

## Asst. Prof. HAYRETTİN TONBUL

### Personal Information

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### International Researcher IDs

ScholarID: 7qXlh5gAAAAJ

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Publons / Web Of Science ResearcherID: AAR-6961-2020

ScopusID: 57212018375

Yoksis Researcher ID: 256076

### Education Information

Doctorate, Hacettepe University, Eczacılık Fakültesi, Farmasötik Teknoloji, Turkey 2015 - 2019

Undergraduate, Near East University, Faculty Of Pharmacy, Cyprus (Kktc) 2009 - 2015

### Foreign Languages

English, B2 Upper Intermediate

### Dissertations

Doctorate, Development of Doxorubicin and Elacridar Loaded PLGA/Silica Hybrid Nanoparticles and Evaluation of Activity Against Breast Cancer, Hacettepe University, Sağlık Bilimleri Enstitüsü, Farmasötik Teknoloji A.B.D., 2019

### Research Areas

Health Sciences, Pharmacology and Therapeutics, Pharmaceutics Technology, Pharmaceutical Technology

### Academic Titles / Tasks

Assistant Professor, Inonu University, Eczacılık Fakültesi, Eczacılık Teknolojisi, 2020 - Continues

Research Assistant, Inonu University, Eczacılık Fakültesi, Eczacılık Teknolojisi, 2016 - 2020

### Academic and Administrative Experience

Fakülte Kurulu Üyesi, Inonu University, Eczacılık Fakültesi, 2023 - Continues

Head of Department, Inonu University, Eczacılık Fakültesi, Eczacılık Teknolojisi, 2020 - Continues

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

- I. An effective VEGF-siRNA delivery via folic acid decorated and pegylated silica nanoparticles  
Ultav G., TONBUL H., ŞALVA E.  
JOURNAL OF DRUG DELIVERY SCIENCE AND TECHNOLOGY, vol.76, 2022 (SCI-Expanded)
- II. pH-sensitive chitosan-PEG-decorated hollow mesoporous silica nanoparticles could be an effective treatment for acute myeloid leukemia (AML)  
Ultav G., Tonbul H., Tavukcuoglu E., Ozturk S. C., Akbas S., Sahin A., Esendagli G., Capan Y.  
JOURNAL OF NANOPARTICLE RESEARCH, vol.24, no.2, 2022 (SCI-Expanded)
- III. Development of curcumin and docetaxel co-loaded actively targeted PLGA nanoparticles to overcome blood brain barrier  
Seko I., TONBUL H., Tavukcuoglu E., Sahin A., Akbas S., Yanik H., ÖZTÜRK S. C., ESENDAĞLI G., Khan M., ÇAPAN Y.  
JOURNAL OF DRUG DELIVERY SCIENCE AND TECHNOLOGY, vol.66, 2021 (SCI-Expanded)
- IV. Folic acid decoration of mesoporous silica nanoparticles to increase cellular uptake and cytotoxic activity of doxorubicin in human breast cancer cells  
TONBUL H., Sahin A., Tavukcuoglu E., Ultav G., Akbas S., AKTAŞ Y., ESENDAĞLI G., ÇAPAN Y.  
JOURNAL OF DRUG DELIVERY SCIENCE AND TECHNOLOGY, vol.63, 2021 (SCI-Expanded)
- V. Combination drug delivery with actively-targeted PLGA nanoparticles to overcome multidrug resistance in breast cancer  
Tonbul H., Sahin A., Tavukcuoglu E., ESENDAĞLI G., ÇAPAN Y.  
JOURNAL OF DRUG DELIVERY SCIENCE AND TECHNOLOGY, vol.54, 2019 (SCI-Expanded)
- VI. Independent predictive factors for the persistence and tolerance of cow's milk allergy  
TOPAL E., Celiksoy M. H., ARGA M., KAYNAK M. S., DUMAN Y., DEMIRTAS S., Alatas C., TONBUL H., OKMEN Z. H., Dalkilic H. M.  
INTERNATIONAL FORUM OF ALLERGY & RHINOLOGY, vol.9, no.1, pp.67-71, 2019 (SCI-Expanded)
- VII. Synthesis of Small-Sized Mesoporous Silica Nanoparticles by Experimental Design and Characterization for Further Drug Delivery  
TONBUL H., Ultav G., Akbas S., Sahin A., AKTAŞ Y., ÇAPAN Y.  
LATIN AMERICAN JOURNAL OF PHARMACY, vol.38, no.11, pp.2204-2210, 2019 (SCI-Expanded)

