

## Asst. Prof. CEM VARAN

### Personal Information

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### International Researcher IDs

ScholarID: [cp8S-LMAAAAJ&hl=tr](https://scholar.google.com/citations?user=cp8S-LMAAAAJ&hl=tr)

ORCID: [0000-0002-9391-8691](https://orcid.org/0000-0002-9391-8691)

Publons / Web Of Science ResearcherID: F-1645-2017

ScopusID: 56190491500

Yoksis Researcher ID: 282840

### Education Information

Doctorate, Hacettepe University, Fen Bilimleri Enstitüsü, Nanoteknoloji Ve Nanotıp Anabilimdalı, Turkey 2013 - 2017

Postgraduate, Hacettepe University, Fen Bilimleri Enstitüsü, Nanoteknoloji Ve Nanotıp Anabilimdalı, Turkey 2010 - 2013

Undergraduate, Anadolu University, Faculty Of Business Administration, Department Of Business, Turkey 2007 - 2011

Undergraduate, Hacettepe University, Fen Fakültesi, Biyoloji Bölümü, Turkey 2005 - 2010

### Foreign Languages

English, B2 Upper Intermediate

### Dissertations

Doctorate, HPV-İlişkili Servikal Kanserin Tedavisine Yönelik İlaç Yüklü Nanopartikül Formülasyonlarının Printing Teknolojisi ile Hazırlanması ve Karakterizasyonu, Hacettepe Üniversitesi, Fen Bilimleri Enstitüsü, Nanoteknoloji Ve Nanotıp Anabilimdalı, 2017

Postgraduate, Beyin glioma tedavisinde dasetaksel yüklü katyonik nanopartiküllerin tasarımı ve in vitro değerlendirilmesi, Hacettepe Üniversitesi, Fen Bilimleri Enstitüsü, Nanoteknoloji Ve Nanotıp Anabilimdalı, 2013

### Research Areas

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

### Academic Titles / Tasks

Assistant Professor, Hacettepe University, Fen Bilimleri Enstitüsü, Nanoteknoloji Ve Nanotıp A.B.D., 2024 - Continues

Lecturer, Hacettepe University, Eczacılık Fakültesi, Eczacılık Teknolojisi Bölümü, 2018 - 2024

