

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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SMITH & NEPHEW, INC.,  
Petitioner,

v.

CONFORMIS, INC.,  
Patent Owner.

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Case IPR2017-00983  
Case IPR2017-00984<sup>1</sup>  
Patent 8,657,827 B2

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Before PATRICK R. SCANLON, JAMES A. WORTH, and  
AMANDA F. WIEKER, *Administrative Patent Judges*.

WORTH, *Administrative Patent Judge*.

DECISION  
Denying Institution of *Inter Partes* Review  
37 C.F.R. § 42.108

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<sup>1</sup> A copy of this Decision is to be entered in each of the referenced proceedings. Although we are using a consolidated caption for this Decision, we note that the proceedings have not been consolidated and the parties have not been authorized to use a consolidated caption or to otherwise treat the proceedings as consolidated.

IPR2017-00983  
IPR2017-00984  
Patent 8,657,827 B2

## I. INTRODUCTION

Petitioner Smith & Nephew, Inc. filed two petitions requesting *inter partes* review of claims 1–25, 28, 29, 32–46, and 50–64 of U.S. Patent No. 8,657,827 B2 (Ex. 1001, “the ’827 patent”)<sup>2</sup> pursuant to 35 U.S.C. § 311(a), as indicated in the chart below. Patent Owner ConforMIS, Inc. filed a Preliminary Response in each proceeding, as indicated in the chart below.

Case Number	Challenged Claims	Petition	Preliminary Response
IPR2017-00983	1–25, 28, 29, 32–46	Paper 2 (“Pet.”)	Paper 6 (“Prelim. Resp.”)
IPR2017-00984	50–64	Paper 1 (“-984 Pet.”)	Paper 7 (“-984 Prelim. Resp.”)

Institution of an *inter partes* review is authorized by statute when “the information presented in the petition filed under [35 U.S.C. §] 311 and any response filed under [35 U.S.C. §] 313 shows that there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition.” 35 U.S.C. § 314(a); *see also* 37 C.F.R. § 42.108. For the reasons set forth below, we determine that Petitioner has not demonstrated a reasonable likelihood that claims 1–25, 28, 29, 32–46, and 50–64 are unpatentable. Accordingly, we do not institute an *inter partes* review of claims 1–25, 28, 29, 32–46, and 50–64 of the ’827 patent based on the grounds asserted in the petitions.

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<sup>2</sup> Unless otherwise specified with the “-984” prefix, references to papers and exhibits cited herein are to those filed in Case IPR2017-00983.

IPR2017-00983  
IPR2017-00984  
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*A. Related Matters*

The parties identify the following district court proceeding as a related matter: *ConformIS, Inc. v. Smith & Nephew, Inc.*, No. 1:16-cv-10420-IT (D. Mass. Feb. 29, 2016). Pet. 1; Paper 4, 2. Petitioner identifies the following Board proceedings as related: IPR2016-01874; IPR2017-00115; IPR2017-00307; IPR2017-00372; IPR2017-00373; IPR2017-00487; IPR2017-00488; IPR2017-00510; IPR2017-00511; IPR2017-00544; IPR2017-00545; IPR2017-00778; IPR2017-00779; and IPR2017-00780. Pet. 1–2; *see also* Paper 4, 2 (Patent Owner Mandatory Notice).

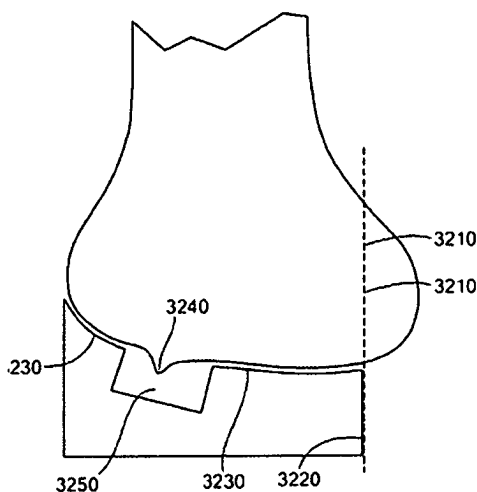
*B. The '827 Patent (Ex. 1001)*

The '827 patent is titled “Surgical Tools for Arthroplasty” and relates to methods, systems, and prosthetic devices for articular resurfacing. Ex. 1001, 1:65–67. The '827 patent also relates to surgical molds designed to achieve optimal cut planes in a joint in preparation for installation of a joint implant. *Id.* at 1:67–2:4.

