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Transaction ID 61320475
Case No. 2017-790-

IN THE COURT OF CHANCERY OF THE STATE OF DELAWARE

IBIO, INC.,	)	
	)	
Plaintiff,	)	
	)	
v.	)	C.A. No. _____
	)	
FRAUNHOFER-GESELLSCHAFT ZUR FÖRDERUNG DER ANGEWANDTEN FORSCHUNG E.V.,	)	
	)	
Defendant.	)	

VERIFIED COMPLAINT

Plaintiff iBio, Inc. ("iBio") hereby alleges for its Complaint against Defendant Fraunhofer-Gesellschaft as follows.

INTRODUCTION

For more than a decade, the purported "non-profit" colossus operating under the banner "Fraunhofer" surreptitiously and systematically perpetrated fraud on iBio. Fraunhofer obtained for itself millions of dollars of funding from, and enabled by, iBio for the development of technology by Fraunhofer's operation in Delaware that was to be owned exclusively by iBio. Instead of performing technology transfer to enable iBio to use that technology and assisting iBio to commercialize it, Fraunhofer secretively and in willful violation of its obligations to iBio proceeded to undermine iBio's business and use that technology for Fraun-

hofer's own benefit.

Fraunhofer-Gesellschaft ("FhG"), a German-formed entity, is the formal legal entity that runs Fraunhofer, including its U.S. operations. FhG was complicit in controlling and supporting the fraud of its Delaware Center. Outwardly, FhG represented that the work at the Delaware Center to develop and promote a novel and proprietary plant-based technology was being performed on iBio's behalf and for iBio's exclusive ownership. Relying on these representations, iBio entered into dozens of agreements in the United States with Fraunhofer's Delaware Center, each of which made crystal clear that iBio owned and was entitled to receive the technology for which it paid Fraunhofer over $20 million to develop.

Secretly, however, despite the unambiguous contracts and assurances given, Fraunhofer engaged in a course of conduct to undermine iBio's rights, including iBio's exclusive ownership and control over the commercial exploitation of the technology. Fraunhofer misappropriated iBio's technology for its own gain, flagrantly refused to provide technology transfer to iBio, and continues to this day to publicly offer iBio's technology to other parties. In effect, Fraunhofer has been attempting to eliminate iBio's use of iBio's own technology in competition with Fraunhofer's illicit use of iBio's technology, while retaining the millions iBio paid and enabled as compensation to Fraunhofer for development of the technology. Fraunhofer's theft and fraud has severely injured iBio's business, causing compen-

satory damages alone in excess of $100 million.

iBio's relationship with Fraunhofer began in the early 2000s. At that point, iBio had come up with the ideas for using a plant-based method to manufacture biopharmaceuticals and other products that would significantly reduce drug development times and costs. To develop the technology and support iBio's commercialization efforts, iBio looked for scientists who could work to further refine the technology including enhancing it with additional new inventions and develop a commercially-viable process derived from the technology. With FhG's backing and support, iBio engaged Fraunhofer's Delaware Center to perform this role. In exchange, iBio paid Fraunhofer more than $20 million in funding and expended tens of millions more in technical direction, assistance, and efforts to commercialize.

The technology that resulted from the parties' collaboration included a new, more efficient and less costly method for developing and producing biopharmaceuticals, the fastest growing sector in the drug industry. But while the agreements with iBio made clear that iBio retained all ownership rights over the technology, and Fraunhofer, through its German and U.S. executives, continued to represent that iBio owned all of the technology, Fraunhofer secretly misappropriated iBio's technology, and actually competed with iBio to use iBio's technology without iBio's knowledge, all for Fraunhofer's own gain. As a result of Fraunhofer's will-

ful misconduct, iBio has been defrauded of the benefits of its investment of tens of millions of dollars in developing and seeking to commercialize its plant-based technology through Fraunhofer.

While iBio has already proceeded against the Fraunhofer U.S.A. entity in the Delaware Court of Chancery, the systemic fraud perpetrated against iBio here in Delaware by the Fraunhofer operation calls for holding FhG responsible for its bad acts. iBio therefore seeks compensatory, exemplary, and injunctive relief against FhG.

PARTIES

1. iBio, Inc. is a corporation organized and existing under the laws of the State of Delaware. iBio is a biotechnology company focused on using its proprietary technologies and production facilities to provide product development and manufacturing services to others, as well as to develop and commercialize its own product candidates. Such products include biologics in hydroponically grown, transiently-transfected green plants where the natural protein production capability plants use to sustain their own growth is harnessed and re-directed to produce proteins for a range of applications including vaccines, biopharmaceuticals and commercial intermediates, and also to create and produce proprietary derivatives of pre-existing products with improved properties.

2. Fraunhofer-Gesellschaft Zur Förderung der angewandten Forschung

e.V., *i.e.*, FhG, holds itself out as a not-for-profit company organized and existing under the laws of the Federal Republic of Germany, with its principal place of business at Postfach 20 07 33, 80007 Munich, Germany.

3. FhG further holds itself out as "one of the largest and most successful applied research organizations in Europe and the world." FhG operates worldwide as an integrated organization known as "Fraunhofer." FhG reported as of December 31, 2016, that it had total assets of about $3 billion, with 64% of its assets in property, plant, and equipment, and total business volume in 2016 of about $2 billion.

4. FhG maintains and operates Fraunhofer through some 69 Institutes. Those Institutes are held out by Fraunhofer as integral operational units critical to the mission and functioning of Fraunhofer. Those Institutes are further organized into seven groups.

5. One of those institutes is the Fraunhofer Institute for Molecular Biology and Applied Ecology IME ("FIME" or the "IME"). According to FhG's "Statute," its governing document, the institutes, including FIME, "do not have any separate legal status" from FhG. In addition, all institutes, including FIME, are not entitled to "represent the Organization or an Institute before a court of law" "without express written authority."

6. FhG manages and operates its research and development activities

outside Germany "through the intermediary of four international subsidiaries." One of FhG's "intermediary" entities is Fraunhofer USA, Inc. ("FUSA"), which FhG claims as a "wholly-owned subsidiary." FUSA is a corporation organized and existing under the laws of Rhode Island and claimed as a 501(c)(3) entity. FhG is the sole member of FUSA and dominates and controls FUSA. At all times relevant to this Complaint, members of FUSA's Executive Board, including at different times its President, Chairman, and Vice Chairman, were also members of FhG's Senior Executive Board. According to Frank Treppe, the President of FUSA and Division Director of FhG at various times, including in 2014, Mr. Treppe was in charge of incorporating and operating FUSA, "on behalf of Fraunhofer-Gesellschaft." At all times relevant to this Complaint, FhG reviewed and approved all significant contracts of FUSA. On information and belief, at all times relevant to this Complaint, FhG controlled and transferred funds in and out of FUSA's budget, and controlled all significant financial decisions by FUSA. FUSA is not operated at arms-length by FhG but rather as an instrumentality of FhG.

7. Fraunhofer's Center for Molecular Biotechnology ("FCMB", "CMB", or Delaware "Center") is an unincorporated and wholly controlled unit of Fraunhofer with its principal place of business at 9 Innovation Way, Suite 200, Newark, Delaware 19711. It was established by FhG; as represented by FIME, FCMB was formed at the initiation of FIME and "[FCMB] was established in 2001 as a part-

nership between Fraunhofer Gesellschaft and the State of Delaware." Moreover, FIME holds out FCMB as the first U.S. division of FIME and as "secur[ing] a direct presence of the [F]IME on the American market." FCMB's budget is integrated into FIME and controlled by FIME, a unit of FhG. All material actions taken by FCMB, including entering into any significant contracts, must be approved by the President of FUSA, who is also a senior officer of FhG. By controlling the budget of FCMB and requiring all significant actions to go through the President of FUSA, a senior officer of FhG, FhG controlled and directed FCMB. FCMB is not operated at arms-length by FhG but rather as an instrumentality of FhG.

JURISDICTION

8. This Court has subject matter jurisdiction pursuant to 10 Del. C. § 341.

9. This Court has personal jurisdiction over FhG. FhG conducts business in Delaware through its FIME Institute and the FCMB plant, and has acted directly against iBio in Delaware. Additionally, FhG personnel located in the United States, including FUSA's and FCMB's executive directors, have acted as principals, agents, or both, of FhG with regard to the matters alleged in this Complaint.

10. Delaware, as the locale of FCMB, is the focal point of this action. Moreover, technology not transferred by Fraunhofer to iBio is located in Delaware,

and Fraunhofer has exercised dominion in Delaware over iBio's property. Personnel of FIME and FhG have visited the Delaware Center in connection with their exercise of control over, and interest in, FCMB. FhG's actions, directly and through its agents, against iBio occurred in Delaware and provide this Court with personal jurisdiction over FhG.

