As one of the leading research universities in our country, Koç University continues to strive for excellence, placing particular importance on scientific education and research. Faculty members are recognized nationally and internationally for their research capabilities and receive significant grants from prestigious institutions such as the European Research Council (ERC) and Horizon Europe Framework Programme, for projects in a variety of fields.

**2022/23 FUNDS**

**Breakthroughs in Scientific Research**

**Asst. Prof. Barış Yıldız**
Department of Industrial Engineering

**ERC Starting Grant 2022**
**EUR 1.5 million grant for five years**

Asst. Prof. Barış Yıldız’s project “GoodMobility: A New Perspective on City Logistics: Concepts, Theory, and Models for Designing and Managing Logistics as a Service” aims to design future urban logistics systems and the necessary theories, concepts, and models for the realization of these systems. The project is the first ERC project focused on logistics.

**Assoc. Prof. Elif Nur Fırat Karalar**
Department of Molecular Biology and Genetics

**ERC Starting Grant 2022**
**EUR 1.6 million grant for five years**

Assoc. Prof. Elif Nur Fırat Karalar’s project “SatelliteHomeostasis: Spatiotemporal Regulation of Centriolar Satellite Homeostasis” focuses on understanding the evolutionary processes of the complex organization of mammalian cells, thus developing new diagnostic and treatment methods for diseases such as developmental disorders or cancer. Dr. Fırat Karalar received an ERC Starting Grant in 2015 for another project.

**Assoc. Prof. Selim Erdem Aytaç**
Department of International Relations

**ERC Starting Grant 2022**
**EUR 1.5 million grant for five years**

With the “Affective Polarization and Democratic Attitudes- DEPOLARIZE” project, Assoc. Prof. Selim Erdem Aytaç examines how the emotional polarization created by the antipathy, insecurity, and negative feelings developed by citizens in many countries against supporters of political parties they see as opposed to their own views affects people’s democratic attitudes.
Among the 47 prestigious projects from Türkiye that have received ERC grants since 2012, faculty members from Koç University have obtained an outstanding number of 27.

**Dr. Erkan Aydın**  
King Abdullah University of Science and Technology  
**ERC Starting Grant 2022**  
EUR 2.5 million grant for five years

Dr. Erkan Aydın received an ERC Starting Grant with “INPERSPACE,” a project hosted by Koç University. Dr. Aydın and his team develop highly efficient yet cost-effective solar cells that have become a necessity in the “new space age.” While INPERSPACE is the first project in Türkiye to receive an ERC fund in the field of photovoltaic technologies, Dr. Erkan Aydın is the first researcher to be awarded this project by writing a joint project with Türkiye from abroad.

**Assoc. Prof. Mustafa Erdem Kabadayi**  
Department of History  
**ERC Proof of Concept 2022**  
EUR 150,000 grant for one year

Assoc. Prof. Mustafa Erdem Kabadayi’s project “UrbanOccupationsOETR”, which previously had received an ERC Starting Grant, is the first in Türkiye in the field of history and still the only one in the field of the economic history of Türkiye and the Ottoman Empire in the European Research Council. The project analyzes radical land use and land cover segmentation from the 1940s to the present in the area including the cities of İstanbul, Edirne, and Plovdiv by associating them with population dynamics. He seeks to predict possible agricultural population loss, agricultural land abandonment, and deforestation in the 2040s.
TYPES OF ERC GRANTS

- **ERC Starting Grant for young, early-career top researchers (2-7 years after PhD)**—up to 1.5 million euros for a period of 5 years.

- **ERC Consolidator Grant for already independent excellent researchers (7-12 years after PhD)**—up to 2 million euros for a period of 5 years.

- **ERC Advanced Grant for senior research leaders with significant research achievements in the last 10 years**—up to 2.5 million euros for a period of 5 years.

- **ERC Proof of Concept Grants for ERC grant holders who want to test the market and/or innovation potential of research results from ERC projects**—up to 150,000 euros for a period of 12 months.

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**KOÇ UNIVERSITY**

KOÇ University is recognized officially as a research university by the Council of Higher Education of Türkiye (YÖK).

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**Asst. Prof. Mehmet Cengiz Onbaşlı**  
Departments of Electrical and Electronics Engineering and Physics

**ERC Proof of Concept 2022**  
**EUR 150,000 grant for one year**

Asst. Prof. Mehmet Cengiz Onbaşlı’s “SuperPHOTON: 2D Topological Superconducting Single Photon Detector Devices” project aims to produce and commercialize highly sensitive new quantum light sensors, one of the most important research areas of the 21st century. These new sensors are of great importance for the success and diffusion of quantum computers and quantum internet technology. In 2020, Prof. Onbaşlı received a Starting Grant from ERC with the project “SKYNOLIMIT: Ultralow Power and Ultrawideband Spintronics Near Thermodynamic Limits.”
10 Koç University affiliated projects have received funding from Horizon Europe since the launch of the new EU Framework Programme for Research and Innovation in February 2021.

