

**GAZI UNIVERSITY FACULTY OF MEDICINE**  
**2021-2022 EDUCATIONAL YEAR**  
**YEAR II**  
**CELL- TISSUE INJURY AND BASICS OF THE PHARMACOLOGY COMMITTEE**  
**(18 April - 01 June 2022)**

<b>COURSES</b>	<b>THEORETICAL</b>	<b>LABORATORY</b>	<b>TOTAL</b>
Medical Pharmacology	36	-	36
Medical Pathology	18	-	18
Immunology	20	-	20
Nuclear Medicine	4	-	4
Radiology	3	-	3
Medical Biochemistry	2	-	2
<b>TOTAL</b>	<b>83</b>	<b>-</b>	<b>83</b>
Elective Courses	12		12
Medical English	12		12
CSE		1	1
EBM	2		
<b>TOTAL</b>	<b>109</b>	<b>1</b>	<b>110</b>

<b>01.06.2022</b>	<b>Wednesday</b>	<b>Year II Theoretical Exam+EBM Exam</b>	<b>Time: 09.30</b>
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Dean	Prof. Dr. Mustafa Necmi İLHAN
Vice Dean	Prof. Dr. İlyas OKUR
Vice Dean	Prof. Dr. Özlem GÜZEL TUNÇCAN
Head Coordinator	Prof. Dr. Çiğdem ÖZER
Assistant Head Coordinator	Prof. Dr. Mehmet Ali ERGÜN
Assistant Head Coordinator	Prof. Dr. Akif Muhtar ÖZTÜRK
<b>Year II Coordinator</b>	<b>Assist. Prof.Dr.Süheyla Esra ÖZKOÇER</b>
<b>Assistant Year II Coordinator</b>	<b>Assist. Prof.Dr.Zeynep YIĞMAN</b>
<b>Assistant Year II Coordinator</b>	<b>Teach. Assist. Dr. Pelin TÜRKKAN</b>
<b>Assistant Year II Coordinator</b>	<b>Teach. Assist. Dr. Ece ALİM</b>
<b>Assistant Year II Coordinator</b>	<b>Teach. Assist. Dr. Nihan ÖRÜKLÜ</b>

**MEMBERS OF COMMITTEE**

<b>MEDICAL PATHOLOGY</b>	<b>MEDICAL PHARMACOLOGY</b>	<b>IMMUNOLOGY</b>	<b>NUCLEAR MEDICINE</b>	<b>RADIOLOGY</b>	<b>MEDICAL BIOCHEMISTRY</b>
Dr. Güldal ESENDAĞLI	Dr. Canan ULUOĞLU	Dr. Vedat BULUT	Dr. Neşe İlgin KARABACAK	Dr. Erhan ILGIT	Dr. Cengiz KARAKAYA
Dr. Betül ÖĞÜT	Dr. Çimen KARASU	Dr. Resul KARAKUŞ	Dr. Ü. Özgür AKDEMİR	Dr. Halit ŞENDUR	
Dr. M. Arda İNAN	Dr. Süreyya BARUN	Dr. E. Ümit BAĞRIAÇIK			
	Dr. Ergin DİLEKÖZ	Dr. Nihan ÖRÜKLÜ			

Elective Course Coordinator	Doç. Dr. Ergin DİLEKÖZ
Clinical Skills Education Coordinator	Prof. Dr. Melda AYBAR TÜRKOĞLU
Evidence Based Medicine Coordinator	Prof. Dr. M. Ali ERGÜN

## **CELL AND TISSUE DAMAGE AND THE BASICS OF PHARMACOLOGY COMMITTEE**

### **Objective**

To help explain cell and tissue damage stages and pathogenetic mechanisms, types of inflammation, (hemodynamic) disturbances in blood flow or fluid balance in the pathogenesis of many diseases leading to death and pathogenesis of diseases related to the immune system. To describe the working order of the immune system in pathological events, pharmacokinetics and pharmacodynamics of drugs, factors affecting drug effect, drug adverse effects and intoxications, herbal drugs, drugs acting on the immune system, trace elements and vitamins, pharmacogenetics, new drug development and otakoids, radioactivity, biological effects of radiation, measurement of radiation, imaging with radiopharmaceuticals. To learn oxidant stress and leukocyte biochemistry. To describe systemic and autoimmune vasculitis

### **LEARNING OBJECTIVES**

#### **Knowledge**

LO-200-5-1 Should be able to explain the pathological mechanisms and consequences of cell and tissue damage

LO-200-5-2 Should be able to define types of inflammation, developmental patterns and morphological patterns

LO-200-5-3 Should be able to explain the mechanisms of immune diseases

LO-200-5-4 Should be able to describe the role of immune cells and their role in immune defense

LO-200-5-5 Should be able to define general concepts of pharmacology

LO-200-5-6 Should be able to explain the concepts related to drug pharmacokinetics and pharmacodynamics

LO-200-5-7 Should be able to explain how metabolism and effects of drugs change between individuals / ethnic groups due to genetic differences, explain the steps of new drug development process and explain their mechanisms

LO-200-5-8 Should be able to define autocoids.

