

MOL203 Gene structure and function/Genstruktur og funksjon

Curriculum; The lectures defines the curriculum.

Literature; Watson, Baker, Bell, Gann, Levine, Losick: **Molecular Biology of the Gene. 7. ed.**,.

The list defines the curriculum for the final exam, total about 400 pages plus literature to lecture 14.

The 6th edition of **Molecular Biology of the Gene** may be used.

Lectures, Mondays 14.15 – 16 and Fridays 12.15-14,

Lecture	Date	Subject	References/ notes 7 th ed	Reference s 6 th ed
0 RM	MONDAY 20/8	Information, plans for the course		
1 RM	MONDAY 27/8	DNA structure and topology, RNA structure	Chap.4 & 5	Chap.6
2 RH	MONDAY 3/9	Methods in gene technology	Chap.7	Chap.21
3 RM	FRIDAY 7/9	Genome structure, chromosomes, mitosis & meiosis, chromosome structure. Nucleosomes & chromatine.	Chap.8	Chap.7
4 RM	MONDAY 10/9	Nucleosomes & chromatine. Chromatin structure, histones, nucleosomes, modification, assembly	Chap.8	Chap.7
5 RM	MONDAY 17/9	Replication, initiation & termination.	Chap.9	Chap.8
6 RM	MONDAY 24/9	Replication, regulation. Telomers & telomerase	Chap.9	Chap.8
7 RM	FRIDAY 28/9	Mutagenesis, DNA repair	Chap.10	Chap.9
8 RM	MONDAY 1/10	Homologous recombination Site-specific recombination	Chap.11 Chap 12, 377-386, 416-420	Chap.10 Chap.11, 319-329, 365-369
9 RH	MONDAY 8/10	Introduction to Medical Genetics	Literature will be posted at My Space	

10 RM	MONDAY 15/10	Transcription	Chap.13	Chap.12
11 RM	MONDAY 22/10	RNA splicing	Chap.14	Chap.13
12 RM	MONDAY 29/10	Translation	Chap.15	Chap.14
13 AF	MONDAY 5/11	Gene regulation, prokaryotes	Chap.18	Chap.16
	9/11	Backup time		
14 AF	MONDAY 12/11	Gene regulation, eukaryotes.	Chap.19	Chap.17
15 AF	FRIDAY 16/11	Chromatin and Gene regulation Gene regulation in development.	Chap.19 & 21	Chap.17 & 19
16 AF	MONDAY 19/11	Regulatory RNA	Chap. 20	Chap. 18