Introduction to biological data analysis with R

More and more data is being generated in all branches of the life sciences. To take full advantage of these, basic knowledge in programming is an essential skill for future generations of scientists. The course is designed for PhD students from the life sciences. Programming experience is not required.

The course consists of online lectures (slides with audio) and online classes. In the lectures both the theoretical background as well as basic knowledge for completing the exercises will be taught. Participants are expected to work on exercise sheets handed out on a weekly basis. Exercises will be presented and discussed in online classes.

Dates
The lecture begins on 30 April and ends on 23 July. The online classes take place on Wednesdays and Thursdays from 9:30 – 11:00 am.

Course content
- Basics in programming in R
- Tools for biological data analyses
- Data visualization
- Statistical analysis
- Exploratory data analysis
- Special topic: Single cell data

Goal
After successfully completing the course, participants will have the necessary theoretical background as well as practical experience to start analyzing their own data.

Trainer
The Trainer, Prof. Florian Erhard, studied Bioinformatics at the Ludwig-Maximilians-University Munich and the Technical University Munich. After his doctorate and a postdoctoral position at the Teaching and Research Unit Bioinformatics, Institute for Informatics, Ludwig-Maximilians-University Munich, he moved to Würzburg. Since 2016 he holds a professorship for Systems Virology at the Institute for Virology and Immunobiology, University of Würzburg.