

## Asst. Prof. Muhammet Davut ARPA

### Personal Information

**Email:** mdarpa@medipol.edu.tr

**Web:** <https://avesis.medipol.edu.tr/mdarpa>

### International Researcher IDs

ScholarID: XbzWbBoAAAAJ

ORCID: 0000-0001-9290-2404

Publons / Web Of Science ResearcherID: GSM-6969-2022

ScopusID: 57038847500

Yoksis Researcher ID: 160303

### Education Information

Doctorate, Istanbul University, Sağlık Bilimleri Enstitüsü, Farmasötik Teknoloji (Dr), Turkey 2012 - 2018

Undergraduate, Istanbul University, Eczacılık Fakültesi, Eczacılık Pr., Turkey 2006 - 2011

### Dissertations

Doctorate, Kitosan bazlı bukkal biyoadeziv ilaç taşıyıcı sistemlerin geliştirilmesi ve in vitro-in vivo değerlendirilmesi, Istanbul University, Sağlık Bilimleri Enstitüsü, Farmasötik Teknoloji (Dr), 2018

### Research Areas

Medicine, Health Sciences, Fundamental Medical Sciences, Pharmacology and Therapeutics, Life Sciences, Chemistry, Natural Sciences

### Academic Titles / Tasks

Assistant Professor, Istanbul Medipol University, Eczacılık Fakültesi, Eczacılık Teknolojisi Bölümü, 2018 - Continues

Lecturer, Istanbul Medipol University, Eczacılık Fakültesi, Eczacılık Meslek Bilimleri Bölümü, 2013 - 2018

Research Assistant, Istanbul Medipol University, Eczacılık Fakültesi, Eczacılık Teknolojisi Bölümü, 2012 - 2013

### Academic and Administrative Experience

Istanbul Medipol University, 2018 - Continues

Istanbul Medipol University, 2018 - Continues

Istanbul Medipol University, 2018 - Continues

### Courses

İlaç Endüstrisinde Laboratuvar Uygulamaları, Undergraduate, 2019 - 2020, 2018 - 2019

Ruhsatlandırma, Undergraduate, 2019 - 2020  
Eczacılık Terminolojisi, Undergraduate, 2019 - 2020, 2018 - 2019  
İlaç Şekilleri ve Uygulamaları I, Associate Degree, 2019 - 2020, 2018 - 2019  
Farmasötik Teknoloji II, Undergraduate, 2019 - 2020, 2018 - 2019  
İlaç Şekilleri ve Uygulamaları II, Associate Degree, 2019 - 2020, 2018 - 2019  
Eczacılık Mevzuatı ve Deontolojisi, Associate Degree, 2019 - 2020, 2018 - 2019  
Farmasötik Teknoloji I, Undergraduate, 2019 - 2020, 2018 - 2019  
Farmasötik Teknoloji Uygulama II, Undergraduate, 2019 - 2020, 2018 - 2019  
Farmasötik Teknoloji Uygulama I, Undergraduate, 2019 - 2020, 2018 - 2019  
Dermokozmetik, Undergraduate, 2019 - 2020, 2018 - 2019  
Farmasötik Teknoloji Uygulama IV, Undergraduate, 2019 - 2020, 2018 - 2019  
Farmasötik Teknoloji Uygulama III, Undergraduate, 2019 - 2020, 2018 - 2019  
Farmasötik Teknoloji Uygulama IV, Undergraduate, 2017 - 2018, 2016 - 2017, 2015 - 2016, 2014 - 2015, 2013 - 2014  
İlaç Şekilleri ve Uygulamaları I, Associate Degree, 2017 - 2018, 2016 - 2017, 2015 - 2016, 2014 - 2015  
İlaç Şekilleri ve Uygulamaları II, Associate Degree, 2017 - 2018, 2016 - 2017, 2015 - 2016, 2014 - 2015  
Farmasötik Teknoloji Uygulama III, Undergraduate, 2017 - 2018, 2016 - 2017, 2015 - 2016, 2014 - 2015, 2013 - 2014  
Eczacılık Mevzuatı ve Deontolojisi, Associate Degree, 2017 - 2018, 2016 - 2017, 2015 - 2016, 2014 - 2015, 2013 - 2014  
Ruhsatlandırma, Undergraduate, 2017 - 2018, 2015 - 2016, 2014 - 2015  
Farmasötik Teknoloji Uygulama II, Undergraduate, 2017 - 2018, 2016 - 2017, 2015 - 2016, 2014 - 2015, 2013 - 2014  
Dermokozmetik, Undergraduate, 2017 - 2018, 2016 - 2017, 2015 - 2016, 2014 - 2015  
Farmasötik Teknoloji Uygulama I, Undergraduate, 2017 - 2018, 2016 - 2017, 2015 - 2016, 2014 - 2015, 2013 - 2014  
Eczacılık Tarihi, Undergraduate, 2015 - 2016, 2014 - 2015, 2013 - 2014

