

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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Case IPR2018-01178

U.S Patent No. 9,375,453

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**PATENT OWNER'S REPLY TO PETITIONER'S OPPOSITION  
TO MOTION TO AMEND CLAIMS**

Mail Stop Patent Board  
Patent Trial and Appeal Board  
U.S. Patent and Trademark Office  
P.O. Box 1450  
Alexandria, VA 22313-1450

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**I. Introduction**

Petitioner asserts that contingent amended claims 62-74 are not supported by an adequate written description and that the claims are obvious over the combination of seven references: Yoshitomi (Ex. 1033), Catchpole (Ex. 1009), Bottino II (Ex. 1038), Sampalis I (Ex. 1012), Randolph (Ex. 1011), Sampalis II (Ex. 1013), and NKO. Petitioner’s Opposition to Contingent Motion to Amend (Paper 19; “Oppo.”) Petitioner proposes four new grounds of unpatentability of the contingent amended claims. Each of the grounds is based on the same combination of references. Below, Patent Owner (“PO”) addresses the proposed ground of rejection as applied to independent contingent amended claim 62. The arguments with respect to amended claim 62 apply equally to the other grounds of rejection which are directed to claims dependent on claim 62.

The claims as amended require extraction of a phospholipid-rich krill oil with a defined lipid profile from a krill meal made by grinding, cooking and drying fresh krill and subsequently formulating the extracted krill oil with a carrier for oral consumption. The amendments forced Petitioner to abandon Breivik II as the lead reference and substitute Yoshitomi in combination with six other references. Petitioner argues that “Simply specifying that the claimed treating step includes ‘grinding, cooking and drying’ is not new, and therefore, not patentable.” Oppo.

at 4. However, this argument does not address the claims as a whole. As shown below, the data in Yoshitomi demonstrates that the lipids in the Yoshitomi krill powder were subject to both hydrolytic and oxidative degradation and also had an abnormally low lipid content. This is consistent with teachings in the prior art that krill meal is not suitable for extraction of a phospholipid-rich krill meal as claimed. Petitioner's expert, who has no experience with krill meal processing on board a ship (See Ex. 2026, p. 7, l. 7-23), failed to consider this data in Yoshitomi and its impact on motivation to combine and reasonable expectation of success.

## **II. The claims are supported by an adequate written description**

Petitioner alleges that there is no written description support for the method steps of grinding, cooking and drying krill to provide the krill meal that is extracted. Oppo. at 5-6. The level of detail required to satisfy the written description requirement varies depending on the nature and scope of the claims and on the complexity and predictability of the relevant technology. *Ariad Pharm., Inc. v. Eli Lilly & Co.*, 598 F.3d 1336, 1340, 94 USPQ2d 1161, 1167 (Fed. Cir. 2010 *en banc*)(setting forth factors for evaluating the adequacy of the disclosure, including “the existing knowledge in the particular field, the extent and content of the prior art, the maturity of the science or technology, [and] the predictability of the aspect at issue.”)

Petitioner's arguments are devoid of analysis and fail to consider factors relevant to written description such as those discussed in *Ariad*. Proper application of those factors leads to a conclusion that the claims are supported by an adequate written description. Ex. 2025, Hoem Reply Decl., ¶6. The specification specifically teaches the use of krill meal as a source material for extraction. *Id.*, see, e.g., Ex. 2012 at p. 6, l. 9-21; p. 15, l. 5-21; p. 44, Example 6). The specification specifically describes production of the meal by steps including grinding, cooking and drying. *Id.* Petitioner's expert admits that these steps were known in the art. Tallon Reply Decl. Ex. 1086, ¶¶253-259. Thus, given the existing knowledge in the field and the content of the prior art, a person of ordinary skill in the art ("POSITA") would readily recognize that the inventors were in possession of a method of making krill meal by cooking, grinding and drying and then using that krill meal for extraction of krill oil as claimed. Ex. 2025, Hoem Reply Decl., ¶6.<sup>1</sup>

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<sup>1</sup> Petitioner alleges in a footnote that claims are indefinite but provides no supporting arguments as to why the claims are indefinite in light of the specification. Claims with similar amendments relating to the ether phospholipid content and total phospholipid content were found to be not indefinite. IPR2018-

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