LO-200-5-9 Should be able to explain radioactivity, types of radiation used in medicine and basic concepts related to the subject

LO-200-5-10 Should be able to comprehend the interaction of radiation with biological systems and radiation protection principles

LO-200-5-11 Should be able to describe radiopharmaceuticals and their mechanisms of involvement

LO-200-5-12 Should to be able to define the mechanisms of leukocyte biochemistry and oxidative stress

LO-200-5-13 Should be able to explain the laboratory tests used in rheumatologic diseases and their follow-up

LO-200-5-14 Should be able to explain the mechanism of autoimmune diseases and vasculitis, how to diagnose, follow and treat

#### **Skill**

LO-200-5-15 Should be able to define radiological methods and electromagnetic wave spectrum

LO-200-5-16 Should be able to define thrombus, coagulation necrosis and caseification necrosis by microscope

LO-200-5-17 Should be able to suture.

LO-200-5-18 Should be able to perform medical dressing.

**Attitude**

LO-200-5-19 To recognize the importance of immunology in medicine

LO-200-5-20 To observe the radiological methods associated with almost all disciplines of medicine and to observe different types of energy used during the application of these methods

1st Week	18.04.2022 MONDAY	19.04.2022 TUESDAY	20.04.2022 WEDNESDAY	21.04.2022 THURSDAY	22.04.2022 FRIDAY ENGLISH EXAM
08.30-09.15	4 th Committee Exam Question Analyze and Feedback Members of the Committee and Coordinators	Pharmacology and general principles of drug action Dr. KARASU	Free Study Time	CSE	Free Study Time
09.30-10.15	Leukocyte migration and inflammation Dr. KARAKUŞ	Pharmacology and general principles of drug action Dr. KARASU	Drug absorption and bioavailability Dr. ULUOĞLU	CSE	Free Study Time
10.30-11.15	Other receptors in immune response Dr. ÖRÜKLÜ	Immun regulation Dr. BAĞRIAÇIK	Drug absorption and bioavailability Dr. ULUOĞLU	CSE	Free Study Time
11.30-12.15	Other receptors in immune response Dr. ÖRÜKLÜ	Free Study Time	Drug administration routes and properties of pharmaceutical forms Dr. KARASU	CSE	Free Study Time
13.30-14:15	Cell injury and its causes Dr. İNAN	ONLINE COURSES  ELECTIVE COURSES TIME: 15:30-16:30  ENGLISH TIME: 17:30-18:20	Immunological techniques Dr. KARAKUŞ	CSE	Free Study Time
14.30-15.15	Necrosis, Apoptosis Dr. İNAN		Immunological techniques Dr. KARAKUŞ	CSE	Free Study Time
15.30-16.15	Intracellular accumulations Dr. İNAN		Free Study Time	CSE	Free Study Time
16.30-17.15	Cellular adaptations Dr. İNAN		Free Study Time	CSE	Free Study Time

2nd Week	25.04.2022 MONDAY Year III Exam	26.04.2022 TUESDAY	27.04.2022 WEDNESDAY	28.04.2022 THURSDAY	29.04.2022 FRIDAY
08.30-09.15	Free Study Time	Free Study Time	Free Study Time	Free Study Time	Free Study Time
09.30-10.15	Description of inflammation and pathogenesis Dr. ÖĞÜT	Type I Hypersensitivity Dr. BULUT	Free Study Time	Free Study Time	Free Study Time
10.30-11.15	Inflammation subtypes Dr. ÖĞÜT	Type II Hypersensitivity Dr. BULUT	Drug biotransformation Dr. ULUOĞLU	Radiation detection – principles of detection and instrumentation Dr. AKDEMİR	Transplantation immunology Dr. BULUT
11.30-12.15	Immunopathological mechanisms in tissue damage Dr. BULUT	Radiation dosimetry– biological effects of radiation and principles of protection Dr. KARABACAK	Drug biotransformation Dr. ULUOĞLU	Drug elimination Dr. ULUOĞLU	Transplantation immunology Dr. BULUT
13.30-14:15	Drug distribution Dr. ULUOĞLU	ONLINE COURSES  ELECTIVE COURSES TIME: 15:30-16:30  ENGLISH TIME: 17:30-18:20	Type III Hypersensitivity Dr. BULUT	Immunological tolerance Dr. BAĞRIAÇIK	Radionuclides, Radioactive labelled pharmaceuticals and principles of imaging Dr. AKDEMİR
14.30-15.15	Ionizing radiation and X -rays Dr. ILGIT		Type IV Hypersensitivity Dr. BULUT	Immunological tolerance Dr. BAĞRIAÇIK	Radioactivity, Atomic structure and interaction of radiation with matter Dr. AKDEMİR
15.30-16.15	Characteristics of X-rays and their diagnostic use in medicine Dr. ILGIT		Free Study Time	Free Study Time	Free Study Time
16.30-17.15	Free Study Time		Free Study Time	Free Study Time	Free Study Time

