



# RFA: Common Mechanisms in Autoimmunity Insight Awards

## Introduction

### Purpose

Breakthrough T1D, Lupus Research Alliance, and the National Multiple Sclerosis Society are jointly seeking applications from investigators across autoimmune and other relevant fields to advance the understanding of autoimmunity and to obtain insights into commonalities and differences of the immune pathways that govern autoimmune processes. The purpose of the Common Mechanisms in Autoimmunity Insight Awards is to establish proof-of-concept research toward the collaborative advancement of innovative ideas and therapeutic approaches that address needs and knowledge gaps across multiple autoimmune diseases.

### Background

Autoimmune disease are chronic disorders in which the immune system produces an inappropriate response against its own cells, tissues, and/or organs that results in inflammation, damage, and loss of function. Roughly 10% of the population will be diagnosed with an autoimmune disease during their lifetime, and 25% of those individuals will be diagnosed with a second autoimmune disease<sup>1</sup>. This suggests the presence of common mechanisms and overlapping disease pathogenesis, drug targets and the possibility of shared therapeutic agents or modalities. An incomplete knowledge of disease pathogenesis and heterogeneity among patients is very common in many autoimmune diseases, representing a real challenge that impact the effectiveness of clinical trial design and to predict whether a person will respond to a given treatment.

To address these gaps, Breakthrough T1D, Lupus Research Alliance and the National Multiple Sclerosis Society have joined forces to establish the Common Mechanisms of Autoimmunity Initiative. By working together to co-fund research into the underlying commonalities in autoimmune diseases, this program will foster cross-discipline and research-area collaboration, combine resources and reduce redundant scientific inquiry, and accelerate the development of

research toward overcoming the challenges of developing cures and therapies for multiple diseases. More information on this initiative can be found on the [Common Mechanisms Program website](#).

## Funding Opportunity

### Objective

Proposals are sought from academic or industry applicants for novel one-year pilot studies to investigate a mechanism underlying autoimmune disease, identify novel targets or mechanisms of autoimmune pathogenesis, validate therapeutic targets, or provide proof of concept for an innovative therapeutic strategy. Through the Insight Awards, Breakthrough T1D, Lupus Research Alliance, and the National MS Society seek to co-fund projects that will obtain more specific insights into the commonalities and differences of immune pathways that govern autoimmune disease processes and lay the groundwork for bringing together investigators from across autoimmune fields and disciplines.

All project proposals should be relevant to multiple autoimmune diseases, two of which should be relevant to multiple sclerosis, systemic lupus erythematosus (or one of its manifestations), and/or type 1 diabetes. These projects should be designed to establish a proof of concept to a future expanded collaborative study and therefore should constitute “step-one” of an ambitious endeavor.

Proposals can include any project that focuses on:

- Establishing proof of concept for a hypothesized mechanism driving pathogenesis across multiple autoimmune diseases
- Establishing proof of concept for a particular immune pathway common to multiple autoimmune diseases as a potential therapeutic target.

However, priority consideration will be given to research proposals that:

- Seek to provide proof of concept for the repurposing of an approved drug or therapy from one autoimmune disease into related autoimmune diseases.
- Seek mechanistic understanding of shared and different therapeutic responses among autoimmune diseases
- Identify and validate biomarkers of disease progression, therapeutic response or predictive biomarkers using human samples that are applicable to multiple autoimmune diseases.
- Utilize primary human samples or reuse data from previously analyzed human samples.
- Investigate and compare/contrast heterogeneity across multiple autoimmune diseases, especially with use of large, shared and/or harmonized data sets.
- Conduct multi-omics analysis of common and distinct immune pathways among multiple autoimmune diseases.

- Establish a protocol or SOP for best practices in information sharing and collaboration across autoimmune diseases, including how samples should be collected, and how data should be collected and analyzed to facilitate optimal analysis of commonalities and differences of autoimmune diseases.

Proposals that will not be considered under this RFA include:

- Studies that do not focus on pathways or targets associated with at least two of the relevant autoimmune diseases.
- Studies that propose clinical trials (although studies using clinical samples are acceptable).
- Studies that outline experimental plans that will require longer than 1 year to complete.

### Critical Considerations

- Acceptance of an Insight Award indicates agreement to attend an in-person update meeting to present data and participate in discussions to advance our understanding of mechanistic commonalities of autoimmunity. Budgets submitted should include travel costs for this meeting, not to exceed \$2,500.00.
- Projects should be designed to provide proof-of-concept data that can be used for the downstream development of larger, multi-year collaborative projects if successful.

### Mechanism

In response to this announcement, proposals can be submitted to Breakthrough T1D's Strategic Research Agreement (SRA). For more information on the funding mechanism, please refer to the [Breakthrough T1D Grant Handbook](#).

All proposals submitted to Breakthrough T1D under this announcement will be shared with Lupus Research Alliance and National Multiple Sclerosis Society. The Common Mechanisms of Autoimmunity Steering Committee, consisting of representatives from each organization, will facilitate the review and selection of applications for funding. As the funding for these proposals will be jointly provided by all three organizations, all progress and expenditure reports submitted for projects selected for funding will be shared.

Applicants may request budgets of up to \$150K for 1 year, which includes up to 10% indirect costs.

### Eligibility

Applications may be submitted by domestic and foreign non-profit organizations, public and private, such as universities, colleges, hospitals, laboratories, units of state and local governments, and eligible agencies of the federal government.

Applicants must hold an M.D., D.M.D, D.V.M., Ph.D., or equivalent and have a faculty position or equivalent at a college, university, medical school, or other research facility. Please note that applications from for-profit entities or industry collaborations with academia may be submitted to this RFA; however, additional information will be requested from for-profit entities if a full application is invited.

There are no citizenship requirements for this program. To assure continued excellence and diversity among applicants and awardees, Breakthrough T1D, Lupus Research Alliance, and the National MS Society welcome applications from all qualified individuals and encourage applications from persons with disabilities, women, and members of minority groups underrepresented in the sciences.

## Proposal

Prospective applicants should submit a proposal online via RMS360 (instructions below) to be considered for funding. The proposal template provided on the RMS360 website must be used to complete the application. Complete information should be included to permit review of each application without reference to previous applications. There is no letter of intent required for this announcement.

## Review Criteria

Applications will be evaluated by the Steering Committee and an external scientific review panel based on Breakthrough T1D's standard confidentiality policy and according to the following criteria:

- Significance
- Approach
- Innovation
- Investigator Experience
- Environment

# Administrative

## Submission Instructions

Applicants should register and submit their proposal in [RMS360](#).

## Deadlines (no extensions will be given)

- RFA release date: Thursday October 31, 2024

- Proposal deadline: January 9, 2025
- Response to applicants: June 2025
- Earliest anticipated start date: August 2025

## Contacts

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## Common Mechanisms Steering Committee

### Breakthrough T1D

Joshua Vieth (Senior Director, Research)  
Cassandra Bazile (Scientist)

### Lupus Research Alliance

Teo Staeva (VP and Chief Scientific Officer)  
Maya Bader (Associate Director, Research)

### National MS Society

Mark Allegretta (Senior Director, Research)  
James Quinn (Director, Biomedical Research)

## References

1. Conrad N, Misra S, Verbakel JY, et al. Incidence, prevalence, and co-occurrence of autoimmune disorders over time and by age, sex, and socioeconomic status: a population-based cohort study of 22 million individuals in the UK. *The Lancet*. 2023;401(10391):1878-1890. doi:10.1016/S0140-6736(23)00457-9