

# HÜSEYİN AVCI

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### Öğrenim Bilgisi

Doktora 2010 - 2013	North Carolina State University, Fiber Ve Polimer Bilimi, Amerika Birleşik Devletleri
Yüksek Lisans 2008 - 2010	North Carolina State University {North Carolina}, Tekstil Kimyası, Amerika Birleşik Devletleri
Lisans 1999 - 2005	Dokuz Eylül Üniversitesi, Mühendislik Fakültesi, Tekstil Mühendisliği Bölümü, Türkiye

### Yaptığı Tezler

Doktora, Unusual formation of precursors for crystallization of ultra-high performance polypropylene and poly (ethylene terephthalate) fibers by utilization of ecologically friendly horizontal isothermal bath, North Carolina State University, Fiber Ve Polimer Bilimi, 2013

Yüksek Lisans, Novel approaches to the development and characterization of antimicrobial conventional and nanostructured materials, North Carolina State University {North Carolina}, Tekstil Kimyası, 2010

### Akademik Unvanlar / Görevler

Doç. Dr. 2019 - Devam Ediyor	Eskişehir Osmangazi Üniversitesi, MÜHENDİSLİK-MİMARLIK FAKÜLTESİ, METALURJİ VE MALZEME MÜHENDİSLİĞİ BÖLÜMÜ
Dr. Öğr. Üyesi 2014 - 2019	Eskişehir Osmangazi Üniversitesi, MÜHENDİSLİK-MİMARLIK FAKÜLTESİ, METALURJİ VE MALZEME MÜHENDİSLİĞİ BÖLÜMÜ
Araştırma Görevlisi 2015 - 2016	Harvard-Mit Health Sciences And Technology
Araştırma Görevlisi 2015 - 2016	Harvard University, Medical School

Araştırma Görevlisi  
2013 - 2014

North Carolina State University

Araştırma Görevlisi  
2013 - 2014

İstanbul Teknik Üniversitesi, Uçak Ve Uzay Bilimleri Fakültesi

Araştırma Görevlisi  
2008 - 2013

North Carolina State University

## Desteklenen Projeler

1. AVCI H., GASIMZADE N., Yükseköğretim Kurumları Destekli Proje, ÇİP ÜZERİNDE KARACİĞER KANSERİ PLATFORMUNDA İLACA BAĞLI KARACİĞER ENDOTEL HASARININ İNCELENMESİ, 2023 - Devam Ediyor
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3. Atalay E., Özalp O., Uysal O., Ghorbanpoor H., Eroğlu S., Korkmaz O. T., Avcı H., Eker Sarıboyacı A., TÜBİTAK Projesi, Plateletten Zengin Plazma, Limbal-Kaynaklı Stromal Mezenkimal Kök Hücre Ve Pro-Rejeneratif Özellikli Eksozom İle Enkapsüle Edilmiş Terapötik Biyomalzeme Uygulamasının Oküler Yüzey Kimyasal Ve Termal Yanıklı Hayvan Modellerinde Klinik Etkinliğinin Araştırılması, 2023 - 2026
4. İstanbullu Ö. B., Yasan Ö. B., Ghorbanpoor H., Demir Cevizlidere B., Avcı H., Eker Sarıboyacı A., TÜBİTAK Projesi, Hegzagonal Bor Nitrür ve Tantalum Mikropartikül Takviyesi ile 3D Yazdırılabilir Biyobozunur Malzemeler İçin Hedef Doku ile Mekanik Uyumluluğun ve X-Işınlı Tıbbi Görüntüleme Sistemleri İle Görüntülenebilme Özelliğinin İyileştirilmesi, 2024 - 2025
5. Ghorbanpoor H., Avcı H., Doğan Güzel F., Bütün Şengel S., Semerci Sevimli T., Pat S., Darcan C., Eker Sarıboyacı A., TÜBİTAK Projesi, Mikroakışkan Çip İçerisinde Nanolif: Bakteri Duvarının Giderilmesinde Mikro-Filtrasyon Platformunun Geliştirilmesi, 2023 - 2025
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8. Avcı H., Ghorbanpoor H., Doğan Güzel F., Ebrahimi A., Şengel T., Topal A. E., Özel C., Kaya M., Yükseköğretim Kurumları Destekli Proje, Mikroakışkan Yonga Üzerinde Üç Boyutlu Karaciğer Kanseri Modeli ve Hedefe Yönelik Tanılama ve İlaç Taraması Kitinin Geliştirilmesi, 2022 - 2024
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10. SEMERCİ SEVİMLİ T., ÇEMREK F., SEVİMLİ M., ŞAHİNTÜRK V., AVCI H., EKER SARIBOYACI A., QOMI EKENEL E., ALTUĞ TASA B., GHORBANI A., GÜNEŞ S., et al., Yükseköğretim Kurumları Destekli Proje, Küçük Hücreli Dışı Akciğer Kanseri (KHDAK) Kökenli Kanser Kök Hücrelerinde (Stem-Like NSCLC Cells) Epitelyal Mezenkimal Geçişte Borik Asitin Etkilerinin İncelenmesi, 2020 - 2022
11. EKER SARIBOYACI A., GÜNEŞ S., TUNCER S., SEMERCİ SEVİMLİ T., AVCI H., SEVİMLİ M., QOMİ EKENEL E., UYSAL O., Yükseköğretim Kurumları Destekli Proje, Domoik Asidin İnsan Amniyotik Sıvı Kökenli Mezenkimal Kök Hücrelerin (iAS-MKH) DNA Tamir Mekanizması Üzerine Etkisinin Araştırılması, 2019 - 2022
12. Eker Sarıboyacı A., Avcı H., Uysal O., Özkurt M., TÜBİTAK Projesi, Mezenkimal Kök Hücre Yüklü Kompozit Canlı Fibrillerin Saten Dkoumasıyla Üretilen Yapı İskeletlerinde İlaç Kontrolü Salınımın Değerlendirilmesi, 2020 - 2021

