THE SWEDISH NATIONAL GRADUATE SCHOOL IN MEDICAL BIOINFORMAT

Vetenskapsrådet

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About the research school

The Swedish National Graduate School in Medical Bioinformatics The research school is backed by a large group of bioinformaticians from all the major universities in Sweden. The school will be jointly coordinated by four scientists working at SciLifeLab (Lars Arvestad, SU,Olof Emanuelsson,...

Application

APPLICATIONS CLOSED FOR 2017. A new round of students will be accepted in early 2018.   We welcome PhD-students at any Swedish University in medical bioinformatics or a related subject to apply for the research school. Target groups include...

Courses

ll courses funded by this research school will make all of its material freely available online to everyone in the world using the Creative commons 3.0 license. Lectures will be recorded on video and put online. Compulsory courses (3-5 hp) The basis...

Directors:
Arne Elofsson, Olof Emanuelsson, Lukas Käll & **Lars Arvestad**

Co-applicants:
Prof. Jens Lagergren, KTH Prof. Bengt Persson, UU Prof. Henrik Annti, UmU Doc. Björn Wallner, LiU Prof. Mauno Vihinen, LU Doc. Erik Kristiansen, Chalmers Doc. Carsten Daub, KI Prof. Anders Blomberg, GU Prof. Dan Lundh, Skövde Prof. Erik Bongcam-Rudloff, SLU Prof.Dirk Repsilber, Örebro Dr. Matthew Webster, UU Doc. Ingemar André, LU Prof. Johan Trygg, UMU Prof, Mats Gustafsson, UU Prof. Christopher Wheat, SU Dr. Tanja Slotte, SU Prof. Erik Lindahl, SU Doc. Samuel Flores, UU Doc. Marcela Davila Lopez, GU Prof. Yudi Pawitan, KI Prof. Jesper Tegner, KI Dr. Jonathan Esquerra, LU Dr. Jessica Lindvall, NBIS Dr. Sara Light, NBIS Prof. Zelmina Lubovac, HIS Prof. Mattias Rantalainen, KI Prof Johan Lindberg, KI Dr. Pelin Sahlén, KTH Prof. Paul Franks, LU
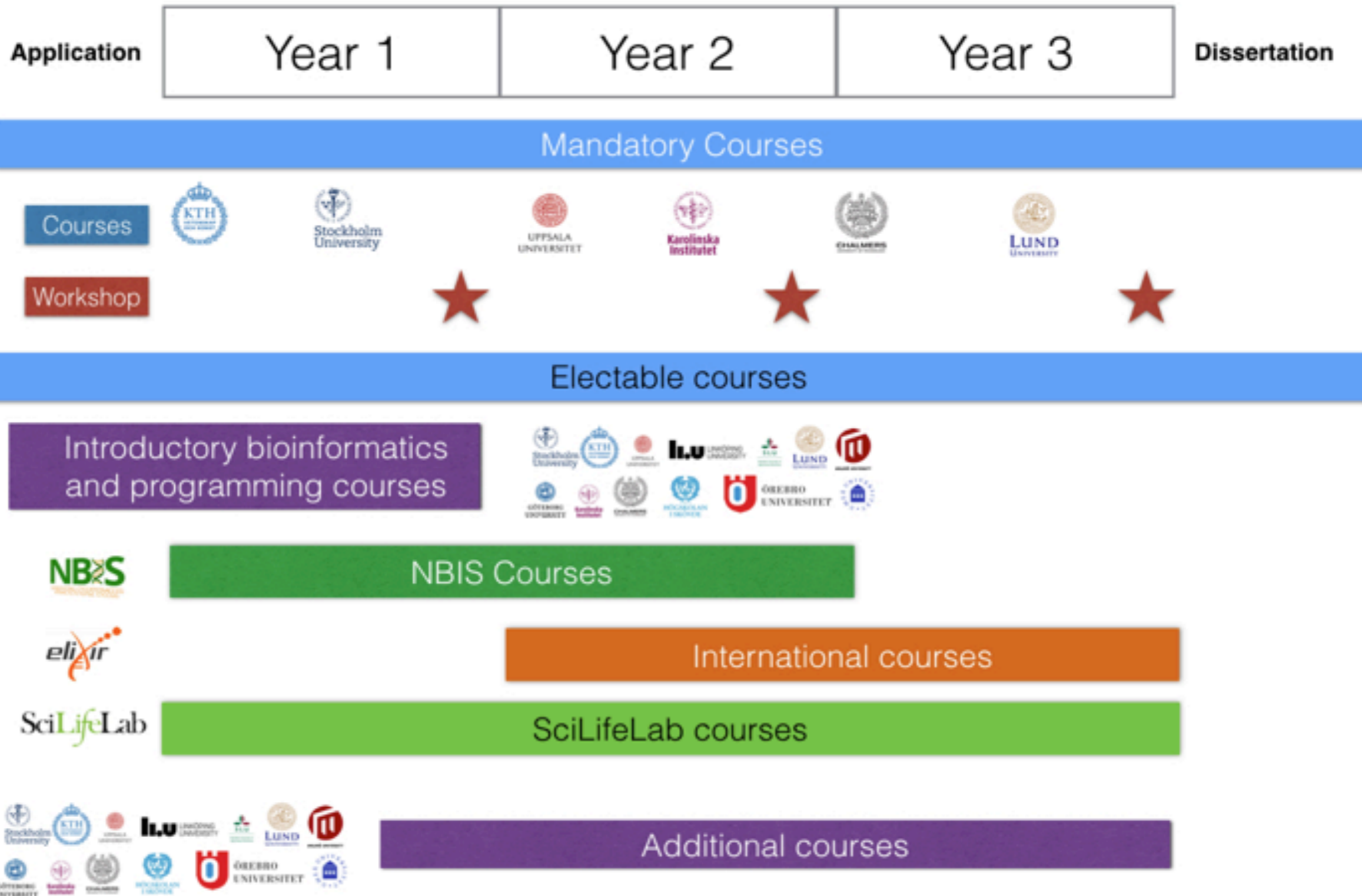
Students

