs on or after the date of the enactment of this Act.”). They may, however, suffice as support for similar claims under the NJTSA — though we do not need to decide that here.

¹⁷ “As usual, our job is to interpret the words consistent with their ordinary meaning ... at the time Congress enacted the statute.” *United States v. Johnman, 948 F.3d 612, 617 (3d Cir. 2020)* (internal quotations omitted). “Use,” of course, had the same meaning in 2016, when the DTSA was enacted, as in 2014 when the cited dictionary was published. *Compare Use*, BLACK’S LAW DICTIONARY (10th ed. 2014), *with Use*, BLACK’S LAW DICTIONARY (11th ed. 2019) (continuing to define “use” to ordinarily mean “[t]o employ for the accomplishment of a purpose”).

purpose or achieving a result; employ," or "[e]xploit (a person or situation)"; defining "make use of" as "[u]se for a purpose" or "[b]enefit from") for one's own advantage"). See [Bonkowski v. Oberg Indus., Inc., 787 F.3d 190, 200 \(3d Cir. 2015\)](#) ("We look to dictionary definitions to determine the ordinary meaning of a word." (internal quotations [*33] omitted)).

When interpreted specifically in the context of trade secret misappropriation, the term "use" has been broadly defined as

any exploitation of the trade secret that is likely to result in injury to the trade secret owner or enrichment to the defendant[.] ... Thus, marketing goods that embody the trade secret, employing the trade secret in manufacturing or production, relying on the trade secret to assist or accelerate research or development, or soliciting customers through the use of information that is a trade secret ... all constitute 'use.'"

[Gen. Universal Sys., Inc. v. HAL, Inc., 500 F.3d 444, 450-51 \(5th Cir. 2007\)](#) (quoting [Restatement \(Third\) of Unfair Competition, § 40](#)). Numerous cases, pre-dating the DTSA, demonstrate that understanding of the term.¹⁸

"We find the uniformity of the ... judicial precedent construing the definition significant." [Bragdon, 524 U.S. at 645](#). While that precedent interprets state law, those states, and indeed a total of 48 states, had all adopted some variation of the [Uniform Trade Secrets Act \("UTSA"\)](#). See H.R. Rep. No. 114-529, at 198 (2016) (noting that "48 states have adopted variations of the UTSA"). And "the legislative history of the DTSA shows that Congress was expressly aware of the UTSA and its structure." [Attia v. Google LLC, 983 F.3d 420, 425 \(9th Cir. 2020\)](#) (internal [*34] quotations omitted). In other words, it "was aware of the role and limitations of the UTSA as model legislation for the states, and it recognized the DTSA and the UTSA as similar." *Id.*

Because the term "use" is incorporated into substantively identical definitions of "misappropriation" under the DTSA and UTSA, and because courts have consistently interpreted the term "use" in a broad manner under the UTSA — which also aligns with its ordinary meaning — there is every reason to continue giving "use" that expansive interpretation. See [Bragdon, 524 U.S. at 645](#). Avoiding a cramped definition of "use" is also consistent with giving trade secret owners a fair opportunity to prove misappropriation. The implication of use, especially at the pleading stage, can flow from circumstantial evidence alone. See [SI Handling Sys., Inc. v. Heisley, 753 F.2d 1244, 1261 \(3d Cir. 1985\)](#) ("[M]isappropriation and misuse can rarely be proved by convincing direct evidence." (internal quotations omitted)).

¹⁸ See, e.g., [Storagecraft Tech. Corp. v. Kirby, 744 F.3d 1183, 1186 \(10th Cir. 2014\)](#) ("[T]he line between *use* and *disclosure* is hardly as crisp as [the defendant] suggests. Can't *disclosing* a trade secret for a particular end or purpose (be it retribution or profit or otherwise) be a way of putting it to *use*, at least in a broad sense of the word?"); [Stratienko v. Cordis Corp., 429 F.3d 592, 600 \(6th Cir. 2005\)](#) ("[O]nce evidence of access and similarity is proffered, it is 'entirely reasonable for [the jury] to infer that [defendant] used [plaintiff's] trade secret.' (second, third, and fourth alteration in original) (internal quotations omitted)); [Penalty Kick Mgmt. Ltd. v. Coca Cola Co., 318 F.3d 1284, 1292 \(11th Cir. 2003\)](#) ("There are no technical limitations on the nature of the conduct that constitutes 'use' of a trade secret. ... As a general matter, any exploitation of the trade secret that is likely to result in injury to the trade secret owner or enrichment to the defendant is a 'use[.]'" (citation omitted)); [02 Micro Intern. Ltd. v. Monolithic Power Sys., Inc., 399 F. Supp. 2d 1064, 1072 \(N.D. Cal. 2005\)](#) ("[I]nternal experimentation with trade secret information can constitute use. ... Employing the confidential information in manufacturing, production, research or development, marketing goods that embody the trade secret, or soliciting customers through the use of trade secret information, all constitute use." (internal quotations omitted)).