## **Articles Published in Other Journals**

- I. Silica nanoparticle synthesis by experimental design for drug and gene delivery applications  
Ultav G., TONBUL H., ŞAHİN A., ÇAPAN Y.  
Journal of research in pharmacy (online), vol.27, no.1, pp.12-22, 2023 (Peer-Reviewed Journal)
- II. Development of Silica Nanoparticles as a Delivery System for Plasmid-Based Crispr/Cas9  
ULTAV G., MAÇ K., KIZILBOĞA S., GÜNDÖĞDU V., TONBUL H., ŞALVA E.  
Anatolian Journal of Pharmaceutical Sciences, vol.1, no.1, pp.33-39, 2022 (Peer-Reviewed Journal)
- III. Brain-targeted nanoparticles to overcome the blood-brain barrier  
SEKO I., ŞAHİN A., TONBUL H., ÇAPAN Y.  
Journal of Pharmaceutical Technolgy, vol.1, no.1, pp.26-40, 2020 (Peer-Reviewed Journal)
- IV. Development of paclitaxel and flurbiprofen co-loaded PLGA nanoparticles: understanding critical formulation and process parameters using Plackett-Burman design  
Sahin A., Caban-Toktas S., Tonbul H., Yerlikaya F., AKTAŞ Y., ÇAPAN Y.  
ISTANBUL JOURNAL OF PHARMACY, vol.49, no.3, pp.161-166, 2019 (ESCI)
- V. Demographics and clinical characteristic of patients diagnosed with hen'xxs egg allergy  
Topal E., Arga M., Celiksoy M. H., Kaynak M. S., Duman Y., Demirtas S., Alatas C., Tonbul H., Dalkilic H.  
Annals of Medical Research, vol.25, no.4, pp.1-4, 2019 (Peer-Reviewed Journal)

## **Books & Book Chapters**

- I. **Hybrid PLGA nanoparticles as advanced drug delivery and theranostic applications**  
TONBUL H., ÇAPAN Y.  
in: Poly(lactic-co-glycolic acid) (PLGA) Nanoparticles for Drug Delivery, Prashant Kesharwani, Editor, Elsevier, pp.417-431, 2023
- II. **Overcoming the challenges of drug resistance through combination drug delivery approach**  
TONBUL H., ŞAHİN A., ÇAPAN Y.  
in: Combination Drug Delivery Approach as an Effective Therapy for Various Diseases, Prashant Kesharwani, Editor, Academic Press , pp.31-46, 2022
- III. **Targeted Drug Delivery of Nanoparticles**  
TONBUL H., ÇAPAN Y.  
in: Nanotechnology for Biomedical Applications, Sreerag Gopi, Preetha Balakrishnan, Nabisab Mujawar Mubarak, Editor, Springer Singapore, pp.203-217, 2022
- IV. **Drug Delivery with Targeted Nanoparticles In Vitro and In Vivo Evaluation Methods**  
Çapan Y. (Editor), Şahin A. (Editor), Tonbul H. (Editor)  
Jenny Stanford Publishing, Singapore, 2021
- V. **Characteristics of Marketed Nanopharmaceutics**  
ŞALVA E., TONBUL H.  
in: Drug Delivery with Targeted Nanoparticles: In Vitro and In Vivo Evaluation Methods (1st ed.), Yılmaz Çapan, Adem Sahin, Hayrettin Tonbul, Editor, Jenny Stanford Publishing, pp.705-724, 2021
- VI. **Evaluation of Targeted Mesoporous Silica Nanoparticles**  
TONBUL H.  
in: Drug Delivery with Targeted Nanoparticles: In Vitro and In Vivo Evaluation Methods (1st ed.), Yılmaz Çapan, Adem Sahin, Hayrettin Tonbul, Editor, Jenny Stanford Publishing, pp.643-656, 2021
- VII. **Regulatory Guidelines of the US Food and Drug Administration and the European Medicines Agency for Actively Targeted Nanomedicines**  
ÇETİNTAŞ H. C., TONBUL H., ŞAHİN A., ÇAPAN Y.  
in: Drug Delivery with Targeted Nanoparticles: In Vitro and In Vivo Evaluation Methods (1st ed.), Yılmaz Çapan, Adem Sahin, Hayrettin Tonbul, Editor, Jenny Stanford Publishing, pp.725-742, 2021
- VIII. **Characteristics of Marketed Nanopharmaceutics**  
ŞALVA E., TONBUL H.  
in: Drug Delivery with Targeted Nanoparticles: In Vitro and In Vivo Evaluation Methods, Çapan, Y., Sahin, A., Tonbul, H., Editor, Jenny Stanford Publishing, pp.705-720, 2021

