Chan Zuckerberg Initiative DAF

June 1, 2024

Martin Bares
Rector
Masaryk University
Zerotínovo nám. 617/9, 601 77 Brno
Czech Republic

Dear Martin:

Congratulations, Masaryk University has been accepted to receive a grant of $399,970.00 from Chan Zuckerberg Initiative DAF, an advised fund of Silicon Valley Community Foundation.

This grant is to support the work conducted by xxxxxxxx on project OME-Zarr support for Java/Fiji (EOSS-6) to develop a general-purpose Java library for the community standard image file format OME-Zarr, and robustly integrate it into the widespread image processing and analysis software Fiji. (PI: xxxxxxxxxxxxxx, EOSS Cycle 6 RFA).

Please sign, date, and return the attached grant agreement to the attention of the person at the address listed on the grant agreement as soon as possible. Once we receive the signed agreement, we will forward the payment to you.

On behalf of Chan Zuckerberg Initiative DAF and Silicon Valley Community Foundation, we appreciate the work of your organization and are pleased to support your efforts.

Sincerely,

Nicole Taylor
President and Chief Executive Officer
Silicon Valley Community Foundation

Silicon Valley Community Foundation
Grant Agreement

Grant Number: 2024-342803   **Amount:** $399,970.00   **Date:** June 1, 2024

Grantee Name: Masaryk University (Grantee)

Grantee Contact: Martin Bares
                                  Rector
                                  Zerotínovo nám. 617/9, 601 77 Brno
                                  Czech Republic
                                  Email: rektor@muni.cz

Foundation Contact: Silicon Valley Community Foundation
                                  444 Castro Street, Suite 140 Mountain
                                  View, CA 94041
                                    Phone: xxxxxxxxxx
                                  Email: xxxxxxxxxxxxx

Grant Purpose: This grant is to support the work conducted by xxxxxxxxxxxx on
                                  project OME-Zarr support for Java/Fiji (EOSS-6) to develop a
                                  general-purpose Java library for the community standard image file
                                  format OME-Zarr, and robustly integrate it into the widespread
                                  image processing and analysis software Fiji. (PI: xxxxxxxxxxx, EOSS
                                  Cycle 6 RFA).

Grant Period: June 1, 2024 to May 31, 2026

Projected Project Outcomes:
(A) OME-ZARR BACKEND T-A1 (Deadline in month 6): Extended N5 library supporting fully Zarr at version 3, delivered as pull requests to N5 github repositories. T-A2 (12): Created Java components to adapt N5 for OME-Zarr specification, including all metadata, transforms, and high-content screening specifications, as well as image segmentation data. Delivered as a github repository. T-A3 (18): Refactored N5 with increased test coverage. Extended towards more codecs, extensible data types, sharding, and key-value-stores. Established high-level API for easier integration of common scenarios into Java-based applications. Delivered into N5 repositories. T-A4 (24): Extended ImgLib2 with non-linear, lazy-evaluated transforms. Pull requests to ImgLib2 and BigDataViewer repositories. T-A5 (18): Created central Java classes to represent and exchange   OME-Zarr image data and metadata among Fiji plugins, including the legacy ones. Delivered via github into N5   or scijava ecosystem. (B) OME-ZARR VISUALIZATION T-B1 (18): BigDataViewer fully supports the visualization   of complete OME-Zarr datasets, e.g. overlaying properly image data with the segmentation   information from the same OME-Zarr dataset. Delivered as pull requests to BigDataViewer github repositories. T-B2 (9): BigDataViewer offers additive- and alpha-blending modes to display different image modalities   better (e.g. EM overlaid over fluorescence microscopy). Pull requests to BigDataViewer repositories. T-B3 (20):   Based on BigDataViewer, created OME-Zarr Viewer. Fiji uses it as a default OME-Zarr viewer, making it   the entry point for users who work with large-scale chunked image data. Fiji users will be able to open and save   OME-Zarr datasets. Delivered as pull requests to respective github repositories, updated core Fiji update site.   T-B4 (24): The OME-Zarr Viewer offers interactive visualization of measurement data tables and scatter   plots linked with segmentation data, and selection and inspection of individual segments. Updated respective repository and Fiji update site. (C) OME-ZARR INTERACTIVE MANIPULATION T-C1 (7): Developed BigDataViewer-based tool that allows to manually interactively create, edit, and delete segmentation masks (labels), backed by the OME-Zarr. Delivered as a new, open github repository, with tutorials. T-C2 (12): The above tool can also annotate segmentation masks, e.g. textually name a segment, and manipulate them both via GUI manually or API programmatically. Delivered as pull requests to the above github repository, with tutorials. T-C3 (24): BigDataViewer (and derived tools) offers convenient interactive editing of transformations (e.g. registration), especially non-linear ones. Delivered as pull requests to BigDataViewer repositories. T-C4 (18): Implemented API and GUI interfaces for Java-based applications, including legacy Fiji plugins, to create selections within OME-Zarr data. Delivered into BigDataViewer repositories. (D) COMMUNITY & OUTREACH T-D1 (24): Improved developers-oriented documentation that is delivered into