Moreover, the District Court's equating of the term "use" with "replicate" is inconsistent with the DTSA as a whole. Cf. [*Si Men Cen v. Att'y Gen.*, 825 F.3d 177, 192 \(3d Cir. 2016\)](#) (explaining that courts consider "the broader framework of the" pertinent statute because "we do not approach statutory construction as a myopic exercise, but rather as a holistic [*35] endeavor in which we interpret the statute as a symmetrical and coherent regulatory scheme, and fit, if possible, all parts into an harmonious whole" (internal quotation marks omitted) (citations omitted)). The term "replicate" is already expressly listed as a type of misconduct amounting to "[t]heft of trade secrets" in another provision of the DTSA, a provision that separately mandates a "fine[] not more than the greater of \$5,000,000 or 3 times the value of the stolen trade secret" or "imprison[ment] not more than 10 years, or both" for such theft. [18 U.S.C. § 1832](#); see *id.* [§ 1832\(a\)](#) (explaining that liability for theft of a trade secret includes anyone "with intent to convert a trade secret ... to the economic benefit of anyone other than the [trade secret] owner[,]" who "know[s] that the offense will[] injure" the owner, when that person "knowingly" and "without authorization copies, duplicates, ... [or] replicates ... such information[,]" among other misconduct (emphasis added)). Thus, since the DTSA includes both "use" and "replicates" as distinct bases of culpability, the former for misappropriation and the latter for theft, we ought not treat them as synonymous. See [*Russello v. United States*, 464 U.S. 16, 23, 104 S. Ct. 296, 78 L. Ed. 2d 17 \(1983\)](#) ("[W]here Congress includes [*36] particular language in one section of a statute but omits it in another section of the same Act, it is generally presumed that Congress acts intentionally and purposely in the disparate inclusion or exclusion." (alteration in original) (internal quotations omitted)). Replication is surely a use, but that does not mean that use is limited to replication.

Only giving effect to the term "use" in the narrow context of replication or obvious incorporation of trade secret-protected material in a competitor's product excludes a broad range of activity that is rightly seen as unauthorized use of a trade secret and, therefore, misappropriation. In accordance with its ordinary meaning and within the context of the DTSA, the "use" of a trade secret encompasses all the ways one can take advantage of trade secret information to obtain an economic benefit, competitive advantage, or other commercial value, or to accomplish a similar exploitative purpose, such as "assist[ing] or accelerat[ing] research or development." [*Gen. Universal Sys., Inc.*, 500 F.3d at 450-51](#) (citation omitted).

2. *Oakwood sufficiently alleges that the Defendants used its trade secrets*

With that proper, more expansive understanding of trade secret use in mind, the question [*37] becomes whether Oakwood has adequately pled that the Defendants used its trade secrets. Assuming the veracity of Oakwood's well-pleaded factual allegations, and construing all reasonable inferences that may be drawn from them in favor of Oakwood, the answer to that question is yes.

As already noted, Oakwood specializes in the development of difficult-to-synthesize microsphere products. It invested two decades, over \$130 million, and a full-time team of many highly skilled, and presumably high-wage, employees in its Microsphere Project to develop bioequivalent forms of a valuable brand-name drug. We are bound to accept the assertion that there are no approved generic versions of that high-value drug due to the substantial difficulties in developing and manufacturing such a product.

As of November 2013, Oakwood had developed three leading product candidates for further development. Around the same time, Aurobindo approached Oakwood to discuss a business relationship, including a proposal to sell to Oakwood an active pharmaceutical ingredient to be used in its microsphere products. As a part of those discussions, and having executed a confidentiality agreement, Aurobindo and

AuroMedics [*38] acquired some of Oakwood's trade secret information related to the Microsphere Project, including through the Leuprolide Memo. Subsequently, Aurobindo informed Oakwood that it would not pursue the Microsphere Project collaboration "due to financial considerations." (App. at 222, ¶ 56.)