NATURE OF THIS ACTION

11. This is an action to remedy the consequences of FhG's willful fraud and theft regarding iBio's technology.

12. For more than ten years, beginning in 2003, iBio engaged Fraunhofer, through its Delaware Center, to develop exclusively for iBio plant-based technology for the manufacture of biopharmaceuticals (drugs made from living cells and tissues) and other products, and to support iBio's commercialization efforts. To support the development, expansion and application of the technology by FCMB, exclusively for iBio's ownership, iBio provided FCMB with more than $20 million in funding and enabled tens of millions more to be obtained by FCMB from government and non-governmental organizations. This relationship resulted in great benefits for Fraunhofer. Indeed, FhG has held out FCMB as the "best performing Fraunhofer Center in the United States."

13. The resulting technology was to include a new method for developing and producing biopharmaceuticals, the fastest growing sector in the drug industry,

and a platform for the further development of specific processes that with increased efficiency and cost savings, could make desired proteins at large scale for pharmaceutical and other uses.

14. The method was to design and use "launch vectors"—the vehicles for transporting DNA from one cell to another—to rapidly engineer and produce high levels of target proteins in, for example, non-genetically-modified plants. Target proteins are the active pharmaceutical ingredients in biopharmaceuticals, including vaccines and biological therapeutics ("biotherapeutics"). A vector temporarily introduces a new genetic sequence into the tissues of a plant grown hydroponically under clean and controlled conditions in such a way that the introduced gene "hijacks" the plant's protein producing machinery and causes the plant to produce the target protein encoded by the introduced genetic sequence.

15. The resulting technology could effectively turn plants into protein factories without necessarily altering the DNA of the plants. Unlike other plant technology efforts, such as ones that require genetic modification of plants, this technology was to provide a versatile and efficient method for producing many categories of proteins at greatly reduced production times and costs. With the introduction of foreign genes into a plant, the technology allows the plant to divert its normal biochemical operations to the production (sometimes called "expression") of the protein encoded by that gene, with elapsed time from initial gene engineer-

ing to analysis or delivery of harvested protein in as little as two weeks.

16. With the support and approval of FhG, iBio and FUSA, "acting through its Center for Molecular Biotechnology," entered into a series of agreements that effectively made FUSA (and FCMB) a captive contractor for iBio. The primary agreements, sometimes collectively referred to as the "TTA, as amended and supplemented" (see below in Section II), made clear that iBio was entitled to exclusive ownership of all the plant-based technology developed or acquired by Fraunhofer through 2014, with only a limited royalty-bearing license granted back from iBio, principally for agricultural and industrial uses and certain non-human health uses. iBio was entitled to technology developed by Fraunhofer beyond 2014 in connection with certain specific projects under additional agreements. Fraunhofer was not free to use iBio's technology except as specifically permitted by the agreements. FhG reviewed and approved all, or at least the most significant, agreements between iBio and FUSA.

17. iBio's proprietary rights in the technology include ownership of numerous patents and valuable unpatented trade secrets, such as extensive data and confidential know-how, which was to be provided to iBio including through technology transfer.

18. Further obligations of Fraunhofer in the relationship included: (1) Establishment for iBio of the capability, information and data necessary to

support commercial licensing of iBio's technology for manufacturing purposes, as well as for specific vaccine, therapeutic and other product candidates and demonstration of the capabilities, validity and value of the technology; (2) Full protection of intellectual property for iBio, so as to allow iBio to have exclusive ownership of the technology (and exclusive use in the Field) and thereby compete effectively against others operating in a more capital intensive manner; (3) Assistance and cooperation in development of business opportunities for using the technology, and support of iBio's efforts to commercialize the technology; (4) A relationship where Fraunhofer was not to be working in competition with iBio in iBio's Field or against iBio's interests; and (5) A business relationship whereby Fraunhofer would act ethically and would not lie, undercut iBio or steal for Fraunhofer's benefit the fruits of the parties' endeavor.

19. FhG, at least through FIME and FCMB, represented that FhG stood behind and backed FCMB's relationship with iBio. This was critical to iBio's continuing to enter into and perform contracts with FCMB.

20. FhG representatives, including Messrs. Rainer Fischer and Georg Rosenfeld, repeatedly affirmed iBio's exclusive rights in the technology and obligations of Fraunhofer in relation thereto. In addition, FhG repeatedly approved agreements that explicitly identified iBio as the owner of the technology developed by Fraunhofer on behalf of iBio.

21. In 2014, iBio discovered that Fraunhofer, through Vidadi Yusibov, Executive Director of FCMB, in derogation of iBio's rights of ownership and use of technology and contrary to Fraunhofer's obligations to support iBio's commercialization efforts, had entered into a clandestine collaboration with one of iBio's competitors in which Fraunhofer agreed to, and did, make unauthorized use of iBio's technology to help develop a product for the competitor just as iBio was attempting to enter the same market with similar products.

22. In willful breach of its contractual obligations and its consistent representations to the contrary, Fraunhofer refused at the end of 2014, and thereafter, to perform technology transfer to iBio necessary to enable iBio to further develop and commercialize the technology covered by all of iBio's agreements with Fraunhofer.

23. Fraunhofer improperly appropriated the technology for its own improper use and benefit. Rather than supporting iBio's commercialization efforts, Fraunhofer undermined them.

24. In an improper attempt to justify the misconduct, Fraunhofer claimed, contrary to its earlier representations, that Fraunhofer, and not iBio, owned the technology. Fraunhofer further claimed that it had never intended that iBio own the technology. FhG, directly and through its agents, made and supported these false representations.

25. Fraunhofer's fraud and misconduct denied iBio the benefit of its bargain and prevented iBio from realizing its expectations, in justifiable reliance on representations of Fraunhofer, that Fraunhofer was creating valuable technology for iBio and was supporting iBio's commercialization efforts.

26. iBio has sought relief against FUSA for FCMB's misconduct in the Delaware Court of Chancery, C.A. No. 10256.[1]

27. In a decision issued on July 29, 2016, the Delaware Chancery Court ruled in iBio's favor and held that, under the primary agreements between the parties, iBio owned all of the "technology in the area of plant-based manufacturing technologies, techniques, and methodologies and associated improvements" whether previously owned by Fraunhofer or developed by Fraunhofer for iBio through 2014. *See iBio, Inc. v. Fraunhofer USA, Inc.*, 2016 WL 4059257 (Del. Ch. July 29, 2016).

FACTUAL BACKGROUND

I. THE PARTIES' COLLABORATION

A. iBio's Identification Of Business Opportunities In Plant-Based Technology For Manufacture Of Pharmaceuticals And iBio's Engagement Of Fraunhofer

28. In the early 2000s, iBio foresaw business opportunities in plant-based

[1] Paragraphs and Exhibits of the Verified Supplemental and Second Amended Complaint filed in that Chancery action are cited herein, respectively, as "SSAC ¶ __" or "SSAC Ex. __".

technologies for manufacture of biopharmaceuticals. iBio wanted to develop and own new plant-based technology and associated intellectual property for making proteins for human vaccines to prevent disease and other proteins for biotherapeutics to treat disease, as well as for other applications. iBio looked for scientists who would be able, under iBio's direction, to develop such technology and to develop a commercially-viable, cost-effective, reliable, scalable process that would make a consistent product using such technology.

29. Fraunhofer was recommended to iBio as an appropriate research and development contractor. In turn, iBio was introduced to Vidadi Yusibov ("Dr. Yusibov") and then to Fraunhofer's Center in Delaware shortly after FCMB was formed and Dr. Yusibov became its Chief Science Director and then Executive Director. iBio engaged FCMB in 2003 to develop the technology for iBio. Before joining Fraunhofer, Dr. Yusibov was an academic who had little practical experience in the field. FCMB had only two or three employees, and only small laboratory facilities, but no commercial experience or other facilities for the development and manufacture of plant-made pharmaceuticals or other products.

30. The work financed by iBio was critical to the new Center. It was FCMB's first serious project and funding. Before becoming involved with iBio, FCMB was a start-up with capital and management provided by FhG. iBio entered into the relationship with the understanding that FCMB was supported financially

and operationally as part of the worldwide Fraunhofer.

31. With regard to research and development in plant-based technology, FCMB was in effect a captive contractor for iBio. iBio provided and enabled tens of millions of dollars in funding, and provided technical direction and assistance for FCMB to engage in development work for iBio. iBio entered this relationship with FCMB for the very purpose of having patented and trade secret technology developed exclusively for iBio, with FCMB as the developer, not the owner, of such technology. This type of business model (contracting with developers for the creation of new technology for the contractor's ownership, rather than hiring employees), is common in the emerging biotech industry, where it is desirable to maintain flexibility given, for example, the rapidly changing skill sets needed and directions taken by new advances in biotechnology.

32. FCMB and iBio entered into agreements that provided iBio exclusive ownership rights to all of the technology, including all human biopharmaceuticals, and granted a royalty-bearing license back to FUSA/FCMB for only certain limited uses of the technology (e.g. certain veterinary, diagnostic, and industrial uses) not then a priority to iBio for its own, direct commercialization efforts. The agreements also provided for a transfer to iBio of all of the technology developed, improved or acquired under the agreements that would enable use, further development, licensing, and collaboration by iBio of any part of the technology. FCMB

was also obligated to support iBio's commercialization efforts. FhG supported and approved the significant agreements with iBio.

