

August 28, 2012



Cardax to Be Granted Chinese Patent Protection for Lead Compound

August 28, 2012 - Honolulu, Hawaii. Cardax Pharmaceuticals, Inc. (“Cardax”) announced today that it has received notification that the Chinese Patent Office will grant an important patent covering composition of matter for the Company’s lead compound CDX-085 and related carotenoid analogs. Composition of matter patents protect the composition of new chemical entities and are considered the strongest and most fundamental of the patents pursued by pharmaceutical and biotech companies.

This patent brings the total number of issued or allowed Cardax patents to seventeen, including thirteen U.S. patents, two Chinese patents, one Japanese patent, and one Indian patent. In addition to composition of matter, these patents claim pharmaceutical compositions and specific disease uses for Cardax’s compounds, adding additional layers of protection to the Company’s proprietary platform. Additional patents are pending in the U.S. and foreign jurisdictions.

Chinese patent ZL201010165711.6 covers the latest generation of Cardax prodrugs, including the Company’s lead compound CDX-085, all of which are derived from a class of natural products called xanthophyll carotenoids. An additional Chinese patent issued to Cardax on December 15, 2010 covers an earlier generation of related prodrugs. CDX-085 is a prodrug of astaxanthin—a potent anti-inflammatory compound with robust safety—and has demonstrated dramatically improved oral bioavailability compared to the non-esterified parent compound. CDX-085 can be manufactured efficiently at an industrial scale to supply large, global markets, unlike currently available nutraceutical astaxanthin products. The Company is developing CDX-085 for osteoarthritis, triglyceride reduction, metabolic syndrome, and inflammatory liver disease.

“While conventional wisdom downplays the value of Chinese intellectual property, recent decisions by the Chinese government to incentivize and protect the use of Chinese patents within the country makes this patent a valuable asset for commercialization and partnering of our products in China,” said David G. Watumull, CEO of Cardax.

“This patent adds to the already substantial Cardax patent estate and particularly ensures access to the immense Chinese market,” added Cardax Chief Science Officer, Gilbert M. Rishton, PhD., former program leader in Small Molecule Drug Discovery at Amgen. “Combined, these patents form a strong intellectual property position and add significant value to the Company.”

About CDX-085. Cardax Pharmaceuticals’ lead compound CDX-085 is a novel and highly bioavailable prodrug of the natural dietary carotenoid astaxanthin. It addresses major unmet medical needs where inflammation plays a crucial role, including osteoarthritis, elevated triglycerides, liver disease, metabolic syndrome, and cardiovascular disease.

CDX-085 (or previous generation Cardax astaxanthin prodrugs) and/or nutraceutical astaxanthin prodrugs have demonstrated efficacy in humans at risk of metabolic syndrome by lowering triglycerides and raising HDL (the “good” cholesterol) and in animal models of hyperlipidemia, inflammation, liver disease, atheroma formation, endothelial dysfunction, myocardial salvage, and thrombosis. In addition, a nutraceutical astaxanthin product demonstrated statistically significant improvement in joint discomfort in humans.

About Astaxanthin. Astaxanthin is an unusually safe and non-toxic anti-inflammatory compound. Cellular and animal studies have determined that astaxanthin reduces activation of inflammatory pathways by lowering oxidative stress intracellularly, particularly at the mitochondrial level. Unlike many other anti-inflammatory compounds, astaxanthin decreases infection rates, reduces elevated liver enzymes, and mitigates cardiovascular risk factors in animal models. Nutraceutical astaxanthin products for humans have also received GRAS (Generally Recognized as Safe) designations from the FDA, its highest safety classification.

Nutraceutical astaxanthin products, comprised of an impure mixture of approximately fifteen astaxanthin fatty acid esters, have enjoyed an explosion in demand over the last year, driven by the dissemination of credible scientific data (e.g., >900 papers on PubMed, including 26 human clinical trials) and features on popular TV shows such as Dr. Oz. These changing market dynamics have resulted in global supply shortages of astaxanthin nutraceuticals, most of which are harvested from the microalga *Haematococcus pluvialis*. Expansion of microalgal production is heavily capital intensive and as an alternative, Cardax—through its exclusive partnership with the world’s leading chemical company, BASF—plans to produce a naturally occurring astaxanthin fatty acid ester by total synthesis at much larger volume with dramatically improved purity at lower cost. This strategy has proven effective in the nutraceutical market, where synthetic production of Vitamins C, D, and E dwarfs natural sources.

Inflammatory diseases affect hundreds of millions of people globally, representing perhaps the world’s largest unmet medical need. In osteoarthritis alone, industry sources estimate that more than 150 million middle class people globally have the disease, yielding a multi-billion potential market, even at a low projected price of \$1/day for a Cardax astaxanthin prodrug.

About Cardax Pharmaceuticals. Cardax is developing a platform of exceptionally safe, orally bioavailable, xanthophyll carotenoid prodrugs that regulate inflammatory pathways activated by oxidative stress, primarily at the mitochondrial level. The Company’s lead compound, CDX-085 is a prodrug of astaxanthin, a naturally occurring compound best known for the pink color it imparts to salmon, shrimp, and lobster. Astaxanthin has demonstrated a quantitative, statistically significant impact on multiple steps in the NF- κ B inflammatory pathway, for example, including TNF- α , COX-2, PGE₂, and IL-1. CDX-085 has application in multiple inflammatory diseases, including osteoarthritis, triglyceride reduction, metabolic syndrome, liver disease, and cardiovascular disease. The Company’s pipeline also includes other proprietary carotenoid prodrugs for macular degeneration and prostate disease.

Contact:
David G. Watumull
President and CEO
1-808-457-1375

dwatumull@cardaxpharma.com
www.cardaxpharma.com