

C4Sys High Throughput Sequencing course

ANALYSIS OF MICROBIAL COMMUNITY USING AMPLICON DATA FROM HTS

22.6.2017

Venue: Faculty of Natural Sciences, Charles University, Viničná 7, Praha 2, Room B311

Participants will learn to process and analyse amplicon data from HTS. They will be able to manage the whole workflow from raw sequencing data to identification of OTUs, OTU table creation and basic statistics. We will work with bacterial 16S or fungal ITS sequences from the Illumina platform (possibly also Ion torrent), but the methods are applicable to any amplicon data. In addition, basic introduction into library preparation and sequencing on Illumina MiSeq will be provided.

Thursday 22.6.2016

8:45-9:00 Registration

9:00-9:30 Opening talk, high throughput sequencing – specificities and possibilities (Petr Baldrian)

9:30 -10:30 Library preparation for Illumina platform – practical tips (Petra Havlíčková)

10:30-11:30 Amplicon data processing and analysis using the program SEED (Tomáš Větrovský/ Daniel Morais)

11:30-12:30 lunch break

12:30-14:30 Practical part I. (Tomáš Větrovský/ Daniel Morais)

14:30-15:00 break

15:00-18:00 Practical part II. (Tomáš Větrovský/ Daniel Morais)

Requirements:

It is necessary to bring your own notebook with Windows 64bit (7, 8, 10) with at least 2 GB RAM (4 GB or more recommended). Amplicon sequences will be processed using the program SEED 2.x (<http://www.biomed.cas.cz/mbu/lbwrf/seed/>).

Registration is mandatory (Capacity of the course is limited). To register, please fill and submit the registration form at:

http://www.biomed.cas.cz/mbu/lbwrf/NGS_kurz/

Participants will be selected based on the order of registration submission (first-come, first-served basis). Your attendance will be approved by an additional e-mail.

The course is free of charge – it is only compulsory condition to fill the registration form and to sign the attendance list.

If you find out later that you will not be able to participate, please let us know as soon as possible via e-mail, (vetrovsky@biomed.cas.cz) so that we can offer the spot to others.

Financial support for the course is provided by C4SYS with grant MŠMT č. LM2015055.

Additional info:

- No meal or accommodation is provided
- Course will be held in English language
- Participants will get a certificate of their attendance
- More information is available on website (<http://c4sys.cz/>) or upon request via e-mail vetrovsky@biomed.cas.cz (Tomáš Větrovský)

This course is organised by the consortium C4SYS (<http://c4sys.cz/>) and the Laboratory of Environmental Microbiology of the Institute of Microbiology of the CAS, v. v. i. (<http://mbucas.cz/en/>).