**Prof. Barış Tan**
Department of Business Administration

*Horizon Europe Framework Programme*
13 partners from eight different countries / Total budget approx. EUR 7.2 million

Prof. Barış Tan’s “AUTO-TWIN: Data-driven Method Based on a Process Mining Approach for Automated Digital Twin Generation, Operations, and Maintenance In Circular Value Chains” project addresses the technological shortcoming and economic liability of the development and usage of digital twins that are accepted as the accelerator and enabler of Circular Economy in businesses and production by conduction research.

**Prof. Ahmet İçduygu and The MiReKoc Team**
Department of International Relations and Department of Sociology

*Horizon Europe Framework Programme*
10 partners / Total budget approx. EUR 3.5 million

Prof. Ahmet İçduygu and the MiReKoc (the Migration Research Center at Koç University) Team’s “FAIR: Finding Agreement in Return” project aims to generate new insights into the factors and processes that foster or impede the legitimacy and effectiveness of Europe’s intergovernmental return and alternatives to return policies. FAIR will contribute to improving the measurement of return policies and enforced return outcomes and will enrich the analysis of the drivers of enforced return.

**Koç University Center For Gender Studies (KOÇ-KAM)**

*Horizon Europe Framework Programme*
11 partners from eight countries / Total budget approx. EUR 2.5 million

The “FIERCE: Feminist Movements Revitalizing Democracy in Europe” project, in which KOÇ-KAM is a partner institution, examines feminist and anti-feminist movements, actions, and discourses and their impact on the institutional arena and political outcomes.

**Prof. Nazlı Başak and Asst. Prof. Hamzah Syed**
School of Medicine & Koç University Research Center for Translational Medicine (KUTTAM)

*The Canadian Institute of Health Research*
Total budget approx. EUR 1.5 million - Koç University EUR 500,000

Prof. Nazlı Başak and Asst. Prof. Hamzah Syed received support from the Canadian Institute of Health Research for their project “The Oral and Gut Microbiome and Their Derived Metabolites in Sex Differences in ALS,” to investigate the relationship between ALS, a debilitating brain disease, and microorganisms, especially in the gut.

**Asst. Prof. Aslı E. Mert**
Department of Sociology

*Horizon Europe Framework Programme*
10 partners / Total budget EUR 998,715 - Koç University EUR 36,100

Asst. Prof. Aslı E. Mert was chosen by the Horizon Europe Program as one of the partners of the “Twinning Research and Innovation Institutions to Design and Implement Inclusive GEPs (NEXUS) Project.”
**Prof. Ahmet İçduyuğ and MiReKoc Team**  
Department of International Relations and Department of Sociology  

*The Volkswagen Foundation*  
**Total budget EUR 1.2 million - Koç University EUR 231,000**

The “MIG-AGE: Do Immigrants in Europe Aging Well? Mixed Methods and Intervention Study in Four Countries” project, by MiReKoc Team, led by Prof Ahmet İçduyuğ, has received a prestigious international grant given by the Volkswagen Foundation. A mixed methods and intervention study conducted in four countries addresses the question of what it means for different groups of migrants in Europe to be old and age well, specifically for first-generation retired labor migrants.

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**Prof. Metin Sezgin**  
KUIS AI Center  

1st TEYDEB 1711 Artificial Intelligence Ecosystem Call  
**Total budget approx. EUR 2 million - Koç University EUR 939,000**

Prof. Metin Sezgin’s project “Artificial Intelligence Aided Detergent Formula Design and Performance Optimization” received funding out of a total of 10 funded projects. The partners of Koç University in this project are Hayat Kimya A.Ş., Albert Solino Danışmanlık ve Yazılım A.Ş., and TÜBİTAK BİLGEM.

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**Asst. Prof. Ceyhun Arslan**  
Department of Comparative Literature  

*Alexander von Humboldt Foundation*

Asst. Prof. Ceyhun Arslan has been deemed worthy of the Alexander von Humboldt Foundation’s Georg Forster Research Fellowship given to experienced researchers, for his work analyzing literary studies, aiming to overcome the established geopolitical and cultural boundaries of the nineteenth century.

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**Prof. Yücel Yemez**  
KUIS AI Center  

1st TEYDEB 1711 Artificial Intelligence Ecosystem Call  
**Total budget approx. EURO 2 million - Koç University EUR 939,000**

Prof. Yücel Yemez also received funding for his “Smart Monitoring of Human Motion and Activities in the Production Environment” project out of a total of ten funded projects. The partners of Koç University in this project are Tofaş A.Ş., Cognitiwe Bilişim Ticaret A.Ş. and TÜBİTAK BİLGEM.

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**Prof. Demircan Canadinç**  
Department of Mechanical Engineering  

*Alexander von Humboldt Foundation*

Prof. Demircan Canadinç received the Alexander von Humboldt Foundation’s Humboldt Research Award for his research on characterizing metallic materials using multiscale experimental and computational methods, designing microstructures and alloys using artificial intelligence, improving the performance of metals under monotonic and cyclic loads, and designing metallic biomedical materials.