# Application form: Cryo-EM/ET NBIS/SciLifeLab Bioinformatics Support, peer review track (Wallenberg Advanced Bioinformatics Infrastructure, WABI)

## Project name (max 1 line; 70 characters incl. spaces):

Principal investigator (PI)
The applicant should be a PI/group leader.
PI first name:
PI family name:

PI position:

University:

Email:

Co-applicant (optional):

University of co-applicant:

**Note!**

The application content (text, figures and references) should fit within the page limits stated after each heading, using font Calibri or Times New Roman size 12. Applications that are incomplete or otherwise do not conform to the instructions in this document will be excluded prior to scientific evaluation.

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Applications can be submitted at any time. For application information and the date for the next evaluation, please see

https://www.nbis.se/services/bioinformatics/peerreview/apply

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## Note! Terms and conditions for WABI support

Each granted project has to commit to the NBIS User Agreement (posted on the application web page, see link above) and to the following conditions for resources funded through the Data-Driven Life Science program

* Commit to data sharing and open science.
* Release research results, data, methods and code throughout the project according to the FAIR principles and as early as possible in the research process.
* Establish a data management plan (DMP) at the start of the project.
* NBIS and DDLS must be acknowledged in publications as below:
“This work was supported by the SciLifeLab & Wallenberg Data Driven Life Science Program, Knut and Alice Wallenberg Foundation (grants: KAW 2020.0239 and KAW 2017.0003), and by the National Bioinformatics Infrastructure Sweden (NBIS) at SciLifeLab.”

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## List of main scientific aims of the project (max 0.5 page)

Please summarize the main scientific aims of your project as a bullet point list.

* Aim A
* …

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## Project description (max 1.5 pages)

Please describe your research project. Make clear the i) background, ii) questions to investigate, iii) the scientific value of the study, and iv) how your study design and data will help answering the questions of the study.

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## Available and planned data (max 1 page)

Please give a clear overview of the available and planned primary data to be used or to be generated for this project (*e.g.* single-particle data set, tilt series) as well as ancillary data (*e.g.* preliminary atomic model either experimental or predicted, information about analogous systems, sequences of the protein involved). Additionally, when available, provide information about the data volumes (*e.g.* how many Tb) and number of datasets, plus all the details of each acquired dataset in terms of pixel size, total electron dose, number of movie frames, initial/preliminary image processing pipelines. Also state the data provider (*e.g.* facility and microscope that was used) or data repository (*e.g.* for ancillary data), and when the data was/will be delivered or can be accessed.

In addition to this section, you are also expected to provide a Data Sheet in Excel format with a more comprehensive description of the data. For further information and examples, please see the application page:

https://www.nbis.se/services/bioinformatics/peerreview/apply

**Note!** Incomplete or unclear descriptions in this section and/or in the Data Sheet might give your application a lower priority.

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## Data-driven life science and open science (max 0.5 page)

Describe in what way, if any, this study will apply and/or develop recent or novel data-driven approaches. Also describe the plans for facilitating re-use of data through *e.g*. data publishing on the PDB and EMPIAR, extended data annotation such as pipeline description in the PDB and EMPIAR databanks, data services/apps, as well as what freely available software, methods or other contributions to Open Science will be generated within the project.

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## Support needed (max 0.5 page)

Please outline briefly (in priority order) your main needs of structural bioinformatics image processing support, which you think are achievable within 3-6 months FTE (admittedly this is hard to predict, but make your best guess here), and when you would prefer the support to begin.

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## Involvement (max 1 page)

Please state the name(s) of the data scientist(s) assigned to work in this study from your side, and their current skills in structural biology data processing, and more specifically in cryo-EM and cryo-ET bioinformatic tools, if any. Also state the timeframe of their contract(s) and the fraction of time they can devote to data analysis in this project over the next 6-12 months. Please also describe how the knowledge gained through the support will be sustained within the group of the applicant (or co-applicant).

**Note!** Priority will be given to projects with an assigned scientist in the group of the applicant(s) (irrespective of their previous experience in structural biology processing), with at least 50% working time over 6 months devoted to data analysis in the proposed project, to ensure knowledge transfer.

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## CV, main applicant (max 1 page, including max 5 relevant publications)

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