

## Trainer



**Dr. András Aszódi**  
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- He has extensive computational biology experience - both in academia and industry
- He is currently working at the Bioinformatics and Scientific Computing Core Facility at the Vienna Bio-center Campus
- His main tasks are the development of short courses on biostatistics and scientific programming

## Basic statistics with R

### Objective

To familiarize participants with the foundations of practical biostatistics.

### Description

The online course addresses the following topics:

- Sampling theory: Obtaining information about a population via sampling. Sample characteristics (location, dispersion, skewness), estimation of the mean, standard error of the mean
- Discrete and continuous probability distributions: Central limit theorem
- Hypothesis testing: Basic principles, one- and two-sided testing, types of errors, power calculations
- “Cookbook of tests”: Location testing, normality, variance comparisons, counting statistics, contingency tables, regression tests

### Methodology

Instructor-led lectures plus hands-on exercises using the R programming language (accessed via a dedicated web server).

### Conditions

Basic familiarity with the R programming language is required.

In particular, the following skills are necessary:

- Using the R interpreter, either the command-line program or in R Studio <https://rstudio.com/>
- How to invoke R functions, pass optional/named parameters
- Some familiarity with simple plotting commands

### Organizational Information

Language / Format	English / Online
Target group	Doctoral Candidates at all stages and Postdocs from all faculties
Date	Thursday-Friday, 2-3 February 2023, 9:00 – 13:00
Registration	<a href="#">For registration click here</a>