- I. **A novel injectable nanotherapeutic platform increasing the bioavailability and anti-tumor efficacy of Arachidonylcyclopropylamide on an ectopic non-small cell lung cancer xenograft model: A randomized controlled trial**  
Boyacioglu O., VARAN C., BİLENSOY E., Aykut Z. G., REÇBER T., NEMUTLU E., Kilic N., KORKUSUZ P.  
INTERNATIONAL JOURNAL OF PHARMACEUTICS, 2025 (SCI-Expanded)
- II. **2-AG-loaded and bone marrow-targeted PCL nanoparticles as nanoplatforms for hematopoietic cell line mobilization**  
KÖSE S., VARAN C., Onen S., NEMUTLU E., BİLENSOY E., Korkusuz P.  
STEM CELL RESEARCH & THERAPY, vol.15, no.1, 2024 (SCI-Expanded)
- III. **Design and Characterization of Carboplatin and Paclitaxel Loaded PCL Filaments for 3D Printed Controlled Release Intrauterine Implants**  
Varan C., Aksüt D., Şen M., Bilensoy E.  
PHARMACEUTICS, vol.15, no.4, pp.1-17, 2023 (SCI-Expanded)
- IV. **Special issue on drug delivery research in Turkey**  
ŞENEL S., VARAN C.  
Journal of Drug Delivery Science and Technology, vol.81, 2023 (SCI-Expanded)
- V. **Is there a niche for zinc oxide nanoparticles in future drug discovery?**  
BİLENSOY E., VARAN C.  
Expert Opinion on Drug Discovery, vol.18, no.9, pp.943-945, 2023 (SCI-Expanded)
- VI. **Pharmacometabolomic assessment of vitamin E loaded human serum albumin nanoparticles on HepG2 cancer cell lines**  
Şenol Y., KAPLAN O., VARAN C., Demirtürk N., Öncül S., Fidan B. B., ERCAN A., BİLENSOY E., ÇELEBİER M.  
Journal of Drug Delivery Science and Technology, vol.79, 2023 (SCI-Expanded)
- VII. **Therapeutic efficacy and biodistribution of paclitaxel-bound amphiphilic cyclodextrin nanoparticles: Analyses in 3D tumor culture and tumor-bearing animals in vivo**  
Varan G., Varan C., Öztürk S. C., Benito J. M., Esendağlı G., Bilensoy E.  
Nanomaterials, vol.11, no.2, pp.1-18, 2021 (SCI-Expanded)
- VIII. **ACPA decreases non-small cell lung cancer line growth through Akt/PI3K and JNK pathways in vitro.**  
Boyacioglu O., BİLGİÇ E., VARAN C., BİLENSOY E., NEMUTLU E., GÜLMEZ SEVİM D., Kocafee C., KORKUSUZ P.  
Cell death & disease, vol.12, no.1, pp.56, 2021 (SCI-Expanded)
- IX. **Preparation and characterization of cyclodextrin nanosponges for organic toxic molecule removal**  
VARAN C., Anceschi A., Sevlı S., Bruni N., Giraudo L., BİLGİÇ E., KORKUSUZ P., Iskit A. B., Trotta F., BİLENSOY E.  
INTERNATIONAL JOURNAL OF PHARMACEUTICS, vol.585, 2020 (SCI-Expanded)
- X. **Mechanical characterization and ex vivo evaluation of anticancer and antiviral drug printed bioadhesive film for the treatment of cervical cancer**  
Varan C., Şen M., Sandler N., Aktaş Y., Bilensoy E.  
EUROPEAN JOURNAL OF PHARMACEUTICAL SCIENCES, vol.130, pp.114-123, 2019 (SCI-Expanded)
- XI. **Cyclodextrin-Based Nanosystems: Current Status and Future Prospects**  
VARAN C., Varan G., Erdogar N., BİLENSOY E.  
DRUG DELIVERY NANOSYSTEMS: FROM BIOINSPIRATION AND BIOMIMETICS TO CLINICAL APPLICATIONS, pp.29-58, 2019 (SCI-Expanded)
- XII. **Amphiphilic cyclodextrin nanoparticles**  
VARAN G., VARAN C., ERDOĞAR N., Hincal A. A., BİLENSOY E.  
International Journal of Pharmaceutics, vol.531, no.2, pp.457-469, 2017 (SCI-Expanded)
- XIII. **Inkjet printing of antiviral PCL nanoparticles and anticancer cyclodextrin inclusion complexes on bioadhesive film for cervical administration**  
VARAN C., WICKSTRÖM H., SANDLER N., AKTAŞ Y., BİLENSOY E.  
INTERNATIONAL JOURNAL OF PHARMACEUTICS, vol.531, no.2, pp.701-713, 2017 (SCI-Expanded)
- XIV. **Cationic PEGylated polycaprolactone nanoparticles carrying post-operation docetaxel for glioma treatment**  
VARAN C., BİLENSOY E.

BEILSTEIN JOURNAL OF NANOTECHNOLOGY, vol.8, pp.1446-1456, 2017 (SCI-Expanded)

**XV. Development of implantable hydroxypropyl-beta-cyclodextrin coated polycaprolactone nanoparticles for the controlled delivery of docetaxel to solid tumors**

VARAN C., BİLENSOY E.

JOURNAL OF INCLUSION PHENOMENA AND MACROCYCLIC CHEMISTRY, vol.80, pp.9-15, 2014 (SCI-Expanded)

## Articles Published in Other Journals

**I. Printers and Printing Technologies in the Pharmaceutical Field Yazıcılar ve Baskı Teknolojilerinin Farmasötik Alanda Kullanımı**

Çobanoğlu E., VARAN C., BİLENSOY E.

Fabad Journal of Pharmaceutical Sciences, vol.46, no.1, pp.43-78, 2021 (Scopus)

## Books & Book Chapters

**I. Folate receptor-mediated targeted breast cancer nanomedicine**

Varan G., Varan C., Erdoğan N., Bilensoy E.

in: Targeted Nanomedicine for Breast Cancer Therapy, Shivani Rai Paliwal, Rishi Paliwal, Editor, Academic Press, London, pp.153-169, 2022

**II. Biodistribution of polymeric, polysaccharide and metallic nanoparticles**

Erdoğan N., Varan G., Varan C., Bilensoy E.

in: Characterization of Pharmaceutical Nano- and Microsystems, Peltonen Leena, Douroumis Dennis, Fahr Alfred, Siepmann Jürgen, Snowden Martin J., Editor, John Wiley & Sons, West Sussex, UK, Cambridge, pp.275-290, 2020

**III. Cyclodextrin Based Nano-Systems: Current Status and Future Prospects**

VARAN C., VARAN G., ERDOĞAR N., BİLENSOY E.

in: Drug Delivery Nanosystems: From Bioinspiration and Biomimetics to Clinical Applications, Pippa Natassa, Demetzos Costas, Pispas Stergios, Editor, Pan Stanford, pp.29-49, 2019