But, just months later, AuroMedics formed its own group to develop microsphere products. Not coincidentally, Aurobindo recruited Dr. Thanoo, Oakwood's Vice President of Product Development, who had been extensively involved with the Microsphere Project for "more than 80% of his tenure with Oakwood." (App. at 218, ¶ 36.) Indeed, Aurobindo USA hired him during the short period between when Aurobindo approached Oakwood about a business venture related to microsphere products and when it started its own competing group to develop such products. Notwithstanding its complete lack of experience working in the highly specialized microsphere sector of the pharmaceutical industry, Aurobindo was representing to its investors in February 2015 — less than a year after Dr. Thanoo joined its efforts — that it was already developing four microsphere products and expected to start filing for FDA approval of those products [*39] at the end of 2016 and obtaining approval in 2018. The new-market-entrant, AuroMedics, had invested just \$6 million in development of those four products, while Oakwood, having long labored in development, had invested more than \$130 million in its microsphere products.

According to Oakwood, that was significant because "the Microsphere Project is not something that could have been replicated in one-to-four years ... absent misappropriation of Oakwood's trade secrets." (App. at 218, ¶ 37.) That is a completely plausible contention and well-supported with factual allegations concerning Aurobindo's lack of experience and the complexity of microsphere product development. Again, all of those allegations are entitled to the assumption of truth at the pleading stage. [Santiago, 629 F.3d at 130](#). It is uncontested that Aurobindo and AuroMedics obtained access to certain trade secret information of Oakwood's from the Leuprolide Memo and confidential disclosures during the parties' business venture discussions. And it is reasonable to infer that Aurobindo also obtained much more detailed access to Oakwood's trade secret information through Dr. Thanoo, given the allegations about his extensive knowledge of Oakwood's Microsphere [*40] Project, the timing of Aurobindo's recruitment of him, and his own LinkedIn profile describing his work at Aurobindo USA.

But Oakwood does not rely on Aurobindo's access to trade secrets alone.¹⁹ In addition, Oakwood included as attachments to its Complaint multiple agreements between Oakwood and Aurobindo, AuroMedics, and Dr. Thanoo, in which they agreed to keep confidential Oakwood's trade secret information and to only use such information for Oakwood's benefit and with its consent. Thus, if it were not already apparent from

¹⁹In a case like this — where use is at issue and the question arises from circumstantial evidence whether any use has in fact occurred — it may be helpful to consider the "plus factor" approach that we apply in antitrust claims predicated on "parallel conduct." [In re Ins. Brokerage Antitrust Litig.](#), 618 F.3d 300, 321 (3d Cir. 2010). Parallel conduct, without more, is equally consistent with lawful and unlawful conduct. Thus, when a plaintiff "expects to rest on circumstantial evidence of parallel behavior, the complaint's statement of facts must place the alleged behavior in 'a context that raises a suggestion of a preceding agreement, not merely parallel conduct that could just as well be independent action.'" [Id. at 324-25](#).

That circumstance is not unlike a misappropriation claim where use of a trade secret is predicated solely on a competitor's access to the plaintiff's former employee. Without more, the circumstantial evidence may leave ambiguous the lawfulness of the competitor's conduct. Indeed, we could be left to speculate not only on the competitor's motivations for hiring the plaintiff's former employee but also on the former employee's conduct itself, i.e., his willingness to disclose or use plaintiff's trade secrets on behalf of the competitor. Here, however, if we accept Oakwood's allegations, there is no such ambiguity. Oakwood pleads facts that go well beyond allegations of access.

other allegations in the Complaint, it is plain that the Defendants acquired Oakwood's trade secrets knowing of their confidential nature.