## **Refereed Congress / Symposium Publications in Proceedings**

- I. **Silica Nanoparticles as Drug and siRNA Delivery System**  
ULTAV G., TONBUL H., ŞALVA E.  
3rd International Conference on Materials Science and Nanotechnology, Roma, Italy, 3 - 07 October 2022
- II. **In vivo Evaluation of Doxorubicin and Elacridar Co-Loaded PLGA/Silica Hybrid Nanoparticles Against Multidrug Resistant Breast Cancer**  
TONBUL H., ŞAHİN A., ÖZTÜRK S. C., ULTAV G., ESENDAĞLI G., ÇAPAN Y.  
9 th BBBB International Conference on Pharmaceutical Sciences, Ljubljana, Slovenia, 15 - 17 September 2022
- III. **Combination Therapy Approach of Doxorubicin and siRNA with Biodegradable Silica Nanoparticles**  
ULTAV G., TONBUL H., ŞALVA E.  
The 4th International Conference on Graphene and Novel Nanomaterials (GNN 2022), Shenzhen, China, 8 - 11 August 2022
- IV. **DETERMINATION OF EFFECTIVE SURFACE MODIFICATIONS OF SILICA NANOPARTICLES AS VEGF-TARGETED siRNA CARRIERS**  
ULTAV G., TONBUL H., ŞALVA E.  
13th International Symposium on Pharmaceutical Sciences (ISOPS), Turkey, 22 June 2021

