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THE BACTERIAL GENOMICS-SYSTEMS

- Introduction to genomics. The history of genome sequencing. Techniques for sequencing and mapping.
- The concept of gene and functional genomics. Gene evolution and gene families. Evolution of genome architecture. Comparative genomics.
- Principles of functional genomics. Study of genome-wide expression. Control of gene expression at the whole genome level. Comparative transcriptomics.
- Networks and their representation. Property of networks.
- Examples of biological networks (metabolic networks, protein-protein and protein-DNA networks, regulatory networks).
- Evolution of regulatory networks.
- Computational prediction of regulons.
- Flux Balance Analysis. Metabolic model reconstruction.
- Bioinformatic tools for the study of structure and function of genomes

Period: 23 - 30 March 2017

23.03.2017 (thu): 15.15 – 18.30 (042A)

24.03.2017 (fri) : 13.45 – 17 (s. seminaryjna KBM, GUMed)

27.03.2017 (mon) : 14.45 – 18.45 (042A)

28.03.2017 (tue) : 15.15 – 19 (042A)

29.03.2017 (wed) : 13.45 – 18 (042A)

30.03.2017 thu) : 15 – 19 (042A)