

Lectures Summer Term 2025/2026

Week	Date		Time	Venue		
1	25.02.2026	Wed	10:45-12:15	Coriových	Sztacho	Introduction to Molecular Biology
1	26.02.2026	Thr	12:30-14:15	U Nem. 4, 1.26	Sztacho	Structure and Function of Nucleic Acids, Types of RNA.
2	04.03.2026	Wed	10:45-12:15	Coriových	Sztacho	Organization of Prokaryotic, Eukaryotic and Mitochondrial Genomes; Chromatin Structure.
2	05.03.2026	Thr	12:30-14:15	U Nem. 4, 1.26	Sztacho	DNA Replication in Prokaryotic and Eukaryotic Cells.
3	11.03.2026	Wed	10:45-12:15	Coriových	Kupcová Skalníková	DNA Recombination and Its Types. DNA Transposition. Mutations: Origin and Effects. Mutagens and Carcinogens.
3	12.03.2026	Thr	12:30-14:15	U Nem. 4, 1.26	Kupcová Skalníková	DNA Repair Mechanisms
4	18.03.2026	Wed	10:45-12:15	Coriových	Sedlák	RNA Biosynthesis
4	19.03.2026	Thr	12:30-14:15	U Nem. 4, 1.26	Sedlák	Regulation of Gene Expression.
5	25.03.2026	Wed	10:45-12:15	Coriových	Sedlák	Translation; Inhibitors of Prokaryotic and Eukaryotic Translation. Protein Folding, Chaperones. Post-translational Modifications of Proteins 1.
5	26.03.2026	Thr	12:30-14:15	U Nem. 4, 1.26	Sedlák	Post-translational Covalent Modifications of Proteins 2. Protein Sorting and Transport to Organelles, Secretory Proteins.
6	01.04.2026	Wed	10:45-12:15	Coriových	Bušek	Structure and Function of Cell Membranes, Cell Junctions
7	08.04.2026	Wed	10:45-12:15	Coriových	Vejražka	Cell Compartmentalization, Structure and Function of Cellular Organelles, Vesicular Transport
7	09.04.2026	Thr	12:30-14:15	U Nem. 4, 1.26	Šedo	Mechanisms of Signal Transduction 1
8	15.04.2026	Wed	10:45-12:15	Coriových	Šedo	Mechanisms of Signal Transduction 2
8	16.04.2026	Thr	12:30-14:15	U Nem. 4, 1.26	Šedo	Mechanisms of Signal Transduction 3
9	22.04.2026	Wed	10:45-12:15	Coriových	Šedo	Biochemistry of Peptide and Protein Hormones and Thyroid Hormones.
9	23.04.2026	Thr	12:30-14:15	U Nem. 4, 1.26	Šedo	Hormones and Signaling Pathways Regulating Energy Metabolism.
10	29.04.2026	Wed	10:45-12:15	Coriových	Melezínek	Apoptosis

10	30.04.2026	Thr	12:30-14:15	U Nem. 4, 1.26	Melezínek	Cell Cycle
11	06.05.2026	Wed	10:45-12:15	Coriových	Křemen Vejražka	Liver Biochemistry
11	07.05.2026	Thr	12:30-14:15	U Nem. 4, 1.26	Megová Houdová	Xenobiochemistry
12	14.05.2026	Thr	12:30-14:15	U Nem. 4, 1.26	Balážiová	Biochemistry of Muscle and Muscle Contraction
13	20.05.2026	Wed	10:45-12:15	Coriových	Bušek	Biochemistry of Blood and Hemocoagulation
13	21.05.2026	Thr	12:30-14:15	U Nem. 4, 1.26	Bušek	Humoral Immunity
14	27.05.2026	Wed	10:45-12:15	Coriových	Bušek	Cellular Immunity
14	28.05.2026	Thr	12:30-14:15	U Nem. 4, 1.26	Balážiová	Biochemistry of Nervous Tissue and Senses
15	03.06.2026	Wed	10:45-12:15	Coriových	Melezínek	Biochemistry of Connective Tissue and Skin

Seminars Summer Term 2025/26

Week	Week from		
2	02.03.2026	Červenka	Importance of Molecular Biology in Medicine
3	09.03.2026	Houdová Megová	Summary: Nucleic Acids
4	16.03.2026	Sedlák	Next Generation Sequencing
5	23.03.2026	Červenka	Regulation of Gene Expression
6/7	01.04.2026	Bušek	Protein Folding, Ubiquitin–Proteasome System
8	13.04.2026	Bušek	Transmembrane Transport
9	20.04.2026	Vaníčková	Pre-analytical Aspects of Biochemical Testing
10	27.04.2026	Vejražka	Membrane Receptors and Their Signaling I
11	04.05.2026	Vejražka	Membrane Receptors and Their Signaling II
12	11.05.2026	Kupcová Skalníková	Summary: Signaling
13	18.05.2026	Matrasová	Summary: Regulation of Energy Metabolism
14	25.05.2026	Bušek	Overview of Immunochemical Methods

The seminar „Protein Folding, Ubiquitin-Proteasome System“ will be held

- On Monday April 1st (for Monday groups),
- On Friday April 10th (for Friday groups).

Practical Classes Summer Term 2025/2026

Week	Week from		
1	23.02.2026	Gyönyöröyová, Matrasová	Determination of Uric Acid
2	02.03.2026	Stejskal	Calculations in Molecular Biology
3	09.03.2026		Isolation of Genetic Material from a Buccal Mucosa Swab. Measurement of Isolated DNA Concentration.
4	16.03.2026		Electrophoresis of Isolated DNA. Amplification of a Region Including Exon 13 of the DPYD Gene Using PCR.
5	23.03.2026		PCR Electrophoresis and Preparation for Sequencing, Evaluation in FINCH Software.
6/7	30.03.2026		Evaluation of Molecular Biology Results
8	13.04.2026	Gyönyöröyová, Vaníčková	Urinalysis and Urinary Sediment in Diagnostics
9	20.04.2026	Balážiová	Midterm Test. Acid-Base Balance
10	27.04.2026	Červenka, Gyönyöröyová	Biochemistry of the Kidney. Clearance
11	04.05.2026	Balážiová, Matrasová	Examination of Patients with Diabetes Mellitus
12	11.05.2026	Bernardová, Stejskal	Xenobiochemistry and Toxicology.
13	18.05.2026	Houdová Megová, Šváblová	Biochemistry of Muscle Tissue.
14	25.05.2026	Bernardová, Matrasová	Midterm Test. Immunological Methods.

Practical classes Evaluation of Molecular Biology Results will take place

for Tuesday groups in Week 6,

for Wednesday and Thursday groups in Week 7.