- V. **Production of Meloxicam Nanocrystals by Nanoprecipitation Method**  
ŞAHİN A., TONBUL H.  
The Sixth International Symposium on Pharmaceutical and Biomedical Sciences - ISPBS-6, Gaziantep, Turkey, 26 - 28 May 2022
- VI. **EVALUATION AND CHARACTERIZATION OF FOLIC ACID MODIFIED SILICA NANOPARTICLES AS SIRNA CARRIERS**  
ULTAV G., ŞALVA E., TONBUL H.  
3rd International Gazi Pharma Symposium Series (GPSS- 2021), Turkey, 08 September 2021
- VII. **İnek sütü proteini alerjisinin devamlılığını ve toleransını öngören faktörler**  
TOPAL E., ÇELİKSOY M. H., ARGA M., KAYNAK M. S., DUMAN Y., DEMİRTAŞ M. S., ALATAŞ C., TONBUL H., HAZIROĞLU ÖKMEN Z., DALKILIÇ H. M.  
16.Anadolu Gastroenteroloji Günleri, Şanlıurfa, Turkey, 11 September 2020, pp.123
- VIII. **PREPARATION OF PLGA NANOPARTICLES WITH DIFFERENT SURFACTANTS AS DRUG DELIVERY SYSTEM**  
TONBUL H., ŞAHİN A.  
GEVHER NESİBE4. ULUSLARARASI SAĞLIK BİLİMLERİ KONGRESİ, Ankara, Turkey, 22 - 23 November 2019
- IX. **FOLIC ACID CONJUGATED MESOPOROUS SILICA NANOPARTICLES FOR ENHANCED THERAPEUTIC EFFICACY OF DOXORUBICIN IN BREAST CANCER**  
TONBUL H., ULTAV G., AKBAŞ S., ŞAHİN A., TAVUKÇUOĞLU E., AKTAŞ Y., ESENDAĞLI G., ÇAPAN Y.  
8th BBBB Conference on Pharmaceutical Sciences, 14 - 16 October 2019
- X. **PREPARATION OF ACTIVE TARGETED POLY(LACTIC-CO-GLYCOLIC ACID) NANOPARTICLES WITH OLEYL CYSTEINEAMIDE**  
AKBAŞ S., ULTAV G., ŞAHİN A., TAVUKÇUOĞLU E., TONBUL H., ESENDAĞLI G., ÇAPAN Y.  
8th BBBB Conference on Pharmaceutical Sciences, 14 - 16 October 2019
- XI. **FOLIC ACID CONJUGATED MESOPOROUS SILICA NANOPARTICLES FOR ENHANCED THERAPEUTIC EFFICACY OF DOXORUBICİN IN BREAST CANCER**  
TONBUL H., AKBAŞ S., ULTAV G., ŞAHİN A., TAVUKÇUOĞLU E., AKTAŞ Y., ESENDAĞLI G., ÇAPAN Y.  
8th BBBB Conference on Pharmaceutical Sciences, 14 - 16 October 2019
- XII. **REVERSAL OF DRUG RESISTANCE IN EMT6/AR1 CELL LINE BY A CHEMICAL MODULATOR: ELACRIDAR**  
TONBUL H., AKBAŞ S., ULTAV G., ŞAHİN A., ÇAPAN Y.  
International Multidisciplinary Symposium on Drug Research and Development (DRD)-2019, 1 - 03 July 2019
- XIII. **, İzlemde İnek Sütü Alerjisinin Persistansı ve Tolerans Gelişimiyle İlişkili Bağımsız Risk Faktörleri**  
TOPAL E., Çeliksoy M. H., ARGA M., Kaynak M. S., DUMAN Y., Demirtaş S., ALATAŞ C., TONBUL H., Haziroglu O. Z., Dalkılıç H. M.  
25. Ulusal Allerji ve Klinik İmmünoloji Kongresi, 17 - 21 November 2018
- XIV. **PREPERATION, CHARACTERIZATION, CYTOTOXICITY EVALUATIONS OFFOLIC ACID CONJUGATED MESOPOROUS SILICA NANOPARTICLES**  
TONBUL H., ultav g., akbas s., sahin a., tavukcuoglu e., AKTAŞ Y., ESENDAĞLI G., ÇAPAN Y.  
19th InternationalPharmaceutical Technology Symposium-IPTS 2018, 17 - 19 September 2018
- XV. **A COMPERISON OF PLGA NANOPARTICLE PREPARATION METHODS FOR BEVACIZUMAB ENCAPSULATION**  
AKBAŞ S., ULTAV G., TONBUL H., ŞAHİN A., ÇAPAN Y.  
12th International Symposium on Pharmaceutical Sciences (ISOPS), 26 - 29 June 2018
- XVI. **IN VITRO EVALUATION OF PACLITAXEL LOADED MESOPOROUS SILICA NANOPARTICLES**  
TONBUL H., AKBAŞ S., ULTAV G., ŞAHİN A., AKTAŞ Y., ÇAPAN Y.  
EUFEPS Annual Meeting 2018, 24 - 26 May 2018
- XVII. **DEVELOPMET AND EVALUATION OF SILICA NANOPARTICLES USING A QUALITY BY DESIGN APPROACH**  
TONBUL H., AKBAŞ S., ULTAV G., ŞAHİN A., AKTAŞ Y., ÇAPAN Y.  
EUFEPS Annual Meeting 2018, 24 - 26 May 2018