B. iBio's And Fraunhofer's Development Of Innovative New Plant-Based Technology

33. Initially, Dr. Yusibov envisioned the use of tobacco plants grown in agricultural greenhouses to produce human proteins (e.g., antigens for vaccines or antibodies or other proteins for biotherapeutics), an approach that was highly impractical for pharmaceuticals. Under iBio's direction and with iBio's technical assistance and collaboration, the work turned to the use of hydroponically grown plants in enclosed, artificially lighted and controlled environments to produce the relevant proteins for vaccines and other biotherapeutics. Development in the first five years progressed from the mere discussion of ideas and work on a laboratory scale, to the development of technology platforms, and the engagement of Fraunhofer by iBio in 2006 looking to the design and development of prototype and pilot plant manufacturing facilities.

34. The prototype facility was completed in 2008. The pilot plant, based on the prototype, was largely complete in 2009 except for certain renovations to accommodate "quality control and developmental work on product release assays and vaccine formulations." (*See* SSAC Ex. J, Fraunhofer, 2009 Annual Report at 27.)

35. By 2008, as reported by FUSA's annual report, FCMB had grown

from a small startup to become the "largest of [Fraunhofer's] USA centers," with its "main focus" on "using plant-based systems for rapid, inexpensive production of vaccines, therapeutics and diagnostics." (*See* SSAC Ex. I, Fraunhofer 2008 Annual Report, at 7, 24.)

36. The completion of the pilot plant was formally announced in 2010. (*See* SSAC Ex. K, April 22, 2010 Press Release, at 1 ("This first-of-a-kind, plant-based vaccine factory, takes advantage of plant viral vector technology developed by Fraunhofer CMB for the biopharmaceutical company iBio.").) In that announcement, Dr. Yusibov stated that, "[t]his technology has the potential to revolutionize how biological materials are manufactured" and described the plant as "the first cGMP (current Good Manufacturing Practices) facility for plant-based protein production." (*Id*.) By its agreements with iBio, FCMB was required to use its best efforts to obtain funding from governments and nongovernmental organizations (NGOs) to advance iBio's technology.

37. The technology developed over the next couple of years through the parties' relationship had moved from theory to several practical applications, including early stage vaccines for malaria, hookworm, anthrax, H1N1 influenza, and H5N1 influenza, attracting the interest and investment of governmental organization, NGOs, and research foundations.

38. For example, among the practical applications, on January 4, 2011,

iBio and FUSA entered into a Collaboration Agreement with the Ministry of Health of Brazil, acting through Bio-Manguinhos, for the development of a recombinant vaccine against yellow fever virus and a large scale commercial manufacturing facility for the vaccine using iBio's technology, with FCMB as iBio's subcontractor. In that collaboration, iBio engaged FCMB to perform additional research and development work on the technology specific for the yellow fever vaccine, and in doing so Fraunhofer, acting through FCMB, recognized iBio as "the owner and controller" of the "patents and intellectual property, covering technology and know-how that FCMB would be required to utilize to perform [the] research and development work." iBio agreed to license the technology to FCMB and the Ministry to enable the parties to perform the research and development work under the agreement.

39. A new yellow fever vaccine was the first product covered by that Ministry of Health license from iBio, but the agreement, by its terms, contemplated that other products would be added to the license.

40. By the end of 2014, the work iBio had contracted for and directed Fraunhofer to perform had resulted in ownership rights for iBio of numerous U.S. and foreign patents granted or applied for. The proprietary rights of iBio also includes all the trade secret knowledge that is critical to efficiently and effectively produce the biopharmaceuticals better than any other competing methods. Such

trade secret knowledge includes positive and negative know-how, for example, information and expertise related to the manufacturing process as it applies to each different protein or types of proteins with all their parameters, conditions, equipment, design, specifications, and standard operating procedures. This know-how (whether or not considered trade secrets) further includes knowledge and data that may or may not be memorialized in laboratory notebooks, or other media, and includes knowledge and data about what works, or does not work (negative know-how), to improve the protein yield and purity for each attempted application.

41. As explained further below in Section III, Fraunhofer, in willful breach of the agreements, refused to perform technology transfer to iBio, while at the same time wrongfully using, misappropriating and misrepresenting ownership of the technology for its own benefit and while undermining iBio's commercialization efforts.

II. THE PARTIES' AGREEMENTS GIVING OWNERSHIP AND PRINCIPAL USE OF THE TECHNOLOGY TO iBIO

A. The Parties' Agreements

42. With FhG's support and approval, FUSA, acting through FCMB, and iBio entered into a series of agreements by which FCMB was engaged by iBio. These agreements built over time, as their efforts progressed in successfully developing the technology exclusively for iBio's ownership and principal use. All, or at least the most significant agreements required approval, and were approved, by

FhG.

43. Those agreements include: (i) a December 18, 2003 Technology Transfer Agreement ("TTA") (SSAC Ex. B); (ii) an August 20, 2007 Fourth Amendment to the Technology Transfer Agreement ("Fourth Amendment") (SSAC Ex. D); and (iii) a November 3, 2008 Transfer and License Agreement ("TLA") (SSAC Ex. E). They also include a 2006 Research Agreement relating to the prototype and pilot plant facilities (SSAC Ex. C), other research agreements, and agreements relating to work using the technology to develop candidates for certain applications. In all, the parties entered into some 30–40 agreements.

44. The 2003 TTA was the initial agreement by which FCMB agreed to develop, through the end of 2008, technology for iBio's exclusive ownership. It was initially executed on December 18, 2003, became effective on January 1, 2004, and was amended over time. The 2003 TTA provided for payment by iBio of $2.75 million through May 2, 2008. If iBio elected, as it did, to make a final $250,000 payment on November 2, 2008, the TTA gave iBio exclusive ownership rights to all the technology developed or acquired under the parties' agreements, and granted a royalty-bearing license back to Fraunhofer of certain limited uses outside the field of iBio's commercialization focus. The TTA also provided for a transfer to iBio of all technology developed or acquired under the agreement so that iBio could fully practice or license to others use of the technology with full

benefit of the know-how and trade secrets.

45. Shortly after the TTA became effective in 2004, iBio issued a press release announcing the agreement and the broad scope of the technology that FCMB had agreed to develop for iBio, as well as iBio's exclusive ownership rights therein:

> [T]he agreement between [iBio] and [FUSA] grants [iBio] exclusive rights and eventual ownership of all of the intellectual property and proprietary know-how in the field of vaccine, therapeutic protein and antibody production for human use. The Agreement will result in cash and royalties paid to [Fraunhofer] by [iBio] in exchange for broad rights to the technology.

(*See* SSAC Ex. A.)

46. In that press release, William Hartman, FUSA's Vice President and Chief Operating Officer, stated that the TTA "creates a partnership that will help to facilitate commercialization of the center's research and development activities." (*Id.*) Dr. Hartman further stated that the TTA would "open new opportunities for Fraunhofer USA in U.S. and world biotech markets." (*Id.*)

47. The 2007 Fourth Amendment extended from 2008 to 2014 FCMB's commitment to develop technology exclusively for iBio and refined the scope of the technology subject to the parties' agreements. The "Intellectual Property Rights" to be owned and transferred to iBio, referred to in Section 2 of the Fourth Amendment, were:

> . . . rights to proprietary technology and Intellectual Property Rights (the "Technology") in the area of expression, engineering, testing, production and validation of human vaccines, human antibodies and human therapeutic proteins in plants, veterinary applications of plant-based influenza vaccines, including commercial process and production techniques and methodologies related to those applications. . .

(SSAC Ex. D at § 2.)

48. Further, the Fourth Amendment explicitly committed FCMB to facilitate technology transfer and implementation of the technology for iBio and to otherwise support iBio's commercialization of its rights to the technology. Additionally, the Fourth Amendment confirmed that FUSA would, in November 2008, convey ownership to iBio of the technology. In consideration for the Fourth Amendment, executed on August 20, 2007, iBio agreed to pay FCMB an additional $10 million. (SSAC Ex. D.)

49. The 2008 TLA, mutually executed on January 21, 2010 (but dated as of November 3, 2008), sets forth the terms of, and effectuated, the transfer of ownership of the technology to iBio contemplated by the TTA and Fourth Amendment to the TTA.

50. The breadth of iBio's rights under the TLA was confirmed by the parties a few weeks after the TLA was executed, in a February 11, 2010 "Global Access Agreement" (SSAC Ex. F). The purpose of the Global Access agreement was to facilitate funding from the Bill & Melinda Gates Foundation in support of

the parties' development work by granting Fraunhofer an additional limited non-commercial license to use iBio's technology to provide the Gates Foundation with certain specific vaccines for use in the developing world. The Global Access Agreement included a section setting forth the rights retained by iBio and, therein, confirmed the comprehensive scope of iBio's rights under the TTA and TLA:

> 3. Rights Retained. . . . *FCMB acknowledges that IBIO owns the Technology*, and except for the license expressly granted to FCMB herein and in the Assignment and License Agreement, *all right, title, and interest of every kind and nature, whether now known or unknown*, in and to any intellectual property related to the Technology . . . shall be and remain the sole and exclusive property of IBIO for any and all purposes and uses, and FCMB shall have no right, title, or interest of any kind or nature in or to such property, or in or to any results and/or proceeds from such property, except as expressly provided by the TTA and the Assignment and License Agreement. For avoidance of doubt, IBIO is hereby irrevocably assigned all right, title and interest to all Improvements to the Technology made by or on behalf of FCMB or its permitted sublicensees for all purposes . . . .

