Chan Zuckerberg Initiative

REQUEST FOR APPLICATIONS Cryo-CLEM Labels RFA

The Chan Zuckerberg Initiative invites applications for one-year collaborative research projects to accelerate the development of labeling probes for cryo-correlative light and electron microscopy (cryo-CLEM).

OPPORTUNITY

Overview

The Chan Zuckerberg Initiative (CZI) seeks to support one-year projects in the field of cryo-CLEM labels. To gain a deeper mechanistic understanding of biological systems, CZI's Imaging program aims to visualize and measure them across biological scales and in their biological context. This Request for Applications (RFA) seeks to drive development of complete, general-purpose, intracellular imaging probes for cryo-CLEM. This grant program will advance the utility of cryo-electron tomography (cryo-ET) of cells by providing information on specific aspects of cell function.

APPLICATION REQUIREMENTS

All applications must be completed and submitted through CZI's online grants management portal at https://apply.chanzuckerberg.com. It is recommended that applicants familiarize themselves with this portal well in advance of the application deadline. Detailed application instructions are available on the Chan Zuckerberg Initiative-website, as well as in the grants-management-portal.

Key Dates

June 8, 2023 Application portal opens

July 20, 2023 Applications due by 5 p.m. Pacific Time

Late October 2023 Earliest notification of decisions (subject to change)

December 1, 2023 Expected start date (subject to change)

Award period and start date: Awards will be one year (12 months) in duration with an expected start date of December 1, 2023.

Budget: The maximum budget allocated for projects is \$165,000 USD in total costs. Proposed budgets should reflect the project scope. \$15,000 USD direct costs of the proposed budget must be included as a budget item to support trainees working on the project, beyond personnel costs. Indirect costs cannot exceed 15 percent of direct costs.

Team composition: Each application should have a minimum of one principal investigator (PI) who will be the Coordinating PI, but may designate one additional Co-PI.

SCOPE

This RFA will accelerate the development of imaging probes that can leverage and combine the strengths of 1) light microscopy to study cell function and 2) cryo-electron tomography to study sub-cellular structure. Development of genetically-encoded tags (Green fluorescent protein, or GFP, and its variants), chemical tags (HaloTag, SNAP-tag), nanobodies, and other imaging labels have revolutionized live-cell and super-resolution fluorescence microscopy. In correlative light and electron microscopy (CLEM), registration of fluorescence microscopy with electron microscopy images can be used to identify specific structures or molecules, such as proteins, organelles, or other cellular components.

Recent advances in cryo-ET technologies have the potential to image the molecular architecture of the cell with atomic resolution. The field currently lacks a robust general purpose label that is simultaneously visible by light and electron microscopy, can be directed to any intracellular protein of interest, and will only minimally perturb the assembly state or biological function of the targeted molecule. Visibility by cryo-ET is defined as detectable or computationally recognizable in unaveraged tomograms.

The long-term goal of this opportunity is to drive technology development aimed at visualizing intracellular structure and function using cryo-ET. We specifically seek proposals that support the development of intracellular imaging probes that can withstand cryogenic preservation, provide high photon yields to allow accurate localization in cryo-CLEM, and have sufficient electron contrast or a unique shape to be detectable in cryo tomograms. This funding opportunity is explicitly aimed at the design and demonstration of a complete solution for general-purpose, intracellular cryo-CLEM imaging probes that could be broadly disseminated to the cryo-CLEM/cryo-ET field.

Examples of potential areas within the scope of this RFA include, but are not limited to:

- Complete solution for cryo-CLEM labeling that includes high-yield fluorophores and features that are detectable in electron microscopy (EM),
- Genetically encoded fluorescent and electron-dense tags with unique shapes for cryo-CLEM, ideally self assembling only when attached to protein of interest,
- Carbon nanodots or chemically synthesized probes adapted for cryo-CLEM,
- Nanobody binders with unique shapes for cryo-CLEM, and

• All and deep learning approaches to the design of cryo-CLEM labels.

Successful designs should be:

- Applicable to targets inside of intact cells,
- Kept as small as possible,
- Minimally perturbative of the structure or function of target protein,
- Visible at a single or low copy number by cryo fluorescence microscopy,
- Detectable in an unaveraged cryo-EM tomogram (either significant metal density or have a unique shape), and
- Result in low EM background (minimal false positives).

