

# Lect. PhD GÜLÇİN GÜNAL KARATAŞ

## Personal Information

**Office Phone:** [+90 242 249 6000](tel:+902422496000) Extension: 2477

**Email:** [gulcingunalkaratas@akdeniz.edu.tr](mailto:gulcingunalkaratas@akdeniz.edu.tr)

**Web:** <https://avesis.akdeniz.edu.tr/gulcingunalkaratas>

## International Researcher IDs

ScholarID: zhQ8pdsAAAAJ

ORCID: 0000-0003-2241-5293

Publons / Web Of Science ResearcherID: ABX-3217-2022

ScopusID: 57192958097

Yoksis Researcher ID: 377694

## Education Information

Doctorate, Hacettepe University, Fen Bilimleri Enstitüsü, Biyomühendislik A.B.D., Turkey 2016 - 2021

Postgraduate, Hacettepe University, Fen Bilimleri Enstitüsü, Biyomühendislik A.B.D., Turkey 2013 - 2016

Undergraduate, Hacettepe University, Fen Fakültesi, Biyoloji Bölümü, Turkey 2007 - 2012

## Certificates, Courses and Trainings

Education Management and Planning, Eğitimci Eğitimi, Akdeniz Üniversitesi, 2023

Health&Medicine, DENEY HAYVANLARI SERTİFİKASI, HACETTEPE ÜNİVERSİTESİ, 2014

Vocational Training, Pedagogik Formasyon Eğitimi, Hacettepe Üniversitesi, 2014

## Dissertations

Doctorate, Deselülerize miyokard-elastomer yamaların hazırlanması ve in vitro performanslarının incelenmesi, Hacettepe University, Fen Bilimleri Enstitüsü, 2021

Postgraduate, Silika ve polimer bazlı mikrokürelerin dna izolasyon özelliklerinin belirlenmesi, Hacettepe University, Fen Bilimleri Enstitüsü, 2016

## Research Areas

Plastic and Reconstructive Surgery, Tissue Engineering, Stem Cell Engineering

## Academic Titles / Tasks

Lecturer PhD, Akdeniz University, Faculty of Medicine, Department of Surgical Medical Sciences, 2022 - Continues

## Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Effects of liquid-to-solid ratio and gamma irradiation on the rheology and cytocompatibility of a beta-tricalcium phosphate-based injectable bone substitute**  
Ozdil D., GÜNAL KARATAŞ G., Tevlek A., AYDIN H. M.  
Journal of Biomaterials Science, Polymer Edition, vol.35, no.7, pp.1086-1104, 2024 (SCI-Expanded)
- II. **Establishment of 3D cell culture systems with decellularized lung-derived extracellular matrix hydrogel scaffold**  
Subasi Can S., Tuncer S., Akel Bilgic H., İmrak G., GÜNAL KARATAŞ G., DAMADOĞLU E., AYDIN H. M., KARAASLAN İ. Ç.  
Journal of Biomaterials Science, Polymer Edition, 2024 (SCI-Expanded)
- III. **Synthesis of hybrid myocardium constructs and in vitro characterization under mechanical stimulation**  
Günel G., Zihna G., Akel H., Okan M., KARAASLAN İ. Ç., AYDIN H. M.  
Materials Today Communications, vol.33, 2022 (SCI-Expanded)
- IV. **Preparation of Hybrid Meniscal Constructs using Hydrogels and Acellular Matrices.**  
Zihna G., Topuz B., Günel G., Aydın H. M.  
Journal of biomaterials science. Polymer edition, pp.1-21, 2022 (SCI-Expanded)
- V. **Microwave-Assisted Synthesis of Stretchable and Transparent Poly(Ethyleneglycol-Sebacate) Elastomers with Autonomous Self-Healing and Capacitive Properties**  
Günel G., Okan M., GÖKCEN D., Caykara T., AYDIN H. M.  
Soft Robotics, vol.8, no.3, pp.262-272, 2021 (SCI-Expanded)
- VI. **Hybrid Cornea: Cell Laden Hydrogel Incorporated Decellularized Matrix**  
Uyanıklar M., Günel G., Tevlek A., Hosseinian P., AYDIN H. M.  
ACS Biomaterials Science and Engineering, vol.6, no.1, pp.122-133, 2020 (SCI-Expanded)
- VII. **Comparative DNA isolation behaviours of silica and polymer based sorbents in batch fashion: monodisperse silica microspheres with bimodal pore size distribution as a new sorbent for DNA isolation**  
Günel G., Kip Ç., Eda Öğüt S., İlhan H., Kibar G., Tuncel A.  
Artificial Cells, Nanomedicine and Biotechnology, vol.46, no.1, pp.178-184, 2018 (SCI-Expanded)
- VIII. **Human genomic DNA isolation from whole blood using a simple microfluidic system with silica- and polymer-based stationary phases**  
Günel G., Kip Ç., Öğüt S. E., Usta D. D., ŞENLİK E., Kibar G., Tuncel A.  
Materials Science and Engineering C, vol.74, pp.10-20, 2017 (SCI-Expanded)

