

**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**

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**CASE NO: IPR2018-01730**

**U.S. Patent No. 9,072,752 B2**

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

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**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 in this action. I am currently employed by Aker BioMarine AS.

2. I have reviewed U.S. Patent 9,072,752 (hereinafter ‘752 patent; Ex. 1001) and the claims contained therein. It is my understanding that the ‘752 patent contains claims to polar krill oil containing greater than 40% phosphatidylcholine and greater than 5% ether phospholipids. Additional limitations define krill oil compositions with higher amounts of phosphatidylcholine and ether phospholipids, specific amounts of omega-3 fatty acids, specific astaxanthin ester content and to the species of krill, *Euphausia superba*.

3. I have been asked to provide analysis and expert opinions on the following: whether the combination of references cited in this proceeding render claims of the ‘752 patent anticipated or obvious.

4. In connection with providing my opinions, I have further been asked to provide an overview of the technology of the ‘752 patent and state of the art that existing before the ‘752 patent was filed.

**A. Qualifications**

5. I am a licensed pharmacist with master and doctorate degrees in pharmacology. I was Associate Professor at Oslo University from 1989-2002 and European Director of Pharmacokinetics, Statistics and Data-Management at MDS Pharma Services, Hamburg Germany from 2004 to 2007. I am now Chief Scientist at Aker BioMarine. My educational background comprises skills in general, organic, analytic and biological chemistry in combination with his work at Aker BioMarine during the last 10 years have provided general and specialized insight into the complex composition of krill oil as well as the raw materials from which it has been extracted. In capacity of leading product development at Aker BioMarine, I have substantial theoretical and practical insight into extraction, fractionation and purification of krill oil and krill lipids. A more detailed account of my work experience, publications, and other qualifications is listed in my Curriculum Vitae, attached as Exhibit 1.

6. I am being compensated by my normal salary for Aker BioMarine AS. My compensation is not contingent on the conclusions I reach in my expert report.

7. I have reviewed and considered, in the preparation of this report, the documents below.

EXHIBIT NO.	EXHIBIT DESCRIPTION
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