

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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IPR2018-01730  
Patent 9,072,752 B2

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

SCHNEIDER, *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 1–20 (“the challenged claims) of U.S. Patent 9,072,752 B2 (“the ’752 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 March 12, 2019, pursuant to 35 U.S.C. § 314(a), we instituted trial to determine whether any of the challenged claims are unpatentable on the grounds raised in the Petition. Paper 7 (“Inst. Dec.”).

Patent Owner filed a Patent Owner Response to the Petition. Paper 13 (“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 25 (“PO Sur-Reply”).

Patent Owner filed a Contingent Motion to Amend. Paper 12 (“MTA”). Patent Owner supported the motion with the Reply Declaration of Nils Hoem, Ph.D. Ex. 2025. Petitioner filed an Opposition to the motion.

IPR2018-01730  
Patent 9,072,752 B2

Paper 19 (“MTA Opp.”). Petitioner supported 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 24 (“MTA Reply”). Petitioner filed a Sur-Reply to Patent Owner’s Reply to Opposition to Motion to Amend. Paper 31 (“MTA Sur-Reply”).

On December 9, 2019, the parties presented arguments at an oral hearing. Paper 30. The hearing transcript has been entered in the record. Paper 34 (“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 U.S. Patent No. 9,375,453 (“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

IPR2018-01730  
Patent 9,072,752 B2

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); (c) the ’765 patent (IPR2018-00295, Paper 35, claims 1–48 shown to be unpatentable); (d) the ’453 patent (IPR2018-01178, paper 34, claims 1–32 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).

#### *D. The ’752 Patent*

The ’752 patent, titled “Bioeffective Krill Oil Compositions” issued on July 7, 2015, from U.S. Patent Application No. 14/620,784 filed on February 12, 2015. Ex. 1001, at [54], [45], [21], [22]. The ’752 patent is a continuation of U.S. Patent Application No. 12/057,775, filed on March 28, 2008. The ’752 patent claims priority to U.S. Provisional Application No. 60/920,483 filed on March 28, 2007; U.S. Provisional Application No. 60/975,058 filed on September 25, 2007; U.S. Provisional Application No. 60/983,446, filed on October 29, 2007; and U.S. Provisional Application No. 61/024,072, filed on January 28, 2008. *Id.* [60].

The ’752 patent teaches krill oil compositions characterized by having “high amounts of phospholipids, astaxanthin esters and/or omega-3

contents.” Ex. 1001, Abstract. According to the specification, the compositions disclosed in the ’752 patent are effective “in a number of areas such as anti-inflammation, antioxidant effects, improving insulin resistances and improving blood lipid profile.” *Id.*

The ’752 patent acknowledges that krill oil compositions, including compositions having up to 60% w/w phospholipid content and as much as 35% w/w EPA/DHA content, were known in the art at the time of the invention. *Id.* at col. 1, ll. 52–57. In addition, the ’752 patent recognizes that a myriad of health benefits have been attributed to krill oil in the prior art. For example, the ’752 patent states that “[k]rill oil compositions have been described as being effective for decreasing cholesterol, inhibiting platelet adhesion, inhibiting artery plaque formation, preventing hypertension, controlling arthritis symptoms, preventing skin cancer, enhancing transdermal transport, reducing the symptoms of premenstrual symptoms or controlling blood glucose levels in a patient.” *Id.* at col. 1, ll. 46–52.

#### *E. Illustrative Claims*

Claims 1 and 14 are illustrative of the challenged claims. Claim 1 reads as follows:

1. A polar krill oil comprising greater than about 40% phosphatidylcholine w/w of said krill oil and greater than about 5% ether phospholipids w/w of said krill oil.

Ex. 1001, col. 34, ll. 65–67.

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