**IV. Plant based natural polymer (Guar gum, pectin, starch, cellulose, cyclodextrins) nanoparticles as promising tool for anticancer therapeutics**

VARAN G., VARAN C., BİLENSOY E.

in: Polymeric Nanoparticles as a Promising Tool for Anti-cancer Therapeutics, Prashant Kesharwani, Kishore M. Paknikar, Virendra Gajbhiye, Editor, Academic Press, 2019

**V. Cyclodextrin-based polymeric nanosystems**

ERDOĞAR N., VARAN G., VARAN C., BİLENSOY E.

in: Drug Targeting and Stimuli Sensitive Drug Delivery Systems, Alina M. Holban, Editor, William Andrew, pp.715-748, 2018

**VI. Cationic polymer nanoparticles for drug and gene delivery**

BİLENSOY E., İŞİK G., VARAN C.

in: Cationic Polymers in Regenerative Medicine, Samal Sangram K., Dubrue Peter, Editor, Royal Society of Chemistry, 2015

## Refereed Congress / Symposium Publications in Proceedings

**I. Development of a new antiproliferative arachidonoylcyclopropylamide (ACPA) releasing nanoparticle-based drug for endometrial cancers by targeting cannabinoid 1 receptors**

BİLGİÇ E., BOYACIOĞLU Ö., VARAN C., BİLENSOY E., NEMUTLU E., KARAOSMANOĞLU B., TAŞKIRAN Z. E., KORKUSUZ P.

EACR Conference Nanotechnology in Cancer: Engineering for Oncology, 12 - 14 September 2019

- II. **Cannabinoid Receptor 1-Mediated Antiproliferative Effect of ACPA and ACPA-PCL Controlled Release System on Non-Small Cell Lung Cancer Lines**  
BOYACIOĞLU Ö., BİLGİÇ E., VARAN C., BİLENSOY E., NEMUTLU E., KARAOSMANOĞLU B., TAŞKIRAN Z. E., KORKUSUZ P.  
EACR Conference Nanotechnology in Cancer: Engineering for Oncology, Cambridge, Canada, 12 - 14 September 2019
- III. **Development and Characterization of Arachidonoylcyclopropylamide-Loaded Polycaprolactone Nanoparticle Drug Formulation**  
BOYACIOĞLU Ö., BİLGİÇ E., VARAN C., BİLENSOY E., NEMUTLU E., KORKUSUZ P.  
24th International Biomedical Science Technology Symposium, 17 - 20 October 2019
- IV. **Mechanical Characterization and ex vivo Evaluation of Inkjet Printed Bioadhesive Film Formulation of Complexed Paclitaxel and Nanoparticulate Cidofovir**  
VARAN C., ŞEN M., SANDLER N., AKTAŞ Y., BİLENSOY E.  
EUFEPS Annual Meeting 2018, Atina, Greece, 24 - 26 May 2018
- V. **Printing and characterization of antiviral and anticancer drug loaded film formulation by using inkjet printer**  
VARAN C., ŞEN M., SANDLER N., AKTAŞ Y., BİLENSOY E.  
7th BBBB International Conference on Pharmaceutical Sciences, 5 - 07 October 2017
- VI. **Anticancer and Antiviral Drug Printed Bioadhesive Film for Cervical Cancer: Ink Formulation Development by using Cyclodextrin Derivatives**  
VARAN C., SANDLER N., BİLENSOY E.  
5th European Cyclodextrin Conference, 3 - 06 October 2017
- VII. **Preparation and Characterization of Antiviral and Anticancer Drug Printed Film Formulations for the treatment of Cervical Cancer**  
VARAN C., ŞEN M., SANDLER N., BİLENSOY E.  
SANKO University Innovation in Medicine Summit, 11 - 13 May 2017
- VIII. **Nanoparticulate Cidofovir and Paclitaxel Cyclodextrin Complex Combination in Ink Jet Printed Adhesive Film for HPV Infection**  
VARAN C., SANDLER N., BİLENSOY E.  
4th European Conference on Cyclodextrins, 6 - 09 October 2015
- IX. **Preparation and characterization of Cidofovir and Paclitaxel loaded bioadhesive film for the treatment of HPV induced cervical cancer by printing technology**  
VARAN C., SANDLER N., AKTAŞ Y., BİLENSOY E.  
EUFEPS Annual Meeting 2015, 15 - 17 June 2015
- X. **Docetaxel loaded hydroxypropyl B cyclodextrin polycaprolactone nanoparticles formulation development and in vitro characterization**  
VARAN C., BİLENSOY E.  
17th International Pharmaceutical Technology Symposium, 8 - 10 September 2014
- XI. **Development of Docetaxel loaded Hydroxypropyl-β-Cyclodextrin Polycaprolactone Nanoparticles for The Treatment of Solid Tumors**  
VARAN C., BİLENSOY E.  
3rd European Conference on Cyclodextrins, 2 - 04 October 2013
- XII. **Docetaxel-loaded cationic core-shell polycaprolactone nanoparticles designed for rat glioma model**  
VARAN C., BİLENSOY E.  
9th Central European Symposium on Pharmaceutical Technology: CESPT 2012, 20 - 22 September 2012
- XIII. **Docetaxel-loaded core-shell polycaprolactone nanoparticles: formulation development and characterization**  
VARAN C., BİLENSOY E.  
16th International Pharmaceutical Technology Symposium, 10 - 12 September 2012
- XIV. **Polycaprolactone nanoparticles for rat glioma model: influence of formulation parameters on the**

