

Catalyst to Independence Award

Supporting the next generation of scientists revolutionizing single ventricle research.

Letter of Intent Rolling Submission: January 11 - March 14, 2024

Invited Scientific Proposal Deadline: April 18, 2024

Funding Begins: January 1, 2025



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PROGRAM OVERVIEW

The Additional Ventures Catalyst to Independence Award is a research award program that supports exceptional early career scientists during the final years of their mentored postdoctoral research position (Level I), through their transition to an independent faculty position (Level II). The Catalyst program supports investigators pursuing research relevant to single ventricle heart disease, including genetics, basic cardiovascular development, tissue engineering, computational modeling, and other relevant areas.

In addition to providing generous program funds to support research, the Catalyst program utilizes a multi-pronged approach to equip investigators with skills and tools critical to their success as leaders of outstanding independent research programs, such as lab management and grant-writing training. The program is structured to **put the investigator first**, providing unique layers of <u>financial</u> and <u>mentoring</u> support to bolster the personal *and* professional success of awardees.

KEY DATES

Application Portal Opens:	January 11, 2024
Letter of Intent Rolling Submission:	January 11 - March 14, 2024, 8 pm ET
Invitation to Submit Scientific Proposal:	Within 10 business days of LOI submission
Scientific Proposal Due:	April 18, 2024, 8 pm ET
Personal Statements Due:	June 6, 2024, 8 pm ET
Finalist Interviews:	August 1-23, 2024
Notification of Award:	By September 30, 2024
Funding Begins:	January 1, 2025

Deadlines are subject to change at the discretion of Additional Ventures in response to nationally or globally relevant events, including the COVID-19 pandemic.

PROGRAM STRUCTURE

The Catalyst to Independence Award provides generous <u>monetary</u> and programmatic support for both the scientific and professional development of awardees. The program provides up to five (5) years of support in two phases across the transition from advanced postdoctoral fellow to independent faculty. **Additional Ventures anticipates** awarding up to three (3) new Level I investigators for awards beginning on January 1, 2025.

The first phase of the award (Level I) provides up to two (2) years of support for awardees in mentored, research-focused roles, such as postdoctoral research associate, instructor, or clinical fellowship appointments. The second phase provides up to three (3) years of support for fellows who have achieved independence and are appointed to tenure-track faculty roles (Level II).

The two phases of the program are intended to be contiguous, and support for Level II is contingent on satisfactory progress during Level I (see Transition to Independence). Transitions to Level II are dependent on achieving key milestones submitted in Level I, as well as acceptance of a tenure-track faculty position.

SCIENTIFIC FOCUS AREA

Additional Ventures aims to accelerate research that will lead to both improved care and novel treatments based on a mechanistic understanding of single ventricle congenital heart disease. We have developed a Research Roadmap in partnership with investigators across disciplines that identifies gaps and challenges in single ventricle research. The Research Roadmap is intended to guide a decade's worth of research efforts and serve as a framework for coordinating global resources to advance single ventricle research and clinical care. For more information on single ventricle heart disease and our Research Roadmap, visit our website.



The 2025 cycle of the Catalyst to Independence Award welcomes **basic**, **translational**, and **clinical** research efforts relevant to single ventricle heart disease and aligned with any specific focus areas (**Origins, Outcomes, Care, Cures**) and strategic topics listed below.

I. Understand Single Ventricle Origins

- I-1. Deep Phenotype-Genotype Analysis
- I-2. Biological Mechanisms Underlying SV
- I-3. Environmental & Risk Factors of SV

II. Define Biological Mechanisms of Outcomes

- II-1. Etiology of Outcomes
- II-2. Factors Leading to Resilience
- II-3. Risk Factors of Outcomes: Modifiable & Non-Genetic

III. Establish Predictive, Preventative, and Improved Care

- III-1. Biomarkers of End-Organ Function
- III-2. Therapeutics for Sequelae
- III-3. Non-Invasive Interventions

IV. Introduce Functional Cures

- IV-1. Bionic & Mechanical Approaches
- IV-2. In Utero Interventions
- IV-3. Transplant Availability & Decision Making

Note: Registry builds will not be considered.

