Paper 31

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

RIMFROST AS

Petitioner

v.

AKER BIOMARINE ANTARCTIC AS

Patent Owner

Case No.: IPR2018-01730

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

Issue Date: July 7, 2015

Title: Bioeffective Krill Oil Compositions

PETITIONER'S SUR-REPLY TO PATENT OWNER'S MOTION TO AMEND

TABLE OF CONTENTS

I. INTRODUCTION

Petitioner argues that the "ether phospholipid disclosures" of Catchpole and/or Enzymotec and the "astaxanthin ester disclosures" of NKO, Randolph and/or Sampalis II, in combination with the prior art of record, renders claims 21-29 obvious. Responding to Petitioner's arguments, Patent Owner ignores that:

(1) Catchpole expressly describes and claims compositions containing greater than 5% and 10% ether phospholipids;

(2) the Board previously found that, based on Catchpole, it would have been obvious to prepare krill oil compositions with greater than 5% ether phospholipids;

(3) Catchpole discloses and teaches that extraction conditions (*e.g.*, duration, temperature, pressure, solvents and co-solvent concentration) could be readily varied by a POSITA in predictable ways with a reasonable expectation of success of obtaining a desired lipid profile;

(4) Examples 7 and 8 of Catchpole demonstrate that, with the same feed material, increasing the co-solvent concentration increases the percentage of phospholipids in the resulting extract; and

(5) the lipid profiles of extracts from the different feed materials described in Catchpole, such as dairy extract and krill, would be expected to be different.

Instead of refuting this evidence, Patent Owner proffers meaningless comparisons of disparate examples from Catchpole and repackages some of the

same arguments that have been previously rejected by the Board.

II. PROPOSED CLAIMS 21-29 ARE UNPATENTABLE

A. Catchpole Discloses And Claims Compositions Satisfying The Proposed "From 6% To 10% Ether Phospholipids" Limitation

Patent Owner's claim that Catchpole does not disclose and teach krill oil compositions satisfying the proposed "from 6% to 10% ether phospholipids" limitation cannot withstand scrutiny. *See* PO Reply, 2-8.

First, Catchpole expressly discloses and claims compositions having greater than 5% and 10% ether phospholipids (*see, e.g.*, Exhibit 1009, p. 0009, lines 18-21; p. 0035, lines 11-14; Tallon Decl. (Exhibit 1006), ¶¶ 212-216), and also teaches how to obtain high levels of ether phospholipids. *See, e.g.*, Exhibit 1009, p. 0012, lines 13-16; Tallon Decl. (Exhibit 1006), ¶ 222.

Second, the Board found that: (1) based on Catchpole, a POSITA "would have been motivated to create a krill oil composition containing greater than about 5%" ether phospholipids; (2) "Catchpole teaches that it is desirable to prepare such a composition;" and (3) "it would have been obvious to prepare krill oil compositions having from greater than 5% to 8% ether phospholipids." IPR2018-00295, Final Written Decision (Paper 35) (Exhibit 1129) ("-295 FWD"), 49-50, 65.

Third, the different feed materials described in Catchpole necessarily have different lipid profiles, including different percentages of, *inter alia*, phosphatidylcholine and ether phospholipids. This is illustrated by comparing the

lipid profiles of the feed materials of the examples Patent Owner relies on: Examples 7 and 8 (dairy lipid extract B); Example 9 (dairy lipid extract A); Example 10 (egg yolk lecithin); Example 12 (Hoki head); Example 17 (green-lipped muscle); and Example 18 (krill). Additionally, extracts derived from these different feed materials, using different extraction conditions, will likewise have different lipid profiles. Notably Patent Owner's Chief Scientist and expert, Dr. Hoem, conceded as much when he testified, "a comparison" of the results reported in Catchpole's examples "is confounded by the differences in the feed materials." Hoem Reply (Exhibit 2025), ¶ 4; *see* Tallon Reply/Opp. (Exhibit 1086), ¶ 41.

Nevertheless, based on a comparison of the percentages of phospholipids extracted from different feed materials described in Catchpole, Patent Owner erroneously posits that these comparisons "cast doubt on whether increasing the ethanol co-solvent [concentration] in the krill extraction would actually increase the amount [of] ether phospholipids." PO Reply, 4. For example, Patent Owner argues that a comparison of the extracts in Examples 8 and 10, derived from different feed materials (dairy lipid extract B versus egg yolk lecithin) extracted with different co-solvent concentrations (30% versus 25% ethanol), "demonstrates to a POSITA that the effect of changing extraction conditions . . . is unpredictable." PO Reply, 5. However, in making this argument, Patent Owner ignores data in Examples 7 and 8 that shows when the ***same feed material*** is used,

DOCKET ALARM

Explore Litigation Insights

Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

Real-Time Litigation Alerts

Keep your litigation team up-to-date with **real-time alerts** and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

Advanced Docket Research

With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

Analytics At Your Fingertips

Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

LAW FIRMS
Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

FINANCIAL INSTITUTIONS
Litigation and bankruptcy checks for companies and debtors.

E-DISCOVERY AND LEGAL VENDORS
Sync your system to PACER to automate legal marketing.