13. Avcı H., Moralı U., Erol S., Yükseköğretim Kurumları Destekli Proje, Geliştirilecek Yüksek Hassasiyetteki Elektrokimyasal Sensör Sistemi ile Ülkemiz Deniz Canlılarında Domoik Asidin ve Deniz Kirliliğinin İncelenmesi, 2018 - 2021
14. Avcı H., TÜBİTAK Projesi, Geliştirilen Çevre Dostu Yöntem ile Yeni Nesil Yüksek Performanslı ve Fonksiyonel Polietilen Bazlı Fiberlerin Geliştirilmesi, 2018 - 2020
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17. AVCI H., Yükseköğretim Kurumları Destekli Proje, Çevre Dostu ve Doğal İçerikli Bileşikler İçeren Antibakteriyel Nanofiber ve Yara İyileştirici Örtü Eldesi, 2015 - 2017
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19. Ghorbanpoor H., Nurbaş M., Avcı H., Yükseköğretim Kurumları Destekli Proje, Design of Advanced Three-Dimensional (3D) Eco-Friendly Fiber Reinforced Bio-Composite Structures., 2015 - 2017
20. Ghorbanpoor H., Avcı H., Yükseköğretim Kurumları Destekli Proje, Termoplastik Elastomer olan Poly styrene b ethylene co butylene b styrene nin dinamik manipulasyonla fonksiyonel elektrospun nanofiber mühendisliği, 2015 - 2016
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22. Diğer Uluslararası Fon Programları, Novel Melt Spun Melt Ordered Process for Producing High Performance Polyester Fibers, 2010 - 2013

