

Lect. PhD GÜLÇİN GÜNAL KARATAŞ

Personal Information

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

Email: 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, Artificial Organs and Biomaterials, Tissue Engineering, Biomaterials, Biomaterial

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. **Comparative analysis of supercritical-based and chemical-based decellularization technique for meniscus tissue**
Zihna G., Kilic B., Topuz B., GÜNAL KARATAŞ G., AYDIN H. M.
Journal of Supercritical Fluids, vol.219, 2025 (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, vol.36, no.1, pp.22-44, 2025 (SCI-Expanded)
- III. **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)
- IV. **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)
- V. **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)
- VI. **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)
- VII. **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)
- VIII. **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)
- IX. **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. **Regenerative Material for the Treatment of Articular Cartilage Damage: Synthesis and Characterization of Hyaluronic Acid and Poly(glycolic acid) Composite Matrices**
Günel Karataş G., Aydın H. M.
Hacettepe Journal of Biology and Chemistry, vol.52, no.6, pp.293-302, 2024 (Peer-Reviewed Journal)
- II. **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)
- III. **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

I. Use of supercritical CO2 in soft tissue decellularization

Topuz B., Günal 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

TURHAN İ., GÜNAL KARATAŞ G., ÖZCAN A., AKARSU E., Üstündağ T., ERKAN H., İŞÇİ YAKAN A., ÇİMEN H., ÖZKAN Ö., BAŞMAK S., Project Supported by Higher Education Institutions, Biyoteknolojik Yöntemlerle Farklı Molekül Ağırlıklarında Üretilen Hyaluronik Asidin Tıbbi Cihaz Üretiminde Kullanımı, 2024 - Continues

Özkan Ö., Günal Karataş G., Köse S., Akarsu E., Akarsu M., Özkan Ö., R&D Project of Group B, PRP ile Zenginleştirilmiş Manyetik Antibakteriyel Yara Örtü Materyallerinin Geliştirilmesi ve In Vivo Uygulaması, 2025 - 2027

Özkan Ö., Özkan Ö., Günal Karataş G., Köse S., Ertosun M. G., Project Supported by Higher Education Institutions, 3 Boyutlu Deri Doku Greftlerinin Üretimi ve Karakterizasyonları, 2024 - 2026

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

Peer Reviews in Scientific Publications

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

Scientific Project Refereeing

TUBITAK Project, 1501 - Industry R & D Projects Support Program, November 2024

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

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

TUBITAK Project, 1001 - Program for Supporting Scientific and Technological Research Projects, June 2023

Scientific Research / Working Group Memberships

Aydın Lab, Hacettepe University, Türkiye, <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, TÜBİTAK, 2017 - 2020

Awards

Subaşı Can S., Tuncer S., Günal Karataş G., Damadoğlu E., Aydın H. M., Karaaslan İ. Ç., Deneysel Araştırmalar Çalışma Grubu Poster Bildiri Ödülü, Türk Toraks Derneği, October 2020