SciLifeLab Data Policy (version 1.1.)

As the national infrastructure for life science and operator of the large life science research program (KAW-funded Data Driven Life Science, DDLS), SciLifeLab has a leading role in shaping the future of research data practices. In line with this responsibility, we hereby express our firm commitment to the values of 1) Open Science, 2) Transparent research, and 3) FAIR (Findable, Accessible, Interoperable, Reusable) principles as described in the following documents:

- 1) The EU open science policy: https://ec.europa.eu/info/research-and-innovation/strategy/strategy-2020-2024/our-digital-future/open-science en
- 2) Research Transparency definition https://www.ucl.ac.uk/research/strategy-and-policy/research-transparency
- 3) Wilkinson, M., Dumontier, M., Aalbersberg, I. et al. The FAIR Guiding Principles for scientific data management and stewardship. Sci Data 3, 160018 (2016). https://doi.org/10.1038/sdata.2016.18

SciLifeLab will contribute to the international life science research community according to these principles, and engage with Open Science/FAIR initiatives. This document will refer to all research programs driven or coordinated by SciLifeLab, including services operated by SciLifeLab infrastructure platforms and research carried out in the context of the DDLS program.

This document lays down our guiding principles, expectations and assurances towards pursuing the highest standards of scientific research and data management. We prioritise these principles in our interactions with researchers, infrastructure users, and SciLifeLab stakeholder organizations, and these principles shape our expectations on the service units and users of the national SciLifeLab infrastructure services. A fundamental principle is that data and results from publicly funded research should be made publicly available to the greatest extent possible, as open as possible, as closed as necessary.

SciLifeLab is a collaboration between Swedish academic organizations, and while this document is not legally binding upon the academic community, it will set up expectations for SciLifeLab associated programs. This document does not override or take precedence over current data policies, regulations or obligations that may be in place by other organisations or funders, including data policies at the Swedish universities hosting SciLifeLab.

The commitments and expectations outlined here will have concrete consequences through their application in different contexts, such as terms and

conditions for funding, project prioritization, or evaluation criteria. The principles outlined aim to ensure conformity with other legal and ethical obligations as well as official recommendations including;

- Swedish Government's Research and Innovation Bill Forskning, frihet, framtid kunskap och innovation för Sverige (prop. 2020/21:60)
- UNESCO Recommendation on Open Science https://unesdoc.unesco.org/ark:/48223/pf0000379949.locale=en
- Swedish Research Council recommends open access to research data https://www.vr.se/english/mandates/open-science/open-access-to-research-data/the-swedish-research-councils-recommendation.html
- Swedish Research Council recommendation on data management according to FAIR https://www.vr.se/english/mandates/open-science/open-access-to-research-data/fair-research-data.html
- EU General Data Protection Regulation https://gdpr-info.eu/

SciLifeLab will support national infrastructure units, research programs, affiliated researchers, and users of SciLifeLab services in making their data more widely available "as open as possible, as closed as necessary", in accordance with the European Commission for Open Data principle. We strive to achieve the highest level of reusability of SciLifeLab generated data in line with the FAIR principles.

We will work with our infrastructure, its users and SciLifeLab research programs (including DDLS) to define how these guiding principles can be integrated in future SciLifeLab operations.

SciLifeLab commits to providing the IT services, resources and support required to facilitate adherence to this policy and further promoting high quality, open and reproducible research practices.

SciLifeLab expects all activities organized or funded by SciLifeLab to contribute to building broad national capabilities for life science, such as through making all research output available and as open as possible, including; research data, any material created in the course of research work, output from services platform, records, source research, experiments, samples, measurements, surveys and interviews, methods/protocols, metadata, software and code.

Examples of potential activities motivated by this Data Policy, that may be developed in the future:

National platforms - part of SciLifeLab infrastructure:

- Require supported projects to commit to FAIR data sharing, and maintain Data Management Plans (DMPs).
- Provide the support and tools necessary for user projects to adhere to FAIR data sharing, including providing platform specific meta-data required for reproducibility and data sharing.
- Make methods and software workflows publicly available.
- Operate in a way that ensures reproducibility and the ability to trace and audit projects.
- o Make operational data publicly available when specified in SciLifeLab reporting requirements.

Research programmes, including the DDLS program, projects, and users of infrastructure:

- Manage research data with re-use and reproducibility in consideration throughout the entire research process, and as open as possible, as closed as necessary.
- Ensure that research involving human biomaterial and data is performed at the highest level of integrity, with appropriate protection mechanisms and ethics review, and in a manner that enables FAIR sharing of data and results through access control mechanisms on secure IT infrastructure.
- o Ensure that projects have an active Data Management Plan.
- Commit to FAIR data sharing, and ensure necessary resources (funding and staff) for this.
- Publish research results as Open Access, when these have been achieved through SciLifeLab research programs, including DDLS, or through support by SciLifeLab infrastructure¹.

SciLifeLab board, management and operations office functions:

- Transparently provide information about operations, including publicly sharing formal protocols, decisions, evaluations and strategies.
- Make operational data publicly available.
- o Steer research activities towards Openness and FAIRness

¹ https://www.vr.se/english/mandates/open-science/open-access-to-publications.html

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	recent advances in the field.

Approved by the Board after revisions: