SIB AWARDS

TERMS & CONDITIONS

The SIB Bioinformatics Awards honour international excellence in three categories:

1. PhD Paper Award
2. Early Career Award
3. Innovative Resource Award

SIB Awards Guidelines

- Candidates may only submit to <u>one</u> of the three categories.
- Candidates must declare if they made any contributions to a submission in another category.
- Submission deadlines are final, no extension will be granted.
- Submissions to each award category will be evaluated by a group of at least five jurors.
- The jurors will be chosen for their demonstrated knowledge and expertise in their fields and for their impartiality.
- The SIB Award Committee reserves the right to disqualify any submission found to be in breach of the Guidelines or General Conditions.
- The SIB Award Committee reserves the right to cancel an award category if an insufficient number of eligible submissions are received.

General Conditions

1. PhD Paper Award

1.1. Terms and conditions

The international PhD Paper Award recognizes a paper in the field of bioinformatics and computational biology, which has been published or accepted for publication in a peer-reviewed journal at the closing date for applications (hereinafter the "Paper"). The Paper must be published by a scientist currently carrying out a PhD or who obtained a PhD degree during the year preceding the closing date for applications (hereinafter the "Candidate"). The Candidate must be the first author of the Paper. In the case of co-first authorships this must be clearly and unambiguously indicated on the Paper.

For each edition of the PhD Paper Award, a specific theme will be chosen by the SIB Award Committee. This rotating theme will be linked to one of the scientific sessions of the [BC]2 Conference, during which the Award Ceremony takes place. The Paper should therefore clearly fall within this theme. The chosen theme for 2023 is: "**Machine Learning algorithms for advancing spatial biology**".

> ## 2023 Theme: "Machine Learning algorithms for advancing spatial biology"
>
> In the last decade there has been massive progress in using machine learning algorithms for analysing spatial data describing biological systems. These systems range from molecular (spatial transcriptomics, proteomics or Hi-C), cellular (microbial communities, histological samples), organs (retina scans, heart ultrasounds, brain MRIs) to ecological systems (satellite data on deforestation, etc.), to name but a few. What unites the many different applications are common methodologies applied to process and model these data in time and space. For example, deep learning procedures have revolutionised aspects of image processing, such as segmentation and data modelling, but pose challenges in terms of interpretability and transferability. In many cases the data volumes are very large, calling for scalable solutions and dedicated efforts to minimise computing times and optimise storage. Finally, reproducibility is key, in particular for sophisticated data processing pipelines bringing together multiple analysis tools. **Submissions for the 2023 PhD Paper Award can be based on the study of any biological system but must highlight ML-based methodologies that address one or several of the following challenges: interpretability, transferability, scalability (e.g. computing times, storage optimisation), and reproducibility (e.g. complex pipelines bringing together multiple analysis tools).**

1.2. Application requirements

Applications must be prepared and submitted by the Candidate themselves.

Applications must include the following **five** components:
1. **the Paper** (with the file name "1_Paper_CandidateName.pdf");
2. a **one-page summary** of the Paper indicating clearly how it falls under this year's theme (with the file name "2_Summary_CandidateName.pdf");
3. a **letter of recommendation** from the PhD supervisor, or the last or corresponding author of the Paper (with the file name "3_RecommendationLetter_CandidateName.pdf"), which:
   o clearly describes the contribution of the Candidate, and in the case of co-first authorship clearly distinguishes the work of the co-authors;
   o clearly confirms that the Candidate is a PhD student or obtained their PhD degree during the year preceding the closing date for applications;
4. an **official confirmation letter** from their university/institute department/division (e.g. head of department or doctoral school) confirming their enrollment as a PhD student, or a copy of their PhD diploma if already awarded (with the file name "4_PhDConfirmation_CandidateName.pdf");
5. the **Candidate's CV** including the list of all publications (with file name "5_CV_CandidateName.pdf").

All application materials must be submitted in English. Documents must be submitted in PDF format only and the maximum size of the files is 20MB. Upon submission of your application materials, you will receive an email from SIB to confirm their receipt.

Please note that such confirmation does mean that your application meets all of the requirements set forth in this article 1.2.

1.3. Selection process and excellence criteria

The jury will base its selection on the scientific excellence of the Paper, in the field of bioinformatics and/or computational biology (see section 4 "Excellence Criteria"), where the contribution of the Candidate is clear and outstanding, and the submission clearly falls under the award's theme.