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2. **Molecular Separation by Using Active and Passive Microfluidic chip Designs: A Comprehensive Review**  
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3. **Advances in xenogeneic donor decellularized organs: A review on studies with sheep and porcine-derived heart valves**  
Inal M. S., AVCI H., Hassan S., DARCAN C., Shin S. R., AKPEK A.  
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4. **High-throughput microfluidic chip with silica gel-C18 channels for cyclotide separation**  
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Analytical and Bioanalytical Chemistry, cilt.415, sa.27, ss.6873-6883, 2023 (SCI-Expanded)
5. **Simple and low-cost antibiotic susceptibility testing for Mycobacterium tuberculosis using screen-printed electrodes**  
GHORBANPOOR H., AKÇAKOCA İ., Norouz Dizaji A., Butterworth A., Corrigan D., Kocagoz T., Ebrahimi A., AVCI H., DOĞAN GÜZEL F.  
Biotechnology and Applied Biochemistry, cilt.70, sa.3, ss.1397-1406, 2023 (SCI-Expanded)
6. **CLINICAL-GRADE HUMAN SYNOVIAL FLUID-DERIVED MESENCHYMAL STEM CELLS FOR DEGENERATIVE MENISCUS THERAPY**  
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European Biophysics Journal, cilt.52, sa.3, ss.131-143, 2023 (SCI-Expanded)
8. **A multifunctional sateen woven dressings for treatment of skin injuries**  
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9. **On chip microfluidic separation of cyclotides**  
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10. **Improvement of polyethylene fiber wettability and mechanical properties through an environmentally sustainable spinning process**  
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11. **Immunomodulating Hydrogels as Stealth Platform for Drug Delivery Applications**  
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12. **Developing an in-Line method to improve mechanical and flame retardancy performance of polyethylene fiber**  
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13. **A fully integrated rapid on-chip antibiotic susceptibility test-A case study for *Mycobacterium smegmatis***  
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14. **An electrochemical biosensor with integrated microheater to improve the sensitivity of electrochemical nucleic acid biosensors**  
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15. **Investigation of electrochemical behavior of potassium ferricyanide/ferrocyanide redox probes on screen printed carbon electrode through cyclic voltammetry and electrochemical impedance spectroscopy**  
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Guzel F. D., Ghorbanpoor H., Dizaji A. N., Akçakoca İ., Ozturk Y., Kocagoz T., Corrigan D. K., Avci H.  
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Norouz Dizaji A., Ali Z., Ghorbanpoor H., Ozturk Y., Akçakoca İ., Avci H., Doğan Güzel F.  
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Bayir Garbioglu D., DEMİR N., Ozel C., AVCI H., DİNCER M.  
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19. **Current strategies for the regeneration of skeletal muscle tissue**  
Alarçin E., Bal-Öztürk A., Avci H., Ghorbanpoor H., Guzel F. D., Akpek A., Yesiltas G., Canak-İpek T., Avci-Adali M.

International Journal of Molecular Sciences, cilt.22, sa.11, 2021 (SCI-Expanded)

20. **Electrochemical Investigation of Gold Based Screen Printed Electrodes: An Application for a Seafood Toxin Detection**  
Koc Y., Morali U., Erol S., Avci H.  
Electroanalysis, cilt.33, sa.4, ss.1033-1048, 2021 (SCI-Expanded)
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Kaur J., Ghorbanpoor H., Öztürk Y., Kaygusuz Ö., Avci H., Darcan C., Trabzon L., Güzel F. D.  
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23. **Investigation of the Effect of Channel Structure and Flow Rate on On-Chip Bacterial Lysis**  
Dizaji A. N., Ozturk Y., Ghorbanpoor H., Cetak A., AKÇAKOCA İ., Kocagoz T., AVCI H., Corrigan D., Guzel F. D.  
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24. **Self-assembled fibrillar polyethylene crystals with tunable properties**  
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31. **Reversible Redox Activity by Ion-pH Dually Modulated Duplex Formation of i-Motif DNA with Complementary G-DNA**  
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35. **A Review of Cellulose and Cellulose Blends for Preparation of Bio-derived and Conventional Membranes, Nanostructured Thin Films, and Composites**  
Douglass E. F., AVCI H., Boy R., Rojas O. J., Kotek R.  
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38. **Label-Free and Regenerative Electrochemical Microfluidic Biosensors for Continual Monitoring of Cell Secretomes**  
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88. **Green Engineering for Obtaining a New Class of High Performance Fibers**  
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## Verdiği Dersler

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## Metrikler

Yayın: 171

Atıf (WoS): 702

Atıf (Scopus): 754

H-İndeks (WoS): 13

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## Araştırma Alanları

Malzeme Bilimi ve Mühendisliği

## Akademi Dışı Deneyim

Kadifeteks Mensucat

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