



# Call for Applications: Targeting shared mechanisms in immune-mediated inflammatory diseases

## Introduction and rationale

There are more than 80 autoimmune conditions affecting over four million people in the UK.

Research into immune-mediated inflammatory conditions is often pursued in a disease-specific manner, according to clinical presentation, and focusing on later stages of disease. Emerging evidence suggests there are similarities across autoimmune diseases in risk factors, immunological and pathological processes, suggesting there are significant opportunities to drive forward the development of new treatments by encouraging research that works across, or learns from, other autoimmune conditions.

In May 2021, the Chernajovsky Foundation and Connect Immune Research brought the research community together to discuss targeting shared mechanisms in immune-mediated inflammatory diseases, and to catalyse new collaborations, research ideas and proposals in the area. At this meeting the immune condition research community explored and further defined priority topics in this area, as well as identifying gaps and opportunities for future research.

The Chernajovsky Foundation and Connect Immune Research have come together as a consortium to address these priority topics. Examples of the topics of interest are presented below in “Areas of Interest” however the scope of this call is not limited to these areas. We will fund “pilot” grants aimed at quickly developing proof of principle new treatments for multiple autoimmune conditions, by targeting pathways common in autoimmunity.

The funding will enable multidisciplinary groups of researchers to develop and progress innovative cross-disease research questions closer to benefits for people with autoimmune conditions. It is envisaged that successful candidates whose projects demonstrate the most promising outputs will be able to compete for further funding at a scale to quickly develop their research for patient benefit.

## Call Overview

<b>Funders</b>	<b>The Chernajovsky Foundation and Connect Immune Research</b>
Application deadline	4pm (BST), Wednesday 13 <sup>th</sup> October, 2021
Budget available	Up to £100,000
Project duration	Up to 12 months

## Study Design Principles

- Applications must show how the outputs from the award could lead to benefit for patients from more than one autoimmune condition.
- Highly innovative, potentially risky research ideas are expected.
- Translational research only, defined here as: Research that seeks to advance and apply discoveries from basic discovery research and/or clinical findings, through preclinical studies and towards clinical studies and trials. Development of drugs, diagnostics and devices are welcomed.
- Milestone driven, meaning projects should focus on rapid advancement and will be required to report on a key performance indicator milestone within 6 months of project commencement.
- The proposed project can include a discovery stage (no more than 4 months), however the majority of the project should be to demonstrate proof of principle.
- The application should outline, if the proposed research project is successful, how the research could be translated into patient benefit in a second funding stage by briefly describing the plan for executing a translational research study or developing any resulting technologies.
- The proposed research project should be collaborative, connecting immune researchers with expertise in a number of autoimmune conditions; and/or from more than one institution; and/or team members from different stages of the translational pathway, such as preclinical, translational and clinician scientists (collaborations with industrial partners are welcome but not necessary at this stage).
- The lead applicant must be based in the UK and should have international recognition. They would ideally have previous experience of leading, or demonstrable ability to lead, multi-disciplinary research.
- Meaningful patient and public involvement (PPI) is expected at all stages of application and award, with applications expected to seek and take into consideration the views and needs of people with autoimmune conditions. Support for PPI is available from the funders (see below).

## Areas of Interest

Applicants should consider, but NOT be limited to, the example areas of interest, gaps and opportunities for future research that were identified by representatives of the autoimmunity research community in a workshop held in May 2021:

- Revisit interferon response and autophagy to define disease drivers of these pathways for new interventions
- Leveraging single cell and epigenetic analyses to determine new therapeutic concepts
- Look beyond professional immune cells to the tissues to break the efficacy ceiling
- Immune-neuronal bidirectional signalling in health and disease and new opportunities for intervention
- Harnessing new understanding of the interplay between the gut microbiome, gut immune system and enteric nervous system

## Outputs from the Study

- A report detailing the progress made mid-way through the project.

- Submission of a final report describing the project undertaken, results and the next steps for developing the research (if any).
- A presentation of results to be delivered to the Oversight Committee upon completion of the project.

## Outcomes from the Study

- On completion the most promising projects will be invited to apply for more funding in the second phase, which may include funding for developing new methodologies or clinical trial designs potentially using repurposed current therapeutics.

## Application and assessment process

### Who can apply and what you can apply for

The award will be for up to £100,000, up to 12 months with an expected starting date by Spring/Summer 2022. This call is open to teams affiliated to a university, hospital or other recognised research institution worldwide, but the lead applicant **must** be based at a UK institution.

The application should be led by an independent lead applicant with an internationally competitive research track record. They would ideally have previous experience of leading, or demonstrable ability to lead, multi-disciplinary research.

Although the applications must have a UK based lead applicant, collaborations with international and industrial partners are welcome. For information about industrial collaborations please read the [guidelines from the AMRC](#).

The proposed research project should be collaborative, connecting immune researchers with expertise in a number of autoimmune conditions; and/or from more than one institution; and/or team members from different stages of the translational pathway, such as preclinical, translational and clinician scientists (collaborations with industrial partners are welcome but not necessary at this stage).