(SSAC Ex. F at § 3 (emphasis added).)[2]

[2] Over the course of their relationship, iBio and FCMB entered into a significant number of other agreements which, like the Global Access Agreement, related to specific projects. iBio also entered two agreements with Vidadi Yusibov, who became an employee (from March 2010 to March 2012) and then a paid consultant (from March 2012 to October 2014) of iBio while maintaining his position with Fraunhofer (SSAC Exs. G, H). Across these various agreements, FCMB and Dr. Yusibov repeatedly recognized iBio's broad and exclusive rights to ownership of the technology developed by FCMB pursuant to the TTA and TLA. On information and belief, FhG reviewed and approved of these agreements and their agreements and recognition of iBio's comprehensive rights.

B. The Decision Confirming iBio's Ownership of the Technology in the Court Of Chancery

51. In a decision issued on July 29, 2016, the Delaware Court of Chancery ruled in iBio's favor and held that the scope of iBio's ownership rights to technology and rights to receive technology transfer, under the TTA, as amended and supplemented, "encompasses all proprietary rights of any kind to technology in the area of plant-based manufacturing technologies, techniques and methodologies and associated improvements, whether for the expression of vaccines and therapeutic proteins or otherwise, whether previously owned by Fraunhofer, developed for iBio pursuant to the TTA, or otherwise," and "includes know-how," except as to improvements made beyond December 31, 2014.

52. Nevertheless, Fraunhofer has willfully and without basis refused to provide technology transfer. While iBio had access to published patents, and FUSA in 2013 executed formal documentation for some, but not all, patents to allow recordation of iBio's ownership in the U.S. Patent and Trademark Office, Fraunhofer withheld from iBio valuable unpatented property that belonged to iBio and refused to perform technology transfer. The property belonging to iBio that Fraunhofer withheld includes trade secrets and know how (whether or not considered "trade secrets") that was critical to iBio's ability to develop products and carry on its business with its technology for which it paid millions of dollars. Fraunhofer's refusal to transfer the technology rendered iBio's investment of over $70

million to develop and commercialize the plant-based technology with Fraunhofer's help unusable.

53. Fraunhofer also refused to disclose the extent of its use of iBio's technology and account for royalties that accrued from such use that are due to iBio under the parties' agreements.

III. FRAUNHOFER'S MISCONDUCT

A. Fraunhofer's Deceit

1. Fraunhofer's Involvement And Representations About The Role Of The Fraunhofer Organization

54. All actions taken by Dr. Yusibov and FCMB were directed and controlled by FhG. Throughout the relationship, Dr. Yusibov, as Executive Director of FCMB, made clear to iBio that FCMB was integrated with and controlled by the German operation (i.e. FhG) through FIME.

55. Dr. Yusibov further represented that: (a) operationally, FCMB was integrated as a part of FIME under the supervision of the Senior Executive Director of FIME (one of FhG's institutes), Rainer Fischer; and (b) that all important decisions about FCMB and Fraunhofer were made by Dr. Fischer and the then senior executive of FhG, who concurrently held the position of President of FUSA. Over the period from 2003 through at least 2014, the role of President of FUSA has been held by Messrs. Dennis Tsichritzis, Hans-Jorg Bullinger, Georg Rosenfeld and Frank Treppe, each of whom concurrently held and executed senior executive

positions at FhG.

56. Dr. Yusibov's representations that FhG controlled all important aspects of Fraunhofer, including FCMB, were echoed by William Hartman, who was Vice President of FUSA and the most senior officer of Fraunhofer not holding a position with FhG. According to Dr. Hartman, FhG wanted to limit the actions that could be taken without the assent of the President of FUSA, who always maintained a senior officer position at FhG. Dr. Hartman also represented that FCMB was actually integrated as part of the budget of FIME. By controlling the budget of FCMB and requiring all significant actions to be approved by the President of FUSA, who was also a senior officer of FhG, FhG controlled and served as the principal for FCMB and Vidadi Yusibov.

57. Further, in FIME's 2006 Annual Report, FCMB is depicted as falling under the Division of Molecular Biology within the organizational structure of FIME and Dr. Vidadi Yusibov is listed as the contact and head of FCMB. In the same report, FCMB is held out as providing services in the United States of America on behalf of FIME, including "[t]ransient gene expression," "[v]accine development," and "viral vector development," and Dr. Vidadi Yusibov is listed as the contact along with his telephone number and email address. Dr. Yusibov is also listed as a contact, along with Dr. Rainer Fischer, on the final page of the 2006 Annual Report. FIME similarly held out FCMB and Dr. Yusibov as its agents in its

subsequent annual reports.

58. FhG's vested interest was important to iBio's willingness to enter into the TTA. iBio continued to invest millions of dollars in its relationship with FCMB and FUSA with the understanding that FhG was financially and operationally supporting FCMB and FUSA.

59. Throughout the course of the parties' relationship after the execution of the original TTA, Vidadi Yusibov, FCMB, FUSA, and various representatives of FhG, repeatedly and consistently represented to iBio that: (a) Fraunhofer understood iBio's right to own all of the technology being developed or acquired by FCMB; (b) FhG intended to ensure respect for iBio's ownership rights by Fraunhofer; (c) FCMB would transfer the technology to iBio; and (d) FCMB would assist iBio to commercialize the technology.

60. iBio relied on these representations when entering into agreement after agreement with FCMB and Vidadi Yusibov, including, among others, the Fourth Amendment, TLA, agreements relating to work of interest to the Gates Foundation, GE Healthcare and the Brazilian Ministry of Health, and employment and consulting agreements with Dr. Yusibov, which required iBio to provide millions of dollars in funding to Fraunhofer..

61. Vidadi Yusibov, Rainer Fischer, the presidents of FUSA who were also senior executives at FhG, and others under the control of or acting for FhG

which benefited from the relationship with iBio, made these representations with the intention of securing iBio's continued financial support.

62. All along, Fraunhofer intended not to comply with these representations. Dr. Yusibov used, with cover from Fraunhofer, the numerous agreements between FCMB and iBio as instruments of deceit to extract millions of dollars from iBio. Dr. Yusibov did not reveal that he, acting for himself and on behalf of FhG, would flout the agreements and misappropriate the technology for Fraunhofer's and his own benefit.

2. Fraunhofer's Representations Confirming iBio's Rights To Technology

63. On November 5, 2008, shortly after iBio made the $250,000 title payment pursuant to the Fourth Amendment, and while Fraunhofer was seeking a right to use iBio's technology in an endeavor involving FIME, Robert Kay, Chief Executive Officer of iBio, communicated to FUSA's Counsel and Corporate Secretary his understanding of the parties' relationship, to which the Fourth Amendment was then applicable:

> CMB is contracted exclusively to us until 2014. Everything it does in the Field- new development or Improvements (as defined) belongs to us. We are unwilling to have anyone who licenses our Technology acquire rights related to it, except use rights in the [field] of the grant, by building upon our intellectual property base.

64. No one from Fraunhofer disputed that position. On the contrary,

FUSA's Counsel and Corporate Secretary represented to both FhG and iBio that, "[p]er the Tech Transfer Agreement, iBio will own improvements to CMB's IP . . . ."

65. During the course of finalizing the TLA, on January 5, 2010, Mr. Kay emailed Vidadi Yusibov and FUSA's Counsel and Corporate Secretary a revision to the draft TLA that he pointed out was "consistent with the notion that [Fraunhofer is] conveying everything to [iBio] and then [iBio is] granting back licenses in the areas outside of the Field." On January 13, Dr. Yusibov responded that he, Dr. Hartman and FUSA's counsel were "comfortable with the changes you have made and would very much like to finalize this agreement and sign it."

66. On January 20, 2010, Mr. Kay provided what was a final revision to Appendix A to the draft TLA, with a comment that, "[t]he TTA contemplates that the intellectual property should be conveyed to iBio and that iBio should convey back an exclusive license for everything outside the Field. The way the definitions were formed [in a prior draft of the TLA], less than the whole intellectual property was being conveyed and [thus] iBio was purporting to exclusively license Fraunhofer in property that was not being conveyed—that is, the application of the Technology outside the Field. The changes in Sections 4.2 and 4.3 and the deletions that I made to Appendix A are intended to correct that." Fraunhofer made no objection to that correction to Appendix A, so that all intellectual property was

conveyed to iBio. On January 21, FUSA signed the TLA with the changes that iBio had expressly called attention to as part of its broad ownership rights. FIME and FhG were aware of iBio's position, the apparent assent of FUSA, and approved FCMB's entering into the TLA.