We particularly encourage applications from:

- Women, those underrepresented or marginalized in science, and diverse groups worldwide;
 and
- Early career investigators, defined as principal investigators who have been in an independent faculty role for less than six years at the time of application, i.e. have started their first independent position between July 20, 2017, and July 20, 2023.

Collaboration and Open Science

CZI seeks investigators who will enthusiastically contribute to and benefit from a highly collaborative, dynamic, and interdisciplinary approach.

- Investigators and members of their project teams will participate in meetings throughout the grant period to encourage collaboration. Project teams will present progress on their design concepts or results of their proof-of-principle demonstrations, including project outcomes, lessons learned, and negative results.
- Investigators and CZI staff will work together to identify resources and technology that can drive the imaging field forward.
- Investigators will commit to rapid dissemination of all resulting data, protocols, code, reagents, and results (including negative results) prior to publication through resources such as protocols.io, GitHub, Addgene, and preprints. Please see the Policies section for additional details.

ELIGIBILITY

 Applications may be submitted by domestic and foreign nonprofit and for-profit organizations, public and private institutions, such as colleges, universities, hospitals, laboratories, units of state and local government, companies, and eligible agencies of the federal government. As part of the application process, for-profit organizations may need to provide additional

- information on the charitable purposes of the proposal. Grants are not permitted to individuals, only to organizations.
- There may be more than one application submitted by each organization.
- Each application should designate one Principal Investigator (PI) as the Coordinating Principal Investigator (Coordinating PI). The Coordinating PI will act as the administrative contact between CZI and all PIs on the grant. The Coordinating PI must submit the application on behalf of all PIs. The Coordinating PI must be affiliated with the institution submitting the application, and grant funds will be awarded to that institution, which will take responsibility for distributing funds to any other institutions. Note that institutions outside the U.S. may not subcontract to U.S. institutions, so please be mindful when selecting the Coordinating PI/institution.
- Each application should have a minimum of one PI (Coordinating PI), but may designate up to two total PIs (one Coordinating PI and one Co-PI).
- Pls may only serve as the Coordinating Pl on one application, but may serve as a Co-Pl on applications different from the one they submitted.
- Co-PIs may serve as a Co-PI on multiple applications.
- Pls/Co-Pls on one application may be employed at the same or at different institutions.
- Pls and Co-Pls must hold a PhD, MD, or equivalent degree.
- PIs and Co-PIs must each run laboratories in which they control their budget, their space, and their research. Independence in an academic setting is typically demonstrated by a full-time faculty appointment, a tenure-track position, allocated space, a start-up package, and institutional commitment as defined or verified in a letter from a department chair or equivalent. Independence may be defined differently in other organizations. Note: an upload of the letter or proof of independence is not required at the time of application.
- Meta employees, including employees of any subsidiary Meta entities, as well as employees of Chan Zuckerberg Initiative, LLC, are not permitted to apply.
- CZI reserves the sole right to decide if an applicant and applicant organization meet the eligibility requirements.
- CZI reserves the right to request budget changes prior to award.
- We welcome applications from any country, provided the proposed work is compliant with the United States Treasury Department's Office of Foreign Asset Control (OFAC) sanctions program. Prior to award, all grant applications will be reviewed for compliance with the United States Treasury Department's Office of Foreign Asset Control (OFAC) sanctions program, the United States Department of Commerce's export administration regulations, the Foreign Corrupt Practices Act (FCPA), any other applicable U.S. laws and regulations, and any corresponding laws and regulations in the country where the applicant is based. All grant agreements will also require the grantee to comply with these laws and regulations. For additional information please refer to: the U.S. Treasury Department's resources, the International Trade Administration's website on US Export Controls, and the Department of Justice's website on the FCPA.
- While applicants from all countries are welcome to apply, because of required ongoing compliance with U.S. sanctions and export controls, an applicant's funding eligibility may need to be reassessed if the applicable laws and regulations change at any time. As a result, even if

an applicant is eligible to receive funding at the time the application is reviewed, the applicant's status may change later in the process or during the course of the grant term.

CZI suggests that you consult your home institution to determine eligibility to apply for this grant and your institutional policy on indirect costs. For questions about eligibility for this award or the application process, please contact us in advance of the proposal deadline at sciencegrants@chanzuckerberg.com. Deadline extensions will not be granted.

SELECTION PROCESS

The Chan Zuckerberg Initiative adheres to our <u>core values</u> in both proposal selection and evaluation of progress.