PROFESSIONAL DEVELOPMENT

Supporting outstanding research begins with a focus on people and projects. In addition to monetary support for fellows and their research, the Catalyst Award provides additive programming dedicated to skill building, peer support, lab and people management, mentorship, networking, and career growth. These include but are not limited to:

- Attendance and participation at our <u>Single Ventricle Investigator Meeting</u>, held biennially (every two years) in the United States
- Individual career coaching and participation in targeted training workshops
- Participation in the <u>Additional Ventures Speaker Series</u>, a virtual seminar series that tackles diverse topics within and adjacent to the single ventricle field.
- Round table and networking programming for Catalyst awardees

Each of the above provides an opportunity for awardees to network with others within the field, share their work, and learn new skills that are critical for the success of their independent careers.

MENTORSHIP

Applicants must identify <u>one</u> primary mentor who will provide supervision and support for the proposed research plan and commit to the applicant's career development. Applicants are strongly encouraged to work with their mentor to prepare the application and are welcome to recruit the support and expertise of additional co-mentors where appropriate.

During Level I, the primary mentor will ideally be the principal investigator of the laboratory that supports the fellow's primary appointment; however, we recognize this is not always possible. In these cases, it is preferred that the mentor be an active investigator in the proposed or an adjacent research area and be able to attest to the facilities and resources available for high-quality research and training.

Mentors must certify that they are committed to providing the resources, expertise, and time necessary to ensure the success of the applicant. Mentor(s) of active awardees may be asked to meet with Additional Ventures during the Level I phase to discuss Catalyst awardee research and professional progress.

TRANSITION TO INDEPENDENCE

The Catalyst Award is designed to support the successful advancement of awardees to tenure-track faculty positions. At the time a fellow accepts a tenure-track faculty position, they are expected to apply to transition to Level II of the



program. To apply for transition to independence, Level I awardees must confirm their faculty appointment and present a progress report, abbreviated research plan, and categorical budget for the independent years of the award.

Qualifying Level II awardees are eligible for up to three (3) years of support as newly appointed tenure-track faculty members at qualifying academic institutions. Transition to Level II can be requested at any time during the two (2)-year mentored period after a tenure-track faculty appointment has been obtained. No cost extensions can be discussed on a case-by-case basis if a fellow does not transition within the two (2)-year Level I award term.

PROGRAM FUNDS

Awardees are eligible to receive up to approximately \$1M (USD) over the course of the award period. Funds include a stipend, annual research expenses, compensation for support staff, and a health or family care supplement. Due to differences in length of time in Level I or II and geographic location, the total award amount will vary amongst awardees.

Program Funds	Level I (up to 2 years)	Level II (up to 3 years)
Stipend*	Starts at <u>GS-11</u>	Starts at GS-12, Level 1
Max. annual research expenses	\$30,000	\$100,000
Max. annual support staff compensation	Up to \$50,000	Up to \$50,000
Annual supplemental health/family care**	\$5,000	\$5,000

^{*}Annual stipend levels are determined using the <u>US General Schedule</u>, which standardizes compensation based on locality, experience, and position.

HEALTH AND FAMILY CARE SUPPLEMENT

Additional Ventures recognizes that the high costs of health and family care impact the ability of early career investigators to fully participate in the extramural workforce. To ensure that this opportunity is welcoming to and supportive of fellows from diverse backgrounds and life stages, all awardees are eligible to receive a \$5,000 supplemental award per annual budget period to offset family- and/or health-related expenses. The health and family care supplement is not intended to offset the cost of fringe benefits provided by the host institutions but to provide the awardee with funds to address non-covered costs (e.g. childcare, partner illness, out-of-pocket healthcare expenses).

The supplement may be used at the discretion of the fellow in addition to institution-provided health and family-related benefits. Supplemental funding is not subtractive from research funds; the supplement cannot be added to research funds if not used.

ELIGIBILITY REQUIREMENTS

Eligible applicants must meet each of the General Eligibility Requirements listed below, and can request at meeting with Additional Ventures staff (grants@additionalventures.org) to discuss eligibility:

- Applicant's research must align with the Additional Ventures <u>Research Roadmap</u> and focus on increasing our understanding of single ventricle heart disease origins, comorbidities, sequelae, and/or cures.
- Applicants must have earned a PhD, MD, DO, or doctoral equivalent more than 1 year prior to the LOI due date of March 14, 2024 (i.e. earned a terminal degree on or before March 14, 2023), and must have held their current role for at least 1 year. There is no upper limit to the total time an applicant can be in a postdoctoral position before applying to the Catalyst to Independence Award.