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

- I. **Novel Microemulsion Containing Benzocaine and Fusidic Acid Simultaneously: Formulation, Characterization, and In Vitro Evaluation for Wound Healing**  
ARPA M. D., Çağlar E. Ş., Güreşçi D., Sipahi H., Üstündağ Okur N.  
AAPS PharmSciTech, vol.25, no.3, 2024 (SCI-Expanded)
- II. **Ginger essential oil-loaded hydrogels: preparation, characterization, cytotoxicity, antimicrobial and anti-inflammatory activity**  
ARPA M. D., KESMEN E. E., ARSLAN T., KARADAĞ A. E., BİLTEKİN KALELİ S. N., DEMİRCİ F.  
Journal of Essential Oil Research, vol.36, no.1, pp.16-29, 2024 (SCI-Expanded)
- III. **Novel Sprayable Thermosensitive Benzylamine Hydrogels for Topical Application: Development, Characterization, and In Vitro Biological Activities**  
ARPA M. D., KESMEN E. E., BİLTEKİN KALELİ S. N.  
AAPS PharmSciTech, vol.24, no.8, 2023 (SCI-Expanded)
- IV. **Chitosan-based buccal mucoadhesive patches to enhance the systemic bioavailability of tizanidine**  
ARPA M. D., Okur N. Ü., GÖK M. K., Özgümüş S., CEVHER E.  
International Journal of Pharmaceutics, vol.642, 2023 (SCI-Expanded)
- V. **Novel benzylamine hydrochloride and chlorhexidine gluconate loaded bioadhesive films for local treatment of buccal infections**  
ARPA M. D., Yağcılar A. P., Biltekin S. N.  
Journal of Drug Delivery Science and Technology, vol.84, 2023 (SCI-Expanded)
- VI. **Azelaic acid loaded chitosan and HPMC based hydrogels for treatment of acne: formulation, characterization, in vitro-ex vivo evaluation**  
ARPA M. D., Seçen İ. M., ERİM Ü. C., HOŞ A., Üstündağ Okur N.  
Pharmaceutical Development and Technology, vol.27, no.3, pp.268-281, 2022 (SCI-Expanded)
- VII. **Development and evaluation of mesoporous montmorillonite/magnetite nanocomposites loaded with 5-Fluorouracil**

Çiftçi H., ARPA M. D., Gülaçar İ. M., Özcan L., Ersoy B.

Microporous and Mesoporous Materials, vol.303, 2020 (SCI-Expanded)

VIII. **New therapeutic system based on hydrogels for vaginal candidiasis management: formulation-characterization and in vitro evaluation based on vaginal irritation and direct contact test**

ARPA M. D., Yoltaş A., Onay Tarlan E., Şenyüz C. Ş., Sipahi H., Aydın A., Üstündağ Okur N.

Pharmaceutical Development and Technology, vol.25, no.10, pp.1238-1248, 2020 (SCI-Expanded)

IX. **Preparation and evaluation of novel microemulsion-based hydrogels for dermal delivery of benzocaine**

Üstündağ Okur N., Çağlar E. Ş., ARPA M. D., KARASULU H. Y.

Pharmaceutical Development and Technology, vol.22, no.4, pp.500-510, 2017 (SCI-Expanded)

## Articles Published in Other Journals

I. **Sprayable microemulsion of diphenhydramine hydrochloride for dermal delivery**

ARPA M. D., ARSLAN T., ERASLAN H., Üstündağ Okur N.

Acta Pharmaceutica Scientia, vol.62, no.2, pp.462-479, 2024 (Scopus)

II. **Development and evaluation of azelaic acid-cyclodextrin hydrogels for treatment of acne**

Arpa M. D., Doğan N., Gündüz M., Karavelioğlu E. S., Erim Ü. C.

JOURNAL OF RESEARCH IN PHARMACY, vol.28, no.1, pp.177-190, 2024 (ESCI)

III. **Preparation of Diatomite-Chitosan Composites for Loading and Release of Diphenhydramine HCl**

Özkan Z., Arpa M. D., Özçatal M., Çiftçi H.

