# THE UNITED STATES DISTRICT COURT FOR THE DISTRICT OF DELAWARE

OSTEOPLASTICS, LLC,

Plaintiff,

v.

DEPUY SYNTHES, INC., DEPUY SYNTHES PRODUCTS, INC., AND SYNTHES, INC.,

Defendants.

C.A. No. 20-406-MN-JLH

JURY TRIAL DEMANDED

### SECOND AMENDED COMPLAINT FOR PATENT INFRINGEMENT

Plaintiff, Osteoplastics, LLC, files this Second Amended Complaint and demand for a jury trial seeking relief for patent infringement by Defendants DePuy Synthes, Inc., DePuy Synthes Products, Inc., and Synthes, Inc. (collectively, "Defendants"). Plaintiff states and alleges the following:

#### **THE PARTIES**

- 1. Plaintiff Osteoplastics, LLC is a limited liability company organized and existing under the laws of the state of Ohio, with its principal place of business located at 675 Alpha Drive, Suite E, Highland Heights, Ohio 44143.
- 2. Plaintiff Osteoplastics, LLC owns several patents related to methods for designing custom medical devices, such as implants. These patents stem from the work of several prominent researchers associated with Case Western Reserve University ("CWRU") in the 1990s. Two of the inventors include the former Chairman of Neurological Surgery at CWRU Medical School, Dr. Robert Ratcheson, and Dr. David Dean, Ph.D., an expert in regenerative medicine.

- 3. A group of the inventors formed Osteoplastics Company, which practiced the patented inventions to successfully produce custom implants for human patients. Later, CWRU assigned its rights in the patents to the inventors, who in turn assigned their rights to Plaintiff Osteoplastics, LLC.
- 4. On information and belief, Defendant Synthes, Inc. is a corporation organized and existing under the laws of the State of Delaware, with a principal place of business located at 1302 Wrights Lane East, West Chester, Pennsylvania 19380.
- 5. On information and belief, Defendant DePuy Synthes, Inc. is a corporation organized and existing under the laws of the State of Delaware, with a principal place of business at 700 Orthopedic Drive, Warsaw, Indiana 46581.
- 6. On information and belief, Defendant DePuy Synthes Products, Inc. is a corporation organized and existing under the laws of the State of Delaware, with a principal place of business at 325 Paramount Drive, Raynham, Massachusetts 02767.
- 7. On information and belief, Defendants DePuy Synthes, Inc., DePuy Synthes Products, Inc., and Synthes, Inc. are all wholly-owned indirect subsidiaries of Johnson & Johnson.
- 8. On information and belief, each of the Defendants work together as the DePuy Synthes group of companies to each provide virtual surgical planning ("VSP") services in the United States and perform the computer-aided design of custom medical devices, such as custom implants, as part of those services.

#### THE ASSERTED PATENTS

9. On July 15, 2014, United States Patent No. 8,781,557 ("the '557 patent") entitled "Producing a Three Dimensional Model of an Implant" was duly and legally issued

by the United States Patent and Trademark Office. Osteoplastics owns the '557 patent by assignment. A true and correct copy of the '557 patent is attached as Exhibit 1.

- 10. On March 22, 2016, United States Patent No. 9,292,920 ("the '920 patent") entitled "Methods and Systems for Producing an Implant" was duly and legally issued by the United States Patent and Trademark Office. Osteoplastics owns the '920 patent by assignment. A true and correct copy of the '920 patent is attached as Exhibit 2.
- 11. On May 3, 2016, United States Patent No. 9,330,206 ("the '206 patent") entitled "Producing a Three Dimensional Model of an Implant" was duly and legally issued by the United States Patent and Trademark Office. Osteoplastics owns the '206 patent by assignment. A true and correct copy of the '206 patent is attached as Exhibit 3.
- 12. On April 18, 2017, United States Patent No. 9,626,756 ("the '756 patent") entitled "Methods and Systems for Producing an Implant" was duly and legally issued by the United States Patent and Trademark Office. Osteoplastics owns the '756 patent by assignment. A true and correct copy of the '756 patent is attached as Exhibit 4.
- 13. On June 6, 2017, United States Patent No. 9,672,617 ("the '617 patent") entitled "Methods and Systems for Producing an Implant" was duly and legally issued by the United States Patent and Trademark Office. Osteoplastics owns the '617 patent by assignment. A true and correct copy of the '617 patent is attached as Exhibit 5.
- 14. On June 6, 2017, United States Patent No. 9,672,302 ("the '302 patent") entitled "Producing a Three-Dimensional Model of an Implant" was duly and legally issued by the United States Patent and Trademark Office. Osteoplastics owns the '302 patent by assignment. A true and correct copy of the '302 patent is attached as Exhibit 6.
  - 15. On March 1, 2016, United States Patent No. 9,275,191 ("the '191 patent")