1.4. Jury

A jury composed of respected international experts and former SIB Award laureates will review the applications and designate the award laureate (hereinafter the "Laureate"). The jury's decisions are final and are not subject to appeal or review.

1.5. Award

The PhD Paper Award comprises a cash prize of CHF 5,000, an award certificate, as well as travel, hotel, and registration expenses for the Laureate to attend the award ceremony at the [BC]2 Conference. There are no restrictions on the usage of the prize money. The Laureate will be publicly announced during the award ceremony. The Laureate will be invited to give a plenary talk during the ceremony and must therefore attend it.

2. Early Career Award

2.1 Terms and conditions

The international Early Career Award recognizes the excellence and promise of a researcher's early career based on projects carried out or papers published in the field of bioinformatics or computational biology.
The award is open to any researcher whose PhD was completed during the six years preceding the closing date for applications, and who has carried out a research project in bioinformatics or computational biology (hereinafter the "Candidate").

Note that verifiable career breaks (e.g. maternity, paternity, sickness or career's leave) will be taken into consideration when evaluating the six-year eligibility criterion.

2.2. Application requirements

Applications must be prepared and submitted by the Candidate themselves.

Applications must include the following **three** components:
1. **Major research achievements** - this must be submitted as one document (with the file name "1_ResearchAchievements_CandidateName.pdf"). The document should be structured as specified below:
    - a short statement on the Candidate's research interests (past/current/future directions, max. one page);

- a short summary of the current project(s) the Candidate is working on (max. two pages) describing specific contributions and the overall impact of the work;
- a list of up to five most important peer-reviewed publications authored by the Candidate throughout their career. Each publication should be described with a short statement on:
  - the publication's findings and impact (6-10 sentences)
  - the Candidate's contribution to the publication (4-6 sentences)
- a short statement on the Candidate's community activities such as involvement in teaching, supervision, participation in conferences as organizer/session chair or similar, outreach or other science-related activities accompanying their research activities (max. one page).
2. the **Candidate's CV** including the list of all publications (with the file name "2_CV_CandidateName.pdf");
3. a **letter of recommendation** from the Candidate's current supervisor, PhD supervisor, Head of Department or equivalent (with the file name "3_RecommendationLetter_CandidateName.pdf"), which clearly describes the outstanding excellence and potential demonstrated by the Candidate, highlighting the impact of the research carried out to date.
4. A copy of the **PhD diploma.**

All application materials must be submitted in English. Documents must be submitted in PDF format only and the maximum size of the files is 20MB. Upon submission of your application materials, you will receive an email from SIB to confirm their receipt. Please note that such confirmation does mean that your application meets all of the requirements set forth in this article 2.2.

2.3. Selection process and excellence criteria

The jury will base its selection on the scientific excellence of the Candidate in the field of bioinformatics and/or computational biology (see section 4. "Excellence Criteria").

2.4. Jury

A jury composed of respected international experts and former SIB Award laureates will review the applications and designate the award laureate (hereinafter the "Laureate"). The jury's decisions are final and are not subject to appeal or review.

2.5. Award

The Early Career Award comprises a cash prize of CHF 10,000, an award certificate, as well as travel, hotel, and registration expenses for the Laureate to attend the award ceremony at the [BC]2 Conference. There are no restrictions on the usage of the prize money. The Laureate will be publicly announced during the award ceremony. The Laureate will be invited to give a plenary talk during the ceremony and is therefore expected to attend it.

3. Innovative Resource Award

3.1. Terms and Conditions

The international Innovative Resource Award recognizes a bioinformatics resource (database, infrastructure, code-base, analysis framework, visualisation tool, etc.) that is breaking new conceptual and/or technical ground (hereinafter the "Resource"). The award is open to any new bioinformatics resource or any major new release of a resource that is available online and that was formally published for the first time during the five years preceding the closing date for applications.

Eligibility specifications: "formally published for the first time" means a peer-reviewed publication in a scientific journal where the Resource, or the major new release of the Resource, is described for the first time. This does not include preprints, conference abstracts, the launch of the Resource website and/or public release of the Resource codebase etc., which would conceivably precede the first formal publication in a journal.

3.2. Application requirements

Applications may be submitted by the Principal Investigator (PI) of the Resource or by a team member of the Resource with the approval of the PI.

