

## **New Preclinical Study Finds Nicotinamide Riboside May Improve Immune Cell Function**

*A study in Nature Immunology found that nicotinamide riboside (NR) improved the anti-cancer function of tumor infiltrating immune T-cells in mice*

LOS ANGELES – ChromaDex Corp. (NASDAQ:CDXC) today highlighted a new study from *Nature Immunology* that found nicotinamide riboside (NR) helped energize tumor infiltrating T-cells (TILs) in samples extracted from mice. In a preclinical mouse model, NR was shown to improve T-cell function, which is a component of new cancer immunotherapies such as PD-1 and PDL-1 inhibitors. These findings lend further data to the potential role of NR in supporting healthy mitochondrial function.

T-cells are immune cells tasked with recognizing and eliminating infected, damaged or cancerous cells. The researchers from the University of Lausanne and the Ludwig Institute for Cancer Research found that NR could prevent mitochondrial dysregulation and exhaustion in T-cells. By doing so, NR was also shown to improve T-cell mitochondrial function and responsiveness to anti-PD-1 cancer immunotherapy, a mainstay of cancer treatment approved for use against many solid tumor types. The tumor bearing mice fed with NR experienced less tumor growth, and an additive antitumor effect was observed when NR was combined with immunotherapy.

This research built upon a previous preclinical study, also conducted at the University of Lausanne, that found NR could promote hemopoietic stem cell (HSC) maturation in mice by stimulating mitochondrial function. Immune cells such as T-cells arise from these stem cells, as do essential red blood cells and platelets.

The prior study suggested that NR supplementation could facilitate cancer treatment by preventing myelosuppression in mice, (*i.e.* depletion of stem cells and all the cells they produce, caused by repeated chemotherapies).

This latest study from *Nature Immunology* indicates a new potential niche for NR supplementation by suggesting a synergistic effect with T-cell immunotherapies used for many solid tumors. NR has also been shown preclinically to possibly prevent neuropathy caused by paclitaxel, a common chemotherapy used for breast cancer treatment.

More research is required to validate this preclinical data and translate the findings into humans. Over 50 human trials investigating NR's various health benefits are registered on ClinicalTrials.gov, 11 of which have been peer-reviewed and published through the ChromaDex External Research Program (CERP).

"We're excited to see the discovery of so many potential applications for NR's proven ability

to promote mitochondrial function,” said Dr. Andrew Shao, ChromaDex Senior Vice President of Global Scientific & Regulatory Affairs. “We know mitochondrial function is essential to the function of energy-expensive cells, including stem cells and immune cells. Their proper function, in turn, may play a key role in avoiding a wide array of diseases, including many cancers. We’re pleased to see that NR can support these essential cells and hope to elucidate its potential in human health and disease with further trials.”

ChromaDex, the exclusive licensee of Dr. Charles Brenner’s patented NR, has invested over \$35 million in investigating, manufacturing and offering NR in the form of Niagen and has secured more than 20 patents. ChromaDex has demonstrated the safety and efficacy of Niagen in 11 published human trials (and over 20 additional ongoing studies further evaluating its safety and efficacy) and has achieved government regulatory acceptance in the United States, Canada, the European Union, and Australia.

For additional information about ChromaDex, please visit [www.chromadex.com](http://www.chromadex.com).

### **About ChromaDex:**

ChromaDex Corp. is a science-based integrated nutraceutical company devoted to improving the way people age. ChromaDex scientists partner with leading universities and research institutions worldwide to discover, develop and create solutions to deliver the full potential of NAD and its impact on human health. Its flagship ingredient, NIAGEN® nicotinamide riboside, sold directly to consumers as TRU NIAGEN®, is backed with clinical and scientific research, as well as extensive IP protection. TRU NIAGEN® is helping the world AGE BETTER®.

ChromaDex maintains a website at [www.chromadex.com](http://www.chromadex.com) to which ChromaDex regularly posts copies of its press releases as well as additional and financial information about the Company.

### **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 whether NR may improve immune cell function and the potential for NR in human health and disease. 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. 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, 2019 as amended, 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.

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