CZI will evaluate all applications for scientific merit through independent expert review. Final decisions will be made by CZI staff in consultation with our scientific advisors. There is no expectation of any specific number of awards, and the Chan Zuckerberg Initiative reserves the sole right to not recommend the funding of any applications. CZI does not provide feedback on decisions for unfunded proposals.

Selection of awardees will be based on:

- The quality of the proposal and the expertise and capacity of the group for addressing the proposed project.
- Significance and potential impact of the project.
- Potential of the awardee to contribute to and benefit from a collaborative interdisciplinary network.

POLICIES

- Funds from this award are intended to support research activities. Grants are made to
 organizations to support the work of the named Principal Investigator, and reasonable flexibility
 on how these funds are utilized is allowed, provided that funds are used to support research
 activities related to the project. A detailed budget is required at the time of application.
- For awarded projects, financial statements and progress reports will be due at the conclusion
 of each grant year and occasionally more frequently. Specific deliverable requirements will be
 outlined in the award notification. Grantees of funded projects will be required to participate in
 regular meetings, including annual scientist meetings (which may be in person or virtual).
 Travel support for these meetings will be provided by CZI separately from the requested grant
 funds.
- Grantees may obtain funds for their research from other funding sources, provided that there is no conflict with meeting the terms of the CZI award.
- Unused research funds may be carried over to the following year, and requests for no-cost extensions will be considered at the end of the overall project period and upon receipt of an annual report.

- Indirect costs cannot exceed 15 percent of direct costs. Indirect costs may not be assessed on capital equipment or subcontracts, but subcontractors may include up to 15 percent of indirect costs of their direct costs.
- International grantees must use all grant funds exclusively for activities conducted outside the United States of America. Travel expenses to the United States must not be covered by the requested grant funds.
- Ethical conduct: CZI advocates the highest standards for the ethical conduct of research. In addition to the requirements of their own countries, grantees must adopt procedures for the use of animals in research and the ethical treatment of human subjects and tissue donors, including obtaining their or their appropriate proxy's written informed consent. CZI regards the policies of the National Institutes of Health as a strong model for such procedures.
- Data, publication, and dissemination policies: To accelerate scientific discovery and
 collaboration, CZI supports a consent, sharing, and publication policy for open and rapid
 dissemination of proposal results, including methods, data, and reagents, and a policy for
 software development that maximizes accessibility, reuse, and shared development. Under
 rare circumstances, exceptions to the above may be considered where there are specific
 situations that make meeting these goals impossible or counterproductive to the project.
 - Software code: CZI requires sharing of software code developed by its grantees generally to be made publicly available on GitHub (or a similar public service). All new code must be released under a permissive open source license (MIT, BSD 2-Clause, BSD 3-Clause, or Apache v2.0). All pre-existing and derivative codes must be licensed under the most permissive license possible, given the licensing terms of the pre-existing code. All analysis packages must be released through the appropriate language-specific package manager (e.g., PyPi for Python, Bioconductor, and CRAN for R) with documentation, example data, and interactive demos (e.g., Jupyter notebooks), and the use of Docker or similar container technologies to ensure portability and reproducibility. Software code supported by CZI should be archived for long-term digital preservation and citability, when applicable.
 - Content and data sharing: CZI is committed to developing and using platforms that disseminate data openly and freely. Any datasets either curated or generated through the proposal must be made as publicly available and easily accessible through an appropriate data repository as legally permissible, when applicable, under an Open Definition conformant license. Ideally data sets would not include personally identifiable information, but if they do, consent to sharing the data must be obtained. Metadata, documentation, and intended use cases, as appropriate, must be made available under an Open Definition conformant license, preferably CC0 or CC BY/CC BY SA for content that requires explicit attribution.
 - Publications: To encourage rapid dissemination of results, any publications related to this funded work must be submitted to a preprint server (such as bioRxiv, medRxiv, arXiv, or any appropriate preprint repository), at or before the first submission to a journal. Experimental protocols must be made publicly available through a protocol-sharing service, such as protocols.io. Scientific publications, preprints, and