- 20 students per year (funding for 3 years)

  - 21 students from 10 university first year.

- Advanced training

- Focus on PhD students primarily (only) working on bioinformatics - not users

- Aim at recruiting students with computational background.

Overview

Application	Year 1	Year 2	Year 3	Dissertation

Mandatory Courses

Courses

Workshop

Electable courses

Introductory bioinformatics and programming courses

NBIS Courses

International courses

SciLifeLab courses

Additional courses

Courses

- Mandatory courses

  - 1. Applied Bioinformatics, 5 hp (Lars Arvestad, SU).

  - 2. Algorithms in Bioinformatics, 5 hp (Lukas Käll, KTH). T

  - 3. Machine Learning in Medical Bioinformatics (Mats Gustafsson, UU).

  - 4. Experimental design for high-throughput technologies (Carsten Daub, KI).

  - 5. Integrative analysis of omics data using systems biology approaches (Erik Kristiansson, Chalmers).

  - 6. Structural bioinformatics (Mauno Vihinen, LU).

- Non-mandatory courses - to be determined

- Annual Workshop

- Menroring

Goals

- this research school will provide a significant boost for Swedish medical bioinformatics

- At the end of the program these students will be well suited to take the lead of bringing Swedish medical research into the post-genomic era.

- this program will significantly improve the communication between the medical and bioinformatics communities

External partners

- **NORBIS** is a national research school in bioinformatics, biostatistics and systems biology. Researchers in Norway with expert knowledge in the field hold courses and share their competence with our master and doctoral students.

- **NBIS** is a distributed national bioinformatics infrastructure, supporting life sciences in Sweden

- **ELIXIR** unites Europe's leading life science organisations in managing and safeguarding the increasing volume of data being generated by publicly funded research. It coordinates, integrates and sustains bioinformatics resources across its member states and enables users in academia and industry to access vital services for their research.

- **Science for Life Laboratory**, SciLifeLab, is a national center for molecular biosciences with focus on health and environmental research. SciLifeLab is a national resource and a collaboration between four universities: Karolinska Institutet, KTH Royal Institute of Technology, Stockholm University and Uppsala University.

- **SeRC** ?

SeRC

- Courses - if interest for joint courses we have money.

- Joint workshops -

- Students - interacting with other students in e-science?