

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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MEDTRONIC, INC., AND MEDTRONIC VASCULAR, INC.,  
Petitioner,

v.

TELEFLEX LIFE SCIENCES LIMITED,  
Patent Owner.

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IPR2020-01342  
Patent 8,142,413 B2

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Before SHERIDAN K. SNEDDEN, JAMES A. TARTAL, and  
CHRISTOPHER G. PAULRAJ, *Administrative Patent Judges*.

SNEDDEN, *Administrative Patent Judge*.

JUDGMENT  
Final Written Decision  
Determining No Challenged Claims Unpatentable  
*35 U.S.C. § 318(a)*

## I. INTRODUCTION

We have jurisdiction under 35 U.S.C. § 6. We issue this Final Written Decision pursuant to 35 U.S.C. § 318(a) and 37 C.F.R. § 42.73 in an *inter partes* review involving Medtronic, Inc., and Medtronic Vascular, Inc. (“Petitioner”) and Teleflex Life Sciences Limited (“Patent Owner”).<sup>1</sup> Based on the record before us, we conclude that Petitioner has not demonstrated, by a preponderance of the evidence, that claims 1, 2, 4, 5, and 7–14 of U.S. Patent No. 8,142,413 B2 (“the ’413 patent,” Ex. 1401) are unpatentable.

### A. Background

Petitioner filed a Petition for *inter partes* review of claims 1, 2, 4, 5, and 7–14 of the ’413 patent. Paper 1 (“Pet.”). Patent Owner filed a Preliminary Response. Paper 7. We determined, based on the information presented in the Petition and Preliminary Response, that there was a reasonable likelihood that Petitioner would prevail in showing that at least one of the challenged claims was unpatentable over the cited art. Pursuant to 35 U.S.C. § 314, the Board instituted trial on February 9, 2021. Paper 9.

Following institution, Patent Owner filed a Response to the Petition (Paper 24, “PO Resp.”), Petitioner filed a Reply to Patent Owner’s Response (Paper 40, “Reply”), and Patent Owner filed a Sur-reply (Paper 52).<sup>2</sup>

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<sup>1</sup> Teleflex Life Sciences Limited (“Teleflex”) filed a notice identifying itself as the owner of U.S. Patent No. 8,142,413 B2. Paper 5, 2. Teleflex further explained, “Teleflex Innovations S.A.R.L. merged into Teleflex Medical Devices S.A.R.L., and Teleflex Medical Devices S.A.R.L. transferred ownership of U.S. Patent No. 8,142,413 to Teleflex Life Sciences Limited.” *See id.* at 2 n.1 (furthering stating that “[t]he assignment documents were recorded with the United States Patent & Trademark Office on January 27, 2020”).

<sup>2</sup> Redacted versions of the PO Response and Reply are entered as Papers 25 and 41, respectively.

IPR2020-01342  
Patent 8,142,413 B2

On November 18, 2021, the parties presented arguments at an oral hearing. The transcript of the hearing has been entered into the record. Paper 73.

*B. Related Matters*

Petitioner filed a separate Petition for *inter partes* review of claims 1, 2, 4, 5, and 7–14 of the '413 patent as IPR2020-01341. The final written decision is pending in IPR2020-01341.

Petitioner also previously filed petitions challenging patents related to the '413 patent in the following proceedings: IPR2020-00126 and IPR2020-00127 (Patent 8,048,032 B2); IPR2020-00128, IPR2020-00129, IPR2020-00130, and IPR2020-00131 (Patent RE45,380 E); IPR2020-00132, IPR2020-00133, and IPR2020-00134 (Patent RE45,760 E); IPR2020-00135 and IPR2020-00136 (Patent RE45,776 E); IPR2020-00137 and IPR2020-00138 (Patent RE47,379 E); and IPR2021-01343 and IPR2021-01344 (Patent RE46,116 E). Institution of *inter partes* review was denied in IPR2020-00131 and IPR2020-00133. Final written decisions are pending in IPR2021-01343 and IPR2021-01344. We issued final written decisions determining that none of the challenged claims were unpatentable in the other proceedings.

