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 diseases are chronic disorders in which the immune system produces an inappropriate response against its own cells, tissues, and/or organs that result in inflammation, damage, and loss of function. Roughly 5-10% of the general population will be diagnosed with an autoimmune disease during their lifetime[1,2], and about 34% of those individuals will be diagnosed with at least another autoimmune disease[1]. This suggests the presence of common mechanisms and overlapping disease pathogenesis, drug targets, and the possibility of shared therapeutic agents or modalities. There is incomplete knowledge of disease pathogenesis and heterogeneity among patients in many autoimmune diseases, representing a challenge that impacts 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 fosters cross-discipline and research-area collaboration, combines resources and reduces redundant scientific inquiry, and accelerates 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 Multiple Sclerosis 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, including at a minimum multiple sclerosis (MS), systemic lupus erythematosus (SLE) or one of its manifestations, and type 1 diabetes (T1D). 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:

- Identify and/or validate human biomarkers for prodromic or subclinical autoimmune disease, with a focus on immune-related markers that are measurable before clinical diagnosis which can be used to assess disease onset and risk or rate of progression.
- Develop and/or validate therapeutic strategies focused on the underlying mechanisms of autoimmune initiation and early-stage autoimmune disease common to T1D, MS, and SLE.
- Interrogate heterogeneity of autoimmune processes as a basis for disease heterogeneity observed in multiple autoimmune diseases.
- Utilize primary human samples or reuse data from previously analyzed human samples.

- Seek to provide proof of concept for the repurposing of an approved drug or therapy from one autoimmune disease into related autoimmune diseases or a mechanistic understanding of shared and different therapeutic responses among autoimmune diseases.

Proposals that will not be considered under this RFA include:

- Studies that outline experimental plans that will require longer than 1 year to complete.
- Studies that do not focus on pathways or targets associated with multiple sclerosis, systemic lupus erythematosus (or one of its manifestations), and type 1 diabetes.
- Studies that propose clinical trials (although studies using clinical samples are acceptable).

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. Documents that are to be submitted as part of the application include but are not limited to the following: a biosketch for any Co-PIs and all faculty-level investigators, a Human Subjects Research Plan, if applicable, etc. Complete information should be included to permit review of each application without reference to previous applications to Breakthrough T1D, the Lupus Research Alliance, and/or the National MS Society. 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: November 5th, 2026
- Proposal deadline: January 7th, 2027 by 5:00 PM Eastern Standard Time (US)
- Earliest anticipated response to applicants: June 2027
- Earliest anticipated start date: August 2027

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Common Mechanisms Steering Committee

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National MS Society
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References

1 Abend, A. H. *et al.* Estimation of prevalence of autoimmune diseases in the United States using electronic health record data. *The Journal of Clinical Investigation* **135**, doi:10.1172/JCI178722 (2024).

2 Conrad, N. *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* **401**, 1878–1890, doi:10.1016/S0140-6736(23)00457-9 (2023).