Bioinformatics training for companies

Master the latest techniques with our data science experts
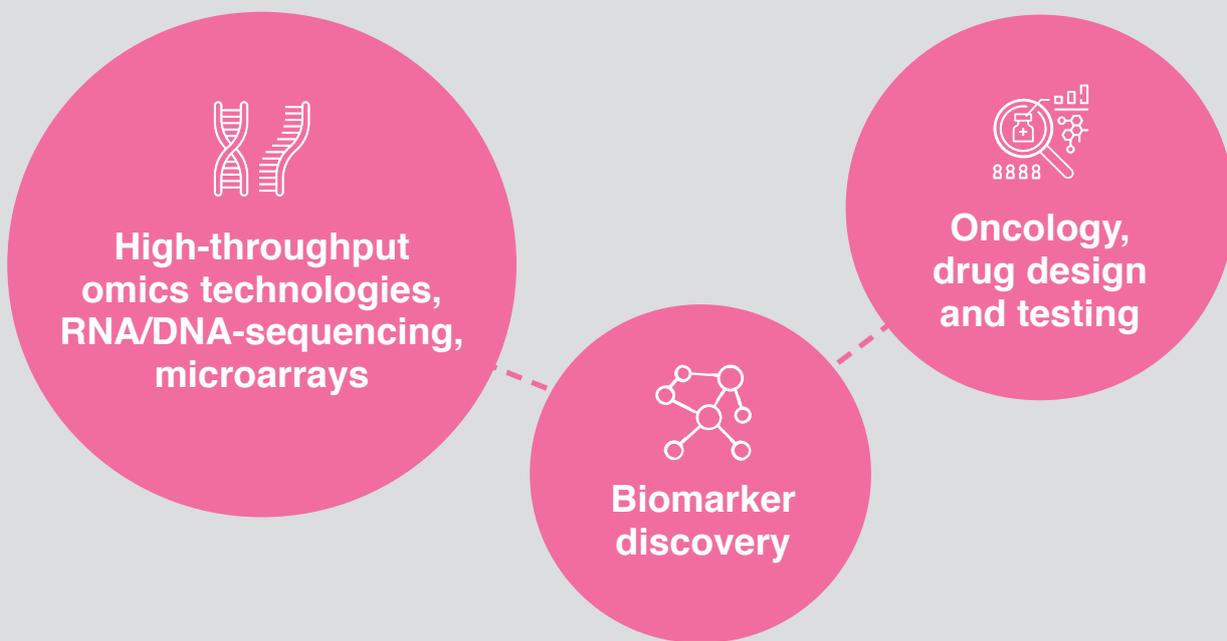
Are you starting a new project on a topic outside your area of expertise?

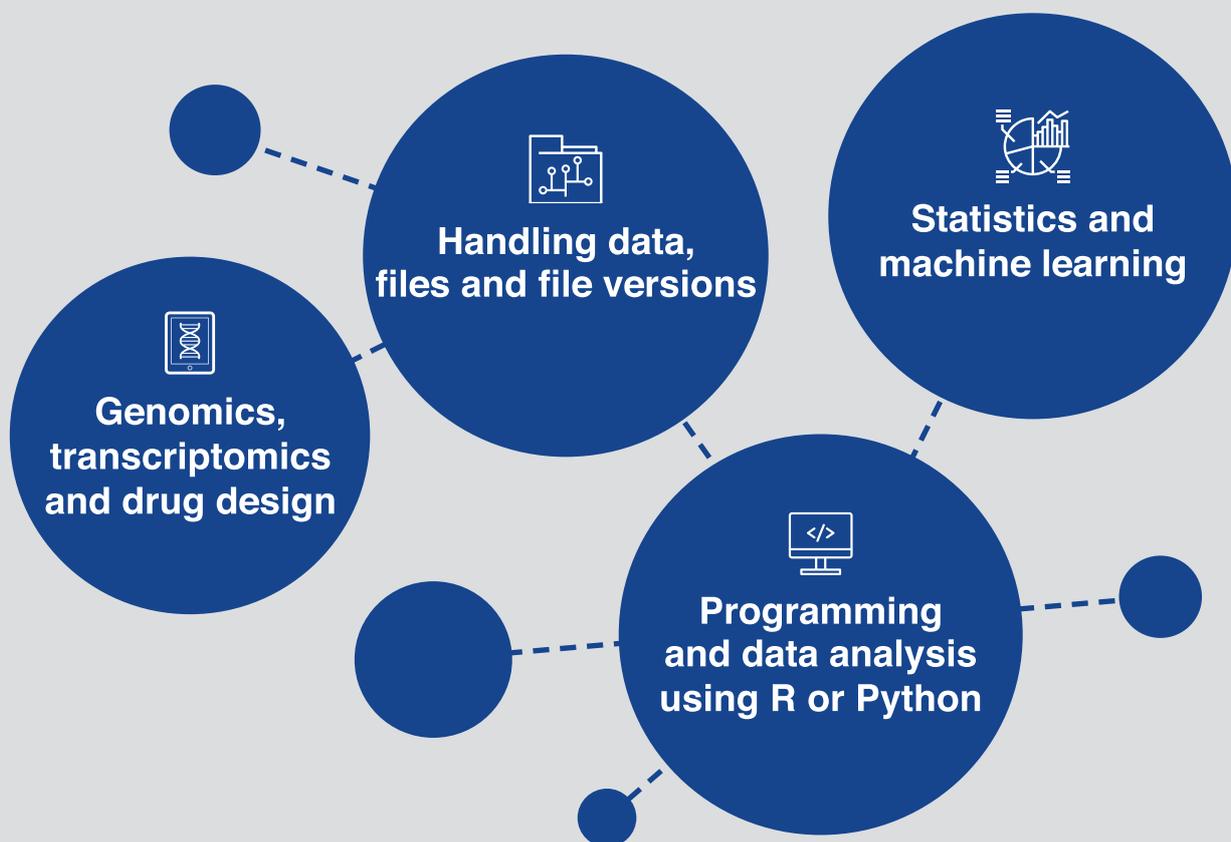Do you or your colleagues need a refresher course?

