

ADDITIONAL **VENTURES**

**Additional Ventures 2020 Request for Proposals
Single Ventricle Research Fund**

Letter of Intent Deadline: September 18, 2020

Invited Full Proposal Deadline: October 23, 2020



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2020 REQUEST FOR PROPOSALS

The Single Ventricle Research Fund (SVRF) is an annual research award program that is solely focused on accelerating research and improving care for those with single ventricle heart defects through multi-year, high-impact grants. The SVRF is a program of Additional Ventures, a nonprofit established to identify and address the critical gaps in understanding and treating single ventricle heart disease. In its inaugural cycle, SVRF is now accepting applications for up to three-year research projects that seek to identify biomarkers and/or functional tools to map end-organ function in single ventricle (SV) patients, or to assess non-invasive interventional strategies to treat or prevent clinical sequelae in these patients.

KEY DATES

Letter of Intent Due	September 18, 2020, 5 pm Eastern Time
Invitation to Submit Full Proposal	By September 22, 2020, 5 pm Eastern Time
Full Proposal Due	October 23, 2020, 5 pm Eastern Time
Awardees Announced	November 13, 2020
Award Begins	December 1, 2020

DESCRIPTION

The Single Ventricle Research Fund will support research efforts aimed at advancing the understanding of and treatment paradigm for single ventricle heart defects. In this 2020 cycle, we anticipate funding approximately ten (10) research grants; however, we reserve the right to fund any number of grants based on both the quality and number of applications received.

Each grant will provide up to \$200,000 USD in funding per year for up to three (3) years for a maximum, aggregate total of up to \$600,000 USD to support research projects lead by doctoral level investigators (e.g. PhD, MD, PsyD) at qualifying research-based institutions. Indirect costs up to 10% will be provided **in addition** to the total funded amount.

See below for details on the application and review processes.

SCIENTIFIC AND CLINICAL INTEREST

Single Ventricle Heart Disease is an understudied and underfunded area that requires a multi-disciplinary approach from a research and clinical care perspective.

What is Single Ventricle Heart Disease?

In human hearts, four distinct chambers form during development: two atria and two ventricles. However, in some individuals, one ventricle does not form properly and is either smaller, underdeveloped, or is missing a valve. Such conditions are referred to as single ventricle (SV) heart defects, which encompass a spectrum of diagnoses, including but not limited to pulmonary atresia with intact ventricular septum, hypoplastic left heart syndrome, and tricuspid atresia.

Through this program, Additional Ventures aims to accelerate research that will lead to both improved care and treatments based on a mechanistic understanding of SV. We have developed a research roadmap in partnership with investigators across disciplines that identifies strategic solutions to address these gaps and challenges, which is intended to guide a decade’s worth of research efforts and serve as a framework for coordinating global resources to advance SV research and clinical care. From this roadmap, we have chosen specific areas to focus our efforts for the 2020 SVRF. For more information, visit our [website](#).



PROPOSAL TOPIC AREAS

The scientific and clinical focus of proposals for the 2020 SVRF will address one or both of the following research focus areas:

- 1) Identification of biomarkers and development of predictive tools and/or functional diagnostics to understand, track, and optimize end-organ function to further precision medicine in single ventricle patients. Such topics may include, but are not limited to:
 - a. Generation of functional assays or diagnostics to systematically dissect SV disease-related clinical sequelae to act as early surrogate biomarkers of future heart and end-organ function to risk-stratify patients and move towards proactive medicine.
 - b. Mapping the trajectory of major complications and comorbidities of the brain, heart, and other end organs, and their impact on health, health-related quality of life, and well-being through unified, standardized protocols and long-term data collection on SV patients.
 - c. Generation of functional assays or diagnostics that act as surrogate biomarkers for current heart and end-organ function, with the ultimate goal of adopting personalized medicine approaches to optimize outcomes and practice proactive medicine.
- 2) Identification and validation of non-invasive interventions (e.g. diet, exercise, neuro-cognitive approaches, lifestyle factors) to address and/or prevent clinical sequelae observed in single ventricle patients.

Submitted proposals may select either one or both interest areas as the primary scientific focus of the application.

