

Code for Science and Society Conference and Event Fund

CS&S Conference Fund Summer 2020

<http://eventfund.codeforscience.org> conferencefund@codeforsociety.org

***Authors**

Applicant's (point of contact) first and last name

Yo Yehudi, Malvika Sharan, Bérénice Batut

***Title**

Title of event

Open Life Science training and mentoring

***Name Of Organizational Event Sponsor**

Open Life Science LTD

***Names Of Event Organizers And Their Roles**

Provide a list of event organizers' names and their roles (if applicable)

- Yo Yehudi, Co-founder and event host/organiser
- Malvika Sharan, Co-founder and event host/organiser
- Bérénice Batut, Co-founder and event host/organiser

***Event Organizers Past Conferences**

Provide a list of conferences with which the organizers have previously been involved and their roles (300 word limit)

266/300

Selected events and conferences as organiser/co-organiser:

All applicants - co-founders/leads: Open Life Science first and second cohort, Online. 2020:

<http://openlifesci.org/>

Yo Yehudi

- Bioinformatics Community Conference, Online. 2020: <https://bcc2020.github.io/>
- Bioinformatics Open Source Conference, Switzerland. 2019: www.open-bio.org/events/bosc-2019/
- Open Data Day Cambridge, UK. 2018: <https://open-data-day-cambridge-2018.github.io/>

- MozFest, UK. 2017, 2018 & 2019 (Facilitator and Wrangler, Openness space): www.mozillafestival.org/en/

Berenice Batut

- Galaxy Community Conference, Germany. 2019: <https://galaxyproject.org/events/gcc2019/>
- Galaxy Training Network training and resource development sprints, online and Germany, 2019: <https://galaxyproject.org/teach/gtn/>
- Introduction to data-driven life science, Freiburg, Germany, 2019-present: <https://research.bebatut.fr/training>
- Street Science Community, online, 2019-present: <https://streetscience.community/>

Malvika Sharan

- Conferences
 - The impact of the COVID-19 crisis on women in science: Challenges and solutions, Online. 2020: www.embl.org/events/covid19-wis/
 - CarpentryCon@Home, Online. 2020: <https://2020.carpentrycon.org/>
 - CarpentryConnect Manchester, UK. 2019: software.ac.uk/ccmcr19
 - CarpentryCon, Ireland. 2018: <https://2018.carpentrycon.org/>
 - Intrinsically disordered protein conference, India. 2019: meetings.embo.org/event/19-disordered-proteins
 - Computational analysis of protein-protein interactions, Italy and India. 2018-2019: meetings.embo.org/event/18-protein-protein, meetings.embo.org/event/19-protein-protein
 - The modularity of signalling proteins and networks, Austria. 2018: events.embo.org/18-modularity/
 - EMBL International Women's day: Networking & Skill-Building Event, Germany, 2019: bio-it.embl.de/international-womens-day-2019/
- Workshops
 - The Turing Way Book Dash and weekly online coworking calls, UK. 2020
 - 5 The Carpentries Instructor training, Argentina, South Africa, Germany, online, 2018-2020
 - 8 Data and Software Carpentry programming workshops: Germany, Ireland, Sweden, UK, online. 2016-2020
 - >20 EMBL Bio-IT computational training workshops, Germany, 2016-2019

***Event Organizers Past Experience**

Describe the organizers' experience in creating inclusive environments for knowledge sharing. This may include the organizers experience developing and enforcing codes of conduct, supporting diverse communities with their discipline, or planning inclusive events. (300 word limit)

In the events discussed in the previous section and the engagements listed below, we have played crucial roles in ensuring that CoC is enforced, diverse voices and perspectives are involved in decision-making, speakers are actively invited from traditionally underrepresented groups, travel grants are made available to the participants from low income institutes, accessibility aspects are taken into consideration when choosing the venue and creating agenda, inclusive language is used in all our communications, childcare support is provided whenever possible and the program is designed to make everyone feel welcome, safe and included.