This "use" of Oakwood's trade secret information can be readily understood from the timing of Dr. Thanoo's employment with Aurobindo, from Dr. Thanoo's deception in informing Oakwood about the work he would engage in at Aurobindo, from Aurobindo's lack of experience in the highly specialized field of microsphere technology, from Aurobindo's access to Oakwood's trade secret information, from its rapid success in developing four microsphere products that took Oakwood nearly 20 years to develop, and from the comparatively insignificant [*41] financial investment Aurobindo put into that development. In short, the factual allegations of the Complaint in its latest iteration are more than sufficient to meet Oakwood's burden of pleading use of a trade secret. Cf. [Iqbal, 556 U.S. at 678](#) ("[D]etailed factual allegations" are not required, but "more than an unadorned, the-defendant-unlawfully-harmed-me accusation" must be pled; a complaint must include more than just "naked assertion[s] devoid of further factual enhancement," conclusory statements, or a "recitation of the elements of a cause of action." (alteration in original) (internal quotations omitted)).

Reaching the opposite conclusion, the District Court erroneously rejected the veracity of Oakwood's well-pleaded allegations, [James, 700 F.3d at 681](#), and the "reasonable inferences that can be drawn from them[.]" [Monroe, 536 F.3d at 205](#) (internal quotations omitted). It raised doubts about the ultimate persuasiveness of the circumstantial support that Oakwood proffered to demonstrate that the Defendants could not have so quickly developed microsphere products without using Oakwood's trade secrets. In essence, the District Court asked for direct proof of misappropriation, without permitting the discovery essential to uncovering the evidence [*42] for proper consideration of the merits.

The District Court also found persuasive the absence of any allegations "reveal[ing] that Oakwood's trade secrets could have been the only source by which Aurobindo could have developed its microsphere product." (App. at 6.) But whether Aurobindo could have developed its microsphere product using proper means is irrelevant. The question at the pleading stage is simply whether Oakwood provided allegations of misappropriation sufficient to "raise a right to relief above the speculative level on the assumption that the allegations in the complaint are true[.]" [Monroe, 536 F.3d at 205](#) (internal quotations omitted). The District Court erroneously applied a heightened pleading standard, one demanding probability rather than plausibility, and further suggested a heightened evidentiary burden, which we also reject. See [Santiago, 629 F.3d at 133](#) ("'[P]ossibility' is no longer the touchstone for pleading sufficiency[.] ... Plausibility is what matters."); [SI Handling Sys., Inc., 753 F.2d at 1261](#) ("[M]isappropriation and misuse can rarely be proved by convincing direct evidence." (internal quotations omitted)); [Rogers v. Mo. Pac. R.R. Co., 352 U.S. 500, 508 n.17, 77 S. Ct. 443, 1 L. Ed. 2d 493 \(1957\)](#) ("Circumstantial evidence is not only sufficient, but may also be more certain, satisfying and persuasive than direct evidence."). [*43] We do not require a trade secret plaintiff to allege that its trade secret information was the only source by which a defendant might develop its product. Aurobindo cannot escape discovery if Oakwood's allegations sufficiently indicate the plausibility of trade secret misappropriation, and they do.

C. Misappropriation is harm

In dismissing Oakwood's Complaint, the District Court further faulted Oakwood for not having shown harm. In the Court's words, "Defendants have not launched any products, and according to the Third Amended Complaint, Oakwood has not yet suffered any harm from missed partnerships or investment

opportunities." (App. at 7.) The Court, therefore, decided that "any alleged harm is speculative." (App. at 7.) Not so.

By statutory definition, trade secret misappropriation *is* harm. See [18 U.S.C. §§ 1839\(3\), \(5\)](#). That is, trade secret information "derives [its] independent economic value, actual or potential, from not being generally known to, and not being readily ascertainable through proper means by, another person who can obtain economic value from [that information's] disclosure or use[.]" [18 U.S.C. § 1839\(3\)\(B\)](#); cf. [Ruckelshaus v. Monsanto Co., 467 U.S. 986, 1012, 104 S. Ct. 2862, 81 L. Ed. 2d 815 \(1984\)](#) ("The economic value of that property right lies in the competitive advantage over others that [*44] [the plaintiff] enjoys by virtue of its exclusive access to the data, and disclosure or use by others of the data would destroy that competitive edge."). "When someone steals a trade secret and discloses it to a competitor he effectively assumes for himself an unrestricted license in the trade secret. And that bears its cost. After all, what value does a trade secret hold when it's no longer a secret from the trade?" [Storagecraft Tech. Corp., 744 F.3d at 1185](#). The trade secret's economic value depreciates or is eliminated altogether upon its loss of secrecy when a competitor obtains and uses that information without the owner's consent. Thus, cognizable harm is pled when a plaintiff adequately alleges the existence of a trade secret and its misappropriation.²⁰