67. By an agreement executed February 25, 2010, approved by FUSA's Board of Directors, iBio employed Vidadi Yusibov as its Chief Scientific Officer as of March 1, 2010 (the employment lasted through February 29, 2012). (SSAC Ex. G.) FhG, through Dr. Rosenfeld as one of its senior executives, also approved the employment agreement. The agreement acknowledged that iBio "is the owner of all the Technology and Improvements . . . ." (*Id.* at 1.) The agreement further acknowledged that:

> WHEREAS, Fraunhofer and the Company have agreed that until December 31, 2014 Fraunhofer shall further develop exclusively for and transfer to [iBio,] Technology and Improvements in the Field . . . , facilitate technology transfer and implementation of the Technology and Improvements by or for [iBio], and provide [iBio] with access to Fraunhofer personnel and facilities as appropriate to support [iBio's] efforts to commercialize the Technology . . . .

68. Dr. Yusibov repeated these representations two years later in a 2012 consulting agreement with iBio that changed Dr. Yusibov's position from Chief Scientific Officer to Chief Scientific Advisor of iBio. (SSAC Ex. H.) FhG also approved this agreement.

69. In early 2012, Dr. Yusibov advised Mr. Kay that FhG was threatening and otherwise pressuring him about whether it would continue its essential cash flow support of FCMB unless Dr. Yusibov obtained more funding from iBio. In reliance on Dr. Yusibov's representations, iBio made a $500,000 payment on February 2, 2012 and two further payments of $500,000 soon thereafter, one on February 23 and the other on March 1, 2012. When confirming the March 1 payment, Mr. Kay wrote Mr. Hartman and Dr. Yusibov to say that, "This transfer [of an additional $500,000] is being made, as you requested, to enable you to obtain budget support from Fraunhofer Germany and is being made on the basis of and subject to my prior emails and our prior discussions together." (SSAC Ex. L at L9.)

70. FUSA's counsel acknowledged to FUSA's own auditor that iBio was entitled to ownership of *all* intellectual property rights in the technology. In a May 23, 2011 letter to FUSA's auditor (SSAC Ex. L at L1–L3), which was also sent in both draft and final form to iBio, FUSA's counsel represented the status of the parties' contractual rights and confirmed iBio's comprehensive ownership rights:

> Effective January 1, 2004, CMB and iBio (then known under a different name) entered into a Technology Transfer Agreement [TTA] under which iBio agreed to provide financial support for CMB's research and development operations in the field of transient gene expression in plant-based vaccines and other applications. In that Agreement, CMB granted iBio an exclusive license to the intellectual property that resulted from CMB's R&D

> work in the Field as well as the right to acquire title to those intellectual property rights. In November of 2008, iBio exercised its right to acquire title to those intellectual property rights and CMB transferred that IP to iBio. *iBio now has the exclusive right to commercialize the transferred intellectual property rights in the Field*. CMB has retained the right to enhance and improve those intellectual property rights for non-commercial research purposes. *The Technology Transfer Agreement requires CMB to consult with iBio and to obtain iBio's consent to the performance of R&D work that involves the commercialization of the intellectual property rights owned by iBio. CMB does not have the right to license to third parties any of the intellectual property rights that are owned by iBio or to perform R&D services for third parties who plan to commercialize IP rights owned by iBio.*

(*See* SSAC Ex. L at L1 (emphasis added).)

71. These representations were motivated by Fraunhofer's intention to secure further payments from iBio and because FCMB needed iBio's backing as a for-profit entity to provide the basis for funding from governmental organizations and NGOs. In reliance on Fraunhofer's representations, iBio entered into further agreements with FCMB, made further payments for FCMB and made substantial investments in capital and time in anticipation of FCMB's performance.

72. These investments greatly benefited Fraunhofer. As Dr. Yusibov told the Delaware Economic Development Office's Council on Development Finance in late 2011, "[FCMB] has gone from nonexistence to a very thriving company." But the benefits it legitimately received were not enough for Fraunhofer. Fraunhofer all the while secretly intended to keep and use for itself the technology that

belonged to iBio, including the know-how relating to the technology, and to enjoy for itself the benefits derived from the use of the technology.

3. Fraunhofer's Revelation Of Its Deceit

73. The deceit of Fraunhofer was finally revealed by an email from Fraunhofer to iBio on November 6, 2014 (SSAC Ex. P) as the development period of the Fourth Amendment was nearing its end. A Memorandum attached to the email "From: Fraunhofer USA" to Mr. Kay, with subject "IP Rights," informed iBio that: "*It was never Fraunhofer's intention to*, and Fraunhofer never did, *convey to iBio*, or to any other entity, *all of its trade secrets, other technological know-how, and/or unspecified inventions* in the field of plant biology or the use of plants in the production of various proteins and therapeutics" (SSAC Ex. P (emphasis added)).

74. Thus, by Fraunhofer's own admission, Fraunhofer's representations to iBio that Fraunhofer was developing technology exclusively for iBio, that the technology being developed, including know-how, would be owned by iBio, and that the technology would be transferred to iBio, were false. Although Fraunhofer made those representations repeatedly in various forms to obtain many millions of dollars of funding from iBio, Fraunhofer never intended to respect iBio's ownership rights and convey that technology to iBio.

75. In the Chancery action, Fraunhofer effectively confirmed the intent to

deceive of its officer, Vidadi Yusibov, and its adoption on behalf of Fraunhofer of his intent to deceive. In its briefing on the threshold question of the scope of iBio's ownership rights to the technology, FUSA asserted that, "No one contemplated that iBio was acquiring," comprehensive ownership rights to the technology developed at a cost "in excess of $150 million." In other words, no one at Fraunhofer contemplated honoring its contractual commitment and repeated representations that iBio was acquiring comprehensive ownership rights, for which it had induced iBio to pay millions of dollars.

76. FUSA's brief on the threshold question further asserted that: "No reasonable person would have expected [that the TLA transferred to iBio comprehensive ownership rights] when executing the TLA." In other words, Fraunhofer after the fact asserted that it was unreasonable for iBio to believe what the agreements executed by Fraunhofer expressly stated and what various representations of Fraunhofer repeatedly reinforced. Instead, according to Fraunhofer, no reasonable person would have believed that FCMB would abide by its promises to transfer all ownership rights in the technology to iBio with only limited use rights granted back to Fraunhofer. In short, Fraunhofer expected to get away with flagrant derogation of iBio's rights as it suited its purposes to do so.

B. Fraunhofer's Unauthorized And Secretive Use Of iBio's Technology For A Competitor, PlantForm Corporation

77. In the summer of 2014, Fraunhofer disclosed that, in breach of its

agreements with iBio, it had entered into a secret agreement to use iBio's technology to develop plant-made pharmaceuticals for PlantForm Corporation, a Canadian biotech company that was seeking to compete with iBio in commercializing plant-made pharmaceuticals.

78. In October 2013, without informing iBio, Fraunhofer through Dr. Yusibov entered into a confidentiality agreement with PlantForm to preserve the confidentiality of information exchanged. Later in the year, Dr. Yusibov allowed PlantForm's Chief Executive Officer, Don Stewart, and other PlantForm employees to tour the Newark facility and to view the design and operation of the pilot plant and its constituent elements, and to interact with Fraunhofer personnel regarding the development of biopharmaceuticals. In a further written agreement on January 27, 2014, still concealing from iBio its relationship with PlantForm, Frauhofer through Dr. Yusibov agreed to develop, for PlantForm's use, a biosimilar version of an antibody protein called trastuzumab by growing and harvesting plants for the production, infiltration, extraction, and purification of trastuzumab. Trastuzumab, the generic name of Herceptin, is an antibody used for treating breast cancer in humans.

79. Fraunhofer's secret collaboration with PlantForm contradicted the repeated representations by Fraunhofer and was in willful breach of Fraunhofer's agreements with iBio: (1) Fraunhofer agreed to do commercial development in the

plant-made pharmaceutical field while it was bound to act exclusively for iBio in that field; (2) Fraunhofer agreed to develop a biosimilar version of trastuzumab for PlantForm using iBio's technology, including the large scale production technology embodied in the pilot plant; (3) Fraunhofer disclosed and committed to further disclose to PlantForm iBio's proprietary information concerning iBio's technology, including specific yields and costs for producing vaccines and information related to the development process; (4) Fraunhofer agreed to transfer iBio's technology to PlantForm to enable PlantForm to produce trastuzumab at large scale; and (5) Fraunhofer agreed that the technology for the development and production of trastuzumab using iBio's technology would be transferred to and belong to PlantForm. As described below, iBio came to learn of Fraunhofer's conduct only because PlantForm decided to announce its relationship with Fraunhofer.

80. On June 18, 2014, unbeknownst to iBio, PlantForm sent a draft press release to Dr. Yusibov announcing a joint venture of PlantForm with PharmaPraxis, a Brazilian corporation, for biopharmaceutical development, with Fraunhofer as collaborator.

