

# Milestone Phase II Clinical Study Demonstrates Niagen®, Patented Nicotinamide Riboside (NR), Improves Functional Mobility for Individuals with Peripheral Artery Disease (PAD)

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NR improved the six-minute walking distance and treadmill walking time for those with PAD

LOS ANGELES--(BUSINESS WIRE)-- ChromaDex Corp. (NASDAQ:CDXC), the global authority on nicotinamide adenine dinucleotide (NAD+) research, shares results from a milestone phase II clinical study showcasing the promising effects of nicotinamide riboside (NR) supplementation for people with peripheral artery disease (PAD). This study was part of the **ChromaDex External Research Program** (CERP®), which donated ChromaDex's patented NR ingredient, Niagen®, the most efficient and high-quality NAD+ precursor, for the advancement of this research.

As reported in the peer-reviewed journal **Nature Communications** by a team of scientists led by Dr. Mary M. McDermott, Northwestern University Feinberg School of Medicine, Chicago, results underscored the functional mobility benefits of NR such as an improvement in treadmill walking time and a statistically significant and clinically meaningful improvement in the six-minute walking distance in individuals with PAD.

Dr. McDermott commented, "In this Phase II clinical trial, NR improved 6-minute walk distance and treadmill walking time in people with PAD, compared to placebo. These promising results require confirmation in a larger definitive randomized clinical trial."

## About PAD and the NAD+ connection

A prevalent condition impacting over **200 million people worldwide**, PAD is characterized by a narrowing or

blockage of arteries that reduces blood flow to the limbs, causing severe pain and walking disabilities due to insufficient blood flow and reduced oxygen supply. Existing treatments for PAD are often limited in their effectiveness, underscoring the need for novel therapeutic approaches.

As the most efficient NAD<sup>+</sup> precursor, NR has been proven safe and effective in elevating NAD<sup>+</sup> levels in humans (Conze et al., 2019, Martens et al., 2018, Trammell et al., 2016). Preclinical and clinical studies have shown that boosting NAD<sup>+</sup> levels with NR can enhance skeletal muscle health, mitochondrial performance, and vascular health (Lapatto et al., 2023, Elhassan et al., 2019, Zhang et al., 2016). As NAD<sup>+</sup> levels decline with age and given the high incidence of PAD among older individuals, increasing NAD<sup>+</sup> with NR may reduce oxidative stress and improve mitochondrial and endothelial cell function in those with PAD (Elhassan et al., 2019, Zhang et al., 2016, Chen et al., 2010).

Dr. Andrew Shao, Vice President of Scientific Affairs at ChromaDex, highlighted the broader implications of these findings. “Elevating NAD<sup>+</sup> levels using NR could have profound effects on muscle mitochondrial function. This study reinforces the potential of NR to support vascular health and improve functional mobility in patients with PAD.”

## Study overview

This six-month phase II randomized, double-blind clinical study analyzed the effects of elevating NAD<sup>+</sup> with NR supplementation alone and in combination with resveratrol on the six-minute walking distance in individuals with PAD.

This was a randomized, double-blind, placebo-controlled, phase II, parallel assignment study on 90 PAD patients over a six-month period. Participants were 50 years of age or older and randomly assigned to one of three groups: NR (1000 mg), NR (1000 mg) combined with resveratrol (125 mg), or placebo.

## Highlights

- At the six-month follow-up, NR significantly improved treadmill walking time and the six-minute walking distance (by 17.6 meters), a clinically meaningful change.
- NR effectively improved walking performance in individuals with PAD, while resveratrol did not enhance the benefits of NR.
  - NR combined with resveratrol did not significantly improve the six-minute walk distance compared to placebo at the six-month follow-up.

## Relevance

This groundbreaking study is the first to demonstrate NR supplementation can significantly enhance walking performance in humans with PAD, and underscores the functional mobility benefits of NR. By highlighting the therapeutic potential of NR, the findings open new avenues for improving vascular health and mobility in PAD patients. Notably, the addition of resveratrol did not yield further benefits over NR alone, emphasizing NR's unique role. These promising results underscore the need for further investigation in larger, randomized clinical trials to fully explore the benefits of NR in managing PAD and potentially other age-related conditions.

For additional information on the science supporting Niagen visit [www.chromadex.com](http://www.chromadex.com).

## 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, including statements related to results from a milestone phase II clinical study showcasing the promising effects of nicotinamide riboside (NR) supplementation for people with peripheral artery disease (PAD). 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. Risks that contribute to the uncertain nature of these forward-looking statements include the impact of the COVID-19 pandemic on our business and the global economy; our history of operating losses and need to obtain additional financing; the growth and profitability of our product sales; our ability to maintain sales, marketing and distribution capabilities; changing consumer perceptions of our products; our reliance on a single or limited number of third-party suppliers; and the risks and uncertainties associated with our business and financial condition. 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 December 31, 2023, ChromaDex's Quarterly 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](http://www.sec.gov). Readers are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date hereof, and actual results may differ materially from those suggested by these forward-looking statements. 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.

## About ChromaDex:

**ChromaDex Corp.** (NASDAQ:CDXC) is the global authority on nicotinamide adenine dinucleotide (NAD<sup>+</sup>), with a focus on the science of healthy aging. The ChromaDex team, comprised of world-renowned scientists, works with independent investigators from esteemed universities and research institutions around the globe to uncover the

full potential of NAD<sup>+</sup>. A vital coenzyme found in every cell of the human body, NAD<sup>+</sup> declines with age and exposure to other everyday stressors. NAD<sup>+</sup> depletion is a contributor to age-related changes in health and vitality.

Setting the benchmark as the gold standard in scientific rigor, safety, quality, and transparency, in the dietary supplement space, ChromaDex is the innovator behind its clinically proven flagship ingredient, Niagen® (patented nicotinamide riboside, or NR), the most efficient and superior-quality NAD<sup>+</sup> booster available. Research has shown that reversing NAD<sup>+</sup> depletion with Niagen has positive effects on inflammation and many common age-related health conditions such as Parkinson's disease, heart failure, chronic kidney disease, and autoimmune diseases, among others.

ChromaDex's robust patent portfolio protects NR and other NAD<sup>+</sup> precursors. ChromaDex maintains a website at **[www.chromadex.com](http://www.chromadex.com)**, to which ChromaDex regularly publishes copies of its press releases, news, and financial information.

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