

Thorne Research Announces Clinical Study to Assess Nicotinamide Riboside on Brain NAD+ in College Football Players

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- Mayo Clinic, University of Minnesota, and ChromaDex to Collaborate on Study -

IRVINE, Calif., April 13, 2016 (GLOBE NEWSWIRE) -- Thorne Research and ChromaDex Corp. (OTCQX:CDXC) announced today a research endeavor with Mayo Clinic and the University of Minnesota Clinical and Translational Science Institute, regarding **a planned clinical study to assess the effect of Nicotinamide Riboside (NR) on brain NAD+ in college football players.**

The randomized, placebo controlled, double-blind study will enroll healthy male collegiate football linemen, not having a history of more than 3 concussions. Participants will take either 750 mg per day of Nicotinamide Riboside (NR) or placebo for 84 days. Pre- and post-intervention evaluations include physical assessment, blood tests for safety and toxicity monitoring, blood tests for biomarkers, neurologic testing, quality of life questionnaires, and real time measurement of brain NAD, using ³¹P MRS.

The primary outcome of the study is to measure the change in brain NAD+ levels over 3 months. The study is expected to begin in May 2016 with final data collected by March 2017.

The study will utilize **advanced 7 Tesla in vivo ³¹P Magnetic Resonance Spectroscopy** (MRS) for noninvasive measurement of brain NAD+ concentrations, NAD⁺/NADH ratio, and ATP, using a method pioneered by Xiao-Hong Zhu, Ph.D., Associate Professor the University of Minnesota Center for Magnetic Resonance Research.

The principal investigators of the study are Dr. Zhu and Brent A Bauer, MD, Director of the Well Living Lab and

Director of the Complementary and Integrative Medicine Program at Mayo Clinic in Rochester, Minnesota.

Paul Jacobson, the CEO of Thorne Research, stated, “We now have data showing that nicotinamide riboside raises NAD⁺ in the blood and in the brains of animals. We have further evidence that NR raises NAD⁺ in white blood cells and in plasma in humans. This will be the first trial to examine whether NR raises NAD⁺ in the brains of humans. Since concussion activates the DNA repair enzyme PARP-1 (which consumes and lowers NAD in the brain), the possibility that NR might raise brain NAD⁺ levels opens an exciting new frontier in how we might be able to manage football-related concussion and other forms of traumatic brain injury in the near future.”

Frank Jaksch Jr., founder and CEO of ChromaDex, commented “We are honored to collaborate with Dr. Zhu and Dr. Bauer and their respective research teams, as well as Thorne Research on this clinical trial. The human study is designed to provide a better understanding on how NR may affect brain NAD⁺ levels in athletes who participate in football and other contact sports.”

Thorne Research introduced **NiaCel®** in 2014, which features ChromaDex’s patented ingredient **NIAGEN®**, the first and only commercially available form of nicotinamide riboside (NR), a naturally occurring vitamin B3 metabolite found in milk.

ChromaDex, through more than 50 collaborations with researchers around the world, is in the forefront of research showing that the use of NR helps preserve or restore mitochondrial function and may be beneficial in treating and/or preventing disease.

About Nicotinamide Riboside (NR)

Published research has shown that NR is perhaps the most effective precursor to boost the co-enzyme NAD⁺ in the cell. NAD⁺ is arguably the most important cellular co-factor for improvement of mitochondrial performance and energy. In recent years, NAD⁺ has been shown to be essential in supporting healthy cellular metabolism, including the efficient conversion of blood glucose into energy.

As organisms age, NAD⁺ levels drop, which leads to a decrease in mitochondrial health; this in turn leads to age-related health issues. Low NAD⁺ levels limit activity of a group of enzymes called sirtuins, which are believed to play a key role in longevity. NAD⁺ levels can be depleted by lifestyle choices such as overeating and lack of exercise. By boosting NAD⁺, NR can increase mitochondrial health and induce creation of new mitochondria.