Selected engagements that reflects our work towards creating an inclusive research community culture and sharing open science leadership skills:

- Funding
 - Wellcome Diversity Enrichment grant - lead author and Outreachy internship mentor, 2019 (Yo)
 - Open Bioinformatics Foundation Event Fellowship chair, 2019-Present (Malvika)
- Code of Conduct
 - Open Bioinformatics Foundation CoC taskforce, 2019-Present (Yo, Malvika)
 - Co-chair of The Carpentries CoC, 2018-Present (Malvika)
 - The Turing Way, community manager, 2019-Present (Malvika)
- Training & events
 - Open Life Science cohorts: OLS-1 & OLS-2, 2019-present (all)
 - Mozilla Open Leaders program, alumni/mentors (all)
 - Ally skills - Train the trainer workshop, 2020 (attended by Yo, Malvika)
 - Ally skills workshops, EMBL (2019), OLS-1, Carpentrycon@home, Whitaker Lab, 2020 (Yo, Malvika)
 - Codefirst: Girls beginners coding course, lead instructor, 2017-2019 (Yo)
 - EMBL LGBT+ in STEM Day, 2018-2019 (Malvika)
 - ISMB/BOSC diversity and CoC BoFs, 2017 & 2019 (Malvika)
- Talks:
 - Empowering early career researchers to become open science leaders, BCC 2020 (all)
 - Open Life Science, Collaboratively Learning and Sharing Research Skills, Eastern Africa Network for Bioinformatics Training 2020 (Yo, Malvika)
 - Open Source: what, why and taking your first steps, Magenta Codes 2020 (Yo)
 - Building open source communities and empowering new contributors, BCC 2020 (Yo)
 - Empowering usable, and comprehensive bioinformatics training, ISMB COSI Education Keynote, 2020 (Bérénice)
 - Inclusiveness in Open Science, OpenCon Switzerland Keynote, 2018 (Malvika)

***Anticipated Event Date**

Please provide the anticipated month and year in which the event(s) will be held. Note that events need to be held within a year of awarding funds (by December 2021). Please use the format mm/dd/yyyy

01/02/2021

Cohort 3: 01/ 02/2021 to 31/05/2021

Cohort 4: 01/09/2021 to 22/12/2021

***Budget**

Please provide the amount requested (US dollars) and total conference/event budget (US dollars)

Budget sheet:

<https://docs.google.com/spreadsheets/d/17tl-CD3Tu8l3L1EbIA3o2Z10y2l4fqdyTwe1Z8Jgowg/edit?usp=sharing>

***Budget Narrative**

Please provide a separate brief budget narrative (500 word maximum) that provides context for each item. Budgets that plan for conference services and support that will allow for a more inclusive event will be viewed favorably.

Open Life Science (OLS) cohorts run over 16 weeks, during which participants work on their bioinformatics research or related projects. Participants are trained on different best-practices in Open Science over the online cohort calls, which feature collaborative group discussions, networking, and a range of **speakers and experts** sharing their insights from working on open science topics. OLS provides a platform for these inspiring individuals from diverse identities, nationalities and backgrounds to present relatable examples from their work, discuss challenges and share resources with our participants. We have allocated an **honorarium of \$100 each, for 14 speakers per cohort** (estimated for 5-hrs work).

Participants apply the learned skills into their projects with the help of their mentors from the program who are matched based on the specific skill-requirement. Mentors and mentees meet on alternate weeks, creating a rhythm of cohort call one week, and mentor call the other. Mentors support mentees by checking in on their progress, offering guidance, and connecting them with others in their network. We have allocated **an honorarium of \$300 each, for 32 mentors per cohort** (estimated for 15-hrs work). Our mentors also receive **professional mentor training (\$1100 per half-day session, 2 sessions per cohort)** to deliver their mentorship effectively and are supported in their work by the program organisers.

In addition, we intend to offer a **participant support fund (\$3000 allocated to each cohort, approximately \$100 each project)** for two reasons: 1) To ensure participants can effectively participate in our video calls by paying for items like headsets, monitors, closed captioning, or broadband when needed. 2) Directly supporting project development as their projects mature during the course of the program. Participants often need small start-up costs ranging from items like stickers or flyers, to video communication platform costs, charges to incorporate a nonprofit organisation, or to pay for technical infrastructure such as site hosting. These items are often small but can nonetheless be highly impactful for early-stage organisations and projects.