- presentations that result from this award should acknowledge support from this funding.
- Reagent sharing: Resources and reagents developed with this funding support must be available for rapid dissemination to the community, where possible, in an accessible community repository, such as Addgene (for plasmids/DNA reagents/viruses) and Jackson Labs (for model systems lines), etc. This requirement applies to cell lines, transgenic organisms, plasmids/clones, antibodies, and other reagents.
- Consent: All human tissues must be adequately and fully consented to permit maximal sharing of the resulting data and any resulting tools, subject to applicable laws, regulations, or institutional ethical requirements. Any desired exceptions to this policy must be identified at the time of application, and such requests may affect the application's chance of success. We are aware that there may be circumstances where broad consent may be challenging, and in some cases consent may be subject to alteration or revocation; we encourage investigators to discuss these cases with CZI scientific staff. As a reference, the Human Cell Atlas (HCA) community has developed ethics guidelines and a tool kit with template consent forms.
- Intellectual property rights: CZI does not require the assignment of ownership to any data, published results, or any other intellectual property that results from the work funded by these grants but will have the same rights generally granted to others. CZI supports and promotes policies that enable results and technologies to have the broadest reach and impact. To this end, all newly developed software must be made available through permissive open source licenses as described more fully above. Other technology and intellectual property rights (such as patents) must be made freely available for all academic and non-commercial use, and where intellectual property rights are commercialized, they must generally be subject to non-exclusive commercial licenses that enable broad availability and dissemination.
- Applications selected through this process will either be funded by the Chan Zuckerberg
 Initiative Foundation (CZIF) or recommended for funding through the Chan Zuckerberg
 Initiative Donor-Advised Fund (CZI DAF) at the Silicon Valley Community Foundation (SVCF).

CONFIDENTIALITY

All submitted applications will be kept confidential, except (1) as necessary for our evaluation or to comply with any applicable laws; and (2) to the extent that the application is made public or available to others without a duty of confidentiality through no fault of CZI. Notwithstanding, successfully funded proposals may be made publicly available and/or shared with other grantees or collaborators. Unfunded proposals will remain confidential as provided herein; however, information, including brief summaries of the proposed projects, project metrics, and the types of organizations that have applied for funding, may be made publicly available in aggregate form. Application materials will not be returned to applicants.

RFA CONTACT

For administrative and programmatic inquiries, or other questions pertaining to this RFA, please contact sciencegrants@chanzuckerberg.com.

IMPORTANT DOCUMENTS

<u>Application Instructions</u> <u>Institutional Approval Form</u>

Chan Zuckerberg Initiative

APPLICATION INSTRUCTIONS Cryo-CLEM Labels RFA

Some helpful information as you get started:

- This document contains:
 - o General guidance on using the portal
 - How to submit an application
 - Application details specific to this RFA
- Please review the <u>Request for Applications</u>.
- The Chan Zuckerberg Initiative uses SurveyMonkey Apply (SMApply) as its grants
 management portal. All applications must be submitted through this portal
 (https://apply.chanzuckerberg.com). SMApply is configured to work best using the Google
 Chrome browser. It is recommended that you familiarize yourself with this portal well in
 advance of any deadlines. Deadline extensions will not be granted.

Key dates:

June 8, 2023 Application portal opens

July 20, 2023 Applications due by 5 p.m. Pacific Time

Late October 2023 Earliest notification of decisions (subject to change)

December 1, 2023 Expected start date (subject to change)

Application specifics:

- Eligibility: Please refer to the <u>RFA announcement</u>.
- Award period and start date: Awards will be one year (12 months) in duration with an expected start date of December 1, 2023.
- Budget: The maximum budget allocated for projects is \$165,000 USD in total costs. Proposed budgets should reflect the project scope. \$15,000 USD direct costs of the proposed budget must be included as a budget item to support trainees working on the project, beyond personnel costs. Indirect costs cannot exceed 15 percent of direct costs.

- Number of Principal Investigators: Each application must have one coordinating Principal Investigator (PI), but may designate one additional Co-PI in the application portal.
- Institutional sign-off is required at the time of submission.

GETTING STARTED

Account setup: The applicant (Coordinating PI) must first set up an account in the CZI online grants portal at https://apply.chanzuckerberg.com/. Only the Coordinating PI needs to set up an account.

To set up an account:

- 1. Go to https://apply.chanzuckerberg.com/.
- 2. Click the green Register button in the upper right corner.
- 3. Complete the requested fields and then click the green Create Account button.
- 4. Click the green Continue button to proceed to the site.

Please note you will need to verify your account through the auto-email that you receive after registering. You will not be able to submit an application until your account is verified.