^{**}Health- and family-care funds are intended to supplement university-provided health care.



- Applicants must have current postdoc or instructor status (or equivalent) and be in mentored, non-independent, non-tenure track positions. For MD/DO applicants, an appointment status of resident, fellow, intern, or other non-independent appointment is generally acceptable. Questions regarding individual appointment status and eligibility can be directed to Additional Ventures staff.
- Applicants cannot concurrently hold a transition award from another organization. Applicants must commit
 to a minimum of nine (9) calendar months each year (75% FTE [full-time equivalent] dedicated effort) to
 the proposed work.
- Applicants must be affiliated with a domestic nonprofit academic or research institution, including 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 meet eligibility criteria.
- Applicants must be legally qualified to work in the US (including citizens, non-citizen permanent residents, or temporary residents of the US). Immigration-related matters and visa applications are the responsibility of the fellow and sponsoring institution.

APPLICATION PROCESS

Application to the Catalyst Award includes multiple steps with rigorous evaluation at each stage:



PRE-SUBMISSION CONSULTATION

Additional Ventures is committed to application processes that increase the impact and success of funded studies. Applicants are strongly encouraged to consult with Additional Ventures program staff before submitting a letter of intent. Contact us at grants@additionalventures.org for guidance on program scope or to seek feedback on proposal fit.

LETTER OF INTENT SUBMISSION ELEMENTS

Interested candidates who meet the eligibility criteria are invited to submit a Letter of Intent (LOI) through <u>Additional Ventures' online grant</u> portal any time during the rolling submission period from <u>January 11 – March 14, 2024 at 8:00pm ET</u>. LOI submissions will be reviewed for applicant eligibility and proposed project fit on an ongoing, rolling basis. We encourage early submission of completed LOIs to ensure the maximum time between LOI decision and scientific proposal submission. LOI review and notification of decision will be completed <u>within ten (10) business days</u> of receipt. The Letter of Intent includes the following elements:

- Title Page
- Eligibility criteria certification
- Contributions to Science (two (2) pages maximum using the provided template), including:
 - Training history and advanced degrees
 - o Authorship of peer-reviewed research publications
 - Oral and poster presentations
 - Previous and current grant & fellowship funding

Please visit the application portal for the most up to date application guidelines and requirements.

Requirements are subject to change at Additional Ventures' discretion; any changes will be reflected in real time within the application portal.

Login to ProposalCentral by visiting proposalcentral.com and select the Catalyst to Independence Award in the Grant Opportunities tab. To revisit an application already in progress, select your draft under the Proposals tab.



- Research Roadmap category & keyword selection
- Proposed Research Summary (1000 characters maximum)
 - o Technical summary of the **proposed** research and how it will increase understanding of the origins, comorbidities, and/or sequelae of single ventricle congenital heart disease.
- Future Independent Research Summary (1000 characters maximum)
 - Technical summary of the applicant's *future independent* research program goals and how this
 work will increase understanding of the origins, comorbidities, and/or sequelae of single ventricle
 congenital heart disease.
- Mentor information
 - Mentor biosketch (Standard NIH style biosketch, template provided; five (5) pages maximum)
- Applicant demographic information (optional)
 - Additional Ventures strives to support a scientific community that is diverse, collaborative, and forward-thinking. A response is not required, and data will not be shared with external reviewers.

SCIENTIFIC PROPOSAL SUBMISSION ELEMENTS

Applicants who meet the eligibility and research alignment criteria in the LOI phase will be invited to submit a scientific proposal detailing their proposed Level I research. Invited scientific proposals are due by **April 18, 2024, 8:00pm ET** and must include the following elements:

- Summary statements:
 - Lay summary (written for the general public), describing the project's aims and goals, including how the completion of the study will impact single ventricle research and/or care (up to 2100 characters).
 - Technical abstract (written in scientific language) for a PhD/MD level audience describing the conceptual, technical, or methodical background and innovations of the project and how the project will impact single ventricle research and/or care. (up to 2100 characters).
- Uploaded documents:
 - Specific Aims (One (1) page, PDF upload)
 - A brief, technical summary of the project's scientific goals and expected outcomes, including the impact that the research results will have on the single ventricle and adjacent fields.
 - Include specific objectives of the research proposed
 - Research Plan (Five (5) pages, PDF upload)
 - Outline of research methodology to be used in pursuit of the project, including background and relevant preliminary results, research methods and study design, discussion of expected results, statistical analysis of data (where appropriate), and possible alternative approaches. Figures are permitted and are included in the page count.
 - References Cited (PDF upload, no strict page limit)
- Categorical Budget (online fillable form)
 - A categorical budget in USD covering the first two (2) years of the award, including researchrelated and indirect costs. Supplemental healthcare and family support are available to all



awardees, do not subtract from research funds, and should be included in each budget period it is requested.