The value we create in OLS is impossible without the hard work of our participants (co-founders/lead trainers, mentors, expert guest speakers and project leads), who engage with OLS beyond their usual responsibilities. The first cohort was run entirely on their volunteer-work. For the second cohort, we managed to receive a small fund to pay for logistics and infrastructure. In 2021, we want to run two cohorts with a fairer reward system that empowers our volunteer members and ensures they are able to contribute to Open Science in a sustained manner. We would like for them to receive an honorarium or small

support stipend. This positive culture change is necessary to prevent unnecessary emotional burden and unfair treatment of contributing members in Open Science caused by unpaid volunteer work.

We request **\$1000 for F1000's article processing charge** to deposit a paper in 2021 discussing our materials, methods, and learnings from our cohorts.

***Sponsorship Level**

Please indicate which of the following sponsorship levels you are applying for: \$5,000, \$10,000, \$15,000, or \$20,000. If your budget falls between sponsorship tiers, please select the closest one. Please note that it is up to the discretion of the selection and advisory committees to decide final award amounts.

\$5,000

\$10,000

\$15,000

\$20,000 ←---

***Number Of Participants**

How many participants are anticipated?

200

Approximately 100 members for each cohort: 3 organisers (co-founders), 30 projects per cohort with approximately 50 mentees who will join in small teams, 32 mentors per cohort, and 14 expert speakers per cohort. Additionally we will have a community of about 70 experts (several of those are also mentors in the program) who are available to provide consultation of projects upon invitation by the mentees. Many members from the previous cohort return as mentors and experts in the next cohort.

***Event Goals**

What are the event's goals and how do they relate to the fund's mission of connecting tools, practices, and communities, creating inclusive knowledge-sharing spaces, and cultivating the development of diverse leaders? (500 word limit)

Background and mission alignment: Science is most impactful when freely shared to enable access to information, re-use of the underlying technology, inclusion of diverse perspectives, and collective advancement of knowledge. It is particularly crucial now, specifically in the current pandemic situation, when most research projects are being managed online. Academic institutions rarely teach researchers how they can use open science principles for tooling and road-mapping of projects, plan reproducible workflows with open data, share research objects, involve others, and lead a truly inclusive community. As a result, researchers avoid sharing their work openly and wrongly assume that their work will

be criticised, scooped, or not acknowledged. To formally train them to work and lead “open” by applying Open Science best practices, we designed the [Open Life Science](#) (OLS) project.

OLS is an online 16-week long mentoring and training program for researchers to learn about open science principles and practice them by applying them in their work. OLS was developed and launched in 2019 through Mozilla Open Leaders X by us: Yo Yehudi, Malvika Sharan, and Bérénice Batut. Our work is highly motivated by the vision of enabling global access to information and human-first approach for research and development. Our goal is to enable researchers and potential academic leaders in leading open research projects and becoming Open Science ambassadors in their communities.

Event’s goals: In 2020, we launched 2 cohorts: the pilot cohort took place successfully from January to May with 20 projects (29 mentees), 22 mentors and 50 experts. The second cohort will start with 31 projects (48 mentees), 35 mentors and 67 experts. We will launch 2 cohorts in 2021, which we hope to support partly with the CS&S Event fund.

Project leads (mentees) will lead around 30 projects in small teams with the support of their mentors, who are matched based on their specific requirements of skills, research, preferred languages and time zones. Mentors will receive training and honoraria/grants to be supported in their roles. Project leads will be trained in Open Science practices over online cohort calls and receive assignments to deepen their understanding. 14 expert speakers from various domain expertise and backgrounds will be invited in the cohort calls to present their work. Participants will also be introduced to GitHub, open communication and community building. They will learn “open by design” principles and implement them in developing their projects. One of the main goals for their project will be to help them involve contributors from their local communities and create inclusive pathways to engage with the project in the long term.

In both the cohorts, our participants will achieve the following milestones during the course of 16-weeks of training and mentoring:

- share expertise and gain knowledge essential to create, lead, and sustain an Open Science project
- connect with members across different projects, communities, backgrounds, and identities
- empower each other to become effective Open Science ambassadors in their communities

***Community Participation**

How does the event aim to broaden participation in the open data science community? (300 word limit)

The proposed project will broaden access to structured training and mentoring in Open Data Science by participants from diverse identities and backgrounds with passion and willingness to lead community-oriented projects. We have developed a community participation guideline and listed different roles for our members along with their responsibilities on our website. Personal support is provided to them by maintaining communication via email, Slack, mailing list, and check-in calls. Our guest speakers are Open Science champions who get recognition through our platform for their inspiring work.