respective github repositories. Hackathon was organized and documented, visited hackathon(s) of another Java-based application. T-D2 (24): Improved users-oriented documentation, including tutorials, videos, and a new page(s) on imagej.net wiki. Two training workshops were held. T-D3 (24): Advertised, regular, online, open community meetings for the project. Documented. T-D4 (24): For N5 and the new repositories, established a steering committee (governance) and communication channels between them. Delivered as new documents in the respective repositories. All open source projects involved in the proposal should adopt a Code of Conduct by the end of the project period. The final report should include a diversity and inclusion statement describing efforts the project(s) named in this proposal are undertaking to increase the diversity of contributors

Payment Schedule

SVCF will fund this Grant to Grantee in installments. The first disbursement of $199,985.00 will be made upon receipt and approval of the signed grant agreement (the "Grant Agreement"). The amount of the Grant is inclusive of any overhead amounts that may be incurred by Grantee. Each additional disbursement will be made following receipt and approval of the applicable interim report and upon site visit and annual evaluation. Reports from the grantee will be reviewed by SVCF in consultation with CZI, who may recommend to SVCF that payments be withheld, decreased or accelerated. Determination of the remaining payment amounts will be made by SVCF, who has the discretion to withhold, decrease or accelerate payments based on review of the reports and assessment of Grantee's need for additional funding.

$199,985.00	after June 1, 2024
$199,985.00	after June 1, 2025

Reporting Requirements

Grantee will submit reports on the following dates. *Please note that, if a grantee has failed to submit a required report, remaining grant disbursements may not be made and future grant requests will not be considered.* Please submit the following reports using the templates that will be provided.

Interim Report 1	May 1, 2025
Final Report	August 1, 2026

Regular reporting on grant activities during the grant period is required. A report template will be provided to you via email 30 to 60 days before the report due date. Use of the report template is required. Reports will typically require, but may not be limited to, a description of the results and deliverables of the work done under this grant to date; a summary of problems encountered during the grant period and steps to overcome including any changes in the research plan; a list of all software code, datasets, protocols, and reagents developed and links to publicly available repository/repositories (including accession numbers or similar where appropriate); and a list of all preprints and links to publicly available access of publications.

Reports should be submitted through SVCF's and CZI's online grantee portal. The link will be sent to you before your report is due or you may access it online at:

https://chanzuckerberg.force.com/CZISVCFCommunity

For any issues with the grantee portal, please contact grants@chanzuckerberg.com.

Additional Reports

From time to time, SVCF evaluates its grant making programs by requesting further information and follow-up from Grantee up to four (4) years after the expiration of the Grant Period. Grantee agrees to provide such further information and follow-up as reasonably requested from time to time.

Role of Chan Zuckerberg Initiative

The Chan Zuckerberg Initiative ("CZI") and the Grantee acknowledge that CZI has not in the past pledged, and in this Grant Agreement is not making a pledge or any contractually binding obligation, to provide funding to the Grantee. CZI shall submit grant recommendations from the Chan Zuckerberg Initiative DAF to the sponsoring organization, Silicon Valley Community Foundation ("SVCF"), and the sole authority for implementing those grant recommendations will be with SVCF. SVCF will provide all guidance regarding the

administration of this grant and any administrative grant related questions should be directed to SVCF.

Hold Harmless
Each party (which shall include their officers, directors, trustees, employees and agents) agrees to be solely responsible for their acts of negligence and reckless acts or omissions in the performance of their obligations under this Agreement. The parties, respectively, shall be financially and legally responsible for all liabilities, costs, damages, expenses and attorney fees caused by it, respectively, or its respective employees for any and all such acts or omissions to the fullest extent of the law. This paragraph shall survive the termination of this Grant Agreement.