- Budget categories include:
 - Stipend: Applicants should request a specific GS-level stipend that is dependent on the number of months in their current role and geographic location. For example, using the General Schedule website calculator, an individual who has completed 3 full years of work following their doctorate would select GS-11, step 4. A postdoc in their current role for 1 years and 3 months would choose step 2.
 - Stipend supplementation above the GS level through host institution funding is allowed.
 Host institution is responsible for the applicant's fringe benefits.
 - Research Expenses: Provide total costs for the general categories: equipment, consumables, animals, contracting, and travel. Do not itemize the budget with individual products, pieces of equipment, or planned conferences. Professional society memberships are not supported as research expenses.
 - Support Staff Compensation: Up to \$50,000 can be requested to fund a research technician or other support staff role for both years of the Level I award. These funds can be used for salary, or salary and benefits so long as the total expenditure does not exceed \$50,000.
 - Healthcare & Family Supplement: Up to \$5,000 is provided as a supplement to university-provided healthcare benefits and fringe.
 - Indirect Costs: Up to 10% of the research budget amount (see here for our institutional policy)
- Data Sharing Plan and Philosophy (Yes/No selection)
 - Applicants must agree to the open sharing of data in alignment with the current best practices.
 Sharing of patient-related data must follow all institutional, local, state, and federal laws and regulations.
- Institutional letter of commitment (Yes/No selection)
 - The institution confirms the status of the applicant as a mentored postdoc, instructor, or equivalent. The institution confirms it can support the proposed research and provide supplemental salary (if applicable) and fringe benefit support for the duration of the Level I award.

PERSONAL STATEMENT ELEMENTS

Select applicants will be invited by **May 15, 2024** to submit written statements in response to Additional Ventures provided prompts on the applicant's motivations for pursuing single ventricle research and an independent faculty research career. Personal statement responses are due **June 6, 2024 by 8:00pm ET**. An example prompt and character limit are shown below, with specific questions to be specified each application year.

What motivated you to apply for the Catalyst to Independence Award? Consider which professional, personal, and/or scientific benefits of becoming a Catalyst Award fellow would most impact your career and enhance your ability to contribute to the single ventricle community and research spaces. (2100 characters)

INTERVIEW PROCESS

Following review of the scientific proposal and personal statements, Finalists will be selected and notified of their invitation to interview by **July 1**, **2024.** 90-min virtual interviews with Additional Ventures representatives and advisors are scheduled to occur from **August 1-23**, **2024**. The interview will be conducted in two parts:



- Part 1 (20-30 minutes; mentor only)
 - The mentor is asked to make a statement in support of the Finalist, outlining their career trajectory and potential, as well as their role in the current and future mentorship of the Finalist.
- Part 2 (50-60) minutes; applicant only)
 - Finalists are asked to present their projects in a pitch-style format of no more than 10 minutes.
 Following the pitch, Additional Ventures staff and selected external advisors will engage applicants in a series of questions, with a significant focus on the Finalist's readiness for independence including scientific vision and leadership potential.

Additional details on the interview process will be provided at the time of invitation.

REVIEW AND SELECTION

As with all our competitive grant programs, Additional Ventures utilizes a multi-step internal and external review process to invite applicants and select finalists for funding. Additional Ventures provides review feedback to both funded and non-funded applicants following the award cycle.

LOI REVIEW AND CONFIRMATION OF ELIGIBILITY

Additional Ventures reviews LOIs and invites select eligible applicants to submit a scientific proposal based on the following review criteria:

- Current and future research alignment with single ventricle and the Research Roadmap
- Potential research impact
- Publication history
- Career and leadership readiness
- Appropriate mentor selection

Submission of an LOI does not guarantee an invitation to submit a scientific proposal.