Our mentors support mentees by guiding their projects. Our mentees are addressed as project leads, who are trained and mentored to ensure that they feel empowered and accountable to lead their work. We actively promote our program to welcome proposals from traditionally marginalised community members. We regularly invite feedback from our participants to ensure that they feel adequately supported and find their experience beneficial.

In OLS-1, we supported different projects across 5 continents from Kenya, Netherlands, Brazil, Canada, Thailand, Spain, UK, Japan, Russian, India, USA, Norway, Germany, and Nepal. Our mentors represented research communities from China, Greece, the UK, the USA, South Africa, Germany, Kenya, Netherlands, and Brazil. In the post-cohort survey, we received positive responses about their experiences. In OLS-2, we invited mentors and selected mentees from equally diverse interests and backgrounds from both developed and developing countries. These members included the project leads from the previous cohort, which allowed them to stay involved within the community after their training and take on leadership roles of mentors and experts.

In the next cohorts, we aim to reach out to even wider participants by actively engaging with underserved communities. Furthermore, we want to ensure a mutually beneficial work culture for our volunteer members by offering them honoraria in fair acknowledgment of their work.

***Inclusivity**

How will organizers actively work to make the event an inclusive space with diverse participants? (300 word limit)

OLS has a Code of Conduct, participation, and reporting guidelines that apply to all its training, resources, and communication platforms. Participants will be invited from different backgrounds and domain knowledge. They will be mentored based on their project proposals and supported by us without discriminating by nationality, career-stage, institutional affiliation, gender identity or expression, disability, or sexual orientation. We understand that the passive advocacy of diversity and inclusion is not sufficient, therefore we will continue to actively deliver workshops, public resources and seminars in order to reach out to researchers who are traditionally underrepresented in open science.

With its first cohort, OLS has established itself as a globally inclusive initiative and a unique mentoring program for life science researchers. With the “open by design” principle at its core, our training modules teach how to develop and share research work openly, and thoughtfully build inclusive projects. Notably, we accept projects with both technical and non-technical focuses. Our participants learn about inclusion and diversity, ally skills, self-care, and community building.

The demand for our training has extended beyond life science, which is evident from the number and topics of projects from all around the world. In the second cohort (<https://openlifesci.org/ols-2>), we accepted 50% more applications and participants than before and are set to start in September with 31 projects, 48 mentees, 35 mentors, and 67 experts from different countries (6 continents). We also have a pathway for our graduates to return as mentors and experts and continue to gain support from OLS even after they have

finished their training. By involving newer members like them, we will avoid gatekeeping. It will also broaden access to Open Science resources in their communities as they continue to lead their projects and support others.

***Code Of Conduct**

What are the plans for developing and enforcing a code of conduct? See our online resources for examples of Codes of Conduct and requirements for what needs to be included:

<https://eventfund.codeforscience.org/code-of-conduct/> (300 word limit)

Our Code of Conduct (CoC) is adapted from the Open CoC from the TODOGroup and is available on our main project page (<https://openlifesci.org/code-of-conduct>) and repository (<https://github.com/open-life-science/open-life-science.github.io>). It applies to all events, documents, communication channels and community spaces and stated clearly as such. We share our CoC widely with our participants in the application forms, acceptance letters and before each cohort training call. Our program curriculum also includes the lesson on the importance of CoCs in open science. Our project leads are asked to select and apply a CoC in their communities and online projects.

We have a process for reporting and responding to CoC related reports. We have provided a guideline by explaining how to report behaviours that make individuals/groups feel unsafe, excluded, unwelcome or uncomfortable by contacting the organisers - Bérénice, Malvika and Yo by emailing team@openlifesci.org. To report an issue involving one of the members, they are asked to email one of the members individually (berenice@openlifesci.org, malvika@openlifesci.org, yo@openlifesci.org). We have so far not witnessed or been informed of any breach in our CoC, however, we see an opportunity to enhance pathways to ensure that our CoC is regularly updated with the help of the community members in the next cohorts.

***Success**

What does a successful event look like and how will you measure success? (300 word limit)

The success of our program includes both what the project accomplishes and what our participants achieve during and after their training. We start the program with a self-assessment survey for our participants, allowing them to set personal and project-related goals in the program. We conduct mid- and post-cohort surveys to check-in and allow them to reflect on where they are at in their leadership journey. Our mentors also provide their feedback so that we can adjust our training as per the needs of their mentees and make more support available for those who need it.

