

March 16, 2021

**The Paul G. Allen Frontiers Group
Letters of Intent (LOI)
Allen Distinguished Investigator (ADI) Program
Neural Circuit Design – 2021**

LOI release date: March 17, 2021

LOI submission deadline: April 15, 2021

Purpose

We request letters of intent for Allen Distinguished Investigator proposals to surface evolutionary principles in motor circuit design through the leveraging of less explored neuroscience models and systems. There will be up to four awards made for up to \$6M in total research funding (no indirect costs supported). Awards will be \$1,500,000 for 3 years, at the rate of \$500,000 per year.

Topic Details

The full extent of nervous system diversity has yet to be determined but is a source of speculation and interest in neuroscience, ethology, and beyond and could have downstream application and allow for orthogonal approaches in fields such as regenerative medicine, neuroengineering and biomimetic engineering. Motor circuits are also fundamental to behavior and can be a lens to understand evolution and the specialization or universality of nervous system mechanisms and architecture.

We seek creative LOIs leveraging less explored neuroscience models and systems to explore the principles underlying the varieties and possibilities of how motor circuits can be designed. Preferred systems of study would include nonmodel or less explored invertebrate and vertebrate species with less understood motor circuits, neurophysiology and/or motor behaviors. Behaviors of interest could include locomotion, reflex and response to perceptual stimuli, and/or motor skills. This initiative will not support projects focusing on exclusively neuroanatomical description or classification, projects with the primary goal of establishing a new model organism, or projects focusing on *C. elegans*, *D. melanogaster*, *M. musculus*, *R. norvegicus*, or primate systems. Approaches leveraging the latest advances (e.g., predictive modeling, machine learning/machine vision) would receive additional consideration. We recommend highlighting why the organism(s) to be studied is/are of interest and particularly suited to the proposed research question and project.

Program Goals

The Allen Distinguished Investigator program supports early-stage research with the potential to reinvent entire fields. The program seeks to have a lasting impact on the direction of research, aiming to serve as a catalyst upon which future research is founded. This program seeks to enable scientists to take risks with new ideas and approaches, and strongly believes in interdisciplinary approaches that allow scientists to look beyond their own disciplines, and to explore approaches with colleagues in other disciplines in order to bring new perspectives to challenging problems where traditional approaches within a discipline may be 'stuck.' The program is especially interested in approaches that are unlikely to receive funding from traditional government sources, including methodological and technological advances that

are often necessary complements to scientific advance and often difficult to fund through traditional sources. This program encourages and supports researchers including novel methodological, theoretical and technological elements in their proposals.

Eligibility Requirements

US or international scientists associated with nonprofit research organizations and pursuing independent research (e.g., tenured or tenure-track faculty or similar positions) are eligible to apply. We ask that, if awarded, the leader commit a minimum of 20% effort to the ADI research activities. We believe that diverse perspectives are vital to science and welcome LOIs from researchers who are members of underrepresented groups and/or have followed less-traditional career paths.

LOI Format

We request that all submissions be in English on 8 ½ x 11-inch paper size, using Arial, 11-point font, single spaced, with 1-inch margins top, bottom, left, and right. Submissions consist of the following information:

- | | |
|-------------------------|--|
| a) Cover page | Project title, PIs and contact information |
| b) Project description* | 1-page limit |
| c) PI biography** | 1-page limit (for each PI) |

*Up to five references are allowed; references are not included in the page limit of the project description. Up to one figure is permitted and not included in the 1-page limit. Please place references and figure, if any, at the end of the project description.

**Provide a biography of each PI. Please feel free to tell us anything that the PI would like reviewers to know about themselves.

LOI Submission

LOIs are due by **11:59pm PDT on April 15, 2021** and should be submitted by upload [here](#).

The LOI must be submitted as a **single PDF** file with the following filename:

Principal Investigator name (last name.first initial)_InstitutionName_2021ADICirDes_LOI.pdf

Example: *Allen.P_AllenUniversity_2021ADICirDes_LOI.pdf*

If the project includes more than one PI, please use when naming the PDF the name of the PI who will be serving as the technical point of contact for the application.

Questions

Answers to frequently asked questions can be found [here](#). Questions not on this list may be submitted to frontiers@alleninstitute.org. Please use "2021 Neural Circuit Design Question" as the email subject.

We try to respond to all emails, but may not be able to due to the volume of questions received. Please note that LOI questions submitted after 11:59pm PDT on April 8, 2021 are unlikely to be answered.

Application Key Dates

Letter of Intent Due	April 15, 2021
Notification of LOI Outcome	by May 31, 2021*
Full Proposal Deadline	July 15, 2021*

Finalist Interviews
Notification of Award
Award Start

August 2021*
September 2021*
November 2021*

*Tentative date

Selection Process

Up to 30 LOIs will be invited to submit full proposals for consideration. Up to eight of the submitted proposals will be selected for finalist interviews, which will be held by videoconference. Up to four awards will be made.

LOIs and proposals are confidentially reviewed by a panel of experts tailored for the topic, and this panel will make recommendations to the Paul G. Allen Frontiers Group, a division of the Allen Institute, which acts as the Paul G. Allen Family Foundation's agent and subject matter expert, provides counsel and supports the administration of the awards. The Paul G. Allen Family Foundation has the final decision on the award.

Members of the panel of experts and any advisors serve anonymously. Their identities as well as correspondence, evaluations and deliberations are kept confidential. This policy enables advisors and evaluators to provide their honest impressions independent of outside influence. Past awardees may be asked to act as future evaluators and advisors.