



Course: On-line Synthetic Biology

November 25th-December 11th, 2020

The course will be organized into three modules: (a) genome analysis; (b) Metabolic pathways reconstruction and simulation and (c) Design and realization of cell factories.

Prof. Nicola Vitulo-UNIVR (Nicola.Vitulo@unifi.it)

Genome analysis

- Genome assembly and quality assessment for different applications.
- Gene prediction and annotation.
- Identification of Variants respect to a reference (WT) genome: analysis of mutant genomes.
- Variant prioritization and genotype to phenotype association.
- Transcript analysis on WT and mutants.

Prof. Marco Fondi-UNIFI (Marco.Fondi@unifi.it)

- metabolic pathway reconstruction and simulation.
- Integration of metabolomic/proteomic/transcriptomic data.
- Flux balance analysis

Prof. Olaf Kruse - UNI-BIELEFELD/ CEBITECH (olaf.kruse@uni-bielefeld.de)

- Examples of metabolic pathway design and construction (general)
- Engineering of artificial CO₂ fixation.
- Designing green cell factories
- Designing metabolite processing pathways in heterotrophic systems.
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Calendar and Zoom links

teacher	date	Week day/time	Zoom link
Prof. Vitulo	25/11/2020	Wednesday/ 15.00-17.00	https://univr.zoom.us/j/89625729467 Meeting ID: 896 2572 9467
Prof. Vitulo	26/11/2020	Thursday/ 15.00-17.00	https://univr.zoom.us/j/82111421046?pwd=VDFHZ0I0VU1ubFlqd_nR0MnZjczh6Zz09 Meeting ID: 821 1142 1046 Passcode: 581432
Prof. Vitulo	27/11/2020	Friday/ 15.00-17.00	https://univr.zoom.us/j/83809125304?pwd=RjVQYWRYTjVTYWNwbjRHOUpN2dvQT09 Meeting ID: 838 0912 5304 Passcode: 146433



Prof. Fondi	01/12/2020	Tuesday/ 15.00-17.00	https://univr.zoom.us/j/84819031464?pwd=S0R5blEzYWRIVUxXUlpiTzJjWndKdz09 Meeting ID: 848 1903 1464 Passcode: 083132
Prof. Fondi	03/12/2020	Thursday / 15.00-17.00	https://univr.zoom.us/j/88623517544?pwd=VFQ5REhxUzdjaW5wb21LSm54VFRVdz09 Meeting ID: 886 2351 7544 Passcode: 834364
Prof. Fondi	04/12/2020	Friday/ 15.00-17.00	https://univr.zoom.us/j/82045948017?pwd=SjdoaVJyQVJNRktJZ21xQUN0THR3Zz09 Meeting ID: 820 4594 8017 Passcode: 100500
Prof. Kruse	07/12/2020	monday/ 15.00-17.00	https://univr.zoom.us/j/84802007134?pwd=UXJpT0lEVkpmNDJkdjR6SXlpL3R3QT09 Meeting ID: 848 0200 7134 Passcode: 294508
Prof. Kruse	09/12/2020	Wednesday/ 15.00-17.00	https://univr.zoom.us/j/81558299878?pwd=U090SWlxS0djQkRNaK5qYlQyOVM0dz09 Meeting ID: 815 5829 9878 Passcode: 144866
Prof. Kruse	11/12/2020	Friday/ 15.00-17.00	https://univr.zoom.us/j/87610022124?pwd=cXdoSHpZblRvamIvUi9hY2s1ZE1ydz09 Meeting ID: 876 1002 2124 Passcode: 969674

Lo spazio Moodle dell'insegnamento è disponibile a

<https://moodledidattica.univr.it/course/view.php?id=7692>

Local organization and contact:

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