Targeted surveys: We will conduct our cohorts in 2021 with the same opportunities for feedback and assessment of the program's success. These mid- and post-cohort surveys will allow our participants to evaluate their progress. This will also be a measure for the program's overall success in terms of participants completing their training as planned while being engaged, advancing their skills, building connections and experiencing a positive learning environment.

Participants' diversity and progress: Our program aims to empower our mentees to take on leadership roles in their communities as well as return to the next OLS cohort as mentors and experts. As we continue to receive participation from individuals who represent diversity in terms of their ideas, areas of interest in science, and the communities they represent, we will know that

we have been successful at broadening access to open science and leadership. The success of the program will also be reflected by how our participants take on such roles in the future.

Collaborations: In recent months we have received interest from different research institutes to collaborate with us to run this program in their organisations. This will also become an indicator of success as these collaborations will allow the project to become financially self-sustainable.

***Anticipated Challenges**

What challenges are anticipated, both in terms of meeting your event's goals and the logistics of organizing an engaging virtual event? (300 word limit)

Pandemic: Whilst OLS has always been designed online-first, we found that the start of the COVID-19 pandemic nevertheless affected the first cohort in other unanticipated ways - peoples' availability and free time changed, due to life obligations including childcare, education, job security, concerns for ongoing funding, and other direct impacts. In response, we extended the OLS program to allow participants more downtime and time to prepare for their graduation presentation sessions (see our blog: <https://openlifesci.org/posts/2020/03/16/covid-response/>). It is possible that a subsequent wave of infection or some other significant unanticipated event could cause similar disruption.

Dropouts: We make significant efforts to ensure our participants remain engaged, including checking that mentor-mentee calls take place, alternating cohort call times between two different time zones and allowing catching up on missed calls through our youtube channel and shared notes. Overall we were pleased with the participation rate in the first cohort, but at the end of the program 2 out of 20 projects did not graduate due to the pandemic and other personal reasons. We recognise that there may be a small number of dropouts in future cohorts due to unplanned situations.

Connectivity: Our participants come from different time zones, personal circumstances, and resource availability. For example, weak internet connections may cause challenges for some of our participants while attending calls. If closed captioning doesn't work in one or more calls, our members, specifically with hearing issues might find it difficult to follow the talks and breakout discussions properly. Furthermore, many from African and Asian countries will participate in cohort calls using their phones, and won't own laptops. Though we want to support them in purchasing small hardware (microphones, webcams, internet devices), we won't have the capacity to meet all their needs due to our financial limitations.

***Open Access Publishing**

We require that awardees agree to make their conference and event materials available via open access publishing (ex. CC BY license). How will products be made openly accessible? Please include details of the platforms, licensing, and communication plan for making products openly available. (300 word limit)

Resources: The OLS resources include training materials, shared notes from the cohort calls, post-cohort assignments, training videos and website contents. We actively encourage our participants to reuse, share, adapt, and remix resources used in the program, which itself is built upon open source resources.

Platforms: All the training resources developed and used in OLS are made available online via our website (<https://openlifesci.org>), GitHub repositories (<https://github.com/open-life-science>) and Zenodo (<https://zenodo.org/communities/openlifesci>) under CC-BY 4.0.

Website: Our website content is available under CC-BY-SA 4.0 and the backend design is available on GitHub under CC-BY 4.0, which has already been reused by 20 different projects (<https://github.com/open-life-science/open-life-science.github.io/network/members>).

Training videos: All our training videos are uploaded on YouTube to share with our participants, specifically with cohort members who can't attend the calls in real time (<https://www.youtube.com/c/OpenLifeSci/videos>). These videos are copyrighted by OLS and shared under CC-BY-SA 4.0 license.

Manuscript: We aim to draft a manuscript capturing the insights and outcome along with our materials, methods, and lessons learned from our cohorts of open science training. This will be submitted in F1000Research and made openly available so that others can replicate a program like OLS in different communities.

Time Spent

Optional: How much time did you spend on the application? This will help us scope the application for future calls for proposals so that we can be mindful of applicants' time.

30 hours

2-3 hours every day spread across 10 days