

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

RIMFROST AS,
Petitioner,

v.

AKER BIOMARINE ANTARCTIC AS,
Patent Owner.

Case IPR2017-00745
Patent 9,078,905 B2

Before LORA M. GREEN, ERICA A. FRANKLIN, and
JACQUELINE T. HARLOW, *Administrative Patent Judges*.

HARLOW, *Administrative Patent Judge*.

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

I. INTRODUCTION

Rimfrost AS (“Petitioner”) filed a Petition requesting an *inter partes* review of claims 1–20 of U.S. Patent No. 9,078,905 B2 (Ex. 1001, “the ’905 patent”). Paper 2 (“Pet.”). Aker Biomarine Antarctic AS (“Patent Owner”) declined to file a Preliminary Response. We have authority to determine whether to institute an *inter partes* review under 35 U.S.C. § 314, which provides that an *inter partes* review may not be instituted unless the information presented in the petition “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.”

For the reasons set forth below, we institute an *inter partes* review of claims 1–20 of the ’905 patent.

A. Related Matters

The ’905 patent is asserted in *Aker Biomarine Antarctic AS v. Olympic Holding AS*, Case No. 1:16-CV-00035-LPS-CJB (D. Del.). Pet. 2; Paper 3, 1. Petitioner has additionally challenged the claims of the ’905 patent in IPR2017-00747.¹ Paper 5, 2. The parties have not identified any further, currently pending, related proceedings concerning the ’905 patent.²

¹ Petitioner also challenges U.S. Patent No. 9,028,877 B2 in IPR2017-00746 and IPR2017-00748. Paper 5, 2. Both the ’905 patent and the ’877 patent are continuations of Application No. 12/057,775, filed March 28, 2008.

² The ’905 patent was also asserted 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. 2–3; Paper 3, 1); however, Petitioner states that the investigation has been terminated with regard to the ’905 patent.

B. The '905 Patent

The '905 patent, titled “Bioeffective Krill Oil Compositions,” issued July 14, 2015, from U.S. Patent Application No. 14/490,221, filed September 18, 2014. Ex. 1001, at [54], [45], [21], [22]. The '905 patent is a continuation of U.S. Patent Application No. 12/057,775, filed March 28, 2008. *Id.* at [63]. The '905 patent claims priority to U.S. Provisional Patent Application No. 60/920,483, filed March 28, 2007; U.S. Provisional Patent Application No. 60/975,058, filed September 25, 2007; U.S. Provisional Patent Application No. 60/983,446, filed October 29, 2007; and U.S. Provisional Patent Application No. 61/024,072, filed January 28, 2008. *Id.* at [60].

The '905 patent describes extracts from Antarctic krill that include bioactive fatty acids. Ex. 1001, 1:19–20. In particular, the '905 patent discloses krill oil compositions having “high levels of astaxanthin, phospholipids, includ[ing] enriched quantities of ether phospholipids, and omega-3 fatty acids.” *Id.* at 9:28–31. The '905 patent purports to improve upon known krill oil extraction techniques and the resulting products by disclosing a method for performing extraction on krill meal, in order to eliminate the need to transport frozen krill over long distances prior to processing. *Id.* at 1:65–2:16, 9:31–43.

The '905 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 prior to the time of

Pet. 3, n.1.

invention. *Id.* at 1:52–57. The '905 patent also indicates that supercritical fluid extraction with solvent modifier was known to be a useful method for extracting marine phospholipids from salmon roe. *Id.* at 1:65–67.

In addition, the '905 patent recognizes that myriad health benefits have been attributed to krill oil in the prior art. For example, the '905 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 1:46–52.

C. Illustrative Claim

Independent claim 1, reproduced below, is illustrative of the claimed subject matter.

1. Encapsulated krill oil comprising:
a capsule containing an effective amount of krill oil,
said krill oil comprising from about 3% to about 15% w/w
ether phospholipids.

Ex. 1001, 35:47–50. Independent claims 12 and 18 further specify the lipid composition of the krill oil, the type of krill used, and the material in which the krill oil is encapsulated. *Id.* at 36:29–36, 36:48–56.

D. Prior Art Relied Upon

Petitioner relies upon the following as prior art references (Pet. 8–9):

Randolph US 2005/0058728 A1 Mar. 17, 2005 (Ex. 1011)

Catchpole WO 2007/123,424 Nov. 1, 2007 (Ex. 1009)

Bottino, *The Fatty Acids of Antarctic Phytoplankton and Euphausiids. Fatty Acid Exchange among Trophic Levels of the Ross Sea*, 27 MARINE BIOLOGY 197–204 (1974) (Ex. 1007).

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

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) (Ex. 1012).

Petitioner also relies on the Declaration of Stephen J. Tallon, Ph.D. (Ex. 1006).

E. The Asserted Grounds of Unpatentability

Petitioner challenges the patentability of claims 1–20 of the '905 patent on the following grounds (Pet. 7):

Claim(s)	Basis	References
1–4, 9, and 10	§ 103(a)	Catchpole and Sampalis
5	§ 103(a)	Catchpole, Sampalis, and Randolph
6, 12, 15, 16, and 18	§ 103(a)	Catchpole, Sampalis, and Fricke
7, 8, 13, 14, 17, 19, and 20	§ 103(a)	Catchpole, Sampalis, Fricke, and Bottino
11	§ 103(a)	Catchpole, Sampalis, and Bottino

Explore Litigation Insights

Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

Real-Time Litigation Alerts



Keep your litigation team up-to-date with **real-time alerts** and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

Advanced Docket Research



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

Analytics At Your Fingertips



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

LAW FIRMS

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

FINANCIAL INSTITUTIONS

Litigation and bankruptcy checks for companies and debtors.

E-DISCOVERY AND LEGAL VENDORS

Sync your system to PACER to automate legal marketing.