National Bioinformatics Infrastructure Sweden

The SciLifeLab bioinformatics platform

~100 staff at six different sites across Sweden with expertise in many different omics-related areas

Umeå

Uppsala

Stockholm

Linköping

Göteborg

Lund

NBIS

Core activities

'To help the Swedish research community build knowledge in analyzing large and complex omics data and to make bioinformatics easily accessible for life science researchers'

Support

Support services ranging from short consultations to long-term embedded bioinformaticians.

Infrastructure

Providing infrastructure in the form of services, computational resources, tools and guidelines to the life science community.
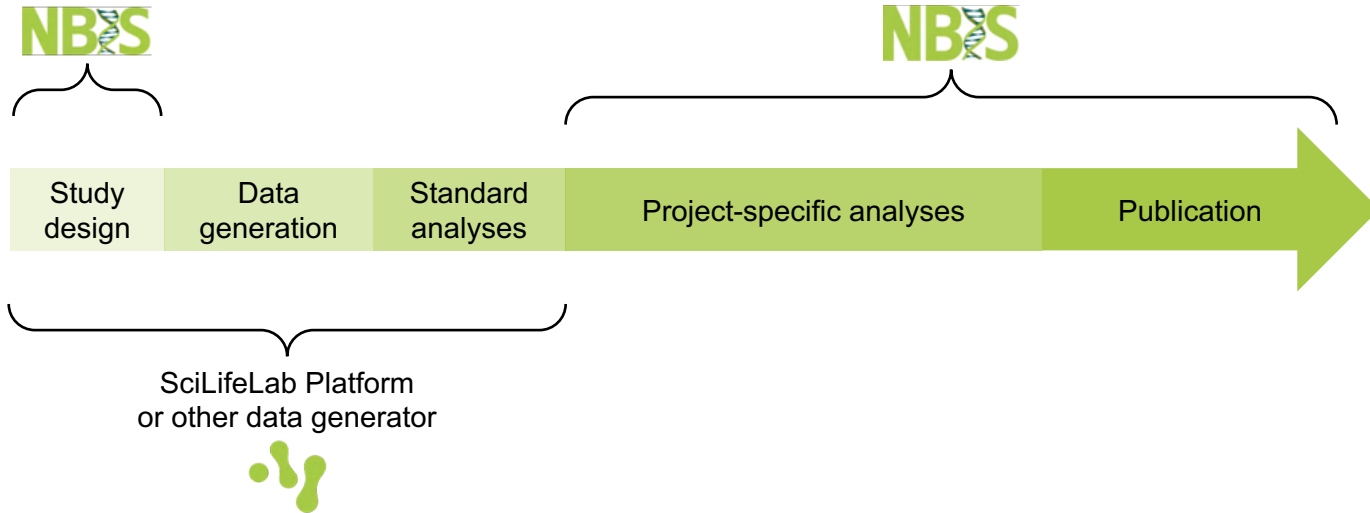
Training

Training events in advanced and applied bioinformatics.

Support project stages

Bioinformatics support options

Study Design & Project Consultation	3 h per project No hands-on work
Fee-for-service: Short- or medium-term support	User fee 800 SEK/h * All projects welcome, queuing system
Peer review: Long-term support	500 h support over ~ 1-2 years, for free Scientific selection by committee, 3 application rounds/year Involvement from research group mandatory
Partner Projects	For projects with large bioinformatic component "Hire" an NBIS bioinformatician Full-cost model: utilize and pay for e.g. 50% of one NBIS FTE

*The BioImage Informatics Facility has a slightly different financing policy

NBIS

Drop-in support

Drop-in sessions	Ask your question! Bioinformatics, sequencing, data management, and more Online **- Tuesdays at 14.00**

Fee-for-service

Fee-for-service support - Short- and medium-term support
- 800 SEK/h
- Typical projects 50-80 h, but many are longer

Application
- Applications are handled continuously
- All projects are welcome, queuing system
- Data should be available at the time of application
- Project coordinators match projects with NBIS experts based on competence and availability

