

2017 MCB 502-Novosibirsk: The final schedule

Course title: "Genetics and Biochemistry of Genome Organization: from DNA to Chromosomes"
Название курса: "Генетика и Биохимия Организации Генома: от ДНК до Хромосом"

All lectures are in the Auditorium of the Institute of Chemical Biology and Fundamental Medicine,
unless specified otherwise (see April 7, 12 17)

Monday lecture is 10:50 till 12:50AM*; Wednesday, Thursday and Friday lectures are 9:00 - 11:00AM

All discussions are Saturdays, either 10:00AM - 12:00PM (noon) or 3:00-5:00PM, in room 334
Laboratory Building (University)

Day	Date (April)	L#	Topic*
Mo	3	1	Introduction. Biopolymers. Cell. DNA as information carrier. DNA structure.
Tu	4	no lecture ☹	
We	5	2	DNA denaturation/renaturation-annealing-hybridization. Mechanisms of DNA replication.
Th	6	3	DNA replication (continued). DNA degradation by nucleases.
Fr	7	4	DNA degradation (continued). DNA synthesis. Auditorium of the Institute of Molecular and Cell Biology.
Sa	8		Discussion #1 (L1-4) Time: 10-12 (morning) or 3-5 (afternoon)
Mo	10	5	Enzymatic synthesis of DNA (Kornberg polymerase). Chromosomal replication
Tu	11	no lecture ☹	
We	12	6	Other polymerases, Okazaki. DNA priming and unwinding. Auditorium of the Institute of Molecular and Cell Biology.
Th	13	7	DNA topoisomerases. Nucleoid. The replication fork.
Fr	14	8	Initiation and termination of chromosomal replication.
Sa	15		Discussion #2 (L5-8) Time: 10-12 (morning) or 3-5 (afternoon)
Mo	17	9	The cell cycle. Regulation of replication initiation. Mutagenesis. Auditorium of the Institute of Molecular and Cell Biology.
Tu	18	no lecture ☹	
We	19	10	DNA damage. Excision repair. Two-strand DNA lesions. Chromosomal lesions.
Th	20	11	Recombinational repair. RF restart. Dimer resolution.
Fr	21	12	Whatever is left (the overflow material)
Sa	22		Discussion #3 (L9-12) Time: 10-12 (morning) or 3-5 (afternoon)

* Instructor reserves the right to shift topics of the lectures to earlier/later dates and to change dates and times of exams (the latter one is not applicable this year).

Instructor: Andrei Kuzminov <kuzminov@life.illinois.edu>
Office hours: 1) immediately after classes

Teaching Assistant: none this year