



# National Bioinformatics Infrastructure Sweden

### The SciLifeLab bioinformatics platform







### **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

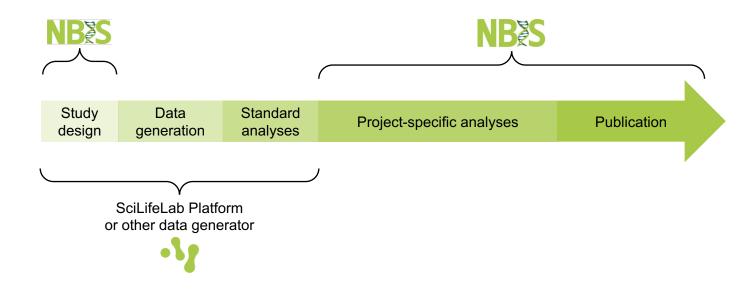
Training events in advanced and applied bioinformatics.





## Support project stages









### **Bioinformatics support options**



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





<sup>\*</sup>The BioImage Informatics Facility has a slightly different financing policy

### **Drop-in support**

Support

Drop-in sessions

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







Fee-for-service support - Short- and medium-term support

- 800 SEK/h
- Typical projects 50-80 h, but many are longer

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

#### **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



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

### bioinformatician, utilize and pay for e.g. 50% of one NBIS FTE

"Hire" an NBIS

#### **Application**

Applications are handled continuously; nbis.se/support





# **Applying for 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 <a href="https://meet.nbis.se/dropin">https://meet.nbis.se/dropin</a>
SciLifeLab RDM Guidelines <a href="https://meet.nbis.se/dropin">data-guidelines.scilifelab.se</a>
Meet a Data Steward Q&A <a href="https://meet.nbis.se/dropin">sciLifelab.se</a>
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### **Training**



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- 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**



Introduction to bioinformatics using NGS data

• Data management practices

Bulk and single-cell RNA-seq

• Python and R programming

Courses catalogue • Tools for reproducible research

Omics integration and systems biology

• Biostatistics and machine learning

Epigenomics data analysis

• ... and more!

Course calendar: <a href="https://nbis.se/training/events.html">https://nbis.se/training/events.html</a>









### 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

Tools
Interoperability
Training
Computing







### Welcome to contact us!