entitled "Methods and Systems for Producing an Implant" was duly and legally issued by the United States Patent and Trademark Office. Osteoplastics owns the '191 patent by assignment. A true and correct copy of the '191 patent is attached as Exhibit 7.

16. The '557, '920, '206, '756, '617, '302, and '191 patents are collectively referred to as the Asserted Patents.

#### **BACKGROUND**

- 17. In late 2017, based on publicly-available information, Osteoplastics determined that Defendants Synthes, Inc., Depuy Synthes, Inc., and DePuy Synthes Products, Inc. work together as the DePuy Synthes group of companies and that their virtual surgical planning services and computer-aided design of custom medical devices likely infringed several of the Osteoplastics patents.
- 18. In December 2017, Osteoplastics sent a letter to the Senior IP Counsel for the DePuy Synthes group of companies, which includes each of the Defendants. The letter identified the '557, '920, and '206 patents (as well as several other Osteoplastics patents) thereby providing notice of those patents. The letter also included infringement claim charts that compared Osteoplastics' understanding of Defendants' systems and methods for designing custom medical devices based on publicly-available information to representative claims in those patents. (Exhibit 9.)
- 19. The December 2017 letter requested a telephone conference with Defendants' representative to confirm Osteoplastics' understanding of Defendants' systems and methods for making custom medical devices. The letter also discussed possible licensing terms. In addition, the letter stated that "[i]f you believe that your company is not using the patented technology, we ask that you describe, in detail, the methods used by your company to make

custom implants and the basis for your belief that those methods are not covered by the Osteoplastics patents." (Exhibit 9.)

- 20. In January 2018, legal counsel on behalf of all of the Defendants wrote a letter to Osteoplastics stating that Defendants would respond to Osteoplastics sometime in February 2018. (Exhibit 10.)
- 21. In February 2018, legal counsel on behalf all of the Defendants wrote a letter to Osteoplastics stating that Defendants were still analyzing the claim charts, and requested further information on Osteoplastics' infringement position and the chain of title for the identified patents. (Exhibit 11.)
- 22. Over the next few months, Osteoplastics and Defendants exchanged communications concerning information on Osteoplastics' infringement position and the chain of title for the identified patents. In those communications, Defendants stated that they were "waiting to discuss the matter with Materialise who is the software manufacturer . . . . Once we speak with Materialise, DPS will be back in touch." (Exhibit 12).
- 23. Defendants never contacted Osteoplastics after these communications and never provided a substantive response to Osteoplastics' infringement claim charts or license offer.
- 24. Since October 2018, Osteoplastics has been involved in patent infringement litigation against 3D Systems Corporation, 3D Systems, Inc., and Medical Modeling, Inc. (collectively, "3DS") involving many of the Asserted Patents. The litigation settled in February 2020, with 3DS agreeing to pay a royalty on the systems and methods accused of infringement.

#### **JURISDICTION AND VENUE**

- 25. This is an action for patent infringement arising under the patent laws of the United States, 35 U.S.C. §§ 1 *et seq*. This Court has subject matter jurisdiction pursuant to 28 U.S.C. §§ 1331 and 1338(a).
- 26. This Court has personal jurisdiction over Defendants because they regularly conducts business in the State of Delaware and therefore have substantial and continuous contacts within this judicial district; because they have purposefully availed themselves to the privileges of conducting business in this judicial district; and/or because they have committed acts of patent infringement in this judicial district.
  - 27. Venue is proper in this District pursuant to 28 U.S.C. § 1400(b).