81. Knowing that iBio would learn of Fraunhofer's unauthorized work for PlantForm from this announcement, Dr. Yusibov decided to try to get ahead of the problem. On June 19, 2014—more than eight months after Fraunhofer secretly began working with PlantForm—Dr. Yusibov emailed Mr. Kay to inform him that

FCMB was involved in developing a plant-based human antibody for a "small biotech company." (SSAC Ex. N at N2.) Dr. Yusibov stated that Fraunhofer was advising iBio of this development because Fraunhofer's unidentified "client" was planning to make an announcement about the project. (*Id.*) Attempting to deflect concern by iBio, Dr. Yusibov described that relationship in terms meant to minimize its scope and extent: "[o]ver the last 3-4 months, Fraunhofer CMB has been conducting a small scale target expression project (proof-of-concept) with a small biotech company focus [sic] on candidate pharmaceutical production." (*Id.*) This statement falsely understated the scope and extent of the relationship.

82. Mr. Kay responded on June 20, 2014 to Dr. Yusibov's June 19 email. (SSAC Ex. N at N1). Mr. Kay requested that Dr. Yusibov provide more information. (*Id.*) iBio put Fraunhofer on notice that a public announcement inconsistent with the rights and obligations between iBio and FCMB could be materially harmful to iBio. (*Id.*)

83. Attempting to prevent iBio's detection of Fraunhofer's breach, Dr. Yusibov responded with the representation that Fraunhofer "did not perform any engineering work for company" and that "I do not think this work in [sic] any conflict with our partnership." (*Id.*). These representations were false.

84. On that same day, June 20, 2014, the press release issued, revealing that the biotech company Fraunhofer was secretly working with was PlantForm.

(SSAC Ex. N at N3.) In particular, PlantForm and PharmaPraxis announced that they had entered into a joint venture, to "develop, manufacture and commercialize" several biopharmaceuticals for the Brazilian market using a plant-based manufacturing system. (*Id.*) According to that press release, the joint venture would collaborate with Fraunhofer to "first develop a biosimilar/biobetter version of the oncology drug Avastin" and that Fraunhofer "will produce the active pharmaceutical ingredient (API) for clinical trials." (*Id.*) The press release also indicated that PlantForm had included the Ministry of Health of Brazil in its venture with Fraunhofer. (*Id.*)

85. Fraunhofer proceeded with Plantform and the Ministry of Health of Brazil despite being fully aware that iBio's focal effort at that time for the use of the technology was for the Brazilian market. Dr. Yusibov had attended a conference sponsored by iBio in Miami in December 2013 with representatives of the Brazilian Ministry of Health at which iBio presented its research and proposals to the Brazilians for biosimilar development and sale in the Brazilian market.

86. Over the next several months, iBio initiated multiple telephone conversations and emails with Fraunhofer to ascertain the scope of Fraunhofer's relationship with PlantForm and whether iBio's technology had in fact been disclosed to PlantForm, contrary to Dr. Yusibov's representation. The combination of Fraunhofer's refusal to provide meaningful information about what it had disclosed

and the public statements of PlantForm and PharmaPraxis appeared to reflect potential breaches by Fraunhofer of its obligations to iBio by violating its exclusive commitments to iBio and unlawfully using and disclosing information concerning iBio's technology.

87. iBio sought meetings with Fraunhofer, including senior management of FhG, to address iBio's concerns and avoid any litigation. To address iBio's complaints, Fraunhofer sent its senior management from FhG to two in-person meetings with iBio. FhG's senior management made clear that FhG would need to approve any resolution regarding iBio's concerns over Fraunhofer's use of iBio's technology.

88. In the meantime, on October 17, 2014, iBio brought an action in the Court of Chancery against PlantForm to prevent PlantForm's use of iBio technology improperly disclosed to PlantForm by Fraunhofer, in a case captioned *iBio, Inc. v. PlantForm Corporation, et al.*, C.A. No. 10256-VCP (Del. Ch. Oct. 17, 2014). That litigation with PlantForm was ultimately resolved through mediation on August 25, 2015 (*see* D.I. 65), with a settlement intended to protect iBio's technology from further injury by PlantForm.

C. Fraunhofer's *Post Hoc* Bad Faith Attempts To Excuse FCMB's Misconduct

89. After the revelation of Fraunhofer's agreement with PlantForm, and seeking to justify its misconduct with PlantForm (and perhaps with others), Fraun-

hofer for the first time asserted that iBio's ownership rights in the technology under the parties' agreements were very limited and not the broad rights provided by the TTA, as amended and supplemented, and conveyed by the TLA. The agreements, however, consistent with the foundation for the parties' relationship, are clear on their face as to iBio's broad rights. Fraunhofer took its new position despite the parties' long collaboration under the agreed-upon premise of iBio's broad rights and despite Fraunhofer's repeated representations that iBio had exclusive ownership of the technology. Fraunhofer's new position was taken in bad faith.

90. Fraunhofer's argument to justify its new position and misconduct with PlantForm became that iBio's rights were merely to a set of specific patents and patent applications identified in a unilateral "Confirmatory Assignment" executed by FUSA alone (not iBio) on July 2, 2013. (SSAC Ex. M.) Fraunhofer used this unilateral Confirmatory Assignment to argue that anything not mentioned, such as certain other patents and all of the valuable, unpatented aspects of the technology, are not the property of iBio, but instead are retained by FUSA. Fraunhofer also made this argument in court filings, which was rejected by the Court of Chancery.

91. Fraunhofer's argument that the unilateral Confirmatory Assignment was intended to and did identify the only rights transferred to iBio under the TLA is empty of logic and substance. That argument had no support in the text of the Confirmatory Assignment, which says that "the technology and intellectual proper-

ty rights assigned pursuant to the Agreement *include* the inventions and improvements which are the subject of and described and/or claimed in the issued United States Patents and the applications for United States Patent listed on the attached Appendix . . .” (*See* SSAC Ex. M, Confirmatory Assignment at Second WHEREAS (emphasis added).) The Confirmatory Assignment does *not* say that these patents reflect the totality of all intellectual property owned by iBio, nor does it suddenly negate all of iBio’s and FCMB’s agreements and Fraunhofer’s representations to the contrary. Fraunhofer’s attempt to use the Confirmatory Assignment to nullify each of its prior agreements with iBio and all of its consistent representations that iBio owned all of the technology is further evidence of Fraunhofer’s bad faith.

D. **Fraunhofer’s Refusal To Perform Technology Transfer To iBio**

92. Fraunhofer blatantly refused to provide the transfer of technology required by the Fourth Amendment to the TTA and the TLA.

93. The Fourth Amendment to the TTA requires Fraunhofer to “facilitate technology transfer and implementation by or for [iBio]” and to “provide access to Fraunhofer personnel and facilities, as appropriate, to support [iBio] efforts to commercialize the Technology.” (SSAC Ex. D at § 2.)

94. The TLA requires Fraunhofer to provide iBio “full access to all of Fraunhofer’s records and personnel relevant to [iBio’s technology] and shall oth-

erwise cooperate with and assist such [iBio] representatives and counsel with actions reasonably required to protect and accomplish technology transfer of [iBio's technology]." (SSAC Ex. E at § 9.2(iii).)

95. Pursuant to the agreements between them, iBio requested Fraunhofer to execute technology transfer to iBio of the entire technology developed (or acquired) by Fraunhofer in accordance with the agreements and standard industry practices.

96. Such a technology transfer should include, for example, examination and copying of Fraunhofer's laboratory notebooks, formal written standard operating procedures, written documents relevant to FDA compliance (cGMP manufacturing descriptions such as QA/QC protocols and specifications), regulatory submissions (such as IND documents, pre-IND documents, minutes of meetings with the FDA and any reports submitted during or after clinical trials), and project reports to granting agencies such as the Department of Defense or NIH. Access to Fraunhofer personnel should also be permitted, as the Fourth Amendment and TLA contemplate, to obtain non-written information that would be part of know-how, such as commentary on failed experiments or surprising outcomes and reasons that protocols have been written in a particular way.

97. In December 2014, iBio designated its team to receive technology transfer, advised Fraunhofer, and requested a prompt meeting. By an email dated

January 5, 2015, Stephen Streatfield, FCMB's Director of Scientific Affairs and an agent of FUSA and FIME, refused, telling Wayne Fitzmaurice, iBio's Vice President of Intellectual Property, that:

> I have been advised by Fraunhofer USA senior management that any technology transfer activities need [sic] to await conclusion of negotiations between iBio and Fraunhofer USA management in regard to the ongoing dispute with PlantForm. Therefore, I will not be able to host a visit . . . on January 13th. While I would certainly be happy to host such a visit at the appropriate time, we must table your request for such a visit for now.

(*See* SSAC Ex. Q.)

98. In willful breach of Fraunhofer's contractual obligations, Fraunhofer, with FhG's explicit approval, then continued to withhold technology transfer to iBio, apparently trying to get iBio to compromise its overall rights just to get access to its own property.

E. Fraunhofer's Further Secretive, Unauthorized And Improper Uses Of iBio's Technology

99. As further discussed below, Fraunhofer continues to make unauthorized uses of iBio's technology.

1. Fraunhofer's Use of iBio's Technology with BARDA for Ebola Antibodies

100. In early summer 2014, iBio learned that Fraunhofer was working on an Ebola project with the government and asked for information about that project. Dr. Yusibov, reminiscent of his contemporaneous words to minimize and conceal

his work with PlantForm, told Robert Erwin of iBio that this was just a little project for reagents with the Department of Defense. Mr. Erwin made clear to Dr. Yusibov that, regardless of the size of the project, publicizing the use of iBio's technology for this Ebola project would be helpful to show the versatility of applications of iBio's technology and increase visibility of iBio.