Accordingly, even if it is true that the Defendants have not yet launched a competing product, that does not mean that Oakwood is uninjured. It has lost the exclusive use of trade secret information, which is a real and redressable harm. See [18 U.S.C. § 1836\(b\)\(3\)\(B\)](#) (permitting damages for actual loss *and* unjust enrichment caused by the misappropriation, *or* damages measured by the imposition of liability for a reasonable royalty for the misappropriator's unauthorized disclosure or use [*45] of the trade secret); [Ruckelshaus, 467 U.S. at 1011](#) ("With respect to a trade secret, the right to exclude others is central to the very definition of the property interest. Once the data that constitute a trade secret are disclosed to others, or others are allowed to use those data, the holder of the trade secret has lost his property interest in the data.").

And the loss of exclusivity is not the only harm. There are other, if not yet fully realized, injuries. Aurobindo's rapid market entry into a sector of the pharmaceutical industry with few competitors may well deprive Oakwood of market share. Utilizing Oakwood's trade secrets provides Aurobindo a jumpstart in an industry it would otherwise not have competitively joined for another decade. Aurobindo will avoid substantial research and development costs that Oakwood has already invested in its own product development. Those are competitive harms recognized in the DTSA, [18 U.S.C. § 1836\(b\)\(3\)\(B\)](#), and they

²⁰ A number of pre-DTSA trade secret cases support this contention. See, e.g., [FMC Corp. v. Taiwan Tainan Giant Indus. Co., Ltd., 730 F.2d 61, 63 \(2d Cir. 1984\)](#) ("[I]t is clear that the loss of trade secrets cannot be measured in money damages. A trade secret once lost is, of course, lost forever." (citations omitted)); [Nat'l Starch & Chem. Corp. v. Parker Chem. Corp., 219 N.J. Super. 158, 530 A.2d 31, 33 \(N.J. Super. Ct. App. Div. 1987\)](#) ("[D]amages will not be an adequate remedy when the competitor has obtained the secrets. The cat is out of the bag and there is no way of knowing to what extent their use has caused damage or loss." (internal quotations omitted)); [Miles Inc. v. Cookson Am., Inc., No. 12,310, 1994 Del. Ch. LEXIS 221, 1994 WL 676761, at *10-11 \(Del. Ch. Nov. 7, 1994\)](#) (The "actual or potential independent economic value" requirement "involves the notion of competitive advantage. It focuses on whether a plaintiff would lose value and market share if a competitor could enter the market without substantial development expense." (citing [Electro-Craft Corp. v. Controlled Motion, Inc., 332 N.W.2d 890, 900-01 \(Minn. 1983\)](#))).

represent a sample of the several approaches by which the amount of harm — not simply the fact of harm (which inheres in the unlawful use itself) — may be measured.²¹

III. CONCLUSION

Oakwood adequately pled the existence and misappropriation of trade secrets related to products [*46] intended for use in interstate or foreign commerce, so its claims under the DTSA should not have been dismissed. Its breach of contract and tortious interference claims should likewise not have been dismissed. *See supra* n.10. We will therefore vacate the District Court's final order of dismissal and remand for further proceedings consistent with this opinion.

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²¹ *See, e.g., Rohm & Haas Co. v. Adco Chem. Co.*, 689 F.2d 424, 434 (3d Cir. 1982) ("New Jersey law states that a company misappropriating a trade secret may lose the benefits of its future independent experiments because of the difficulty of determining how much of the improvement is attributable to those independent efforts and how much to the information gained by the wrongdoing. ... In trying to segregate honest efforts and ill-acquired knowledge, [e]very doubt must be resolved against the parties to a fraudulent act." (internal quotation marks and citations omitted)); *Bohnsack v. Varco, L.P.*, 668 F.3d 262, 280 (5th Cir. 2012) ("Damages in misappropriation cases can take several forms: the value of plaintiff's lost profits; the defendant's actual profits from the use of the secret; the value that a reasonably prudent investor would have paid for the trade secret; the development costs the defendant avoided incurring through misappropriation; and a reasonable royalty. This variety of approaches demonstrates the 'flexible' approach used to calculate damages for claims of misappropriation of trade secrets." (internal quotation marks and citations omitted)).