# **COUNT I** (Patent Infringement)

- 28. Plaintiff restates and realleges the preceding paragraphs of this Complaint.
- 29. Defendants provide products and services that involve the computer-aided design of medical devices, such as implants. Based on publicly-available information,
  Osteoplastics suspected that Defendants infringed the Asserted Patents and communicated with Defendants over a period of several months regarding the suspected infringement.
- 30. Because Defendants failed to respond to Osteoplastics' inquiries for information regarding its systems and methods for designing medical devices, Osteoplastics has not been able to determine the extent of Defendants' infringement. Therefore, relying on the precedent established in *Hoffmann-La Roche Inc. v. Invamed Inc.*, 213 F.3d 1359 (Fed. Cir. 2000) and on information and belief, Osteoplastics pleads that each of the Defendants have made, used, sold, offered for sale, and/or imported into the United States and are currently making, using, selling, offering for sale, and/or importing into the United States systems and

methods for designing and manufacturing medical devices, such as ProPlan and TruMatch products that include, but are not limited to, ProPlan CMF products, TruMatch CMF Solutions products, and TruMatch Personalized Solutions surgical guides (the "Accused Systems" and "Accused Methods") that infringe the Asserted Patents. Based on information and belief, Defendants' Accused Systems and Accused Methods include the use of Materialise's Mimics Innovation Suite of Software (including Mimics and 3-Matic software), and/or software that is materially similar.

- 31. On information and belief, Defendants have been and are infringing one or more claims of each of the Asserted Patents under 35 U.S.C. §§ 271(a) and/or (g). For example, the claim charts attached hereto as Exhibit 8 describe how the Accused Systems and Accused Methods practice claim 1 of each of the Asserted Patents.
- 32. On information and belief, each of the Defendants has known since 2017 that their activities concerning their Accused Systems and Accused Methods infringed at least three of the Asserted Patents. For example, all of the Defendants received a letter from Osteoplastics identifying several of the Accused Patents and attaching infringement claim charts for those Accused Patents, but refused to provide a substantive response to Osteoplastics' infringement allegations and request for information relating to the Accused Systems and Methods.
- 33. In any event, on information and belief, all of the Defendants have known that their activities concerning their Accused Systems and Accused Methods infringed each of the Asserted Patents since at least March 24, 2020, when Plaintiff served Defendants with the original Complaint and infringement claim charts. (D.I. 1; D.I. 1-8; D.I. 5; D.I. 6; D.I. 7.)
  - 34. On information and belief, Defendants have no reasonable basis for believing

that the claims of the Asserted Patents are either invalid or not infringed by their Accused Systems and Accused Methods. For example, Defendants did not provide any such basis despite requests for that information by Osteoplastics.

- 35. Plaintiff has been damaged as the result of Defendants' willful infringement.

  Upon information and belief, Defendants have been and will continue to infringe the

  Asserted Patents unless and until they are enjoined by this Court.
- 36. Defendants have caused and will continue to cause Osteoplastics irreparable injury and damage by infringing the Asserted Patents. Osteoplastics will suffer further irreparable injury, for which it has no adequate remedy at law, unless and until Defendants are enjoined from infringing the Asserted Patents.

#### **PRAYER FOR RELIEF**

WHEREFORE, Plaintiff respectfully requests that this Court:

- (1) Enter judgment that Defendants has infringed one or more claims of the Asserted Patents;
- (2) Enter an order permanently enjoining Defendants and their officers, agents, employees, attorneys, and all persons in active concert or participation with any of them, from infringing the Asserted Patents;
- (3) Award Plaintiff damages in an amount sufficient to compensate it for Defendants' infringement of the Asserted Patents, together with pre-judgment and post-judgment interest and costs, and all other damages permitted under 35 U.S.C. § 284;
- (4) Award Plaintiff an accounting for acts of infringement not presented at trial and an award by the Court of additional damage for any such acts of infringement;
  - (5) Treble the damages awarded to Plaintiff under 35 U.S.C. § 284 by reason

of Defendants' willful infringement of at least one claim of the Asserted Patents;

- (6) Declare this case to be "exceptional" under 35 U.S.C. § 285 and award Osteoplastics its attorneys' fees, expenses, and costs incurred in this action; and
  - (7) Award Plaintiff such other and further relief as this Court deems just and proper.

## **JURY TRIAL DEMAND**

Plaintiff demands a jury trial on all issues so triable.

Dated: October 30, 2020 FISH & RICHARDSON P.C.

By: /s/ Martina Tyreus Hufnal

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