101. As the Ebola outbreak was growing as an issue of world importance, iBio continued to seek information from Fraunhofer and Dr. Yusibov about what Dr. Yusibov might be doing with iBio's technology in connection with work on Ebola. Mr. Erwin on August 4, 2014 told Dr. Yusibov, "[i]f our technology is being used for work related to ebola, we should make an announcement about it." (SSAC Ex. O.) Dr. Yusibov, however, although aware that use of iBio's technology to help address the outbreak would be an important demonstration to others of the capabilities and value of iBio's technology, gave no information to iBio then or later that could be used to make such an announcement.

102. The Biomedical Advanced Research and Development Authority ("BARDA"), which is part of the U.S. Department of Health and Human Services, became interested in procuring technology for the production of antibodies to Ebola similar to ZMapp, an experimental treatment for Ebola comprised of three monoclonal antibodies.

103. iBio sought a contract to use iBio's technology for the production of

antibodies to Ebola similar to ZMapp. On information and belief, Vidadi Yusibov was aware that iBio was seeking such a contract with BARDA.

104. Before iBio was able to secure a contract with BARDA, Fraunhofer, without informing iBio, procured a contract with BARDA to produce Ebola antibodies similar to ZMapp using iBio's technology. That contract was finalized on February 19, 2015. Vidadi Yusibov signed the contract on behalf of FUSA.

105. iBio did not receive a contract from BARDA for producing Ebola antibodies similar to ZMapp. On information and belief, Fraunhofer made statements to BARDA to interfere with iBio's obtaining such a contract with BARDA.

106. Fraunhofer never provided to iBio its contract with BARDA or progress reports. But documents made available from the government in 2016 by a request under the Freedom of Information Act ("FOIA") show, even in their heavily redacted form (apparently redacted at Vidadi Yusibov's instruction), that BARDA contracted for services from Fraunhofer to "establish a Nicotiana benethamiana expression system for three anti-Ebola virus monoclonal antibodies" in return for nearly $1.8 million. (SSAC Ex. S, p.1.)

107. Fraunhofer's BARDA contract contemplates the filing of an Investigational New Drug application to combat Ebola and obtaining marketing approval from the FDA. The work being provided by Fraunhofer calls for use of iBio's technology. Fraunhofer committed to using the Newark manufacturing facility

which requires use of iBio's technology.

108. Moreover, by the extensive redactions to technology information in the BARDA progress reports, made at the apparent instruction of Vidadi Yusibov, Fraunhofer has confirmed that Fraunhofer's work under the contract discloses iBio's trade secrets to BARDA and that the work uses iBio's trade secrets. The redactions, on page after page of the reports, are stated as being made under 5 U.S.C. § 552(b)(4)). That Section 552(b)(4), which provides a basis for an exemption to FOIA, allows the government to decline to disclose under FOIA, "[t]rade secrets and commercial or financial information obtained from a person and privileged or confidential."

109. Fraunhofer has not requested iBio's permission to use iBio's technology for its contract with BARDA. Fraunhofer's contract with BARDA is an unauthorized use of iBio's technology for commercialization efforts.

110. The contract between BARDA and Fraunhofer states that the execution of the Task Order "will require a relationship between [the U.S. government, Health and Human Services], the firm that possesses rights to specific Intellectual Property (IP) required for the development effort . . . , and the firm providing the Core Services under the Task Order . . ." Such a relationship is required to "reflect the Parties' rights to all IP developed and/or IP used in performance of the Task Order . . . ." The owner of the intellectual property being used for performance of

Fraunhofer's "scope of work," however, is iBio. But Fraunhofer did not tell the government that iBio actually owned the technology, including trade secrets, and did not seek to make iBio a party to the contract.

111. Fraunhofer's and Vidadi Yusibov's actions and misrepresentations (whether affirmative or by omission) in connection with Fraunhofer's government contracts, which were intentional and were known to and approved by FIME management in Germany, were undertaken as at least agents of FIME and FhG.

112. iBio has been harmed by these intentional actions, including Fraunhofer's failure to inform iBio of the use of iBio's technology for BARDA, Fraunhofer's misrepresentations to the government that Fraunhofer owned the intellectual property which is actually owned by iBio, and by Fraunhofer's interference with iBio's obtaining a contract with BARDA. The stock market valued the economic advantage to iBio of use of iBio's technology for Ebola for BARDA at well over $100 million. As a result of Fraunhofer's deliberate actions, iBio lost that economic advantage.

113. On information and belief, Fraunhofer entered into other contracts that it did not provide to iBio and that involve unauthorized use of iBio's technology. Indeed, FUSA admitted during briefing in the Chancery action of the Threshold Question that, if iBio's position on the scope of the technology owned by iBio were upheld, as it was, it "would cause FUSA to default on government contracts

involving national security, usurp rights owned by third parties and threaten FUSA's very existence." (D.I. 92, at 3). While the contract with BARDA was one government contract, FUSA referred to multiple "government contracts" as involving iBio's technology.

2. Fraunhofer's Advertisement Of Its (Unauthorized) Proposed Uses Of What Is iBio's Technology

114. Fraunhofer, in self-promotion, wrongfully offered to others access to iBio's technology.

115. Fraunhofer's FCMB website advertises its availability to perform a "complete spectrum" of work for clients in development of biopharmaceuticals. For its technology, Fraunhofer states that it "has developed a proprietary plant-based expression platform that provides clients with fast, safe and cost-effective protein production capabilities." (SSAC, Ex. U at U1, http://fhcmb.org/ technology/ overview.) As to specific work with this platform, Fraunhofer says it can "assist clients in successfully navigating the entire product development process through Phase II clinical trials," and aid collaborators "to get from discovery to market quicker while maintaining quality production standards." (*Id.*, Ex. U at U2, http://www.fhcmb.org/partnering/overview.) "Having built, validated and operated its GMP pilot plant to manufacture several targets and successfully completing several clinical trials," Fraunhofer advertises that it is "well positioned to transfer its technology and processes to interested partners." (*Id.*, at Ex. U at U3,

http://www.fhcmb.org/ capabilities/tech-transfer.)

116. During discovery in the Chancery action, iBio asked FCMB to identify the proprietary platform it was making available. FCMB answered that, "the 'plant-based expression platform' described at http://fhcmb.org/ technology/ overview (*Id.*, Ex. U at U1) pertains to patents and patent applications [owned by iBio]." (*Id.*, Ex. V.) In short, the "proprietary plant-based expression platform" that Fraunhofer advertises as freely available for clients to use for development of biopharmaceuticals is actually iBio's proprietary technology which others had no right to use for biopharmaceuticals.

117. In an advertising brochure, Fraunhofer states, "Fraunhofer USA Center for Molecular Biotechnology (CMB) is at the forefront of recent developments using a plant-based production platform to produce human and animal vaccines and therapeutic proteins in bulk quantities." (*Id.*, Ex. W.) The platform Fraunhofer is referring to is the property of iBio.

118. The brochure further touts the capabilities of the pilot plant in combination with what is in fact other iBio proprietary technology: "As your solutions partner, Fraunhofer CMB offers proven, full-scale cGMP production and extensive protein purification and development capabilities ideal for research, reagent generation and clinical study applications that can be easily modified with rapid scale-up enabling you to get from discovery to market quicker while maintaining quality

production standards." (*Id.*) All of the technology enabling the "capabilities" Fraunhofer extolled in this brochure are the property of iBio and require iBio's permission for use, two facts that Fraunhofer deliberately omitted.

IV. THE CONSEQUENCE TO iBIO OF FRAUNHOFER'S MISCONDUCT

119. Fraunhofer's bad faith refusal to perform technology transfer, its failure to support iBio's commercialization efforts, and Fraunhofer's active undermining of iBio's commercialization efforts, along with Fraunhofer's other misconduct, fundamentally harmed iBio's biotech business. Fraunhofer's misconduct required iBio to eventually adopt a completely new business plan that was not dependent on Fraunhofer's services but rather would rely on iBio's own manufacturing capabilities, together with access to and the use of other technology and other technology development capabilities independent of Fraunhofer. In short, iBio's investment of over $70 million in developing a proprietary plant-based biopharmaceutical technology through the Fraunhofer relationship was rendered unusable as a result of Fraunhofer's fraud and theft and iBio was deprived of the reputation and market identity to which it was entitled as the exclusive owner of the technology, thereby hindering its ability to establish commercial contracts with new clients, eroding its market value, and significantly increasing its cost of capital.

