

## Asst. Prof. GAMZE VARAN

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### Education Information

Doctorate, Hacettepe University, Fen Bilimleri Enstitüsü, Nanoteknoloji Ve Nanotıp A.B.D., Turkey 2013 - 2018

Postgraduate, Hacettepe University, Fen Bilimleri Enstitüsü, Nanoteknoloji Ve Nanotıp A.B.D., Turkey 2010 - 2013

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

### Research Areas

Health Sciences

### Academic Titles / Tasks

Assistant Professor, Hacettepe University, Vaccine Institute, 2021 - Continues

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

- I. **A different approach to immunochemotherapy for colon Cancer: Development of nanoplexes of cyclodextrins and Interleukin-2 loaded with 5-FU**  
Akkin S., VARAN G., AKSÜT D., Malanga M., ERCAN A., ŞEN M., BİLENSOY E.  
INTERNATIONAL JOURNAL OF PHARMACEUTICS, vol.623, 2022 (Journal Indexed in SCI)
- II. **A Review on Cancer Immunotherapy and Applications of Nanotechnology to Chemoimmunotherapy of Different Cancers**  
Akkin S., VARAN G., BİLENSOY E.  
MOLECULES, vol.26, no.11, 2021 (Journal Indexed in SCI)
- III. **Polycationic cyclodextrin nanoparticles induce apoptosis and affect antitumoral activity in HepG2 cell line: An evaluation at the molecular level**  
ERCAN A., ÇELEBİER M., ÖNCÜL S., VARAN G., KOÇAK E., Benito J. M. , BİLENSOY E.  
International Journal of Pharmaceutics, vol.598, 2021 (Journal Indexed in SCI)
- IV. **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. , ESENDAĞLI G., BİLENSOY E.  
Nanomaterials, vol.11, no.2, pp.1-18, 2021 (Journal Indexed in SCI)
- V. **Erlotinib complexation with randomly methylated beta-cyclodextrin improves drug solubility, intestinal permeability, and therapeutic efficacy in non-small cell lung cancer**  
Erdogar N., Akkin S., VARAN G., BİLENSOY E.

PHARMACEUTICAL DEVELOPMENT AND TECHNOLOGY, vol.26, pp.797-806, 2021 (Journal Indexed in SCI)

- VI. **Erlotinib entrapped in cholesterol-depleting cyclodextrin nanoparticles shows improved antitumoral efficacy in 3D spheroid tumors of the lung and the liver**  
Varan G., Demirturk N., Benito J. M. , BİLENSOY E.  
Journal of Drug Targeting, 2020 (Journal Indexed in SCI Expanded)
- VII. **Plant-Based Natural Polymeric Nanoparticles as Promising Carriers for Anticancer Therapeutics**  
Varan G., VARAN C., BİLENSOY E.  
POLYMERIC NANOPARTICLES AS A PROMISING TOOL FOR ANTI-CANCER THERAPEUTICS, pp.293-318, 2019  
(Journal Indexed in SCI)
- VIII. **Cyclodextrin-Based Nanosystems: Current Status and Future Prospects**  
VARAN C., Varan G., Erdoglar N., BİLENSOY E.  
DRUG DELIVERY NANOSYSTEMS: FROM BIOINSPIRATION AND BIOMIMETICS TO CLINICAL APPLICATIONS, pp.29-58, 2019 (Journal Indexed in SCI)
- IX. **Global omics strategies to investigate the effect of cyclodextrin nanoparticles on MCF-7 breast cancer cells**  
ERCAN A., ÇELEBİER M., VARAN G., ÖNCÜL S., Nenni M., KAPLAN O., BİLENSOY E.  
European Journal of Pharmaceutical Sciences, vol.123, pp.377-386, 2018 (Journal Indexed in SCI Expanded)
- X. **Cellular interaction and tumoral penetration properties of cyclodextrin nanoparticles on 3D breast tumor model**  
Varan G., Patrulea V., Borchard G., BİLENSOY E.  
Nanomaterials, vol.8, no.2, 2018 (Journal Indexed in SCI Expanded)
- XI. **Cyclodextrin-based polymeric nanosystems**  
Erdoglar N., Varan G., VARAN C., BİLENSOY E.  
DRUG TARGETING AND STIMULI SENSITIVE DRUG DELIVERY SYSTEMS, pp.715-748, 2018 (Journal Indexed in SCI)
- 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 (Journal Indexed in SCI Expanded)
- XIII. **Development of polycationic amphiphilic cyclodextrin nanoparticles for anticancer drug delivery**  
Varan G., Benito J. M. , Mellet C. O. , BİLENSOY E.  
Beilstein Journal of Nanotechnology, vol.8, no.1, pp.1457-1468, 2017 (Journal Indexed in SCI Expanded)
- XIV. **Amphiphilic cyclodextrin derivatives for targeted drug delivery to tumors**  
ERDOĞAR N., VARAN G., BİLENSOY E.  
Current Topics in Medicinal Chemistry, vol.17, no.13, pp.1521-1528, 2017 (Journal Indexed in SCI Expanded)
- XV. **Cholesterol-Targeted Anticancer and Apoptotic Effects of Anionic and Polycationic Amphiphilic Cyclodextrin Nanoparticles**  
VARAN G., ÖNCÜL S., ERCAN A., BENITO J. M. , MELLET C. O. , BİLENSOY E.  
Journal of Pharmaceutical Sciences, vol.105, no.10, pp.3172-3182, 2016 (Journal Indexed in SCI Expanded)
- XVI. **Cationic polymer nanoparticles for drug and gene delivery**  
BİLENSOY E., Işık G., VARAN C.  
RSC Polymer Chemistry Series, no.13, pp.268-295, 2015 (Journal Indexed in SCI Expanded)