SCIENTIFIC PROPOSAL REVIEW

Upon receipt of scientific proposals, panels of reviewers, including subject matter experts and Catalyst program advisors, evaluate application materials and make recommendations to Additional Ventures. Scientific proposals are evaluated for the following components, with reviewers providing both written critiques and NIH-style scores:

- Focus: Alignment of the research in the scientific proposal with the strategic investment areas of the Research Roadmap.
- *Scientific Approach*: Clear and rational approach with background, preliminary data (where applicable), and relevant aims.
- *Technical Feasibility & Soundness*: The utilization of sound and appropriate techniques with consideration of <u>expected outcomes and alternative approaches</u>.
- Potential Scientific Impact: Should the proposed work be successful, how it will open new avenues of research and/or significantly move the single ventricle field in a meaningful way.
- Future Faculty Promise: Assessment of the proposal maturity; whether it is written at or above the level of a faculty candidate OR at or above the level of an early career faculty grant submitted to another funding agency.
- Overall Proposal Strengths: Overall, how effectively soundness, innovation, or other characteristics or details of the proposal inspire enthusiasm for the research direction and confidence in the successful completion of the proposed research.



 Overall Proposal Weaknesses: Overall, assessment of conceptual weaknesses, including lack of alternatives, inappropriate methods or testing parameters, or other metrics, and how significantly these weaknesses detract from the prospect of completion and enthusiasm for the proposal.

Additional Ventures provides scientific proposal critiques to all applicants not selected for funding. Selected applicants will be invited to submit Personal Statements, as described below.

PERSONAL STATEMENT REVIEW

Additional Ventures strives to understand applicants as engaged researchers and trainees with unique backgrounds and paths to scientific success. Assessment of the requested personal statements allows Additional Ventures to curate a holistic picture of outstanding applicants, beyond their scientific prowess. To meet this goal, personal statements are evaluated to assess multiple facets, including the following: 1) how well applicants communicate their interest and commitment to single ventricle research, 2) the reciprocal benefits an applicant may provide to and gain from inclusion within the Catalyst community, 3) the mentoring philosophies of candidates and the principles they will follow in their independent lab while training the next generation of single ventricle researchers. Personal statement reviews are combined with scientific proposal reviews to inform selection of candidates to advance to the interview.

ADDITIONAL AREAS OF CONSIDERATION

Additional Ventures strives to support a scientific community that is diverse, collaborative, and forward-thinking. As such, Additional Ventures recognizes the deep inequalities inherent in academia and strives to support those who have been historically excluded and underrepresented. We highly encourage applications from women, minorities, individuals with disabilities, and individuals from disadvantaged backgrounds.

ACTIVITIES AND DELIVERABLES

Catalyst awardees are expected to engage in activities and provide deliverables as described below:

- Annual progress reporting, including conversation via teleconference, virtual meetings, and/or written reports; including commentary on annual participation in Additional Ventures- and partner-led professional development programming.
- Attendance and presentation at the biannual Additional Ventures Single Ventricle Investigator Meeting
- Active participation in professional development programming and activities
- Active participation in Additional Ventures-led monthly fellows' meetings and workshops
- Active participation in Additional Ventures' Speaker Series
- Response to reporting inquiries as requested by Additional Ventures, relating but not limited to publications and presentations, patents, collaborations, and external award of additional funding.

TERMS OF AWARD/USE OF FUNDS

Each funded organization is required to sign and agree to Additional Ventures' grant terms within sixty (60) days from receipt of notice of the award and prior to the funds being released. The grant terms are available prior to submission of the Letter of Intent, and are expected to be shared with relevant institutional representatives prior to any submission.

Responding to this RFP or submitting a letter of intent and/or a scientific proposal does not entitle any individual or institution to receive funding from Additional Ventures. Funding, if any, is 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.



EXTENDED LEAVE POLICY

A leave of absence is permitted during the award. Parental, family, sickness, and other leaves can be accommodated and will be assessed on a case-by-case basis for appropriate time off and award extension. Additional Ventures honors the awardee's institutional policies on paid and unpaid leave. A leave-dependent award extension will not impact the awarded funds, and other reporting and attendance requirements of the award will be considered on a per-request basis.

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 is 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.

QUESTIONS?

For all inquiries, please contact: grants@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 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.