



Cardax Pharmaceuticals, Inc.

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## **NIH GRANT FUNDS DEVELOPMENT OF CARDAX LIVER DRUG**

### **PHASE I/II FAST TRACK SBIR GRANT TO PROVIDE UP TO \$1.25 MILLION**

**October 7, 2009 - Honolulu, Hawaii.** Cardax Pharmaceuticals, Inc. announced today an SBIR Phase I/II fast-track grant award of up to approximately \$1.25 million from NIAAA, one of the National Institutes of Health (NIH). The NIAAA (National Institute on Alcohol Abuse and Alcoholism) grant will primarily be used to advance the pre-clinical development and supply of the Company's lead compound (Heptax, CDX-085). Pre-clinical development is required by the Food and Drug Administration (FDA) before a drug can be tested in human clinical trials.

The grant will also fund two additional pre-clinical proof-of-concept studies to expand understanding of the efficacy of CDX-085 in inflammatory liver disease.

The Phase I SBIR award of \$314,438 will be used to begin securing a supply of CDX-085 for the pre-clinical program and to advance the bioanalytical methods necessary to detect and quantify levels of CDX-085 present in plasma samples during pre-clinical studies.

Provided Phase I milestones are achieved, Phase II SBIR funding of approximately \$944,000 will be used to finalize the pre-clinical supply of CDX-085 and to conduct the proof-of-concept studies described above. (Adequate Congressional funding of NIH/NIAAA is also assumed.) Once these Phase II goals are achieved, additional financing from other sources will be used to conduct the pre-clinical pharmacology and toxicology studies required by the FDA to begin human clinical testing.

"We are very pleased to have NIH support for our liver program," said David G. Watumull, CEO of Cardax, "it helps us advance the development and commercialization of our lead drug, CDX-085."

"The rigorous scientific review by the NIH and the highly competitive nature of that process brings credibility to our whole program," added Cardax Chief Medical Officer, Fredric J. Pashkow, M.D. "With NIH support, we look forward to moving our lead compound closer to human clinical trials."

About CDX-085. Cardax Pharmaceuticals' lead compound (Heptax/XanCor, CDX-085) is a novel and highly bioavailable proprietary prodrug of the natural dietary carotenoid astaxanthin. It addresses major unmet medical needs where inflammation plays a crucial role, including liver disease, metabolic syndrome, and cardiovascular disease. Animal studies in liver disease with CDX-085 have demonstrated robust efficacy in models of alcoholic hepatitis, as measured by reduction in liver enzymes and improvements in histology. The active drug of CDX-085 localizes in the liver and the vasculature reducing inflammation in these target organs and systemically as well.

CDX-085 (or previous generation Heptax/XanCor prodrugs) and/or its active drug have also demonstrated efficacy in humans at risk of metabolic syndrome and in animal models of hyperlipidemia, inflammation, atheroma formation, endothelial dysfunction, myocardial salvage,

and thrombosis. Unlike many other anti-inflammatory compounds that increase infections in animals, the active drug of CDX-085 has decreased infection rates in several animal models. Cellular studies have determined that the active drug of CDX-085 acts as a plasma and mitochondrial membrane stabilizer.

About Cardax Pharmaceuticals. Cardax Pharmaceuticals is developing a platform of proprietary, exceptionally safe, small molecule compounds that impact inflammatory pathways affected by TNF- $\alpha$ , a major inflammatory cytokine. The Company's pipeline includes its lead drug CDX-085 with application in liver disease, metabolic syndrome, and cardiovascular disease, as well as other proprietary prodrugs for macular degeneration and prostate disease.

Cardax Pharmaceuticals was spun out from Hawaii Biotech in May 2006.

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