ELIGIBILITY REQUIREMENTS

1. Proposed projects must be led by Principal Investigator(s) (PIs) who hold doctoral degrees (e.g. PhD, MD, PsyD, or equivalent doctorates). PIs may be independent investigators or may be postdoctoral or medical fellows. Postdoctoral fellows, medical fellows, and early career investigators are eligible for additional non-monetary support, such as access to reviewer comments, as outlined within this document.
 - a. For purposes of this RFP, a “postdoctoral fellow” or “medical fellow” is an individual who has obtained a doctoral degree (PhD, MD, PsyD, or an equivalent degree) by the grant proposal deadline and who is engaged in a temporary period of mentored research for the purpose of acquiring the professional skills needed to pursue a career path of his or her choosing(s).
 - b. For purposes of this RFP, an “early career investigator” is an individual that has had an independent lab or clinical research position for no longer than seven (7) years past their post-doctoral position or medical fellow position. If an investigator has achieved independence directly following graduate school, an “early career investigator” is considered one who has had an independent research position for ten (10) years or less.
 - i. Exceptions to this timeline include, and are not limited to: 1) childbirth or adoption (one (1) year automatic extension), 2) extenuating circumstances related to child, elder, or family care, 3) periods of part-time work or leave, 4) period of time after receipt of terminal degree requirements when the investigator was not conducting research (including required clinical training/activities, or time away due to medical issues, military service, natural disasters, or family care), and 4) significant change in field of study. Contact Additional Ventures for more information.
2. All applicants must be from a nonprofit academic or research institution, including domestic and non-US nonprofit organizations, domestic and non-US public/private academic universities or institutions of higher learning (including colleges, universities, medical schools, and other related academic research institutions); certain qualified governmental agencies with active biomedical research programs may also apply.



3. In the instance where a project is collaborative in nature, a single application must be submitted with one primary investigator. We will not accept multiple applications for the same project.
 - a. Exception: In rare cases, two PIs with complementary yet distinct research projects may submit a single collaborative grant composed of two full proposals paired in submission, yielding up to \$400,000 USD per year of funding to be split amongst the labs subject to the project budgets. Such projects must 1) indicate the associated, paired proposal in submission of the LOI and 2) clearly state why such a collaboration is required and why such an expansion in budget is needed.

ADDITIONAL REVIEW CRITERIA

When evaluating the overall impact of submissions, Additional Ventures may consider the following:

- ◆ Collaborative projects led by PIs across institutions, disciplines, or scientific arc (e.g. collaboration between clinical and basic research scientists)
- ◆ Inclusion of postdoctoral research associates as collaborative investigators
- ◆ Proposals led by women and underrepresented minorities
- ◆ Proposals from investigators new to SV and associated conditions
 - For the purposes of this RFP, “new to SV and associated conditions” identifies a principal investigator who has not authored a publication relating to SV and associated conditions and has not been the PI on a grant related to SV and associated conditions awarded from a grant-making agency, non-profit, foundation, or other grant-awarding organization.
- ◆ Proposals from early career investigators (defined in eligibility criteria)

With the exception of information relating to collaborations, applicants are not required to disclose the information above. Responses will be visible only to Additional Ventures; outside reviewers will not have access to this information.

LETTER OF INTENT (LOI) AND APPLICATION GUIDELINES

All applicants will submit their completed LOI and applications through the SVRF online grant portal (see below for submission details). All application materials should be single-spaced and formatted in a sans-serif, 11-point font with 1-inch margins, except where provided templates apply.

All applicants will first submit an LOI to be reviewed by Additional Ventures. Eligible applicants who propose projects within the scope of this RFP will then be invited to submit a full application.

LETTER OF INTENT

LOIs will be submitted through the [online grant portal](#). The LOI will require the applicant organization’s legal name, PI name, degree, position, contact information, and the primary organization’s tax ID number (US), registered charity number, or non-US country’s equivalent. If the proposal is a collaboration, information including the co-investigator name, degree, position, and organization will also be collected.

- ◆ LOIs are due on Friday, September 18, 2020 by 5 PM Eastern Standard Time.
- ◆ Within the portal, a submission template for applicant information will be provided.
- ◆ The LOI itself is limited to one (1) page, submitted in PDF format, and shall outline the applicant’s interest in submitting a full-length proposal; it should include a brief description of the project, including the primary hypothesis and goals of the proposed research.



