Molecular Biology

Week	Lesson	Subject	Lecturer
1. Week*	1. lesson	-	-
2. Week*	1. lesson	Introduction to Molecular Biology for Pharmacy /Advanced Genome Organization and Functional Genomics (Chromatin dynamics, regulatory elements, genome architecture)	Dr. Öğr. Üyesi Gözde Hasbal Çelikok
3. Week*	1. lesson	DNA Damage Response and Repair Pathways in Disease and Therapy (Cancer biology, chemotherapeutic targets)	Dr. Öğr. Üyesi Gülsüm Altıparmak Ülbegi
4. Week *	1. lesson	Post-Transcriptional Control and RNA Biology (miRNA, lncRNA, RNA stability, RNA-based regulation)	Dr. Öğr. Üyesi Gözde Hasbal Çelikok
5. Week *	1. lesson	Alternative Splicing and Proteome Diversity (Disease associations, drug target implications)	Dr. Öğr. Üyesi Gülsüm Altıparmak Ülbegi
6. Week *	1. lesson	Post-Translational Modifications and Protein Targeting (Phosphorylation, glycosylation, drug-protein interactions)	Dr. Öğr. Üyesi Gözde Hasbal Çelikok
7. Week *	1. lesson	Protein Folding, Quality Control, and Degradation (Chaperones, ubiquitin-proteasome system, drug targets)	Dr. Öğr. Üyesi Gülsüm Altıparmak Ülbegi
Midterm			
8. Week *	1. lesson	Recombinant DNA Technology and Molecular Cloning (Plasmids, vectors, therapeutic protein production)	Dr. Öğr. Üyesi Gözde Hasbal Çelikok
9. Week *	1. lesson	RNA-Based Therapeutics and Gene Therapy (siRNA, mRNA vaccines, CRISPR overview)	Dr. Öğr. Üyesi Gülsüm Altıparmak Ülbegi
10. Week*	1. lesson	Biopharmaceuticals and Therapeutic Proteins (Monoclonal antibodies, recombinant hormones, vaccines)	Dr. Öğr. Üyesi Gözde Hasbal Çelikok
11. Week*	**19 Mayıs Atatürk'ü Anma, Gençlik ve Spor Bayramı**		
12. Week*	**Kurban Bayramı**		
13. Week*	1. lesson	Molecular Diagnostic Techniques (PCR, qPCR, sequencing, biomarker detection)	Dr. Öğr. Üyesi Gülsüm Altıparmak Ülbegi
14. Week*	1. lesson	Pharmacogenomics and Genetic Variability in Drug Response	Dr. Öğr. Üyesi Gözde Hasbal Çelikok

Duration of lecture: 40 minutes