Personal data: Where we ask for personal data of individuals in grant applications, please only submit personal data that you have a right to provide. We will use and store any personal data collected through the application process for grant-related purposes (e.g., administering the grant, analyzing and improving our grant practices). The Chan Zuckerberg Initiative Foundation and Chan Zuckerberg Initiative, LLC (collectively "CZI") will be the "data controllers" for any such personal information, and the data may be stored on servers outside of your home country, including within the United States. If you have any questions or concerns regarding our privacy practices or collection or use of personal data, you can contact us at privacy@chanzuckerberg.com.

Navigating the portal: Once you have set up an account, you can log into the grants portal at https://apply.chanzuckerberg.com/. Using the links in the upper right corner, you can access available programs (which includes RFAs for all CZI areas, not just Science) and any applications you have in preparation or previously submitted. Use the information ("i") link to get help with the portal. To access your account information, click on your name in the upper right. Your application will pre-populate with the name and email listed in your account information so if you need to edit it, click on your name in the upper right corner to make any necessary changes.

Forgotten username or password: Please note that your username is your email address. If you have forgotten your password, please navigate to the grants portal at https://apply.chanzuckerberg.com/ and click on the **Log In** button. Click the Forgot your password link and then enter the email address associated with your SMApply account. You will then receive an email with information to reset your password.

Other questions: If you have other questions about using the portal, please use the information ("i")

link in the upper right corner of the window. Here you will find a link to FAQs about using the portal, as well as links to submit specific help requests. If you have specific questions about the RFA, please contact us at sciencegrants@chanzuckerberg.com.

SUBMITTING AN APPLICATION

To submit an application:

- 1. Go to https://apply.chanzuckerberg.com.
- 2. Log in.
- 3. Click the green View Programs button that is displayed or click on the Programs link in the upper right corner. This will bring you to a listing of all programs/RFAs that CZI is hosting in SMApply. To **find the program/RFA** you are looking for, you may need to scroll down.
- 4. Find the program/RFA you are interested in and click the green More button.
- 5. Click the green Apply button in the upper right and complete all sections (details below).
 - a. You will first be prompted to enter the title of your application, after which you will have access to the application tasks to complete. Project title is limited to 60 characters, including spaces. If you need to edit your project title, click on the My Applications link in upper right and click the green Continue button on the application you wish to edit. Once the application page opens, click on the three dots to the right of the application title (next to the Preview link) and select Rename from the dropdown menu.
 - b. The application is made up of several sections called tasks that are listed in a menu on the left side of the page. To **open a task**, click on the one you would like to work on. You can edit and complete tasks in any order. You may need to scroll down to see the remaining tasks.
 - c. Once you complete a task, click the green Mark as Complete button within the task. All tasks must be marked as complete before submitting. To edit a task after marking it as complete, click the three dots in the upper right of the task and select edit, which will re-open the task.
 - d. Your application will autosave every few seconds, but you can also click the Save & Continue Editing on each task as you go along to **save your application**.
 - e. In the tasks that require a PDF upload: If you need to **delete and replace a PDF** after you have uploaded it, click on the three dots to the right of the file under the Attach File section within the task and select Remove from the dropdown menu.
 - f. To download your application, click on the three dots in the upper right corner of the application page and select download. If you are within a task, first click on the Back to application link in the upper left. Please be aware of any pop-up blockers in your browser that may prevent downloading your application.
 - g. To access an application that you have previously saved, click on the My Applications link in upper right and click the green Continue button on the application you wish to edit.
- 6. Once all tasks are completed, click the green Submit button to submit your application.
 - a. If the button is grayed out, it means your application is not yet complete; please be

- sure all required fields and uploads are complete within each task and that you have clicked the Mark as Complete button within each task.
- b. To **download your application**, click on the download link in the upper right corner. Please be mindful of **any pop-up blockers** that may be active in your browser that prevent/hide downloads.
- c. Review your application in the window (or in the PDF that you have downloaded). If you want to make changes, navigate back to your application and reopen/edit any tasks that need editing. It is strongly recommended that you download your application as a PDF (instructions above in b.) to review your application before clicking submit.
- d. Once you are **ready to submit**, click the green Submit Your Application button on the left side of the window. You will need to confirm your submission by clicking the green Submit button in the pop-up window. **Once your application has been submitted, it cannot be edited. Please be sure that your application is complete BEFORE submitting**. If you inadvertently submit your application and it is before the deadline, please contact sciencegrants@chanzuckerberg.com.
- 7. Once your application is submitted, you will **receive an auto-email** confirming submission within a few minutes. If you do not receive a confirmation email within a few minutes, please check your spam folder. If you still did not receive your confirmation email, please email sciencegrants@chanzuckerberg.com.
- 8. If you would like to view your application after you have submitted it, it can be accessed through the My Applications link in the upper right corner.