3rd Week	02.05.2022 MONDAY	03.05.2022 TUESDAY	04.05.2022 WEDNESDAY	05.05.2019 THURSDAY	06.05.2022 FRIDAY
08.30-09.15	<b>PUBLIC HOLIDAY</b>	<b>PUBLIC HOLIDAY</b>	<b>PUBLIC HOLIDAY</b>	Free Study Time	Free Study Time
09.30-10.15	<b>PUBLIC HOLIDAY</b>	<b>PUBLIC HOLIDAY</b>	<b>PUBLIC HOLIDAY</b>	Free Study Time	Free Study Time
10.30-11.15	<b>PUBLIC HOLIDAY</b>	<b>PUBLIC HOLIDAY</b>	<b>PUBLIC HOLIDAY</b>	Free Study Time	Free Study Time
11.30-12.15	<b>PUBLIC HOLIDAY</b>	<b>PUBLIC HOLIDAY</b>	<b>PUBLIC HOLIDAY</b>	Free Study Time	Free Study Time
13.30-14:15	<b>PUBLIC HOLIDAY</b>	<b>PUBLIC HOLIDAY</b>	<b>PUBLIC HOLIDAY</b>	Free Study Time	Free Study Time
14.30-15.15	<b>PUBLIC HOLIDAY</b>	<b>PUBLIC HOLIDAY</b>	<b>PUBLIC HOLIDAY</b>	Free Study Time	Free Study Time
15.30-16.15	<b>PUBLIC HOLIDAY</b>	<b>PUBLIC HOLIDAY</b>	<b>PUBLIC HOLIDAY</b>	Free Study Time	Free Study Time
16.30-17.15	<b>PUBLIC HOLIDAY</b>	<b>PUBLIC HOLIDAY</b>	<b>PUBLIC HOLIDAY</b>	Free Study Time	Free Study Time

4th Week	09.05.2022 MONDAY	10.05.2022 TUESDAY	11.05.2022 WEDNESDAY	12.05.2022 THURSDAY	13.05.2022 FRIDAY
08.30-09.15	Free Study Time	Free Study Time	Free Study Time	Free Study Time	<b>CSE (Make-up)</b>
09.30-10.15	Free Study Time	Drug receptor interaction and mechanisms of action Dr. KARASU	Immune diseases: Introduction Dr. ESENDAĞLI	Free Study Time	<b>CSE (Make-up)</b>
10.30-11.15	Acute inflammation Dr. ÖĞÜT	Chronic inflammation Dr. ÖĞÜT	Pathology of immune diseases Dr. ESENDAĞLI	Time-concentration relationship Dr. ULUOĞLU	<b>CSE (Make-up)</b>
11.30-12.15	Acute inflammation Dr. ÖĞÜT	Inflammation and repair Dr. ÖĞÜT	Factors modifying drug effect Dr. KARASU	Concentration-response relationship Dr. ULUOĞLU	<b>CSE (Make-up)</b>
13.30-14.15	Drug receptor interaction and mechanisms of action Dr. KARASU	<b>ONLINE COURSES</b>  <b>ELECTIVE COURSES</b> <b>TIME: 15:30-16:30</b>  <b>ENGLISH</b> <b>TIME: 17:30-18:20</b>	Factors modifying drug effect Dr. KARASU	Pathology of immune diseases Dr. ESENDAĞLI	<b>PROGRESS EXAM</b>
14.30-15.15	Drug receptor interaction and mechanisms of action Dr. KARASU		Imaging modalities and the properties of energies other than X rays Dr. ŞENDUR	Pathology of immune diseases Dr. ESENDAĞLI	<b>PROGRESS EXAM</b>
15.30-16.15	Free Study Time		Free Study Time	Drug toxicity Dr. DİLEKÖZ	<b>PROGRESS EXAM</b>
16.30-17.15	Free Study Time		Free Study Time	Free Study Time	<b>PROGRESS EXAM</b>



