

## C4Sys Genome Assembly course

Assembly of small genomes using high-throughput sequencing data.

08.02.2018

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

In this course, students will learn how to use generate genome assemblies tools under the command-line environment of Linux systems and the theory behind the assembly strategy. We will assemble a small genome and study the metrics to evaluate its quality as well as how to identify genes in the newly assembled genome.



C4sys linux distribution

### Program

**Thursday 08.02.2018**

8:45 – 9:00 Registration

9:00 – 9:30 Opening talk (Petr Baldrian)

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

10:30 – 11:30 Sequence alignment and genome assembly (Tomáš Větrovský/ Daniel Morais)

11:30 – 12:30 lunch break

12:30 – 14:30 Practical part I – Linux Introduction and scripting (Daniel Morais / Tomáš Větrovský)

14:30 – 15:00 break

15:00 – 18:00 Practical part II. Genome Assembly (Tomáš Větrovský/ Daniel Morais)

Teaching assistants: Tijana Martinovič, Vojtěch Tláškal

More info at: <http://goo.gl/hWEmX6>



## Requirements:

The course will be held under the Linux environment. For those without experience with such operating system we made a tutorial for how to install a Virtual Machine inside the Windows operating system and how to install a Linux distribution with all the necessary software for assembling a small genome using your own computer.

If you are a Windows user follow the tutorial here: <http://c4sys.cz/wp-content/uploads/2017/12/VM-tutorial-for-Windows-C4Sys-Genome-Assembly-2018.pdf>

If you are familiar with the Linux environment, please install the necessary software, following the instructions here: <http://c4sys.cz/wp-content/uploads/2017/12/Instructions-for-students-running-Linux-C4Sys-Genome-Assembly-2018.pdf>

It is necessary to bring your own notebook with at least 2 GB RAM (4 GB or more recommended).

Registration is mandatory (capacity of the course is limited). To register, please fill and submit the registration form at: <https://goo.gl/ikn2jr>

The participants will be selected by 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, ([daniel.morais@biomed.cas.cz](mailto:daniel.morais@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 [daniel.morais@biomed.cas.cz](mailto:daniel.morais@biomed.cas.cz) (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/>).

More info at: <http://goo.gl/hWEmX6>