Prohibited Uses
Grantee shall not use or permit any subgrantee or independent contractor to use any portion of the funds granted:
- In a manner inconsistent with Internal Revenue Code ("IRC") Section 501(c)(3), including:
  - Influencing the outcome of any specific candidate election for public office, including, without limitation, travel expenses, direct costs, or compensation-related expenses incurred in connection with raising funds for any candidate campaign within the meaning of IRC Section 4945(d)(2); or
  - Inducing or encouraging violations of law or public policy, or causing any private inurement or improper private benefit to occur, or taking any other action inconsistent with IRC Section 501(c)(3).
- In any attempt to influence legislation within the meaning of IRC Section 4945(d)(1).

Additionally, if the Grantee carries on propaganda, or otherwise attempts to influence legislation within the meaning of IRC Section 4945(d)(1), the Grant Funds are for a specific project grant which grant has not been earmarked to be used in an attempt to influence legislation and which grant, together with other grants by Grantor for the same project for the same year, does not exceed the amount budgeted, for the year of the grant, by Grantee for activities of the project that are not attempts to influence legislation.

Limitation of Liability
SVCF accepts no liability for any consequences, whether direct or indirect, that may come about from the Grantee's use of the Grant or the project that is funded by the Grant, or from any withholding or reduction in the Grant. SVCF's entire liability is limited to the payment of the Grant.

No Agency
Grantee is solely responsible for all activities supported by the grant funds, the content of any product created with the grant funds and the manner in which such products may be disseminated. This Grant Agreement shall not create any agency relationship, partnership or joint venture between the parties, and Grantee shall make no such representation to anyone.

No Pledge
Neither this Grant Agreement nor any other statement, oral or written, nor the making of any contribution or grant to Grantee, shall be interpreted to create any pledge or any commitment by SVCF or by any related person or entity to make any other grant or contribution to Grantee or any other entity for this or any other project. The grant contemplated by this Grant Agreement shall be a separate and independent transaction from any other transaction between SVCF and Grantee or any other entity.

Location of Activities
Grantee agrees that all grant funds will be used exclusively for activities conducted outside the United States of America. Grantee must contact SVCF before grant funds are expended if any grant funds are intended to be used within the United States of America, at which point SVCF will determine if tax withholding may be required under US tax law, or whether any exceptions to withholding are available.

Anti-Terrorism Compliance & Foreign Corrupt Practices Act
Grantee does not knowingly employ or have links to any entities or individuals known to support terrorism or to be in violation of US Sanctions. In addition, Grantee is prohibited from using the grant to make payments to officials for the purpose of obtaining or retaining business with, or directing business to, any company,

organization, entity, or person, within the meaning of the Foreign Corrupt Practices Act. Additionally, by entering this agreement, Grantee affirms as a material element of this agreement that the grant is not related to the funding, promotion or procurement of terrorism or banned activities or of any business interest on behalf of any third party including any known terrorists or Specially Designated Nationals and that the grant itself is solely limited to the stated purposes of the grant.

Forum and Choice of Law
By entering this Agreement, the Parties consent and stipulate that any dispute, claim or controversy related to this Agreement shall be brought in either the United States District Court for the Northern District of California, San Jose Division, or in the Superior Court of California for the County of Santa Clara and the Parties further agree that either Court named above is able to exercise jurisdiction over any such dispute, claim or controversy. Further, the Parties by entering this Agreement, hereby stipulate that the substantive law of the State of California shall govern the terms of this Agreement and shall govern any and all disputes relating to this Agreement irrespective of any choice of law principles available under any other theory or body of law.

Use of Funds
By signing below, Grantee acknowledges that this Grant Agreement is a contract with SVCF for the purposes stated in this Grant Agreement. Please inform SVCF if there are changes in agency personnel who are important to the administration of the Grant, or if the Grant funds cannot be expended for the purpose or in the grant period described above. In the case that any such personnel move to another institution, such that the purpose of the Grant cannot be completed by Grantee, the Grantee acknowledges that SVCF may withhold or decrease any then undisbursed Grant funds. Grantee may not use the funds in any way other than as described above unless Grantee receives written permission from SVCF. Grantee shall repay to SVCF any portion of the amount granted that is not used for the purpose of this Grant. If funds remain at the end of the Grant period, Grantee must contact Silicon Valley Community Foundation at svcfteam@siliconvalleycf.org prior to returning any funds not used for the purposes specified in this grant agreement. If needed, Grantee should submit a request for a no_cost extension before the end of the grant period, no later than one month before the end of the grant period. The request should contain the reason for the extension, its length and detail how any unexpended funds would be used.