The parties indicate that the '413 patent is the subject of litigation in *Vascular Solutions LLC, et al. v. Medtronic, Inc., et al.*, No. 19-cv-01760 (D. Minn. filed July 2, 2019) and *QXMedical, LLC v. Vascular Solutions, LLC*, No. 17-cv-01969 (D. Minn. filed June 8, 2017). Pet. 4–5; Paper 5, 2.

*C. The '413 Patent*

*1. Specification*

The '413 patent, titled “Coaxial Guide Catheter for Interventional Cardiology Procedures,” issued on March 27, 2012, from a non-provisional application filed June 28, 2010. Ex. 1001, codes (45), (54), (22). The '413 patent relates generally to a coaxial guide catheter for use with interventional cardiology devices that are insertable into a branch artery that branches off from a main artery. Ex. 1001, Abstract.

According to the '413 patent, interventional cardiology procedures often include inserting guidewires or other instruments through catheters into coronary arteries that branch off from the aorta. *Id.* at 1:21–23.

In coronary artery disease, atherosclerotic plaques or other lesions may narrow or occlude the coronary arteries. *Id.* at 1:26–30. The '413 patent states that “[n]arrowing is referred to as stenosis.” *Id.* at 1:30–31.

“In treating a stenosis, a guide catheter is typically inserted through the aorta and into the ostium of the coronary artery,” sometimes with the aid of a guidewire. *Id.* at 1:35–37. The '413 patent further states as follows:

A guide catheter is typically seated into the opening or ostium of the artery to be treated and a guidewire or other instrument is passed through the lumen of the guide catheter and inserted into the artery beyond the occlusion or stenosis. Crossing tough lesions can create enough backward force to dislodge the guide catheter from the ostium of the artery being treated. This can make it difficult or impossible for the interventional cardiologist to treat certain forms of coronary artery disease.

*Id.* at 1:37–45. The '413 patent discusses “four categories” of “[p]rior attempts to provide support to the guiding catheter to prevent backward dislodgement from the coronary ostium (referred to as ‘backup support’),” consisting of: (1) “guiding catheters that, through a combination of shape

and stiffness, are configured to draw backup support from engaging the wall of the aortic arch;” (2) “guiding catheters that include a retractable appendage;” (3) guide catheters that have apportion that seeks to expand laterally;” and, (4) “placement of a smaller guide catheter within a larger guide catheter in order to provide add support.” *Id.* at 1:46–2:39. The ’413 patent identifies various deficiencies with these prior attempts, including an increased risk of damage to the aortic wall and mechanical complexity. *See id.* Specifically, with regard to the fourth category of prior attempts, the ’413 patent states as follows:

This technique is used in order to provide a method of deep seating the guide catheter within the ostium of the coronary artery. Deep seating refers to inserting the catheter more deeply into the ostium of the coronary artery than typically has been done before. Unfortunately, deep seating by this technique with a commonly available guide catheter creates the risk that the relatively stiff, fixed curve, guide catheter will damage the coronary artery. This damage may lead to dissection of the coronary artery when the catheter is advanced past the ostium.

Several other problems arise when using a standard guide catheter in this catheter-in-a-catheter fashion. First, the inner catheters must be substantially longer than the one hundred centimeter guide catheter. Second, a new hemostasis valve must be placed on the inner guide catheter which prevents the larger guide catheter from being used for contrast injections or pressure measurements. Third, the smaller guide catheter still must be inserted into the coronary vessel with great care since the smaller guide catheter has no tapered transition or dilator at its tip and does not run over a standard 0.014 inch guidewire.

*Id.* at 2:30–50. The ’413 patent states “a system that would be deliverable through standard guide catheters for providing backup support by providing the ability to effectively create deep seating in the ostium of the coronary artery” would be beneficial to “the interventional cardiology art.” *Id.* at 2:51–55.

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