

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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RIMFROST AS,  
Petitioner,

v.

AKER BIOMARINE ANTARCTIC AS,  
Patent Owner.

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IPR2018-01179  
Patent 9,375,453 B2

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Before ERICA A. FRANKLIN, TINA E. HULSE, and  
JOHN E. SCHNEIDER, *Administrative Patent Judges*.

FRANKLIN, *Administrative Patent Judge*.

JUDGMENT

Final Written Decision  
Determining All Challenged Claims Unpatentable  
Denying Patent Owner's Motion to Amend  
*35 U.S.C. § 318(a)*

## I. INTRODUCTION

This is a Final Written Decision in an *inter partes* review challenging the patentability of claims 33–61 (“the challenged claims”) of U.S. Patent No. 9,375,453 B2 (“the ’453 patent,” Ex. 1001). We have jurisdiction under 35 U.S.C. § 6, and enter this Decision pursuant to 35 U.S.C. § 318(a) and 37 C.F.R. § 42.73. For the reasons set forth below, we determine that Rimfrost AS (“Petitioner”) has shown, by a preponderance of the evidence, that the challenged claims are unpatentable. *See* 35 U.S.C. § 316(e) (2012). Additionally, we deny the contingent Motion to Amend filed by Aker Biomarine Antarctic AS (“Patent Owner”).

### A. *Procedural History*

Petitioner filed a Petition for an *inter partes* review of the challenged claims under 35 U.S.C. § 311. Paper 2 (“Pet.”). Petitioner supported the Petition with the Declaration of Stephen J. Tallon, Ph.D. (Ex. 1006). Patent Owner declined to file a Preliminary Response to the Petition.

On January 14, 2019, pursuant to 35 U.S.C. § 314(a), we instituted trial to determine whether any challenged claim of the ’453 patent is unpatentable based on the grounds raised in the Petition:

Claim(s) Challenged	35 U.S.C. §	References
33–38, 40–43, 46–49, 51–52, 55–58, 60	103(a)	Breivik II <sup>1</sup> , Catchpole <sup>2</sup> , Bottino II <sup>3</sup> , Sampalis I <sup>4</sup>
39	103(a)	Breivik II, Catchpole, Bottino II, Sampalis I, Sampalis II <sup>5</sup>
44, 50, 53, 59	103(a)	Breivik II, Catchpole, Bottino II, Sampalis I, Fricke <sup>6</sup>
45, 54, 61	103(a)	Breivik II, Catchpole, Bottino II, Sampalis I, Randolph <sup>7</sup>

Paper 7 (“Institution Decision” or “Inst. Dec.”).

Patent Owner filed a Patent Owner Response to the Petition. Paper 12 (“PO Resp.”). Patent Owner supported the Response with the Declaration of Nils Hoem, Ph.D. Ex. 2001. Petitioner filed a Reply to the Patent Owner Response. Paper 18 (“Pet. Reply”). Patent Owner filed a Sur-Reply to Petitioner’s Reply. Paper 22 (“PO Sur-Reply”).

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<sup>1</sup> Breivik, WO 2008/060163 A1, published May 22, 2008 (“Breivik II”) (Ex. 1037).

<sup>2</sup> Catchpole, WO 2007/123424 A1, published Nov. 1, 2007 (“Catchpole”) (Ex. 1009).

<sup>3</sup> Bottino, *Lipid Composition of Two Species of Antarctic Krill: Euphausia superba and E. crystallorophias*, 50B COMP. BIOCHEM. PHYSIOL. 479–484 (1975) (“Bottino II”) (Ex. 1038).

<sup>4</sup> Sampalis et al., *Evaluation of the Effects of Neptune Krill Oil™ on the Management of Premenstrual Syndrome and Dysmenorrhea*, 8(2) ALT. MED. REV. 171–179 (2003) (“Sampalis I”) (Ex. 1012).

<sup>5</sup> Sampalis, WO 03/011873 A2, published Feb. 13, 2003 (“Sampalis II”) (Ex. 1013).