Applications must include the following **two** components:
1. The **peer-reviewed publication** describing the Resource for the first time, or in the case of a major new release of the Resource, both the peer-reviewed publication describing the major new release and the peer-reviewed publication describing the Resource for the first time (with the file name "1_ResourcePublication_CandidateName.pdf");
2. a maximum 9-page summary describing the Resource (with the file name "2_ResourceDescription_CandidateName.pdf"), with details provided for each of the following sections:
    - *Summary Description*: clear explanations of its aim/purpose and innovation, target audience (user-base), development timeline/history (including funding sources/support), main scientific impact(s) to date, uniqueness or distinction from other resources, etc. (max. 2 pages);
    - *Technical Description*: clear explanations of what the Resource consists of from a technical perspective, including relevant links to e.g. homepage, codebase Git repository (or similar), online platform, user guide/manual, tutorials, helpdesk, etc. (max. 2 pages);
    - *User Community*: clear explanations and detailed statistics on the user community, including citation history of the Resource publication(s), as well as relevant website analytics, downloads, user queries, number of users (new/returning), etc. (max. 2 pages);
    - *Major New Release*: only required if the submission relates to a major new release, clear explanations of how and why this constitutes a major new release - a step-change/overhaul - and not an incremental development in the normal life of the Resource (max. 1 page);
    - *Resource Maintenance*: a statement on how the Resource will be maintained (funded) over the coming years and how the Award's cash prize will be used to the benefit of the Resource (max. 1 page);

> ○ **Contacts**: the name(s), affiliation(s), and contact details of the Principal Investigator of the Resource (max. 1 page).

All application materials must be submitted in English. Documents must be submitted in PDF format only and the maximum size of the files is 20MB. Please make sure to clearly separate the different components listed above. Upon submission of your application materials, you will receive an email from SIB to confirm their receipt. Please note that such confirmation does mean that your application meets all of the requirements set forth in this article 3.2.

3.3. Selection process and excellence criteria

The Resource should demonstrate excellence in bioinformatics and computational biology and have an important impact on the life science community or show clear potential to have such an impact (see section 4 "Excellence Criteria").

3.4. Jury

A jury composed of respected international experts will review the applications and select the winning resource (hereinafter the "Laureate"). The jury's decisions are final and are not subject to appeal or review.

3.5. Award

The Innovative Resource Award comprises a cash prize of CHF 10,000, an award certificate, as well as travel, hotel, and registration expenses for the PI or a team member to attend the award ceremony at the [BC]2 Conference. The cash prize is awarded to the PI of the Resource to support the entire team and should be used for the benefit of the resource and its further development. The Laureate will be publicly announced during the award ceremony. The PI of the Resource or one team member designated by the PI will be invited to give a plenary talk during the ceremony and is therefore expected to attend it.

4. Excellence criteria

The Swiss Institute of Bioinformatics fosters excellence in bioinformatics and computational biology. Excellence in bioinformatics and computational biology encompasses multiple dimensions, including academic rigour, breakthrough character of research, sustainability and usability (for software and resources), and overall contribution to the field of bioinformatics/computational biology.
The SIB Award judges abide by the DORA principles in not using journal-based metrics, such as Journal Impact Factors, as a surrogate measure of the quality of individual research publications.
The SIB Award judges strive to overcome unconscious biases, such as those associated with gender, minorities, affiliation, or subfields.
Research outputs arising from collaborative and interdisciplinary work, i.e. going beyond the core field of bioinformatics/computational biology and integrating with other fields, are also eligible for consideration provided the bioinformatics and/or computational biology aspects demonstrate the excellence criteria outlined above.

5. Timeline and closing date for applications

5.1 Call for entries

The call for submissions opens on Tuesday 1 November 2022, 9:00 CET.

5.2 Closing date for entries

The call closes on 31 January 2023, 18:00 CET.

Important note: The submission deadline is final. No extension will be granted.

5.3 Confidential announcement to the Laureate

The decisions will be communicated by email to each Candidate beginning June 2023. The decision will remain confidential until the official selection is announced during the Award Ceremony.

5.4 Awards presentation

- Tuesday 12 September 2023 during [BC]^2 Basel Computational Biology Conference, which will take place at the Congress Center in Basel, Switzerland.

SIB reserves the right to shorten, extend, amend or cancel one (or more) SIB Bioinformatics Award(s) as the circumstances may require or in the event of a "force majeure".

6. Address

Applications have to be submitted online via the application tool on the SIB website.

7. Data protection

SIB will process Candidates' personal data for the sole purpose of conducting the SIB Bioinformatics Awards. Candidates can reach out the SIB Data Protection Officer at dpo@sib.swiss if they might have any questions or request in relation to the processing of their personal data.

8. Governing law

These SIB Awards terms and conditions are construed in accordance with and governed by Swiss law.