- XVIII. **SYNTHESIS AND CHARACTERIZATION OF SILICA NANOPARTICLES: OBTAINING NANOPARTICLES SMALLER THAN 100 NM**  
TONBUL H., AKBAŞ S., ULTAV G., ŞAHİN A., KAYNAK M. S., AKTAŞ Y., ÇAPAN Y.  
2nd International Gazi Pharma Symposium Series (GPSS-2017), 11 - 13 October 2017
- XIX. **DEVELOPMENT AND IN VITRO EVALUATION OF PH TRIGGERED HOLLOW SILICA NANOPARTICLES AS A DRUG DELIVERY SYSTEM**  
ULTAV G., AKBAŞ S., TONBUL H., ŞAHİN A., ÇAPAN Y.  
2nd International Gazi Pharma Symposium Series (GPSS-2017), 11 - 13 October 2017
- XX. **CHARACTERIZATION OF BEVACIZUMAB BY DYNAMIC LIGHTSCATTERING TECHNIQUE**  
AKBAŞ S., ULTAV G., TONBUL H., ŞAHİN A., ÇAPAN Y.  
2nd International Gazi Pharma Symposium Series (GPSS-2017), 11 - 13 October 2017
- XXI. **Transferrine hedeflendirilmiş paklitaksel yüklü PLGA nanopartiküllerinin meme kanserindeki etkinliği**  
TONBUL H., ŞAHİN A., ÖZTÜRK N., VURAL İ., KAYNAK M. S., ÇAPAN Y.  
1. Anadolu Üniversitesi Eczacılık Fakültesi Sempozyumu (ANES), Turkey, 1 June - 02 January 2017
- XXII. **DEVELOPMENT AND IN VITRO EVALUATION OF TRANSFERRIN TARGETED PLGA NANOPARTICLES**  
TONBUL H., ŞAHİN A., KAYNAK M. S., ÇAPAN Y.  
18th International Pharmaceutical Technology Symposium-IPTS 2016, 18 - 21 October 2016

## Supported Projects

ÖZTÜRK N., ŞALVA E., ALAN S., TONBUL H., Project Supported by Higher Education Institutions, Dosetaksel içeren çok fonksiyonlu hibrit nanopartiküllerin hazırlanması ve in vitro değerlendirilmesi, 2022 - Continues

ŞALVA E., ARISOY S., TONBUL H., ÖZTÜRK N., ATEŞ M., ULTAV G., Project Supported by Higher Education Institutions, Meme Kanser Tedavisinde İlaç Direncine Karşı Yenilikçi Nanoterapötik Yaklaşımların Geliştirilmesi, 2020 - Continues

Tonbul H., Salva E., Ultav G., TUBITAK Project, Redoks Yanıtlı Silika Nanopartiküller ile İlaç ve Gen Taşıyıcı Sistem Hazırlanması ve In Vitro Değerlendirmesi, 2021 - 2023

TONBUL H., ULTAV G., ŞALVA E., Project Supported by Higher Education Institutions, GM-CSF İçeren Silika Nanopartiküllerinin İnflamazom Aracılı Adjuvan Etkisinin Araştırılması, 2021 - 2022

TONBUL H., ÖZTÜRK S. C., ESENDAĞLI G., ŞAHİN A., Project Supported by Higher Education Institutions, Etkinliği in vitro Testlerle Gösterilmiş Doksorubisin ve Elakridar Yüklü PLGA/Silika Hibrit Partiküllerin Meme Kanserindeki Etkinliklerinin in vivo Testlerle Değerlendirilmesi, 2021 - 2022

TUBITAK Project, Doksorubisin ve Elakridar Yüklü PLGA/Silika Hibrit Partiküllerin Geliştirilmesi ve Geliştirilen Formülasyonların Meme Kanserine Karşı Etkinliğinin İn Vitro Testlerle Değerlendirilmesi, 2017 - 2018

## Metrics

Publication: 44  
Citation (WoS): 3  
Citation (Scopus): 1  
H-Index (WoS): 1  
H-Index (Scopus): 1

## Awards

Tonbul H., Ultav G., Akbaş S., Şahin A., Tavukçuoğlu E., Aktaş Y., Esendağlı G., Çapan Y., Folic Acid Conjugated Mesoporous Silica Nanoparticles for Enhanced Therapeutic Efficacy of Doxorubicin in Breast Cancer, 8Th Bbbb International Conference On Pharmaceutical Sciences, October 2019