UNITED STATES INTERNATIONAL TRADE COMMISSION
Washington, D.C.
Before the Honorable Theodore R. Essex
Administrative Law Judge

In the Matter of CERTAIN OMEGA-3 EXTRACTS FROM MARINE OR AQUATIC BIOMASS AND PRODUCTS CONTAINING THE SAME	Investigation No. 337-TA-877

WITNESS STATEMENT OF DAVID POND, PH.D.

I. Introduction and Summary of Opinions

Q1. Would you please state your name for the record?

A1. My name is Dr. David Pond.

Q2. Are you employed?

A2. Yes, I am a Principal Investigator at the Scottish Association for Marine Science, also called "SAMS," in the field of biological oceanography.

Q3. What is SAMS?

A3. It is a marine science research organization located on Dunstaffnage bay on the west coast of Scotland. It is affiliated with the University of the Highlands and Islands.

Q4. What is the University of the Highlands and Islands?

A4. It is a group of thirteen colleges and research institutions in Scotland that offers undergraduate, postgraduate and research programmes.

Q5. How long have you been working at SAMS?

A5. Since September 2012.

Q6. Have you been retained by the Respondents as an expert witness in this investigation?

A6. Yes, I have.

Q7. What have the Respondents asked you to do?

A7. They asked me to analyse and provide opinions regarding whether the asserted patents, U.S. Patent Nos. 8,278,351, which I will call the "'351 patent," and 8,383,675, which I

Q77. What are the most commonly harvested species of krill?

A77. The most commonly harvested species are *Euphausia superba*, which lives in the Southern Ocean (Antarctic waters), and *Euphausia pacifica*, which lives in the North Pacific Ocean. These two areas comprise nearly the entirety of commercial krill fishing. Other species that live in the Arctic Ocean are fished commercially and have been researched as well, although not as much as *Euphausia superba* and *Euphausia pacifica*.

Q78. Why are *Euphausia superba* and *Euphausia pacifica* commonly harvested species of krill?

A78. One reason is that these two species form swarms, similar to the way some fish form schools. The swarms can be as small as a few square metres, or as large as several square kilometres. This makes them desirable from a commercial standpoint because they are economically viable to catch. I have a slide, RDX-909, that shows pictures of *E. Superba*, including a picture of a swarm.

Q118. Do different species of krill contain different amounts of fatty acids and other lipids?

A118. There is variation in the amounts of lipids among krill species, and even among different individuals within a species. As I mentioned earlier, the most studied species of krill are *E. superba* and *E. pacifica*, and it is generally understood that these two types of krill have similar lipid compositions. For example, a 1969 study by Richard Pierce reported that extractable lipids and fatty acid composition of *E. superba* and *E. pacifica* were similar, which is shown on RDX-922.

RDX-922

E. pacifica and *E. superba* Lipid Content

Table I. Proximate Composition of *E. pacifica*, *E. superba*, and *P. planipes*[a]

	E. pacifica, %		*E. superba*, %	*P. planipes*, %
	Eureka	Washington		
Ash	17.1	20.5	18.9	35.9
Extractable lipids	25.8	18.9	18.7	7.6
Protein (total N × 6.25)	62.4	68.4	61.8	48.7
Protein (biuret)	58.6	53.8	44.8	32.1
Chitin	2.2	2.8	2.3	10.9

[a] Wet-ground material contained approximately 90% moisture. Analytical data corrected to dry matter basis.

Table II. Fatty Acid Methyl Ester Distribution in Various Zooplankton[a]

Fatty Acid Chain Length: Double Bond	*P. planipes*, %	*E. pacifica*, %		*E. superba*, %
		Eureka	Washington	
14:0	3.4	4.7	3.8	4.1
15:0	0.8	Tr	0.5	Tr
16:0	18.2	28.5	22.8	24.4
16:1	2.8	6.4	8.1	9.0
17:0	0.6	Tr	Tr	Tr
18:0	3.9	2.5	1.4	1.7
18:1	16.4	15.1	15.9	15.2
18:2	2.3	2.9	1.9	1.7
18:3	1.6	0.6	1.2	1.3
20:0	Tr	0.3	1.0	1.0
20:5	17.4	30.9	27.9	25.3
22:1	3.2	1.3	1.2	1.2
22:6	28.4	8.4	16.1	14.6

[a] Average of at least 3 analyses; peaks with less than 1.5% of total area not shown. Tr = trace, less than 0.5%.

EPA

DHA

RX-0230 (R. Pierce, et al. (1969)), Tables I, II (AKER877ITC00312007)

A207. My opinions regarding the invalidity of the asserted claims are summarized on the slide RDX-948.

RDX-948

Summary of Opinions

1. All asserted claims are drawn to compositions that exist in krill. They are the handiwork of nature.
   - Lipids, antioxidants and metals exist in krill extracts because they exist in krill.
   - Claims claim nothing more than the product of separating natural components from krill.
2. A naturally occurring composition does not become patentable when isolated from its surrounding material.
3. All asserted claims are drawn to unpatentable subject matter.

It is my opinion that all of the asserted claims are drawn to a composition that exists in nature, in krill. Lipids, antioxidants and metals are present in a krill extract because they are present in krill, as the handiwork of nature. The asserted claims are directed to nothing more than the product of separating natural components away from the surrounding krill animal. Also, the fact that these natural compositions have been separated from krill do not make them patentable.

Therefore, my opinion is that the asserted claims are not drawn to patentable subject matter.

Q208. Dr. Pond, does this witness statement reflect questions posed to you by counsel for Respondents, and your answers to those questions?

A208. Yes.

Executed this 6 th day of November 2013.

Respectfully submitted,

David Pond, Ph.D.