The application consists of the following sections (called tasks in the grants portal):
Coordinating PI Details, Equal Opportunity & Diversity (optional), Organization Details for
Coordinating PI, Project Details, Project Proposal, Budget, Biosketches for Coordinating PI and Co-PI, and Letters of Commitment (optional).

- Coordinating PI Details: Complete all fields in this task; all fields are required. The information entered should be for the Coordinating Principal Investigator (Coordinating PI), who will be the person submitting the application on behalf of the team. The Coordinating PI will take responsibility for managing the group collaboration and be the administrative point of contact for CZI and any partners. Note that institutions outside the U.S. may not subcontract to U.S. institutions, so please be mindful when selecting the Coordinating PI/institution. Information about the Co-Principal Investigator on the proposal should be entered where requested in the Project Details part of the application.
 - Name and email (auto-filled): To edit your name or email, please do so in your account information by clicking your name in the upper right corner and clicking My Account in the dropdown menu.
 - o Degree(s).
 - Organization, Title/Position, Department or equivalent.
 - Career status: Select early-career (0 to 6 years), mid-career (6+ to 10 years), or neither. Note: We encourage participation and leadership from early-career

researchers; however, early- or mid-career status is not required to be eligible for this RFA.

- Early-Career Definition: In the context of this RFA, an early-career investigator is someone who has been in an independent position for zero to six years at the time of application, i.e. have started their first independent position between July 20, 2017, and July 20, 2023.
- Mid-Career Definition: In the context of this RFA, a mid-career investigator is someone who has been in an independent position for more than six to 10 years at the time of application, i.e. have started their first independent position between July 20, 2013, and July 19, 2017.
- Short narrative biography of the Coordinating PI (maximum of 100 words).
- ORCID iD: Enter in format XXXX-XXXX-XXXX. ORCID iDs are unique, digital identifiers that distinguish individual scientists and unambiguously connect their contributions to science over time and across changes of name, location, and institutional affiliation. ORCID iDs will be used to streamline reporting in our applications and grant reports to reduce the burden on grantees. For more information, please visit https://orcid.org/register. (Please contact us at sciencegrants@chanzuckerberg.com if you wish to opt-out).
- Equal Opportunity & Diversity (optional): CZI Science supports the science and technology that will make it possible to cure, prevent, or manage all diseases by the end of this century. Different communities are affected by or experience disease in different ways. Moreover, due to systemic barriers, the scientific enterprise itself is not a place where all voices and talents thrive. We believe the strongest scientific teams encompassing ourselves, our grantees, and our partners incorporate a wide range of backgrounds, lived experiences, and perspectives that guide them to the most important unsolved problems. To enable our work, we incorporate diverse perspectives into our strategy and processes, and we also seek to empower community partners to engage in science.

We request demographic information associated with applications submitted to CZI in response to our open calls. This information helps us learn from the RFA process, as well as improve our strategies to help ensure members of underrepresented or marginalized groups in science are aware of and able to apply to CZI opportunities. Please note that answering the questions below is voluntary, and receiving funding is not contingent on providing this information. Demographic information provided may be used in our grant-making process but will not be used as the sole or determinative factor in our grant funding decisions. We may also publish aggregated data in various public forums, such as a website or blog. All responses will be shared only with limited personnel and service providers, who will use that information only for the purposes described in this paragraph.

If you have any additional questions about why we ask this, what we do with the data, or to share suggestions for improvement, please reach out to sciencegrants@chanzuckerberg.com.

Coordinating PI

The information below may be entered for the Coordinating PI, who will be submitting the application on behalf of the team. The categories listed below may not capture all possible identities; in the event that the categories do not accurately reflect your identities, please use the space provided to self-describe.