- ◆ Applicants will be notified via email **by Tuesday, September 22** of AV's decision to invite a full proposal, on the basis of 1) eligibility and 2) project scope (i.e. does the proposed project fit into the two outlined scientific areas)

PROPOSAL

A formal proposal outlining the intended project should be submitted to Additional Ventures by Friday, October 23, 2020, via the [online grant portal](#). The proposal must contain the following elements as discrete sections, following the formatting guidelines iterated above or via associated templates where indicated. Elements should not exceed the page or word limit, where applicable:

- ◆ Section I: Cover page (template included)
 - Project title
 - PI name(s) and applicant organization(s)
 - Technical abstract (350 words or fewer)
- ◆ Section II: Aims and Milestones (template included)
 - Brief yet technical summary of the project's scientific goals and expected products (e.g. publications, protocols, databases).
 - Major milestones (including Aims) should include estimated timeline to completion.
- ◆ Section III: Scientific Approach
 - Outline of research methodology to be used in pursuit of the project, including discussion of expected results, statistical analysis of data (where appropriate), and possible alternative approaches. Six (6) pages or fewer, submitted in PDF format.
 - Proposals for clinical, basic human, or animal studies are welcome and must be accompanied by a brief protocol synopsis and timeline with milestones. IRB (for human studies) or IACUC (for animal studies) approval will be required before initial payments are made for any project that SVRF, at its sole discretion, selects for funding.
- ◆ Section IV: References cited
 - No strict page limit; provided in PDF format.
- ◆ Section V: Significance Statement
 - Brief explanation of the importance of the problem or critical barrier to progress in the field that is being addressed, including how the proposed research project will improve scientific knowledge, technical capability, and/or clinical practice in one or more broad fields (350 words or fewer).
- ◆ Section VI: Team Capabilities and Composition (template included)
 - Statement outlining contributions of all included personnel, including a description of the group's ability to address the research question and to support research & personnel (including training of postdocs/students).
- ◆ Section VII: Mentoring and Leadership Development Philosophy (template included)
 - Summary describing the mentoring and leadership philosophy of the PI (350 words or fewer).
 - Willingness to participate in brief Additional Ventures-led leadership and mentorship activities throughout the grant award length (participation in no fewer than two (2) activities, up to one hour each, per year are required).
 - Optional: Additional Ventures is interested in providing support to investigators in non-monetary ways, including leadership development and mentoring training for early



career investigators. For those grantees who are interested, we would like to collect voluntary data (qualitative and quantitative) about the challenges and hurdles in their own lab to help hone success of future programming.

- ◆ Section VIII: Data Sharing Plan and Philosophy (template included)
 - Specifies the applicant's and the applicant organization's commitment to sharing project results and data with other institutions and researchers for non-commercial use to advance the understanding and treatment of single ventricle heart defects.
 - Section should include a discussion of data ownership by postdoctoral fellows and plans for transfers of projects and resources upon initiation of independent research programs, where appropriate.
 - Section should include a discussion of de-identified or PII-containing data, where applicable.

ADDITIONAL DOCUMENTATION

The following supplementary information should be provided within the [online portal](#):

- ◆ Lay summary
 - Succinct summary written for the general public, describing the project's aims and goals, including how the completion of the study will impact the field of SV research and/or care (350 words or fewer).
- ◆ Detailed Budget (template provided)
 - Detailed budget in USD supplemented with a narrative summary and justification for personnel/research costs, including percent effort. One (1) page, PDF format.
 - Acceptable expenditures include: salary, equipment, graduate student tuition, software, patient recruitment, fringe benefits, project-related or conference travel, publication costs, and up to 10% indirect costs (see [here](#) for our institutional policy).
 - If more than one institution will be involved in the project, one should be proposed as the applicant organization, and the other(s) included as a sub-grantee.
 - For collaborative, paired submissions, a detailed justification of why an expanded budget is necessary must be included.
 - **For non-US applicants: All grants will be made in USD, and SVRF is not responsible for any changes in conversion rates.** Grants selected for funding will be made payable to the applicant organization; under no circumstances will payment be made to an individual.
- ◆ Lead PI(s) Biosketch (from the NIH [template](#))
 - Five (5) pages or fewer, each; PDF format.
- ◆ Facilities and Resources.
 - One (1) page; PDF format.
- ◆ Institutional letter of commitment stating that applicant organization will be able to support the research led by the PI.
- ◆ Letters of support from collaborators, PDF format.