## Books & Book Chapters

- I. **Biodistribution of polymeric, polysaccharide and metallic nanoparticles**  
Erdođdu N., Varan G., Varan C., Bilensoy E.  
in: Characterization of Pharmaceutical Nano- and Microsystems, Peltonen Leena, Douroumis Dennis, Fahr Alfred, Siepmann Jurgen, Snowden Martin J., Editor, John Wiley & Sons, West Sussex, UK , Cambridge, pp.275-290, 2020
- II. **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

III. **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

IV. **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

## Refereed Congress / Symposium Publications in Proceedings

I. **Development and Characterization of Erlotinib-Randomly Methylated- $\beta$ -cyclodextrin Complex for the Treatment of Non-small Lung Cancer**

ERDOĞDU N., Akkın S., VARAN G., BİLENSOY E.

13th International symposium of Pharmaceutical Science, Ankara, Turkey, 22 - 25 June 2021

II. **A Metabolomic Study to Investigate the Effect of Folate Conjugated Nanoparticles on Triple Negative Breast Cancer Cells**

ERCAN A., ÇELEBİER M., varol ı., KAPLAN O., Varan G., ÖNCÜL S., KOÇAK E., BİLENSOY E.

EUFEPS Annual Meeting 2019 PERSONALIZED MEDICINES,TARGETED THERAPIES,PRECISION DRUG DELIVERY, 6 - 08 March 2019

III. **The effect of polycationic amphiphilic cyclodextrin nanoparticles on mda-mb cancer cells: A metabolomic approach to understand the mechanism**

ÇELEBİER M., KAPLAN O., VARAN G., ÖNCÜL S., KOÇAK E., ERCAN A., BİLENSOY E.

12 th International symposium on pharmaceutical sciences, 26 June 2018

IV. **GENOMIC AND METABOLOMIC STUDIES OF POLYCATIONIC AMPHIPHILIC CYCLODEXTRIN NANOPARTICLES ON HEPG2 CELL LINE**

ERCAN A., ÇELEBİER M., Varan G., ÖNCÜL S., KOÇAK E., KAPLAN O., BİLENSOY E.

EUFEPS Annual Meeting 2018 Crossing Barriers for Future Medicines, 24 - 26 May 2018

V. **Evaluation of Cholesterol-Targeted Amphiphilic Cyclodextrin Nanoparticles for Cancer Therapy**

VARAN G., ÖNCÜL S., ERCAN A., BENÍTO J., MELLET C. O. , BİLENSOY E.

Innovation in Medicine Meetings III Congress, 11 - 13 May 2017

## Citations

Total Citations (WOS):171

h-index (WOS):7