About Thorne Research:

Thorne Research is a global healthcare company dedicated to improving the health and wellness of people through science and technology. With a portfolio of trusted, quality, science-based offerings in nutritional supplements and



lifestyle management, Thorne Research serves people around the world, targeting a number of health areas, such as cardiovascular health, metabolic health, cancer supportive care, skin care, healthy aging, and sports performance. Thorne Research is headquartered in New York City with a manufacturing facility in Sandpoint, Idaho.

About ChromaDex:

ChromaDex leverages its complementary business units to discover, acquire, develop and commercialize patented and proprietary ingredient technologies that address the dietary supplement, food, beverage, skin care and pharmaceutical markets. In addition to our ingredient technologies unit, we also have business units focused on natural product fine chemicals (known as "phytochemicals"), chemistry and analytical testing services, and product regulatory and safety consulting (known as Spherix Consulting). As a result of our relationships with leading universities and research institutions, we are able to discover and license early stage, IP-backed ingredient technologies. We then utilize our in-house chemistry, regulatory and safety consulting business units to develop commercially viable ingredients. Our ingredient portfolio is backed with clinical and scientific research, as well as extensive IP protection. Our portfolio of patented ingredient technologies includes **NIAGEN**[®] nicotinamide riboside; **pTeroPure**[®] pterostilbene; **PUREENERGY**[®], a caffeine-pTeroPure[®] co-crystal; **ProC3G**[®], a natural black rice containing cyanidin-3-glucoside; **IMMULINA**[™], a spirulina extract; and Purple Corn derived from a proprietary non-GMO purple corn hybrid which contains an extraordinarily high level of anthocyanins. To learn more about ChromaDex, please visit www.ChromaDex.com.

About The University of Minnesota Clinical and Translational Science Institute:

The University of Minnesota Clinical and Translational Science Institute (CTSI) at the University of Minnesota's (UMN) Academic Health Center is supported through the **National Institutes of Health (NIH) Clinical and Translational Science Award (CTSA) program**. The institute is one of approximately 60 medical research institutions working together to improve the way clinical and translational research is conducted nationwide, enhancing its efficiency and quality. The **CTSA consortium** aims to accelerate the process of translating laboratory discoveries into treatments for patients, to engage communities in clinical research efforts, and to train a new generation of clinical and translational researchers.

About The Mayo Clinic Complementary and Integrative Medicine Program:

The Mayo Clinic Complementary and Integrative Medicine Program was founded in 2001 as a program within the Department of Medicine at Mayo Clinic. The program was specifically created to help address the ever increasing patient interest in wellness-promoting activities that have not typically been part of conventional medical care. The program offers wellness-promoting treatments that complement conventional Western medical care. Mayo Clinic is a nonprofit organization committed to medical research and education, and providing expert, whole-person care to everyone who needs healing.

For more information, visit mayoclinic.org/about/ and mayoclinic.org/news.

Forward-Looking Statements:

This release contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities and Exchange Act of 1934, as amended. Statements that are not a description of historical facts constitute forward-looking statements and may often, but not always, be identified by the use of such words as "expects", "anticipates", "intends", "estimates", "plans", "potential", "possible", "probable", "believes", "seeks", "may", "will", "should", "could" or the negative of such terms or other similar expressions. Actual results may differ materially from those set forth in this release due to the risks and uncertainties inherent in ChromaDex's business. More detailed information about ChromaDex and the risk factors that may affect the realization of forward-looking statements is set forth in ChromaDex's Annual Report on Form 10-K for the fiscal year ended January 3, 2015, ChromaDex's Quarter Reports on Form 10-Q and other filings submitted by ChromaDex to the SEC, copies of which may be obtained from the SEC's website at www.sec.gov. Readers are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date hereof. All forward-looking statements are qualified in their entirety by this cautionary statement and ChromaDex undertakes no obligation to revise or update this release to reflect events or circumstances after the date hereof.

Statements in this press release have not been evaluated by the Food and Drug Administration. Products or ingredients are not intended to diagnose, treat, cure or prevent any disease.

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