

**The schedule of lectures and practical lessons for Human genetics
Study program Stomatology, academic year 2023-2024**

Date	Lectures	Date	Practical lessons
12.02. - 16.02.	Human genetics and its importance for medicine. Genetic apparatus of the human cell. Nuclear and mitochondrial genomes. Morphology of human chromosomes. Identification, classification and nomenclature of chromosomes.	05.02. - 09.02. 12.02. - 16.02.	Genetic apparatus of the human cell. Nuclear and mitochondrial genomes. Heredity and variability. Human chromosomes. Structure. Nomenclature. Peculiarities of sex chromosomes.
26.02. - 01.03.	Numerical and structural chromosomal anomalies. Balanced and unbalanced chromosomal abnormalities. Consequences. Chromosomal syndromes affecting the craniofacial region and teeth.	19.02. - 23.02.	Methods of analysis of human chromosomes.
11.03. - 15.03.	Transmission of genetic material from cell to cell. Genetic phenomena and errors during mitosis. Chromosomal mosaics. Transmission of genetic material from generation to generation. Genetic phenomena and errors during fecundation.	26.02. - 01.03. 04.03. - 07.03.	Errors in structure and number of chromosomes. Evaluation of normal and pathological karyotypes. Dynamics of chromosomes in mitosis and meiosis. Errors during mitosis and their consequences. Chromosomal mosaics. Errors during meiosis and their consequences.
01.04. - 05.04.	Structure, localization and identification of genes. Gene linkage. Tools of gene analysis. Gene mutations. Consequences of point mutations.	11.03. - 15.03. 18.03. - 22.03. 25.03. - 29.03.	Evaluation of normal and pathological karyotypes. Concluding test 1. Human genes. Structure, localization and identification of genes. Gene mutations. Classification. Consequences of point mutations.
15.04. - 19.04.	Function of genes. Genotype-phenotype relationship. Allele and locus heterogeneity. Gene interactions. Heredity of monogenic traits. Mendelian inheritance. Heredity of defects of amelogenesis. Non-mendelian inheritance. Mitochondrial inheritance. Polygenic traits.	01.04. - 05.04. 08.04. - 12.04. 15.04. - 19.04.	Direct and indirect gene analysis. Normal monogenic hereditary traits (I). Genetics of blood groups (ABO, Rh). Genetics of systems: MNS, Hp, Xg, HLA. Monogenic traits (II). Gene interactions. Normal polygenic hereditary traits.
29.04. - 03.05.	Generalities regarding human pathology. Definition. Classification.	22.04. - 26.04.	Genetic events during transmission of traits. Concluding test 2.
14.05. - 17.05.	Peculiarities of hereditary traits and methods of analysis. Genetic diseases affecting the craniofacial region and teeth. Prophylaxis of human genetics. Prenatal diagnostic.	29.04. - 03.05. 14.05. - 17.05. 20.05. - 24.05.	Analysis of hereditary traits. Applications of population-statistical and twin methods. Transmission of abnormal monogenic hereditary traits. Criteria of recognition of dominant, recessive, autosomal and X-linked traits. Application of methods of study of hereditary traits. Genetic counseling. Prenatal diagnostic. Concluding test 3.
	Total: 30 ore		Total 30 ore

30.01.2024

Head of Department

Dr. Igor Cemortan