

High Throughput Sequencing Course

ANALYSIS OF MICROBIAL COMMUNITY USING AMPLICON DATA FROM HTS

14.02.2019

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

Participants will learn how 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, but the pipeline is applicable to any amplicon data. In addition, basic introduction to library preparation and sequencing on Illumina MiSeq will be provided.



Thursday 14.02.2019

8:45-9:00 Registration

9:00-9:30 Opening talk. Specificities and possibilities of microbiome studies (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 (Daniel Morais / Tomáš Větrovský)

11:30-12:30 lunch break

12:30-14:30 Practical part I. (Daniel Morais / Tomáš Větrovský)
Barcode search, sequence quality and clustering.

14:40-15:00 break

15:00-18:00 Practical part II. (Daniel Morais / Tomáš Větrovský)
Taxonomic assignment and diversity analysis.

Teaching assistants: Tijana Martinovič, Vojtěch Tláškal

More info at: <https://goo.gl/BVuu2W>



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:

<https://bit.ly/2EBCINN>

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 for every participant who fills the registration form and signs the attendance list.

If your plans change and you will not be able to participate, please let us know as soon as possible via e-mail (daniel.morais@brmicrobiome.org) 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/courses/>) or upon request via e-mail daniel.morais@brmicrobiome.org (Daniel Morais)

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/>).

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