



Biology and human genetics 2 – General medicine - summer semester academic year 2025/2026

Lectures:

1.	Human genome, its organization and types of DNA (mitochondrial and nuclear).	16.02.2026	Dr. Milošovičová
2.	Classical and molecular cytogenetics.	23.02.2026	Dr. Klimová
3.	Principles of single-gene inheritance.	02.03.2026	doc. Danišovič
4.	Genetic mechanisms in ontogenesis.	09.03.2026	doc. Böhmer
5.	Regulation of cell cycle - phases, checks points.	16.03.2026	doc. Böhmer
6.	Cell cycle deregulation. Tumor suppressor genes, proto-oncogenes.	23.03.2026	doc. Böhmer
7.	Mutagenesis and reparatory mechanisms.	30.03..2026	Dr. Priščáková
8.	Molecular base of most common cancers. Gene therapy.	13.04.2026	Dr. Pastoráková
9.	Teratogenesis.	20.04.2026	doc. Böhmer
10.	Epigenetics, alternative using of genetic information, mechanisms of differentiation.	27.04.2026	Dr. Petrovič
11.	Biological aspects of regenerative medicine.	04.05.2026	doc. Danišovič
12.	Biology and its use in advanced therapies.	11.05.2026	Dr. Čulenová

Practicals:

1.	Basic methods of human genetics (genealogical, gemological). Population genetics.	24. a 26.02.2026	appointed teachers
2.	Mendelian (autosomal) single gene inherited normal and pathological traits.	03. a 05.03.2026	appointed teachers
3.	X-linked single gene inherited normal and pathological traits.	10. a 12.03.2026	appointed teachers
4.	Polygene and multifactorial inheritance.	17. a 19.03.2026	appointed teachers
5.	Chromosomal analysis in interphase and mitosis.	24.3. a 26.03.2026	appointed teachers
6.	Gametogenesis. Mechanisms of chromosomal aberrations origin, causes and consequences.	31.3. a 02.04.2026	appointed teachers
7.	Regulation and deregulation of cell cycle (seminar)	07. a 09.04.2026	appointed teachers
8.	Mutagenesis. Tests of mutagenes.	14. a 16.04.2026	appointed teachers
9.	Teratogenesis.	21. a 23.04.2026	appointed teachers
10.	Case studies of selected genetic diseases.	28. a 30.4.2026	appointed teachers
11.	Credit test.	05. a 07.05.2026	appointed teachers
12.	Supplementary practical.	12. a 14.05.2026	appointed teachers