- What is your race/ethnicity? (optional)
- What is the year of your last academic degree? (optional)
- What is your gender? (optional)
- Are you transgender? (optional)
- Are you a member of the LGBTQIA+ community? (optional)
- Do you have one or more disabilities? (optional)

Co-Principal Investigator

Please indicate whether you have a Co-PI on your application (optional).

The Coordinating PI may also provide information on the demographics of the Co-Principal Investigator (Co-PI) listed in the Project Details section of the application **if the Co-PI provides and agrees to share that information with CZI.** The categories listed below may not capture all possible identities; in the event that the categories do not accurately reflect their identities, please use the space provided to describe.

- What is the race/ethnicity of the Co-PI?(optional)
- What is the gender of the Co-PI? (optional)
- Organization Details for Coordinating PI: Complete all fields in this task; all fields are required. The information entered should be for the organization of the Coordinating Principal Investigator (Coordinating PI), who will be the person submitting the application on behalf of the team. The Coordinating PI must be affiliated with the organization listed, and grant funds will be awarded to this organization, which will take responsibility for distributing funds to the institutions of the other team members.
 - Type of Organization (Academic, Other Non-profit, Industry/company, Government, Other). If Industry/company is selected, an additional set of questions will need to be completed in the portal to determine eligibility.
 - Organization name/Street address/City/State/Country/Website.
 - <u>Tax ID:</u> Enter your organization's Employer Identification Number (EIN), as assigned by the Internal Revenue Service in the 9-digit format (XX-XXXXXXX; 10 characters total).
 Foreign organizations or others who do not have an EIN should enter 44-4444444.
 - Organizational/Administrative Contact: List the name and contact information for the administrative contact to discuss additional information needed, if selected for award.
 - First name, Last name, Title/Position, Email.
 - Signing Official: List the name and contact information of the person authorized to sign on behalf of your organization.
 - First name, Last name, Title/Position, Email.

- Press Contact / Public Relations Official: List the name and contact information for the person to discuss press releases and media.
 - First name, Last name, Title/Position, Email.
- Institutional Approval Form: Upload as a single PDF. This form should be reviewed and signed by a person authorized to sign on behalf of your institution agreeing to the stated institutional and investigator requirements and commitments on data, resource sharing, and publication policies, as well as endorsing/verifying your application materials and confirming their ability to receive funding for the proposal. In the event of an award, all funds will be awarded to the Coordinating PI institution as the prime institution, and the Coordinating PI institution will be responsible for ensuring compliance of all of the terms, including compliance of all partners/subcontract institutions. These policies are non-negotiable so this form should only be signed if the organization is able to comply with the terms as stated. While CZI does not require sign-off by all of your partner institutions, please refer to what your institution requires. Note: digital signatures are permitted as long as the document is not encrypted or password-protected.
- **Project Details:** Complete all fields in this task; all fields are required.
 - <u>Project Title:</u> Auto-filled; limited to 60 characters, including spaces. If you need to edit your project title, navigate to your application summary page, click on the three dots to the right of the application title (next to the Preview link), and select Rename from the dropdown menu.
 - <u>Project Purpose</u>: Summarize your research project; limited to one sentence; maximum of 200 characters including spaces. Please use a third-person voice. Example: to develop a robust genetically encoded cryo-CLEM label that is visualizable at low copy number by cryo-fluorescence microscopy and detectable in unaveraged cryo-electron tomograms.
 - Abstract/Project Summary: (maximum of 250 words) Describe your project. Please use a third-person voice (example).
 - Amount Requested: Enter the amount requested in U.S. dollars, including indirect costs; this number should match those described in the Budget section. Enter whole numbers only (no dollar signs, commas, or cents). Budgets may not exceed \$165,000 USD total costs.
 - <u>Diversity. Equity. and Inclusion (DEI) Statement</u>: (maximum of 250 words) Advancing DEI is a core value for CZI, and we are requesting information on your efforts in this area. Please describe how your proposal or your team seeks to promote diversity, equity, and inclusion in this project.
 - <u>Co-PI Information:</u> Indicate whether you have a Co-PI on your proposal. If Yes, provide the following information for the Co-PI. **Do not include the Coordinating PI in this** section. Please provide:
 - Co-PI name, Title/Position, Degrees, ORCID iD (format: XXXX-XXXX-XXXX), Email, Career status
 - In the context of this RFA, an early-career investigator is someone who
 has been in an independent position for zero to six years at the time of

application, i.e. have started their first independent position between July 20, 2017, and July 20, 2023, and mid-career as someone who has been in an independent position for more than six to 10 years at the time of application, i.e. have started their first independent position between July 20, 2013, and July 19, 2017.

