

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE PATENT TRIAL AND APPEAL BOARD

RIMFROST AS
Petitioner

v.

AKER BIOMARINE ANTARCTIC AS
Patent Owner

CASE IPR: IPR2018-00295

U.S. Patent No. 9,320,765 B2

**Declaration of Dr. Nils Hoem in Support of Patent Owner's Motion to
Amend**

I. **Introduction**

I, Dr. Nils Hoem, state as follows:

1. I have been asked by counsel for Petitioner Aker BioMarine AS to provide an expert declaration concerning certain proposed conditional amendments to the claims of U.S Patent No. 9,320,765 (hereinafter ‘765 patent; Ex. 1001). I am currently employed by Aker BioMarine AS.

2. Specifically, I have been asked to analyze arguments made by Rimfrost AS and its expert, Dr. Stephen J. Tallon, in the petition for inter partes review (“IPR”) proceeding of the ’765 patent, Case No. IPR2018-00295, as well as the material prior art references discussed in the prosecution of the ’765 patent, and the support and disclosures provided by the patent’s original non-provisional application. I have additionally been asked to review the Motion to Amend submitted concurrently with this declaration, including the Claims Appendix therein, which sets forth the proposed substituted claims and the amendments to the original claims reflected therein.

3. In forming my opinions, I have reviewed the materials identified in the paragraph above and in the following table.

5.

Exhibit Number	Exhibit Description
1001	U.S. Patent No. 9,320,765 B2, filed September 6, 2013 (the '765 Patent)
1002	U.S. Provisional patent Application No. 61/024,072, filed January 28, 2008 ('072 Provisional)
1003	U.S. Provisional patent Application No. 60/983,446, filed October 29, 2007 ('446 Provisional)
1004	U.S. Provisional patent Application No. 60/975,058, filed September 25, 2007 ('058 Provisional)
1005	U.S. Provisional patent Application No. 60/920,483, filed March 28, 2007 ('483 Provisional)
1006	Declaration of Stephen Tallon (Tallon Decl.)
1007	Bottino, N.R., "The Fatty Acids of Antarctic Phytoplankton and Euphausiids. Fatty Acid Exchange among Trophic Levels of the Ross Sea", <i>Marine Biology</i> , 27, 197-204 (1974) (Bottino)
1008	Budziński, E., P. Bykowski and D. Dutkiewicz, 1985, "Possibilities of processing and marketing of products made from Antarctic krill". <i>FAO Fish. Tech. Pap.</i> , (268): 46. (Budzinski)

1009	Catchpole and Tallon, WO 2007/123424, published November 1, 2007, “Process for Separating Lipid Materials,” (Catchpole)
1010	Fricke et al., “Lipid, Sterol and Fatty Acid Composition of Antarctic Krill (<i>Euphausia superba</i> Dana),” LIPIDS 19(11): 821-827 (1984) (Fricke)
1011	Randolph, et al., U.S. Patent Application Publication No. US/2005/0058728 A1, “Cytokine Modulators and Related Method of Use” (Randolph)
1012	Sampalis [I] et al., “Evaluation of the Effects of Neptune Krill Oil™ on the Management of Premenstrual Syndrome and Dysmenorrhea,” Altern. Med. Rev. 8(2):171-179 (2003) (Sampalis I)
1013	Sampalis [II] et al., WO 2003/011873, published February 13, 2003, “Natural Marine Source Phospholipids Comprising Flavonoids, Polyunsaturated Fatty Acids and Their Applications” (Sampalis II)
1014	Tanaka [I] et al., “Platelet – Activating Factor (PAF) – Like Phospholipids Formed During Peroxidation of Phosphatidylcholines from Different Foodstuffs,” Biosci. Biotech. Biochem., 59(8) 1389- 1393 (1995) (Tanaka I).
1015	Tanaka [II] et al., “Extraction of Phospholipids from Salmon Roe with

	Supercritical Carbon Dioxide and an Entrainer”, Journal of Oleo Science Vol. 53 (2004) No. 9, p. 17-424 (Tanaka II)
1016	Beaudoin et al., “Method of Extracting Lipids From Marine and Aquatic Animal Tissues,” U.S. Patent No. 6,800,299 B1 filed July 25, 2001 (Beaudoin).
1017	Folch et al., “A simple method for the isolation and purification of total lipids from animal tissues,” J. Biol. Chem. (1957) 226:497-509 (Folch).
1018	Kochian et al., “Agricultural Approaches to Improving Phytonutrient Content in Plants: An Overview,” Nutrition Reviews”, Vol. 57, No. 9, September 1999: S13-S18.
1019	Porzio et al., “Encapsulation Compositions and Processes for Preparing the Same,” U.S. Patent No. 7,488,503 B1 filed March 31, 2004 (Porzio).
1020	Bunea, et al., “Evaluation of the Effects of Neptune Krill Oil On The Clinical Course of Hyperlipidemia,” Altern Med Rev. 2004; 9:420-428 (Bunea).
1027	Saether et al., “Lipolysis post mortem in North Atlantic krill”, Comp. Biochem. Physiol. Vol. 83B, No. 1, pp. 51-55, 1986 (Saether).
1028	Hawley’s Condensed Chemical Dictionary, p. 893, 13 th ed., 1997 (Hawley’s)

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