5th Week	16.05.2022 MONDAY	17.05.2022 TUESDAY	18.05.2022 WEDNESDAY	19.05.2022 THURSDAY	20.05.2022 FRIDAY	
08.30-09.15	Free Study Time	Free Study Time	Free Study Time	<b>PUBLIC HOLIDAY</b>	Free Study Time	
09.30-10.15	Concentration-response relationship Dr. ULUOĞLU	Autoimmunity Dr. BULUT	Free radical metabolism and related diseases Dr. KARAKAYA	<b>PUBLIC HOLIDAY</b>	Free Study Time	
10.30-11.15	Drug discovery and development Dr. ULUOĞLU	Autoimmunity Dr. BULUT	Free radical metabolism and related diseases Dr. KARAKAYA	<b>PUBLIC HOLIDAY</b>	Free Study Time	
11.30-12.15	Pathology of immune diseases Dr. ESEDAĞLI	Heavy metal toxicity Dr. DİLEKÖZ	Principles in treatment of acute toxicity Dr. DİLEKÖZ	<b>PUBLIC HOLIDAY</b>	Free Study Time	
13.30-14:15	Redox regulators, antioxidants and vitamins Dr. KARASU	<b>ONLINE COURSES</b>	Hemodynamic disorders Dr. İNAN	<b>PUBLIC HOLIDAY</b>	Free Study Time	
14.30-15.15	Redox regulators, antioxidants and vitamins Dr. KARASU		<b>ELECTIVE COURSES</b> TIME: 15:30-16:30	Hemodynamic disorders Dr. İNAN	<b>PUBLIC HOLIDAY</b>	Free Study Time
15.30-16.15	Free Study Time		<b>ENGLISH</b> TIME: 17:30-18:20	Free Study Time	<b>PUBLIC HOLIDAY</b>	Free Study Time
16.30-17.15	Free Study Time		Free Study Time	<b>PUBLIC HOLIDAY</b>	Free Study Time	

6th Week	23.05.2022 MONDAY	24.05.2022 TUESDAY Year III Exam	25.05.2022 WEDNESDAY	26.05.2022 THURSDAY	27.05.2022 FRIDAY
08.30-09.15	Free Study Time	CSE Exam	Free Study Time	Free Study Time	Free Study Time
09.30-10.15	Autoimmunity Dr. BULUT	CSE Exam	Histamine, Serotonin and Ergot alkaloids Dr. DİLEKÖZ	Amyloidosis Dr. İNAN	Pharmacovigilans Dr. ULUOĞLU
10.30-11.15	Immunomodulators Dr. BULUT	CSE Exam	Histamine, Serotonin and Ergot alkaloids Dr. DİLEKÖZ	Nitric oxide Dr. KARASU	The Eicosanoids: Prostaglandins, Thromboxanes, Leukotrienes, Related Compounds Dr. DİLEKÖZ
11.30-12.15	Immunomodulators Dr. BARUN	CSE Exam	Immunosuppression Dr. BULUT	Vasoactive peptides Dr. DİLEKÖZ	The Eicosanoids: Prostaglandins, Thromboxanes, Leukotrienes, Related Compounds Dr. DİLEKÖZ
13.30-14:15	Pharmaceutics, nutroceutics and phytotherapeutics Dr. KARASU	ONLINE COURSES  ELECTIVE COURSES TIME: 15:30- 16:30  ENGLISH TIME: 17:30- 18:20	EBM (Online)	Vasoactive peptides Dr. DİLEKÖZ	Free Study Time
14.30-15.15	Pharmaceutics, nutroceutics and phytotherapeutics Dr. KARASU		Free Study Time	Vasoactive peptides Dr. DİLEKÖZ	Free Study Time
15.30-16.15	Free Study Time		Free Study Time	General Approach to Intoxications (Panel)	Free Study Time
16.30-17.15	Free Study Time		Free Study Time	Free Study Time	Free Study Time

7th Week	30.05.2021 MONDAY	31.05.2021 TUESDAY	01.06.2022 WEDNESDAY	02.05.2022 THURSDAY	03.05.2022 FRIDAY
08.30-09.15	Free Study Time	Free Study Time	<b>THEROTICAL EXAM + EBM EXAM</b>	Free Study Time	Free Study Time
09.30-10.15	Free Study Time	Free Study Time	<b>THEROTICAL EXAM + EBM EXAM</b>	Free Study Time	Free Study Time
10.30-11.15	Free Study Time	Free Study Time	<b>THEROTICAL EXAM + EBM EXAM</b>	Free Study Time	Free Study Time
11.30-12.15	Free Study Time	Free Study Time	<b>THEROTICAL EXAM + EBM EXAM</b>	Free Study Time	Free Study Time
13.30-14.15	Free Study Time	<b>ONLINE COURSES</b>  <b>ELECTIVE COURSES</b> <b>TIME: 15:30- 16:30</b>  <b>ENGLISH TIME: 17:30- 18:20</b>	Free Study Time	Free Study Time	Free Study Time
14.30-15.15	Free Study Time		Free Study Time	Free Study Time	Free Study Time
15.30-16.15	Free Study Time		Free Study Time	Free Study Time	Free Study Time
16.30-17.15	Free Study Time		Free Study Time	Free Study Time	Free Study Time