- Organization Name, Country, Website
- Type of organization (drop-down menu: Academic, Other Nonprofit, Government, Industry/company, Other).
- Tax ID: Enter your organization's Employer Identification Number (EIN), as assigned by the Internal Revenue Service in the 9-digit format (XX-XXXXXXX; total of 10 characters). Foreign organizations or others who do not have an EIN should enter 44-4444444.
- Project Proposal: Upload your project proposal as a single PDF; the font must be 11 point or larger, and margins must be at least one-half inch (top, bottom, left, and right) for all pages (letter size required). Include the following sections:
 - Proposal Body: (maximum of 1500 words, which includes 250 words for the Abstract)
 - Abstract: Copy your Abstract/Project Summary entered in the Project Details section.
 - Background: Briefly describe previous work related to the proposed technology.
 - Project Goals: Detail the specific goals of the one-year project.
 - Project Plan: Clearly describe the research and development strategy to achieve a design(s) by six months and proof-of-principle demonstration at one year.
 - Resources: Briefly describe the resources and infrastructure available to the team to complete the proposed project.
 - <u>Figures/Preliminary Data</u> (optional): Limited to one page, including legends. Figure legends do not count toward the word count.
 - References Cited in Your Proposal: No word/page limit; include complete source references.
- Budget: Budgets should be uploaded in two parts.
 - Tabular budget: Provide a tabular budget, separating out the costs by institution. An optional <u>CZI budget template</u> is available for use. <u>Tabular budgets should be</u> converted to and uploaded in PDF format.
 - 2) Narrative budget description: Upload in PDF format; font must be Arial 11 point or larger and margins must be at least one-half inch (top, bottom, left, and right) for all pages (letter size required); no page limit.
 - Description of the costs to be funded by this grant at a high level, outlining costs for personnel (including names, if known), supplies, equipment, travel, meetings/hackathons/sprints, subcontracts, other costs, and up to 15 percent indirect costs (excluding equipment and subcontracts).
 - Indirect costs are limited to up to 15 percent of direct costs and are included within the annual budget total. Indirect costs may not be assessed on capital equipment or

- subcontracts, but subcontractors may include up to 15 percent indirect costs of their direct costs. Non-charitable entities must include a clear allocation and explanation for any indirect costs included in a proposed budget.
- Budget should be requested in US dollars and total costs should not exceed \$165,000.
- \$15,000 in direct costs must be included as a budget item to support trainees working on the project, beyond personnel expenses. Example uses include travel or professional development. Details of how this \$15,000 will be spent are not required at the project budget stage, as long as they comply with the regulation below.
- International grantees must use all grant funds exclusively for activities conducted outside the United States of America. Travel expenses to the United States (including round-trip tickets) should not be covered from the requested grant funds. Any attendance at CZI meetings in the US will be covered by CZI outside of requested grant funds.
- Application budgets must reflect the actual needs of the proposal. The Chan
 Zuckerberg Initiative will work closely with successful applicants to arrive at a mutually
 acceptable budget after review.
- Biosketches for Coordinating PI and Co-PI: Upload the biosketches in PDF format for the
 Coordinating PI and for the Co-PI (if applicable). Biosketches can be uploaded in a combined
 single PDF or one PDF for each Co-PI, a maximum of 5 pages per biosketch; NIH format or
 similar. Do not include any biosketches for any additional collaborators beyond the
 Coordinating PI and the Co-PI, as listed.
- Letter of Commitment (optional): Upload a signed letter from the Co-PI briefly describing
 their role and contribution of the Co-PI to the overall team and project; do not include a letter
 from the Coordinating PI. The letter should be in PDF format (letter size) and can be uploaded
 as a single PDF. Note: digital signatures are permitted as long as the document is not
 encrypted or password-protected.

The formatting and component requirements, including word and page limits indicated above, will be enforced by the review team. Any submitted materials that exceed the word and page limits or do not follow the requirements will not be considered during the application review process.

QUESTIONS?

For administrative and programmatic inquiries pertaining to this RFA, please contact sciencegrants@chanzuckerberg.com. For technical assistance with SMApply, please contact support@smapply.io or while logged into SMApply, click on the information "i" link in the upper right corner and submit a help request ticket.