

# Vaccinating for Anxiety and Depression



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## CURRENT RESEARCH

### Innovative approaches to treatments of anxiety and affective disorders

Imagine a treatment for anxiety disorders, affective disorders, or PTSD that worked like a flu vaccine, but rather than fighting a pathogen, this immunization allowed the patient a period of time free of anxiety, depression, or PTSD symptoms. This treatment would affect millions of patients in the United States alone. A shot could help prevent the long-term hardships that PTSD brings to millions of military servicemembers and victims of trauma.

This novel method of treatment is not as distant as one might think.

Dr. Christopher Lowry of the University of Colorado Boulder has been developing a treatment that is now ready for clinical trials. Lowry's research seeks to understand the neural mechanisms underlying stress-related physiology and emotional behavior, with a focus on the role of serotonin, a neurotransmitter that is believed to have a profound effect on both anxiety and depression, as well as trauma- and stressor-related disorders, such as PTSD.

Dr. Lowry is interested in understanding stress vulnerability and resilience from a whole-body perspective. His innovative research integrates several physiological processes, including serotonin systems, endocrine (hormone) systems, thermoregulatory systems, immune systems, and the microbiome.

Throughout the course of his research, Lowry has identified types of serotonin neurons with unique functions. Properties of serotonin release, uptake, and circuitry may contribute to differences in the development of anxiety, panic disorder, and depression. Understanding these pathways will aid in the development of new pharmaceutical drugs to target specific processes.

One intriguing hypothesis states that, as...

## AFFILIATION

 University of Colorado, Boulder

## EDUCATION

- Ph.D., in Zoology, 1995, Oregon State University

## AWARDS

- Young Investigator Award, NARSAD
- National Science Foundation, Career Award
- Young Investigator Award, NARSAD
- Donald F. Klein Early Career Investigator Award, Anxiety Disorders Association of America (ADAA)

## RESEARCH AREAS

Veteran's Causes, Life Science, Neurological / Cognitive, Health IT

## FUNDING REQUEST

Your contributions will support the innovative research of Dr. Lowry as he seeks to find new methods to prevent and treat anxiety and affective disorders through the use of new therapies and vaccines, thereby applying a holistic approach to the treatment of disorders that affect millions of Americans each year.

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