120. iBio's new business plan included the acquisition of a large manufac-

turing facility now controlled and operated by a subsidiary, iBio CDMO LLC ("iBio CDMO" or "CDMO") (formerly known as iBio CMO, LLC.), which includes human resources, laboratories, independent technology, and development and manufacturing facilities to enable iBio to develop and practice new plant-made biopharmaceutical technologies and self-develop experience without depending on Fraunhofer and without continuing to rely upon the earlier technologies covered by or relating to the patents filed and issued during the period of iBio's contracts with Fraunhofer.

121. Fraunhofer's unlawful use of iBio's trade secrets and its repeated fraud against iBio not only caused iBio to develop a completely new business plan, but also caused iBio to lose millions of dollars in lost business value. In total, the harm caused to iBio is well in excess of $100 million.

IBIO'S CLAIMS AGAINST FRAUNHOFER

COUNT I
FRAUD

122. iBio repeats, re-alleges, and incorporates herein the allegations of the preceding paragraphs 1–121 of this Complaint.

123. FhG, directly and through its agents, including Dr. Vidadi Yusibov and other senior executives, made false representations (by affirmative statements, omission and silence) that Dr. Yusibov and Fraunhofer respected iBio's comprehensive ownership rights to the plant-based technology Fraunhofer was developing

(and acquiring) and that Fraunhofer was not making unauthorized use of iBio's technology.

124. FhG and its agents, including Dr. Yusibov and other senior executives, knew the representations were false.

125. By the false representations, FhG, directly and through its agents, including Dr. Yusibov and other senior executives, intended to induce iBio to enter into agreements, make payments to Fraunhofer, make expenditures in bringing business to FCMB and refrain from taking action to address the consequences of Fraunhofer's misconduct. FhG used FCMB's contractual relationship with iBio as an instrument to defraud iBio.

126. iBio, in justifiable reliance upon the representations, entered into agreements with FUSA and Vidadi Yusibov, made payments to Fraunhofer and Dr. Yusibov, made expenditures in bringing or retaining business opportunities for FCMB, and refrained for a period of time from taking action to address the consequences of Fraunhofer's, misconduct.

127. As a result of the fraud of FhG and its agents, iBio was severely damaged. iBio is entitled to monetary compensation as a result of its injuries caused by the fraud in an amount to be proven at trial.

COUNT II
CONSPIRACY

128. iBio repeats, re-alleges, and incorporates herein the allegations of the

preceding paragraphs 1–127 of this Complaint.

129. FhG formed a conspiracy and plan with FUSA and FCMB to defraud iBio.

130. iBio suffered damages in an amount to be determined after trial.

COUNT III
MISAPPROPRIATION OF TRADE SECRETS

131. iBio repeats, re-alleges, and incorporates herein the allegations of the preceding paragraphs 1–130 of this Complaint.

132. iBio's technology to which it has ownership rights under the parties' agreements includes trade secrets that derive independent economic value, actual or potential, from not being generally known to, and not being readily ascertainable by proper means by, other persons who can obtain economic value from their disclosure or use. 6 Del. C. § 2001(4).

133. iBio's trade secrets have been the subject of efforts by iBio that are reasonable under the circumstances to maintain their secrecy, including by requiring Fraunhofer by contract to use commercially reasonable efforts to maintain in force and good standing iBio's intellectual property rights, including trade secret maintenance.

134. FhG, directly and through its agents, has misappropriated iBio's trade secrets in violation of the Delaware Uniform Trade Secrets Act, 6 Del. C. § 2001 et seq., which prohibits disclosure and use of trade secrets of another without express

or implied consent, given that Fraunhofer has known full well that its knowledge of the trade secrets was "[a]cquired under circumstances giving rise to a duty [on the part of Fraunhofer] to maintain [their] secrecy or limit [their] use." 6 Del. C. § 2001(2)(b)(2)(B).

135. By using or proposing to use iBio's technology, without iBio's authorization, FhG, directly and through its agents, has improperly used and disclosed, or it intends improperly to use and disclose, iBio's trade secrets. FhG, directly and through its agents, has obtained or will obtain economic value from the use and disclosure of iBio's trade secrets.

136. An injunction against further disclosure and use by FhG of iBio's trade secrets is needed because, unless restrained, FhG, directly and through its agents, will further disclose iBio's trade secrets, including at least to BARDA. iBio has no adequate remedy at law.

137. FhG's misappropriation has been willful and malicious. iBio is entitled to an award of damages, attorneys' fees and exemplary damages. 6 Del. C. §§ 2003 and 2004.

COUNT IV
TORTIOUS INTERFERENCE WITH CONTRACT AND PROSPECTIVE ECONOMIC ADVANTAGE

138. iBio repeats, re-alleges, and incorporates herein the allegations of the preceding paragraphs 1–137 of this Complaint.

139. iBio had a reasonable probability of economic advantage or a business opportunity in seeking to have iBio's technology used by BARDA to produce antibodies to Ebola and to have such a use publicized.

140. FhG, directly and through its agents, knew that iBio was interested in and was pursuing the BARDA opportunity and intentionally interfered with that opportunity by, at least, competing for that opportunity with iBio, using iBio's own technology, and by wrongfully representing to BARDA that iBio's technology was in fact owned by Fraunhofer.

141. FhG's intentional interference was the proximate cause of iBio's failure to gain the economic advantage from a publicized use of its technology in a contract with BARDA and to obtain a contract for itself with BARDA to produce antibodies to Ebola.

142. Further tortious interference with iBio's prospective economic advantage and business opportunities, if not enjoined, will cause significant injury to iBio not compensable by money damages. iBio is entitled to an injunction preventing FhG and its agents from engaging in further such interference.

143. iBio is entitled to monetary compensation as a result of its injuries caused by FhG's intentional interference in an amount to be proven at trial.

COUNT V
UNJUST ENRICHMENT

144. iBio repeats, re-alleges, and incorporates herein the allegations of the

preceding paragraphs 1–143 of this Complaint.

145. FhG has been enriched by its misconduct through funding from iBio and other parties intended to enhance and improve iBio's technology, and through the benefits received from Fraunhofer's unauthorized uses of and misrepresentations about ownership of iBio's technology.

146. iBio has been impoverished as a direct result of FhG's enrichment.

147. FhG's enrichment, and iBio's corresponding impoverishment, is without justification.

148. iBio has no adequate remedy at law. As a result of FhG's unjust enrichment, iBio is entitled to a disgorgement of the benefits FhG has received, including profits, from the unauthorized uses of iBio's technology.

COUNT VI
FRAUNHOFER'S TORTIOUS INTERFERENCE WITH CONTRACT

149. iBio repeats, re-alleges, and incorporates herein the allegations of the preceding paragraphs 1–148 of this Complaint.

150. The TTA, as amended and supplemented, is a valid and enforceable contract between iBio and Fraunhofer.

151. At least until Fraunhofer breached, iBio fulfilled all its material obligations under the TTA, as amended and supplemented.

152. FhG intentionally interfered with iBio's contracts with FUSA by encouraging FUSA to breach and by failing to require FUSA to comply with its

contracts with iBio.

153. FhG caused FUSA to materially breach numerous provisions of the TTA, as amended and supplemented, as set forth above and including at least: (i) Section 2.1 of the TTA, Section 2 of the Fourth Amendment, and Sections 2.1 and 8.1 of the TLA (which recognize iBio's exclusive ownership of the technology) through its unauthorized use of the technology; (ii) Section 2.1 of the TTA, Section 2 of the Fourth Amendment, and Section 3 of the TLA (which provide for limitations on Fraunhofer's right to use the technology and require disclosure of sublicenses) through its unauthorized use of the technology and failure to disclose such uses to iBio; (iii) Section 6.2 of the TTA (which requires Fraunhofer to "maintain in force and good standing" proprietary rights in the technology) through its unauthorized disclosure of information concerning the technology; (iv) Section 6.4 of the TTA and Section 7.1 of the TLA (which require Fraunhofer to "keep and hold" iBio's confidential information in the "strictest confidence") through its unauthorized disclosure of information concerning the technology; and (v) Section 2 of the Fourth Amendment to the TTA and Section 9.2(iii) of the TLA (which require Fraunhofer to "facilitate technology transfer" and cooperate to "accomplish technology transfer," respectively) by its refusal to transfer the technology to iBio.

154. iBio was injured by FUSA's material breaches.

155. iBio is entitled to monetary compensation as a result of its injuries caused by Fraunhofer's material and bad faith breaches of the TTA, as amended and supplemented, in an amount to be proven at trial.

PRAYER FOR RELIEF

WHEREFORE, plaintiff iBio, Inc. respectfully requests that this Court:

1. Enter judgment in favor of iBio and against FhG for each of Counts I–VI.

2. Enter an order enjoining FhG from further tortious interference with iBio's prospective economic advantage or business opportunities;

3. Enter an order enjoining FhG from further uses of iBio's trade secrets.

4. Enter an order requiring a disgorgement of all benefits, including profits, obtained by FhG as a result of its misconduct;

5. Award iBio monetary damages in an amount to be proven at trial;

6. Enter an award of exemplary and treble damages;

7. Award iBio its attorneys' fees in connection with this action; and

8. Award iBio such other or further relief, fees, or costs that the Court deems appropriate.

MORRIS, NICHOLS, ARSHT & TUNNELL LLP

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