COVID-19 POLICY AND SUPPORT

As a foundation, Additional Ventures is deeply committed to supporting our scientific communities. We are sensitive to how COVID-19 is affecting the wellbeing of our grantees, and are dedicated to supporting scientists, clinicians, and academics through these unprecedented times.



We anticipate that COVID-19 will cause delays and changes to planned research activities, through the introduction of both professional and personal difficulties. The Additional Ventures team is cognizant that no standard plan will work for all grantees or apply to all situations; as such, we are willing to work with our grantees on a personal basis to discuss options and find appropriate solutions. These may include, and are not limited to: budgeting revisions, revisions to timelines and due dates of deliverables, personnel changes, shifts to remote work (e.g. computational approaches), allowances for child/dependent care or transportation, and mental health support. Please contact our team to discuss how we can help; we know that allowing flexibility means a greater chance of success.

REVIEW PROCESS

The Single Ventricle Research Fund will utilize a two-step review process. First, Additional Ventures will review LOIs internally and select those that meet the eligibility criteria and scientific focus of the grant program. Then, eligible investigators will be invited to submit full proposals that will be reviewed by committees, described below.

Upon LOI assessment and invitation to submit full proposals, AV will form review committees comprised of independent expert reviewers to accommodate the specific expertise required. External review committees will review full length proposals based on scientific and technical merit, team capabilities and competencies, realism of cost, and the commitment to leadership development and training. The reviewers will make recommendations to Additional Ventures for funding.

Additional Ventures will provide feedback for all proposals not selected for funding. Receipt of feedback is an important part of the scientific process, and it is our intention to provide written critiques and comments for all applicants. However, we reserve the right to prioritize full-length, detailed feedback for early career investigators, postdoctoral fellows, and medical fellows if the number of applications received is outstanding. In this case, senior investigators will receive a summary of reviewer feedback.

ACTIVITIES AND DELIVERABLES

Grantees funded by this effort will be expected to engage in the activities and provide deliverables described below:

- ◆ Progress reporting, including conversation via teleconference and annual written reports, that include the following:
 - A three (3)-page research progress report, submitted annually
 - Annual description of milestones achieved or postponed
 - A report of annual participation in leadership and mentoring development activities (template provided).
- ◆ Attendance at the Annual Additional Ventures Investigator Meeting; when possible, we encourage presentations at annual meetings to be made by postdoctoral/medical fellows or pre-doctoral students.
- ◆ Active participation in Additional Ventures-led meetings or workshops that bring together grantees to share progress and results.
- ◆ Active participation in Additional Ventures-led leadership and mentorship activities throughout the grant award period (participation in no fewer than two (2) activities per year are required).
- ◆ Response to reporting inquiries requested by Additional Ventures, relating & not limited to: publications and presentations, patents, collaborations, external award of additional funding, students and postdoctoral associates trained in association with work funded by Additional Ventures.



TERMS OF GRANT / USE OF FUNDS

Each funded organization will be required to sign and agree to the SVRF's grant terms within thirty (30) days from receipt of notice of the award and prior to the funds being released. The grant terms will be available upon submission of a full proposal.

FUNDING AWARDED AT ADDITIONAL VENTURES' DISCRETION

Responding to this RFP, submitting an LOI and/or submitting a full proposal does not entitle any individual or institution to receive funding from Additional Ventures. Funding, if any, would be provided at Additional Ventures' sole discretion pursuant to the terms of a written grant agreement executed by Additional Ventures and the selected grantee organization, the terms of which Additional Ventures may require to be acknowledged by the PI.

QUESTIONS?

For all inquiries, please contact: Kaitlin Davis, PhD, Additional Ventures Program and Grant Manager, at kaitlin@additionalventures.org.

ABOUT ADDITIONAL VENTURES

Additional Ventures is a nonprofit foundation that aims to accelerate research progress and improve clinical care for children born with complex congenital heart defects so that they have a normal duration and quality of life. Although one in one hundred children are born with a congenital heart defect, there are limited options for those with the most complex forms, including single ventricle (SV) heart defects. For these children, there is no cure. With rapid advances in areas like genomics, single-cell technologies, and tissue engineering, now is the time to coordinate concerted efforts to understand how to overcome this devastating, complex disease.