<sup>6</sup> Fricke et al., *Lipid, Sterol and Fatty Acid Composition of Antarctic Krill (Euphausia superba Dana)*, 19(11) LIPIDS 821–827 (1984) (“Fricke”) (Ex. 1010).

<sup>7</sup> Randolph, US 2005/0058728 A1, published Mar. 17, 2005 (“Randolph”) (Ex. 1011).

Patent Owner filed a Contingent Motion to Amend. Paper 11 (“MTA”). Patent Owner supports the motion with the Reply Declaration of Nils Hoem, Ph.D. Ex. 2025. Petitioner filed an Opposition to the motion. Paper 19 (“MTA Opp.”). Petitioner supports the Opposition to the motion with the Reply and Opposition Declaration of Stephen J. Tallon, Ph.D. Ex. 1086. Patent Owner filed a Reply to Petitioner’s Opposition to the Motion to Amend. Paper 21 (“MTA Reply”). Petitioner filed a Sur-Reply to Patent Owner’s Reply to Opposition to Motion to Amend. Paper 30 (“MTA Sur-Reply”).

On October 16, 2019, the parties presented arguments at an oral hearing. Paper 31. The hearing transcript has been entered in the record. Paper 33 (“Tr.”).

*B. Real Parties in Interest*

Petitioner identifies its real parties in interest as Olympic Holding AS, Emerald Fisheries AS, Rimfrost USA, LLC, Rimfrost New Zealand Limited, Bioriginal Food and Science Corp., and Petitioner, Rimfrost AS. Pet. 1. Additionally, Petitioner asserts that, based upon a majority ownership interest in those entities, and in an abundance of caution, it also names Stig Remøy, SRR Invest AS, Rimfrost Holding AS, and Omega Protein Corporation as real parties in interest. *Id.* at 2. Patent Owner identifies its real party in interest as Aker BioMarine Antarctic AS. Paper 4, 1.

*C. Related Matters*

Petitioner and Patent Owner provide notice that two related patents, U.S. Patent Nos. 9,028,877 B2 (“the ’877 patent”) and 9,078,905 B2 (“the ’905 patent”), have been asserted in *Aker Biomarine Antarctic AS v. Olympic Holding AS*, Case No. 1:16-CV-00035-LPS-CJB (D. Del.) (stayed). Pet. 2;

Paper 4, 1. The parties note that the '453 patent was asserted, along with related patents, including U.S. Patent No. 9,320,765 B2 (“the '765 patent”), in *In the Matter of Certain Krill Oil Products and Krill Meal for Production of Krill Oil Products*, Investigation No. 337-TA-1019 (USITC). Pet. 2; Paper 4, 1. According to the parties, that matter has been “effectively terminated.” Pet. 2; Paper 4, 1.

The Board has issued Final Written Decisions addressing challenges to claims of: (a) the '877 patent (IPR2017-00746, Paper 23, claims 1–19 shown to be unpatentable; IPR2017-00748, Paper 23, claims 1–19 not shown to be unpatentable); (b) the '905 patent (IPR2017-00745, Paper 24, claims 1–20 shown to be unpatentable; IPR2017-00747, Paper 24, claims 1–20 not shown to be unpatentable); and (c) the '765 patent (IPR2018-00295, Paper 35, claims 1–48 shown to be unpatentable). The Federal Circuit has affirmed the Board’s determination that the challenged claims of the '877 patent and '905 patent would have been obvious based upon the grounds set forth in IPR2017-00746 and IPR2017-00745, respectively. *Aker Biomarine Antarctic AS v. Rimfrost AS*, 786 F. App’x 251 (Fed. Cir. Oct. 3, 2019).

Petitioner has challenged, and we have instituted *inter partes* review of, claims 1–32 of the '453 patent in IPR2018-01178.

#### *D. The '453 Patent*

The '453 patent describes extracts from Antarctic krill that include bioactive fatty acids. Ex. 1001, 1:19–20. The Specification states that the patent “discloses novel krill oil compositions characterized by containing high levels of astaxanthin, phospholipids, includ[ing] enriched quantities of ether phospholipids, and omega-3 fatty acids.” *Id.* at 9:28–31.

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