Recordkeeping
Grantee shall keep adequate records to substantiate the charitable purposes of its expenditures from the grant funds. Grantee shall make its books and records pertaining to the grant funds available to SVCF at reasonable times for review and audit, and shall comply with all reasonable requests of SVCF for information and interviews regarding use of grant funds. Grantee shall keep copies of all books and records related to this grant and all reports to SVCF for at least four (4) years after Grantee has expended the last of the grant funds.

Further Acknowledgments of Grantee
Grantee acknowledges that it understands its obligations imposed by this Agreement, including but not limited to those obligations imposed by reference to the IRC. Grantee agrees that if Grantee has any doubts about its obligations under this Agreement, including those incorporated by reference to the IRC, Grantee will promptly contact SVCF or knowledgeable legal counsel.

Entire Grant Agreement
This Grant Agreement supersedes any prior or contemporaneous oral or written understandings or communications between the parties and constitutes the entire agreement of the parties with respect to its subject matter. This Grant Agreement may not be amended or modified, except in a writing signed by both parties. Grantee shall not, without the prior written consent of SVCF, assign, transfer, sub-contract, or in any other way make over to any third party the benefit and/or the burden of this Grant Agreement.

Amendment
This Grant Agreement may be altered or amended only by a subsequent agreement executed in writing by Grantee and SVCF in consultation with CZI.

Recognition and Media
Prior to any media or press announcements about the Grant or the project to be funded by the Grant, the Grantee will obtain written approval. Notwithstanding the foregoing, the Grantee may acknowledge CZI and SVCF in its annual donor report as well where required in the general operations and records of the Grantee.

xxxxxxxxxxxxx

When referencing this support in any media or press announcement, we suggest you use the following wording: "This project has been made possible in part by a grant from the Chan Zuckerberg Initiative DAF, an advised fund of Silicon Valley Community Foundation."

Funding overlap

Grantee is required to notify SVCF promptly if additional funding is received or made available to support the funded project after the date of this agreement.

Indirect Cost Rate

Indirect costs are limited to 15% of direct costs. Indirect costs may not be assessed on capital equipment or subcontracts, but subcontractors may include up to 15% indirect costs of their direct costs.

Research Integrity

SVCF and CZI are committed to supporting research that is reproducible and valid and scientists who are truthful. SVCF does not tolerate fabrication, falsification or plagiarism. In any case where there is reason to believe that a Principal Investigator or collaborator, chosen by the Grantee to complete a funded project, has committed research misconduct, we expect the Grantee to bear primary responsibility for conducting an initial inquiry and if required, a full investigation. SVCF recognizes the need and duty to protect the identities of anyone who has been accused of misconduct pending investigation. However, we require that the Grantee institution notify us of the start and conclusion of all such investigations that involve our grants. We will hold such information in confidence, barring any legal obligation to disclose the information. For any case for which the Grantee's investigation determines that misconduct has indeed occurred, we require that the case be described in public (online), including the name(s) of any researchers held responsible or that CZI may publicly disclose such findings, including the name(s) of any researchers held responsible, without restriction. In addition, Grantee will make every reasonable effort to inform other parties affected directly or indirectly by the misconduct, including but not limited to journal editors, research collaborators and other funding agencies. CZI regards the National Institutes of Health Office of Research Integrity to have well defined procedures for inquiries, investigation and publication is described at https://ori.hhs.gov. The Grantee is able to follow their own standards for such inquiries, provided that the procedures include a public disclosure requirement.

Ethical Conduct

SVCF and CZI advocate the highest standards for the ethical conduct of research. In addition to requirements of their own countries, Principal Investigators chosen by the Grantee to complete a funded project shall adopt procedures for the use of animals in research, for the ethical treatment of human subjects and tissue donors and for obtaining the written informed consent of all human subjects. CZI regards the policies of the National Institute of Health as a strong model for such procedures.