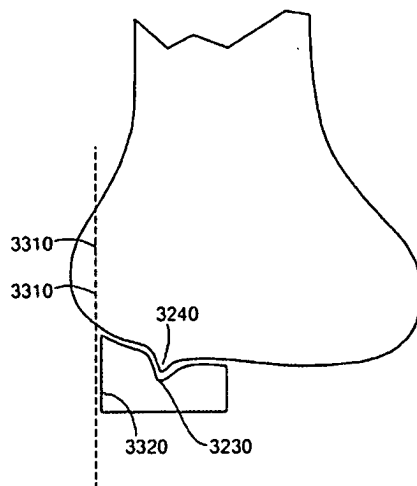
The '827 patent describes a problem in the prior art with available devices that do not always provide ideal alignment with the articular surfaces and joint congruity. *Id.* at 5:37–39. The '827 patent states that poor alignment and poor joint congruity can, for example, lead to instability of the joint, e.g., lateral instability of the knee joint. *Id.* at 5:39–42.

The '827 patent discloses forming a template with at least one contact surface to engage a surface associated with a joint. *Id.* at 9:56–10:5. The template may avoid a deformity, such as an osteophyte, and engage a portion of a surface not affected by the deformity, or the deformity may be removed prior to placing a mold. *Id.* at 73:25–50.

Placement of a template is depicted in Figures 32 and 33:



**FIG. 32**



**FIG. 33**

Figures 32 and 33 illustrate 3D guidance templates designed to guide a posterior and an anterior cut, respectively, using posterior and anterior reference planes, in accordance with embodiments of the invention. *Id.* at 28:31–42. In Figure 33, the facing surface of the template is, at least in part, a mirror image of portions of the joint that are altered by the arthritic process, including osteophyte 3240. *Id.* at 28:37–42; 84:2–7. However, in Figure 32, the template contains recess 3250 to avoid the osteophyte. *Id.* at 83:61–62.<sup>3</sup>

<sup>3</sup> The '827 patent is subject to a certificate of correction, which issued on Sept. 30, 2014. Ex. 1001, 140.

*C. Illustrative Claim*

Claims 1, 50, 53, 56, and 59 are independent. Independent claim 1, reproduced below, is illustrative of the subject matter:

1. A patient-specific surgical instrument for use in surgically repairing a diseased or damaged joint of a patient, the instrument comprising:

a patient-specific surface for engaging a corresponding portion of the diseased or damaged joint, the patient-specific surface including cartilage information derived from image data of the diseased or damaged joint, wherein the corresponding portion of the diseased or damaged joint includes an osteophyte, wherein the patient-specific surface references the osteophyte when the patient-specific surface is engaged and aligned with the corresponding portion of the diseased or damaged joint; and

a guide sized and shaped to accommodate a surgical tool, wherein the guide has a position and orientation relative to the patient-specific surface to provide a predetermined path for the surgical tool.

Ex. 1001, 119:11–28.

*D. The Prior Art*

Petitioner relies on the following prior art:

US 4,759,350, iss. July 26, 1988 (Ex. 1036, “Dunn”);

US 4,841,975, iss. June 27, 1989 (Ex. 1031, “Woolson”);

WO 93/25157, pub. Dec. 23, 1993 (Ex. 1003, “Radermacher”);

WO 95/28688, pub. Oct. 26, 1995 (Ex. 1007, “Swaelens”);

WO 00/35346, pub. June 22, 2000 (Ex. 1004, “Alexander”);

WO 00/59411, pub. Oct. 12, 2000 (Ex. 1005, “Fell”);

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