Journal of Materials and Mechatronics:A (Online), vol.4, no.2, pp.542-560, 2023 (Peer-Reviewed Journal)

IV. **Design of IKVAV peptide/gold nanoparticle decorated, micro/nano-channeled PCL/PLGA film scaffolds for neuronal differentiation and neurite outgrowth**

Aydeger A., Aysit N., Baydaş G., Çakıcı Ç., Erim Ü. C., Arpa M. D., Özçiçek İ.

Biomaterials Advances, vol.152, 2023 (Scopus)

V. **Formulation, characterization and in vitro release studies of terbinafine hydrochloride loaded buccal films**

ARPA M. D., ÜNÜKÜR M. Z., ERİM Ü. C.

Journal of Research in Pharmacy, vol.25, no.5, pp.667-680, 2021 (ESCI)

## Refereed Congress / Symposium Publications in Proceedings

I. **Development and Optimization of Thermosensitive Spray Formulations of Poloxamer and Chitosan Based-Lidocaine Hydrochloride Using The Response Surface Methodology for Topical Application**

ARPA M. D.

12. Uluslararası Gevher Nesibe Sağlık Bilimleri Kongresi, Turkey, 19 - 20 February 2024

II. **RESEARCH OF THE EFFECT OF ACID TYPE AND POLYMER CONCENTRATION ON RHEOLOGICAL PROPERTIES AND PHYSICAL STABILITY OF CHITOSAN HYDROGELS**

Arpa M. D., Kesmen E. E.

International Multidisciplinary Symposium on Drug Research and Development (DRD) 2023, İzmir, Turkey, 4 - 06 May 2023, pp.1

III. **Development and Characterization of Sprayable Thermosensitive Benzydamine Gels for Dermal Application**

Arpa M. D., Kesmen E. E.

International Multidisciplinary Symposium on Drug Research and Development (DRD) 2023, İzmir, Turkey, 4 - 06 May 2023, pp.1

IV. **Development of Gold Nanoparticle Decorated, Micro/Nano-channeled PCL/PLGA Film Scaffolds for Neural Tissue Engineering Applications**

Aydeğer A., Çakıcı Ç., Erim Ü. C., Arpa M. D., Özçiçek İ.

16th NANOSCIENCE & NANOTECHNOLOGY CONFERENCE, Ankara, Turkey, 05 September 2022

- V. **Investigation of Rheological, Swelling and Bioadhesive Properties of Chitosan Based Gel Prepared with Different Acids**  
Arpa M. D.  
20th International Pharmaceutical Technology Symposium (IPTS), Ankara, Turkey, 21 - 23 February 2022, pp.138
- VI. **Development and Characterization of Buccal Films Including Benzydamine Hydrochloride and Chlorhexidine Gluconate**  
Arpa M. D., Yağcılar A. P.  
20th International Pharmaceutical Technology Symposium (IPTS), Ankara, Turkey, 21 - 23 February 2022, pp.243
- VII. **HPLC Method Development and Validation Of Chlorhexidine Gluconate And Benzydamine HCl for Buccal Delivery**  
Arpa M. D., Yağcılar A. P.  
13th International Symposium on Pharmaceutical Sciences (ISOPS), Ankara, Turkey, 22 - 25 June 2021, pp.1
- VIII. **HPLC Method of Oxiconazole Nitrate For Quantitative Analyzes of Novel Drug Delivery Systems**  
Arpa M. D., Ünükür M. Z.  
13th International Symposium on Pharmaceutical Sciences (ISOPS), Ankara, Turkey, 22 - 25 June 2021, pp.1
- IX. **HPLC Method Development and Validation For Topical Finasteride**  
Arpa M. D., Seçen I. M.  
13th International Symposium on Pharmaceutical Sciences (ISOPS), Ankara, Turkey, 22 - 25 June 2021, pp.1
- X. **A Novel RP-HPLC Method Development and Validation of Terbinafine Hydrochloride for Buccal Delivery**  
Erim Ü. C., Arpa M. D.  
8th BBBB International Conference on Pharmaceutical Sciences, İzmir, Turkey, 14 October 2019
- XI. **Development and Evaluation of HPMC Based Gel Loaded with Azelaic Acid**  
Arpa M. D., Seçen İ. M., Erim Ü. C.  
8th BBBB International Conference on Pharmaceutical Sciences, İzmir, Turkey, 14 October 2019
- XII. **Chitosan-Based Nanoparticles as Bioadhesive Drug Delivery System for Buccal Route**  
ARPA M. D.  
International IVEK BIO Congress, 26 - 28 November 2018
- XIII. **Terbinafin hidroklorür içeren vajinal jel formülasyonlarının geliştirilmesi, karakterizasyonu, in vitro salım çalışmaları ve antikandidiyal etkilerinin belirlenmesi**  
Üstündağ Okur N., Arpa M. D., Onay Tarlan E., Yoltaş A.  
2. Marmara Eczacılık Kongresi, İstanbul, Turkey, 14 - 16 November 2018, pp.1
- XIV. **Formulation and In vitro Evaluation of Chitosan Based Buccal Tizanidine Hydrochloride Mini-tablets**  
Arpa M. D., Üstündağ Okur N., Cevher E.  
2nd International Gazi Pharma Symposium, Ankara, Turkey, 11 - 13 October 2017, pp.1
- XV. **Terbinafine hydrochloride loaded vaginal gel: Preparation, characterization and in vitro release**  
Üstündağ Okur N., Arpa M. D.  
IVEK Uluslararası İlaç ve Eczacılık Kongresi, İstanbul, İstanbul, Turkey, 26 - 29 April 2017, pp.1
- XVI. **High-Performance Liquid Chromatography Method Development and Validation for Vaginal Delivery of Terbinafine Hydrochloride**  
ÜSTÜNDAĞ OKUR N., ARPA M. D., ÇAĞLAR E. Ş., ONAY E.  
2. İVEK Uluslararası İlaç ve Eczacılık Kongresi, İstanbul, Turkey, 27 - 29 November 2015
- XVII. **Benzocaine loaded microemulsion-based hydrogels: Preparation, Characterization and In vitro release**  
Üstündağ Okur N., Arpa M. D., Çağlar E. Ş., Karasulu H. Y.  
Gazi Pharma Symposium (GPSS), Antalya, Turkey, 12 - 15 November 2015, pp.1
- XVIII. **Development and validation of high performance liquid chromatography method for domperidone maleate in pharmaceutical dosage forms**  
Üstündağ Okur N., Çağlar E. Ş., Arpa M. D., Berk B., Karasulu H. Y.