Do you have a new hire who needs to be brought up to speed?

SIB

Swiss Institute of Bioinformatics

Whether you are planning or involved in molecular research or clinical projects on

High-throughput omics technologies, RNA/DNA-sequencing, microarrays

Biomarker discovery

Oncology, drug design and testing

Discover our specific courses for companies

Handling data, files and file versions

Statistics and machine learning

Genomics, transcriptomics and drug design

Programming and data analysis using R or Python

Private training tailored to your needs

On your premises

Online

For **individual** training,
join our regular courses:

sign to our mailing list
to remain informed.

**Interested in a topic
not listed in here,
or a more personalized course?**

Contact us at training@sib.swiss

Statistics and machine learning

First steps in statistics for life sciences ● **2 days**
This course provides researchers in the life sciences with an introduction to statistics and statistical concepts using Python, with applications to a variety of biological problems.

Intermediate statistics: data analysis in practice ● **2 days**
This course provides researchers who already have a basic knowledge of statistics with the practical skills required to analyse real biomedical data using R.

Advanced statistics: statistical modelling ● **3 days**
This course presents statistical models and techniques beyond classical linear modelling, with an emphasis on concrete applications in biology using R.

Statistics and machine learning for life sciences ● **2 days**
This course guides participants already knowledgeable in statistics and Python in the exploration of statistical modelling concepts, while relating and contrasting them with machine learning approaches to classification and regression.

Introduction to machine learning with Python ● **2 days**
This course provides participants knowledgeable in Python with an introduction to machine learning concepts and their application to a variety of biological problems.

Programming and data analysis using R or Python

First steps with R in life sciences ● **2 days**
This course will introduce scientists to R syntax, the Rstudio environment, and to the use of R to explore and interpret data.

Data visualization ● **2 days**
This course is for scientists who need to produce data visualization and who have already used the R software.

Introduction to R Shiny ● **1 day**
This course is for life scientists, bioinformaticians, and R users interested in developing an interactive web application to communicate their data or analysis to other non-programmers.

First steps with Python in life sciences ● **3 days**
This course will introduce the basic concepts and data structures necessary to solve routine data manipulation tasks using Python.

● **introductory**
● **intermediate**
● **advanced**

Handling data and files

Data management plan ● — 2 days
This course is for life scientists who wish to learn to prepare a document reporting how data will be managed during and after a research project.

First steps with UNIX in life sciences ● — 1 day
This course is for life scientists wanting to become familiar with the UNIX environment and master the most common commands.

UNIX scripting for life scientists ● — 2 days
This course is for users familiar with the UNIX environment who are interested in moving from interactive to automated tasks.

Version control with Git - first steps ● — 1 day
This course provides participants with the basics of using the Git version control system for collaborative work or to keep track of modifications in their files.

Version control with Git - advanced topics ● — 1 day
This course is for users familiar with Git who wish to learn additional Git commands and features.

Genomics, transcriptomics and drug design

NGS - genome variant analysis ● — 2 days
This course is for life scientists familiar with the UNIX environment and NGS who wish to learn to detect germline mutations by following the GATK best practices.

Introduction to RNA-seq: from quality control to pathway analysis ● — 2 days
This course is for life scientists familiar with Next Generation Sequencing (NGS) who wish to acquire the necessary skills to analyse RNA-seq gene expression data.

Transcriptomics analysis: RNA-seq ● — 3 days
This course is for life scientists familiar with R and basic statistics who wish to learn to run an RNA-seq analysis pipeline and analyse the resulting data.

Single-cell transcriptomics ● — 3 days
This course is for life scientists and bioinformaticians familiar with NGS and R who want to acquire the necessary skills to analyse scRNA-seq gene expression data.

Enrichment analysis ● — 1 day
This course is for biologists knowledgeable in R who want to identify groups of genes (e.g. particular pathways) that are differentially expressed and offer insights into biological mechanisms.

Ligand-protein docking and computer-aided drug design ● — 2 days
This course is for scientists with basic knowledge in biology and chemistry who wish to learn to use molecular visualization, ligand-protein docking and computer-aided drug design tools.

About SIB
Swiss Institute
of Bioinformatics

SIB is an internationally recognized non-profit organization, dedicated to biological and biomedical data science. It is present in the main academic institutions in Switzerland and leads numerous national and international projects with a major impact on life science research and health.

SIB's scientists are passionate about creating knowledge and converting complex questions into solutions in many fields, from biodiversity and evolution to medicine. They provide essential databases and software platforms, data management, software engineering and biocuration services, as well as computational biology know-how and training in bioinformatics. The institute delivers this expertise to academic groups and clinicians as well as to private companies.

SIB federates the Swiss bioinformatics community of some 800 scientists, encouraging collaboration and knowledge sharing. It also cooperates with national and international institutions on research infrastructure matters.

The institute contributes to keeping Switzerland at the forefront of innovation by fostering progress in biological research and enhancing health.

Data scientists for life

SIB has been successfully organizing courses since 1998. More specifically, since 2015 we have organized courses for industry, including multinational pharma, SMEs and startups.

Join us on social media