

Scientists develop potential new treatment for autoimmune diseases

May 17 2013

Scientists at Montana State University have developed a therapeutic that has potential as a biological drug or probiotic food product to combat many of the more than 80 autoimmune disorders that affect some 23.5 million people in the United States.

A patent application is pending and the technology is available for licensing.

The bacterium used by MSU researchers to develop the new therapeutic is a common organism found in the [human gut](#) and could be administered as a probiotic food such as yogurt, as well as in a pill or nasal mist.

Because the therapeutic is engineered into a bacterium that qualifies under the U.S. Food and Drug Administration's Generally Regarded As Safe designation, it has the potential for low manufacturing costs.

The technology offers potential as a treatment for a wide range of [autoimmune diseases](#), including common and potentially debilitating ailments such as [rheumatoid arthritis](#), Type-1 diabetes, colitis and multiple sclerosis. It could also enhance existing autoimmune treatments.

While the bacterium acts to suppress a broad range of autoimmune responses, it does so without the need for a specific disease antigen to be engineered into compound so that a single [therapeutic drug](#) or probiotic could be developed to address multiple autoimmune diseases. Immune

response to the therapeutic is low such that it can be administered repeatedly without the body reacting negatively to it.

Provided by Montana State University

Citation: Scientists develop potential new treatment for autoimmune diseases (2013, May 17)
retrieved 17 April 2024 from

<https://medicalxpress.com/news/2013-05-scientists-potential-treatment-autoimmune-diseases.html>

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