



SAĞLIK  
BİLİMLERİ  
ENSTİTÜSÜ

# DEPARTMENT OF PHYSIOLOGY GRADUATE PROGRAMS

# ACADEMIC STAFF



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- **Prof. Dr. Sibel DİNÇER**
- **Prof. Dr. K. Gonca AKBULUT**
- **Prof. Dr. Çiğdem ÖZER (Head of the Department)**
- **Prof. Dr. Şevin GÜNEY**
- **Asst. Prof. Dr. Ayşe Meltem SEVGİLİ**
- **Instructor Dr. Pelin TÜRKKAN**
- **Instructor Dr. Hatice Betül MOĞULKOÇ**
- **Instructor Dr. Burak KAYABAŞI**
- **Research Assistant. Dr. Ahmet Hulusi YEŞİL**
- **Research Assistant. Dr. Ayşenur TOPUZ**
- **Research Assistant. Dr. Ahmet Yasin KORAL**
- **Research Assistant. Dr. M. Hakan DİNÇ**
- **Research Assistant. Dr. Esra TOKER**
- **Research Assistant. Dr. Gözde ŞEKER**



# FIELDS OF RESEARCH



## 1. Free radicals and antioxidants

--- NO (NO measurement in isolated guinea pig, rheumatologic heart diseases, AML), MDA, GSH, SOD, histamine levels, C vit, E vit, melatonin effect

## 2. Aging (antioxidants, immune system and apoptosis relationship, telomerase activity, sirtuins, aging mechanism)

## 3. Wound healing

--- Wound healing in the eye, skin, intestine, colonic anastomosis, gastric ulcer and denervation models

--- Wound healing in the sleep deprivation

--- Effect of the growth factors, leptin, amino acids and antioxidant applications on the wound healing in the normal and diabetic subjects

--- Relationship between free radicals, zinc level, hydroxyproline level and wound stretch

--- Effect of taurine and ginkgo biloba on the wound healing in the CCl<sub>4</sub>-induced hepatic injury

--- Ozone (Role of ozone application in the wound healing)

## 4. Diabetes



## 5. Ischaemia-Reperfusion

--- Relationship between amino acids, antioxidants and ginkgo biloba levels in the heart, lungs and nerves

## 6. Exercise

--- Relationship between antioxidants and free radicals

--- Comparison of respiratory and blood parameters in elite athletes

# FIELDS OF RESEARCH



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7. Food restriction

8. Learning

- Relationship between diets and antioxidants, free radicals
- Learning in rats with cholinergic system damage

9. Smooth muscle contraction-relaxation responses (aorta, gastrointestinal system, uterus, urinary bladder)

10. Effect of growth factors on the organism

11. Relationship between peptide, antioxidant, free radical and pinealectomy

12. Hypoxia and opioid peptides

- Hypoxic preconditioning
- Intracerebroventricular opioid administration

13. Viscosity of blood and plasma

14. Stress



15. Sepsis and blood flow

16. Alzheimer's disease models (Evaluation of learning and behaviour models in beta amyloid induced transgenic mice)

17. Fibrosis

-> CCl4 and d-galactose induced fibrosis

18. Application of lipid peroxidation, ascorbic acid and alloxan in electromagnetic field

# RESEARCH FACILITIES (LABORATORY INFRASTRUCTURE)



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1. Electrophoresis equipment
2. Microplate reader
3. Viscometer
4. Stereotaxic surgery apparatus (Rat)
5. Western blotting systems
6. Langendorff isolated tissue perfusion system
7. Electrocardiography (Effort)
8. Isolated tissue bath
9. Treadmill (for human)
10. Homogenizer
11. Centrifuge machine
12. Hypoxia chamber
13. Magnetic stirrer
14. Treadmill (for rat)
15. Thermomixer
16. Sensitive scale
17. Spirometer
18. Biopac data acquisition system
19. Electrical stimulator
20. Sonicator





# QUOTA NUMBERS AND ADMISSION REQUIREMENTS FOR THE 2025/2026 FALL SEMESTER

| QUOTA              |           |                              | SC<br>OR<br>E<br>TYP<br>E | PROGRA<br>M<br>TYPE | SCORE CRITERIA                  |                                  |  |
|--------------------|-----------|------------------------------|---------------------------|---------------------|---------------------------------|----------------------------------|--|
| MASTER'S<br>DEGREE | DOCTORATE | FOREIGN<br>NATIONAL<br>MADR. |                           |                     | ALES<br>SC<br>OR<br>E/<br>*TUS* | FOREIGN<br>LANGUA<br>GE<br>SCORE | GRADUATION<br>GRADE<br>(UNDERGRADUA<br>TE/<br>MA)      |
| 5                  | 5         | -                            | NUM.                      | MASTER'S<br>DEGREE  | 65                              | 65                               | 3,00/4,00  |
|                    |           |                              | NUM.                      | DR.                 | 70                              | 70                               | 3,00/4,00 (for MA)<br>2,50/4,00 (for<br>UNDERGRADUATE) |

## UNDERGRADUATE PROGRAMS ADMITTING STUDENTS

|           |                    |  |
|-----------|--------------------|--|
| DOCTORATE | 5370               | GRADUATED FROM FACULTY OF MEDICINE                                       |
|           | 2490               | GRADUATED FROM FACULTY OF DENTISTRY                                      |
|           |                    | MASTER'S DEGREE FROM DEPARMENT OF PHYSIOLOGY IN FACULTY OF MEDICINE      |
|           | 5333               | MEDICAL PHYSIOLOGY   |
|           | 2922               | PHYSIOLOGY (MEDICINE)  |
|           | 5378               | PHYSIOLOGY OF MEDICINE   |
|           | 2554               | PHARMACY   |
|           | MASTER'S<br>DEGREE | 2927   |
| 2124      |                    | BIOLOGY  |
| 2154      |                    | BIOTECHNOLOGY AND MOLECULAR BIOLOGY                                      |
| 2095      |                    | BIOINFORMATICS AND GENETICS  |
| 4207      |                    | MOLECULAR BIOLOGY AND GENETICS   |
| 7174      |                    | MOLECULAR BIOLOGY, GENETICS AND BIOENGINEERING                           |
| 2116      |                    | BIOCHEMISTRY (FACULTY OF SCIENCE, SCIENCE AND LITERATURE, BASIC SCIENCE) |