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Examiner: Bruce Campbell

**First Supplemental Declaration by Bjørn Ole Haugsgjerd, MSc, in  
Support of Request for Inter Partes Reexamination of  
U.S. Patent NO. 8,030,348**

**EFS WEB Filed**

Mail Stop Inter Partes Reexam  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

I, Bjørn Ole Haugsgjerd, MSc, state as follows:

1. My present position is Deputy Manager at Nofima BioLab, Norway
2. At the request of Aker Biomarine ASA, I have extracted lipid fractions from *Euphausia superba* and *Euphausia pacifica* by the methods described in Beaudoin I (WO 00/23546), Beaudoin II (Canadian Application 2,251,265). Following the extraction, I shipped the samples to Vitas AS, Oslo, Norway, and Dr. Richard van Breemen, of the University of Illinois for analytical analysis. Frozen *Euphausia superba* and *Euphausia pacifica* were provided by Aker Biomarine ASA.

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Petition for Inter Partes Review  
Of U.S. Patent 8,278,351  
Exhibit  
**ENZYMOTEC - 1048**

- Extract with acetone at 4C at a sample:acetone ratio of 1:6 (w/v) for 2 hours with 20 minutes of swirling.
- Filter on organic solvent resistant filter paper under reduced pressure at 4C.
- Wash solid material on filter with a sample:acetone ratio of 1:2 (w/v) with pure and cold acetone.
- Combine filtrates and evaporate solvent under reduced pressure.
- Allow water residue obtained after evaporation to separate from oil phase (Fraction I) at 4C. Store Fraction I at 4C.
- Divide solid material on filter into two aliquots, aliquot 1 and aliquot 2.
- Extract aliquot 1 with pure ethanol at sample:ethanol ratio of 1:2 (w/v) for 30 minutes at 4C.
- Filter on organic solvent resistant filter paper under reduced pressure at 4C.
- Evaporate solvent under reduced pressure to provide Fraction IIa.
- Extract aliquot 2 with pure ethyl acetate at sample:ethyl acetate ratio of 1:2 (w/v) for 30 minutes at 4C.
- Filter on organic solvent resistant filter paper under reduced pressure at 4C.
- Evaporate solvent under reduced pressure to provide Fraction IIb.

Label the third aliquot as E. pacifica (or superba) Fraction IIa/ethyl not heated. Store at -20C until further analysis.

- Divide Fraction IIb into three aliquots. In an oil bath, heat one aliquot to 70C for 5 minutes and another aliquot to 125C for 15 minutes under an inert atmosphere, label as E. pacifica (or superba) Fraction IIb/ethyl acetate heat treated 70C or 125C. Store at -20C until further analysis. Label the third aliquot as E. pacifica (or superba) Fraction IIb/ethyl acetate not heated. Store at -20C until further analysis.
- The samples were marked as follows:

Fraction number	Temperature treatment (°C)	Time (min)	Marking of sample
E. superba I	Not heated		E. superba I / Acetone Not heated
E. superba I	60	5	E. superba I / Acetone 60C
E. superba I	125	15	E. superba I / Acetone 125C
E. superba IIa	Not heated		E. superba IIa / Etanol Not heated
E. superba IIa	70	5	E. superba IIa / Etanol 70C
E. superba IIa	125	15	E. superba IIa / Etanol 125C
E. superba IIb	Not heated		E. superba IIb / Ethyl acetate Not heated
E. superba IIb	70	5	E. superba IIb / Ethyl acetate 70C
E. superba IIb	125	15	E. superba IIb / Ethyl acetate 125C
E. pacifica I	Not heated		E. pacifica I / Acetone Not heated
E. pacifica I	60	5	E. pacifica I / Acetone 60C
E. pacifica I	125	15	E. pacifica I / Acetone 125C
E. pacifica IIa	Not heated		E. pacifica IIa / Etanol Not heated
E. pacifica IIa	70	5	E. pacifica IIa / Etanol 70C
E. pacifica IIa	125	15	E. pacifica IIa / Etanol 125C
E. pacifica IIb	Not heated		E. pacifica IIb / Ethyl acetate Not heated
E. pacifica IIb	70	5	E. pacifica IIb / Ethyl acetate 70C
E. pacifica IIb	125	15	E. pacifica IIb / Ethyl acetate 125C

statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under section 1001 of title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Respectfully submitted,

Bjørn Ole Haugsgjerd

Bjørn Ole Haugsgjerd, MSc

April 16, 2012

Date

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