### **particle size and zeta potential**

VARAN C., BİLENSOY E.

8th Nanoscience and Nanotechnology Congress International Academy of Nanomedicine 3rd World Congress, 25 - 29 June 2012

### **XV. Core-shell polycaprolactone nanoparticles for rat glioma model: formulation development and characterization**

VARAN C., BİLENSOY E.

CRS Nordic Chapter Meeting, 3 - 05 June 2012

## **Supported Projects**

ERDOĞDU N., BİLENSOY E., Gür B., VARAN C., Project Supported by Higher Education Institutions, Alopesi Tedavisinde Üç Boyutlu Yazıcı ile Barisitinin Yüklü Nanosistem İçeren Mikroïğnelerin Hazırlanması ve Karşılaştırmalı İn Vitro ve Ex Vivo İncelenmesi, 2024 - Continues

BİLENSOY E., İSKİT A. B., Çobanoğlu E., VARAN C., ESENDAĞLI G., ÖZTÜRK S. C., Project Supported by Higher Education Institutions, Meme Kanseri Tedavisine Yönelik Paklitaksel Nanobenzerlerinin Geliştirilmesi ve EMA ve FDA Regülasyonlarına Uygun Olarak Preklinik Değerlendirilmesi, 2023 - Continues

KARAKOÇ E., KORKUSUZ P., BİLENSOY E., Boyacıoğlu Ö., VARAN C., DEMİR H. V., AKYÜZ Ö., ÜNAL E., Project Supported by Higher Education Institutions, Siklodekstrin nanopartikül temelli kontrollü ACPA salım sisteminin endometriyum kanserindeki etkisinin in vivo hayvan modelinde kuantum dot işaretleme yöntemiyle görüntülenmesi, 2019 - Continues  
BİLENSOY E., VARAN G., VARAN C., Demirtürk N., H2020 Project, Breaking down barriers to foster new Cyclodextrin-based applications for healthcare by implementing sustainable design principles, 2023 - 2027

KORKUSUZ P., BİLENSOY E., NEMUTLU E., VARAN C., KILIÇ N., KARAKOÇ E., TÜBİTAK Project, Küçük hücreli dışı akciğer kanseri tedavisi için kontrollü ACPA ilaç taşıyıcı sistem temelli teknoloji platformu geliştirilmesi, 2022 - 2023

KORKUSUZ P., Boyacıoğlu Ö., BİLGİÇ E., BİLENSOY E., VARAN C., Project Supported by Higher Education Institutions, Küçük hücreli dışı akciğer adenokarsinomunda kannabinoidlerin CB reseptörleri aracılı olası antiproliferatif ve proapoptotik etkisinin araştırılması, 2018 - 2019

TÜBİTAK Project, HPV-İlişkili Serviks Kanserinin Lokal Kemoterapisine Yönelik Antikanser ve Antiviral İlaç Taşıyan Siklodekstrin Nanopartikül İçeren Formülasyonlarının Printing Teknolojisi ile Hazırlanması, Karakterizasyonu ve in vitro Değerlendirilmesi, 2014 - 2016

## **Metrics**

Publication: 37

Citation (WoS): 259

Citation (Scopus): 301

H-Index (WoS): 8

H-Index (Scopus): 9

## **Scholarships**

2211-C Yurt İçi Öncelikli Alanlar Doktora Burs Programı, TÜBİTAK, 2015 - 2017

## **Awards**

VARAN C., En İyi Sözlü Sunum, Sanko Üniversitesi Tıpta Inovasyon Buluşmaları 3, May 2017