Apply for hands-on support at
nbis.se/support

Eva   Fredrik   Magnus

Peer review – Long-term support

Support for free to selected projects

- Typically 500 h
- 1-2 bioinformaticians will work in the project for 1-2 years
- Involvement from the research group is mandatory to ensure knowledge transfer

Application

- Projects are selected by an external committee based on scientific value
- Three application rounds each year
- Application form at **nbis.se/support**

Funded by Knut and Alice Wallenberg Foundation

Also known as Wallenberg Advanced Bioinformatics Infrastructure (WABI)

Partner projects

For projects with large bioinformatic component

- Requiring NBIS support staff of at least 12 person months

- Running over 2-5 years calendar time

Full cost model

- NBIS will apply a standardised salary level and indirect cost model for the NBIS staff

Application

- Applications are handled continuously; nbis.se/support

"Hire" an NBIS bioinformatician, utilize and pay for e.g. 50% of one NBIS FTE

NB?S

Applying for support

nbis.se/support

Infrastructure

Systems Development	Create tools for efficient research and sharing of results
Support for Computational Resources (SCoRe)	Linking NBIS with UPPMAX Application experts
Data Management	Data Management support to projects Data stewards
AIDA Data Hub	Compute service for sensitive personal data Data sharing services for citable datasets

Data management support

Data management plans
Data publishing
FAIR data

Sensitive data - FEGA helpdesk
Good DM practice
Data handling

Courses
Guidelines
Templates & Tools

NBIS Drop-in support and consultation https://meet.nbis.se/dropin

SciLifeLab RDM Guidelines data-guidelines.scilifelab.se

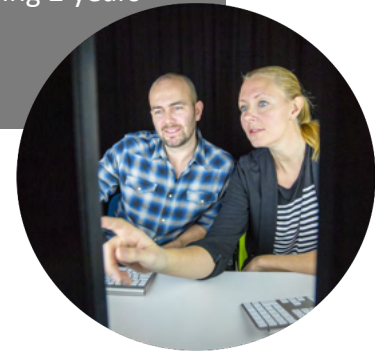Meet a Data Steward Q&A scilifelab.se/event/meet-a-data-steward/

Training

Courses	• Several courses, mainly for PhD students and PostDocs • Led by experienced bioinformaticians • Teacher-dense • Theory and practice of state-of-the art methods • International courses together with Elixir
Advisory program	• PhD students get a bioinformatician as advisor during 2 years • New students accepted once per year

Training

Courses catalogue

- Introduction to bioinformatics using NGS data
- Data management practices
- Bulk and single-cell RNA-seq
- Python and R programming
- Tools for reproducible research
- Omics integration and systems biology
- Biostatistics and machine learning
- Epigenomics data analysis
- … and more!

Course calendar: https://nbis.se/training/events.html

Bioinformatics advisory program

The Swedish Bioinformatics Advisory program

Idea
- PhD students get a bioinformatician as a personal advisor for 2 years
- Complementing PhD supervisors with technical expertise

How
- Monthly meetings with advisor
- Grand meetings with all students and PIs

Apply
- One application round per year, usually in December

https://www.scilifelab.se/training/the-swedish-bioinformatics-advisory-program
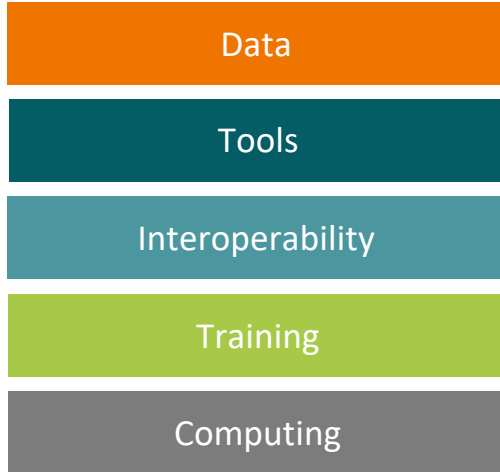
Elixir

ELIXIR is the European infrastructure for biological information

- 23 member nations, >250 research institutes
- NBIS coordinates the Swedish ELIXIR node

| Data |
| Tools |
| Interoperability |
| Training |
| Computing |

Welcome to contact us!

www.nbis.se