Data Access

CZI is committed to developing and using platforms that disseminate data openly and freely. In support of these goals, any datasets either curated or generated through the project shall be made publicly available and easily accessible online under an Open Definition-Conformant License (preferably CC0 or CC BY/CC BY SA for data that requires explicit attribution). That said, CZI and SVCF understand the need for subsets of data to be protected or provided with controlled access. In these cases, where necessary, data must be handled in a controlled and proper way in agreement with national and international standards, including all privacy regulations (including without limitation Health Insurance Portability and Accountability Act of 1996 and the Health Information Technology for Economic Clinical Health Act, as far as applicable). For projects related to the Human Cell Atlas, any raw data (e.g. sequencing, imaging, etc.) and metadata including both new measurements and newly curated existing datasets must be deposited into the Human Cell Atlas Data Coordination Platform (https://www.humancellatlas.org/data-sharing), through mechanisms and formats provided and specified by the platform developers and working groups. All software, formats and information related to the platform can be obtained through https://github.com/HumanCellAtlas/, and CZI staff will contact grantees with further information and instructions.

Intellectual Property

SVCF and CZI promote policies that enable technologies to have the broadest reach and impact. In support of that goal, intellectual property shall be made freely available for all academic and noncommercial use. Specifically, funded work may result in the creation of software and other works of authorship ("Developed Software") and may also result in other intellectual property, both non-software inventions and patentable

inventions, as described further below:

Developed Software

To encourage sharing and reuse, code produced for new software and tools must be made available through open source licenses wherever possible. Specifically, we assume code used and developed for this project will include some combination of newly developed code ("Developed Code"), preexisting software or code that was previously developed by Grantee ("Pre-Existing Code"), and code licensed from a third party ("Third Party Code"). All Developed Code must be released under a permissive open-source license (MIT, BSD 2-Clause, BSD 3-Clause, or Apache v2.0). All Pre-Existing Code, including any derivatives, shall be licensed under the most permissive license possible given any existing licensing terms and conditions applied to the code. Grantees will ensure that they only use or incorporate Third Party Code into the funded project that allows for further distribution (e.g. is provided under such a permissive open-source licensing program), and Grantees will comply with the terms of the licensing program. To promote open collaboration, grantee shall ensure that all code is developed in the open using a code sharing site like GitHub from the start of the project, in order to coordinate among grantees, engage the community and facilitate outside contributions. We encourage Grantees to work collaboratively with CZI and the rest of the community to ensure that the full results of the project are made as widely available as possible.

Non-Software Inventions (data)

All raw data (sequencing, imaging, etc.) and metadata must be deposited into a publicly accessible repository through mechanisms and formats specified by the data platform developers. CZI staff can answer questions about such data repositories and platforms.

Patentable Inventions

In some cases, commercialization of intellectual property rights in the form of patents provides the best route for the broadest availability and dissemination of technology arising from the Grant. Grantee's policies and procedures for intellectual property management should be followed by Grantee, and in all cases, non-exclusive patent licensing shall be given preference over exclusive licensing. All patentable and non-patentable intellectual property must be made freely and openly available for all academic use and openly available for non-commercial use, including non-commercial use by for-profit companies. Per the foregoing requirements that all intellectual property arising from this grant be openly available for non-commercial use, CZI, by way of this Grant Agreement, shall be granted a non-commercial, royalty-free, perpetual and sublicensable license to all intellectual property arising from the Grant.

Reagent Sharing

Grantees must make all data and replicable materials available, in a timely manner, from the date of publication. We encourage the use of existing community repository where possible (e.g. Jackson Labs, the Drosophila Stock Center at Bloomington, the Developmental Studies Hybridoma Bank, Addgene). The requirement for sharing applies to clones, and to transgenic organisms and cell lines (including monoclonal antibodies).

Publication

SVCF and CZI support full publication and public availability of research findings without conditions or restrictions on academic and publication freedom. Grantee will submit all manuscripts for any publications that were funded in whole or in part by the Grant as preprints to bioRxiv, or a similar service for sharing preprints, before or upon first submission to a journal. Grantee will make experimental protocols publicly available through a protocol sharing service such as https://protocols.io. Grantees may contact SVCF staff if there is some reason that will make this impossible or counterproductive. Grantees will notify us regarding all publications submitted or published as part of the annual report. We advocate and support open access, such as outlined in the 2012 San Francisco Declaration of Research Assessment (http://www.ascb.org/dora/). Costs associated with open access publication may be charged to this grant as direct costs. Acknowledgements of support will be included in publications referencing research sponsored under the Grant. We suggest you use the following wording: "This project has been made possible in part by grant 2024-342803 from the Chan Zuckerberg Initiative DAF, an advised fund of Silicon Valley Community Foundation."

Accepted on behalf of Masaryk University by:

_____   _____ _____

Signature   **Printed or Typed Name**
(Must be signed by Executive Director,
President or Board President)

_____   _____ _____

Title   **Date**