## Articles Published in Other Journals

- I. **Extracellular Matrix-Based Conductive Composites for Myocardial Tissue Regeneration**  
GÜNAL KARATAŞ G., GÖKCEN D., AYDIN H. M.  
ACS APPLIED BIO MATERIALS, vol.6, no.10, pp.4100-4104, 2023 (ESCI)
- II. **Development of Antithrombogenic ECM-Based Nanocomposite Heart Valve Leaflets**  
Seyrek A., Günel G., AYDIN H. M.  
ACS Applied Bio Materials, vol.5, no.8, pp.3883-3895, 2022 (ESCI)

## Books & Book Chapters

- I. **Use of supercritical CO<sub>2</sub> in soft tissue decellularization**  
Topuz B., Günel Karataş G., Güler S., Aydın H. M.  
in: Methods in Cell Biology, Caballero David,C. Kundu Subhas,L. Reis Rui, Editor, Academic Press , Cambridge, pp.49-79, 2020

## Supported Projects

ÖZKAN Ö., ÖZKAN Ö., ERTOSUN M. G., GÜNAL KARATAŞ G., Project Supported by Higher Education Institutions, Deri Doku Rejenerasyonu için Aljinat Kürelerle Destekli KoKültür Uygulamalarının Araştırılması, 2023 - 2024

Karaaslan İ. Ç., TUBITAK Project, Havayolu Hücre Kültür Sistemlerinin 3b Modellemesi Ve Klinikte Kullanılması Hedeflenen Doku Greftlerinin Geliştirilmesi, 2020 - 2022

Karaaslan İ. Ç., Günal Karataş G., Project Supported by Higher Education Institutions, Havayolu Modellemesi Amaçlı Tasarlanan Mühendislik Ürünü 3B Hücre Kültür Sistemlerinin Geliştirilmesi, 2019 - 2022

Aydın H. M., TUBITAK Project, Nükleus Pulpozus Rejenerasyonu İçin Aselüler-Hibrit Jel Yapıların Geliştirilmesi, 2021 - 2021

Özgürbüz D. U., Günal Karataş G., TUBITAK Project, Eklem Kıkırdağı Rejenerasyonu Ve/Veya Viskosüplementasyon İçin Çapraz Bağlı Hyaluronik Asit-Örgüsüz Polimerik Meshden Oluşan Bir Ürün Platformunun Geliştirilmesi, 2018 - 2020

Aydın H. M., Günal Karataş G., Project Supported by Higher Education Institutions, Aselüler Miyokard Poli(gliserol sebakat) Hibrit Kardiyak Yamaların Üretimi ve Karakterizasyonu, 2018 - 2019

Tuncel S. A., TUBITAK Project, Polimerik Formda Mikro Akışkanlar Dinamiği Tabanlı Nükleik Asit Mikro-Ekstraksiyon Platformu Geliştirilmesi, 2014 - 2016

## Scientific Refereeing

JOURNAL OF BIOMATERIALS APPLICATIONS, National Scientific Refreed Journal, September 2023

Research Project of the Presidency of Turkey Health Institutes (TÜSEB), Akdeniz University, Turkey, September 2023

Research Project of the Presidency of Turkey Health Institutes (TÜSEB), Akdeniz University, Turkey, September 2023

TUBITAK Project, 1001 - Program for Supporting Scientific and Technological Research Projects, Araştırma Destek Programları, Turkey, June 2023

## Scientific Research / Working Group Memberships

Aydın Lab, Hacettepe University, Turkey, <https://aydinlab.weebly.com/prof-dr-halil-murat-aydin.html>, 2018 - 2021

## Congress and Symposium Activities

Türk Toraks Derneği 23. Kongresi, Working Group, Ankara, Turkey, 2020

The European Academy of Allergy and Clinical Immunology Digital Congress 2020, Working Group, Ankara, Turkey, 2020

Scandinavian Society for Biomaterials 2019 Conference, Working Group, Helsinki, Finland, 2019

Tissue Engineering and Regenerative Medicine International Society European Chapter 2019, Working Group, Rodos, Greece, 2019

43rd International Symposium on High Performance Liquid Phase Separations and Related Techniques 2016, Working Group, California, United States Of America, 2016

42nd International Symposium on High Performance Liquid Phase Separations and Related Techniques 2015, Working Group, Geneve, Switzerland, 2015

42nd International Symposium on High Performance Liquid Phase Separations and Related Techniques, Working Group, Geneve, Switzerland, 2015

18. Biyomedikal Mühendisliği Ulusal Toplantısı, Working Group, İstanbul, Turkey, 2014

## Scholarships

2211-C Öncelikli Alanlar Bursu, TUBITAK, 2017 - 2020