Gazi Pharma Symposium (GPSS), Antalya, Turkey, 12 - 15 November 2015, pp.1

**XIX. Benzocaine loaded microemulsion formulations for dermal application: Design, Optimization and Characterization**

Üstündağ Okur N., Arpa M. D., Çağlar E. Ş., Karasulu H. Y.

FIP 2015, Düsseldorf, Germany, 29 September - 03 October 2015, pp.1

**XX. Preparation and evaluation of novel microemulsion-based hydrogels for dermal delivery of benzocaine**

Üstündağ Okur N., Çağlar E. Ş., Arpa M. D., Karasulu H. Y.

International Eurasia Pharmacy Congress, Erzincan, Turkey, 3 - 07 September 2015, pp.122

## Supported Projects

ARPA M. D., Aksolotl Blastemasının İlaç Formülasyonunun Sağlıklı ve Diyabetik Sıçanlarda Oluşturulacak Yara Modelinde İn vivo Testlerinin Gerçekleştirilmesi Ve Blastema İçeriğinin Yara İyileştirme Mekanizmasının Araştırılması, 2022 - Continues

Doğan N., Arpa M. D., Akyl E., Project Supported by Higher Education Institutions, TRIAMSİNOLON ASETONİT İÇEREN BUKKAL NANOLİF FORMÜLASYONU GELİŞTİRİLMESİ VE KARAKTERİZASYONU, 2023 - 2024

ARPA M. D., Project Supported by Higher Education Institutions, Bir İlaç Taşıyıcı Sistemi Olarak Montmorillonit / Manyetit Nano-Kompozit Sentezi ve Karakterizasyonu, 2018 - 2019

ARPA M. D., Kitosan Bazlı Bukkal Biyoadeziv İlaç Taşıyıcı Sistemlerin Gelistirilmesi ve İn vitro-In vivo Değerlendirilmesi, 2018 - 2019

Arpa M. D., Project Supported by Higher Education Institutions, Benzokain İçeren Mikroemülsiyon ve Mikroemülsiyon Bazlı Jel Formülasyonlarının Hazırlanması ve İn vitro Ex vivo Değerlendirilmesi Üzerine Çalışmalar, 2015 - 2016

## Patent

Muhammet Davut A., TEDAVİ AMAÇLI BENZOKAİN İÇEREN MİKROEMÜLSİYON BAZLI HİDROJEL FORMÜLASYONLARI VE ÜRETİM YÖNTEMİ, Patent, CHAPTER A Human Needs, 2018