

March 16, 2021

**The Paul G. Allen Frontiers Group
Letters of Intent (LOI)
Allen Distinguished Investigator (ADI) Program
Mammalian Synthetic Development – 2021**

LOI release date: March 17, 2021

LOI submission deadline: April 15, 2021

Purpose

We request letters of intent for Allen Distinguished Investigator proposals in mammalian synthetic development research. There will be up to five awards made for up to \$7.5M in total research funding (no indirect costs supported). Awards will be up to \$1,300,000 for 3 years with the opportunity for additional funding of up to \$200,000 total per awardee to support cohort collaborations.

Topic Details

We seek LOIs in mammalian synthetic biology that utilize multicellular systems (cell signaling, tissue, cell systems) and methods to surface insights in mammalian synthetic development. With this call, we aim to support a coordinated, synergistic effort that leverages synthetic biology to advance our understanding and the potential of mammalian synthetic development. Specifically, this could span a diverse range of possible breakthrough advances (e.g., reprogramming of non-neuronal support cells, refining a set of tools for modulating stochastic decisions in cell fate, revealing and manipulating immune state changes noted at developmental transitions). Preferred LOIs would include visions that targeted developmental transitions aside from early embryogenesis (e.g., mid-terminal cellular differentiation states, interacting lineages in cell systems from common precursors, and organogenesis).

The project itself should not have a core focus to create new or additional technology. Projects that include honing and calibrating key synthetic biology and computational components to achieve specific aims or understanding of fundamental biological mechanisms will be considered. We expect that top approaches would leverage and possibly refine key genetic and/or extracellular “modules” that would be useful to have for engineering diverse multicellular systems and that can be elaborated on by many different researchers and/or members of the cohort. Priority would be given to “modules” that have the following properties: (1) flexibility (regulatory and cell type), (2) orthogonalizable, (3) ideally humanized (if they have potential for use in clinical / translational efforts), (4) compact and deliverable. Approaches that would garner lesser enthusiasm include those that would focus on the production of cell-specific tools, immediate therapeutic applications, aims that could more easily be completed in a simpler system (bacterial, etc.), and efforts which would be the next incremental step in current research programs.

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_2021ADISynDev_LOI.pdf

Example: *Allen.P_AllenUniversity_2021ADISynDev_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 Mammalian Synthetic Development 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	August 2021*
Notification of Award	September 2021*
Award Start	November 2021*

*Tentative date

Selection Process

Up to 35 LOIs will be invited to submit full proposals for consideration. Up to 10 of the submitted proposals will be selected for finalist interviews, which will be held by videoconference. Up to five 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.