Before completing the application form please read the associated guidance documentation. Research involving patients, service users, care professionals or volunteers, or their organs, tissue or data must obtain Research Ethics Committee (REC) approval before any work can start. For any pre-clinical studies using animal models, the Funders are fully committed to the 3Rs principles (Replace, Reduce, Refine) and all our research abides by rules set out by the [Home Office](#). Under this system, animals can only be used when there is no alternative. We are members of the Association of Medical Research Charities and sign up to their [position on animal research](#).

### How will applications be assessed

Applications will be assessed for eligibility to the call and then will undergo expert peer and lay review. Assessment by lay people forms a key part of the review process, as such, applicants should carefully consider the use of non-scientific language in the application form.

Applicants will be invited to respond to review comments in a Rebuttal stage.

Depending on the number of applications, the funders may undertake a triage stage based on reviewer feedback prior to the final panel meeting.

A panel of scientific experts and lay people will recommend an award.

The criteria used to assess applications include:

- Relevance to the development of collaborative strategies leading to the identification of treatments for autoimmune and immune mediated diseases.
- Innovative and high-quality science
- Potential for long term impact on quality of life for people currently living with autoimmune or immune mediated conditions.
- Involvement of people with autoimmune or immune mediated conditions in the proposed research.
- Clear description and justification of how the project methodology will address the proposed study design and deliver the required outcomes.
- Strength and make-up of the research team, including multidisciplinary collaboration and proposed management arrangements.
- Applicants' track record and ability to deliver the proposed research, and facilities to conduct the proposed research
- Feasibility, the potential to deliver the stated outcomes within the timescales and budget
- Value for money

### **Patient and Public Involvement**

We believe that involving people affected by medical conditions strengthens the quality and relevance of medical research. We encourage applicants to consider how the quality, feasibility or practicality of their proposal could be improved by involving people affected by immune conditions in its development or oversight. It is important to write a clear non-scientific summary because people affected by autoimmune conditions are involved in the review process. Please see the guidance document ([found here](#)) for further information.

For further information about patient and public involvement in your application, please email [patientinsight@versusarthritis.org](mailto:patientinsight@versusarthritis.org).

### **Contact details and how to submit an application**

To submit a proposal on this topic, complete the online application form at Versus Arthritis [grant management system](#).

<b>Deadline for application</b>	<b>16:00 (BST), Wednesday 13 October 2021</b>
Notification of Award	<i>Early 2022</i>
Project Start	<i>By Spring/Summer 2022</i>

### **Enquiries**

Please contact Versus Arthritis email: [research@versusarthritis.org](mailto:research@versusarthritis.org).

## Funder information

- (1) The Lorna and Yuti Chernajovsky Biomedical Research Foundation registered as a charity in England and Wales no.1184405 whose office is at PO Box 1198, Whitstable, Kent, CT5 9DW, UK (“**the Chernajovsky Foundation**”);
- (2) Connect Immune Research, a group of organisations that includes:
  - a. Alopecia UK registered as a charity in England and Wales no. 1111304 and in Scotland no. SCO44702 whose registered office is at 10-12 Commercial Street, Shipley, West Yorkshire BD18 3SR (“**Alopecia UK**”);
  - b. Bowel Research UK registered as a charity no. 1186061 and incorporated and registered in England and Wales as a company no. CE019377 whose registered office is c/o The Royal College of Surgeons, 35-43 Lincoln’s Inn Fields, London WC2A 3PE (“**Bowel Research UK**”);
  - c. Coeliac UK is a charity registered in England & Wales (1048167) and in Scotland (SC039804) and a company limited by guarantee in England and Wales (3068044) whose registered office 3rd Floor, Apollo Centre, Desborough Road, High Wycombe, Buckinghamshire, HP11 2QW (“**Coeliac UK**”);
  - d. the Juvenile Diabetes Research Foundation incorporated and registered in England and Wales as a private company limited by guarantee, company number 2071638, registered as a charity in England and Wales no. 295716 and in Scotland no. SC040123 and whose registered office is at 17/18 Angel Gate, City Road, London EC1V 2PT (“**JDRF UK**”);
  - e. the British Society for Immunology incorporated and registered in England and Wales as a private limited company by guarantee, company number 03005933, registered as a charity in England and Wales no. 1043255 and in Scotland no. SC047367 whose temporary registered office is at Devonshire House, 60 Goswell Road, London, EC1M 7AD (“**the BSI**”);
  - f. the Multiple Sclerosis Society incorporated and registered in England and Wales as a private company by limited guarantee, company number 07451571, registered as a charity in England and Wales no. 1139257 and in Scotland no. SC041990 whose registered office is at 10 Queen Street Place, London EC4R 1AG (“**the MS Society**”);
  - g. The Psoriasis and Psoriatic Arthritis Alliance is incorporated and registered in England and Wales as a private company by limited by guarantee, company number 06656347, registered as a charity in England and Wales no. 1118192 and whose registered office is at Acre House, 11-15 William Road, London NW1 3ER (“**the PAPAA**”);
  - h. Versus Arthritis incorporated and registered in England and Wales as a private company limited by guarantee, company number 490500, registered as a charity in England and Wales no. 207711 and in Scotland no. SC041156 whose registered office is at Copeman House, St Mary’s Court, St Mary’s Gate, Chesterfield S41 7TD (“**Versus Arthritis**”), (together **CIR**).