

## Res. Asst. SEDA ÖNDER

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### International Researcher IDs

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### Education Information

Undergraduate, Hacettepe University, Eczacılık Fakültesi, Turkey 2009 - 2014

### Research Areas

Basic Pharmaceutics Sciences, Health Sciences, Pharmacology and Therapeutics, Biochemistry

### Academic Titles / Tasks

Research Assistant, Hacettepe University, Eczacılık Fakültesi, Temel Eczacılık Bilimleri Bölümü, 2016 - Continues

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

- I. **Azole derivatives inhibit wildtype butyrylcholinesterase and its common mutants**  
SARI S., ÖNDER S., AKKAYA D., SABUNCUOĞLU S., ZENGİN M., BARUT B., KARAKURT A.  
Drug Development Research, vol.84, no.5, pp.1018-1028, 2023 (SCI-Expanded)
- II. **Toluidine blue O attenuates tau phosphorylation in N2a-APP<sup>Swe</sup> cells**  
Onder S., BİBEROĞLU K., Yuksel M., TACAL Ö.  
Chemico-Biological Interactions, vol.366, 2022 (SCI-Expanded)
- III. **Organophosphorus Pesticides Promote Protein Cross-Linking**  
Schopfer L. M., Onder S., Lockridge O.  
CHEMICAL RESEARCH IN TOXICOLOGY, vol.35, no.9, pp.1570-1578, 2022 (SCI-Expanded)
- IV. **Effects of toluidine blue O and methylene blue on growth and viability of pancreatic cancer cells**  
BİBEROĞLU K., YÜKSEL M., ÖNDER S., TACAL Ö.  
DRUG DEVELOPMENT RESEARCH, vol.83, no.4, pp.900-909, 2022 (SCI-Expanded)
- V. **Butyrylcholinesterase in SH-SY5Y human neuroblastoma cells**  
Onder S., Schopfer L. M., Jiang W., TACAL Ö., Lockridge O.  
NeuroToxicology, vol.90, pp.1-9, 2022 (SCI-Expanded)
- VI. **Rabbit Antidiethoxyphosphotyrosine Antibody, Made by Single B Cell Cloning, Detects Chlorpyrifos Oxon-Modified Proteins in Cultured Cells and Immunopurifies Modified Peptides for Mass**

## **Spectrometry**

ÖNDER S., van Grol M., Fidder A., Xiao G., Noort D., Yerramalla U., TACAL Ö., Schopfer L. M., Lockridge O.  
JOURNAL OF PROTEOME RESEARCH, vol.20, no.10, pp.4728-4745, 2021 (SCI-Expanded)

- VII. **Evaluation of mass spectrometry MS/MS spectra for the presence of isopeptide crosslinked peptides**  
Schopfer L. M., Onder S., Lockridge O.  
PLOS ONE, vol.16, no.7, 2021 (SCI-Expanded)
- VIII. **Inhibition of cholinesterases by safranin O: Integration of inhibition kinetics with molecular docking simulations**  
ÖNDER S., SARI S., TACAL Ö.  
ARCHIVES OF BIOCHEMISTRY AND BIOPHYSICS, vol.698, 2021 (SCI-Expanded)
- IX. **The kinetics of inhibition of human acetylcholinesterase and butyrylcholinesterase by methylene violet 3RAX**  
Onder S., Biberoglu K., Tacal Ö.  
CHEMICO-BIOLOGICAL INTERACTIONS, vol.314, 2019 (SCI-Expanded)
- X. **Mass Spectral Detection of Diethoxyphospho-Tyrosine Adducts on Proteins from HEK293 Cells Using Monoclonal Antibody depY for Enrichment**  
Önder S., Schopfer L. M., Tacal Ö., Blake T. A., Johnson R. C., Lockridge O.  
CHEMICAL RESEARCH IN TOXICOLOGY, vol.31, pp.520-530, 2018 (SCI-Expanded)
- XI. **Toluidine blue O modifies hippocampal amyloid pathology in a transgenic mouse model of Alzheimer's disease**  
YÜKSEL M., BİBEROĞLU K., ÖNDER S., Akbulut K. G., TACAL Ö.  
BIOCHIMIE, vol.146, pp.105-112, 2018 (SCI-Expanded)
- XII. **Delipidation of Plasma Has Minimal Effects on Human Butyrylcholinesterase**  
ÖNDER S., TACAL Ö., Lockridge O.  
FRONTIERS IN PHARMACOLOGY, vol.9, 2018 (SCI-Expanded)
- XIII. **Use of Hupresin To Capture Red Blood Cell Acetylcholinesterase for Detection of Soman Exposure**  
ÖNDER S., SCHOPFER L. M., CASHMAN J. R., TACAL Ö., JOHNSON R. C., BLAKE T. K., Lockridge O.  
ANALYTICAL CHEMISTRY, vol.90, no.1, pp.974-979, 2018 (SCI-Expanded)
- XIV. **Monoclonal Antibody That Recognizes Diethoxyphosphotyrosine-Modified Proteins and Peptides Independent of Surrounding Amino Acids**  
ÖNDER S., Dafferner A. J., Schopfer L. M., Xiao G., Yerramalla U., TACAL Ö., Blake T. A., Johnson R. C., Lockridge O.  
CHEMICAL RESEARCH IN TOXICOLOGY, vol.30, no.12, pp.2218-2228, 2017 (SCI-Expanded)
- XV. **Hupresin Retains Binding Capacity for Butyrylcholinesterase and Acetylcholinesterase after Sanitation with Sodium Hydroxide**  
ÖNDER S., DAVID E., TACAL Ö., SCHOPFER L. M., Lockridge O.  
FRONTIERS IN PHARMACOLOGY, vol.8, 2017 (SCI-Expanded)
- XVI. **Effects of phenothiazine-structured compounds on APP processing in Alzheimer's disease cellular model**  
YÜKSEL M., BİBEROĞLU K., ÖNDER S., Akbulut K. G., TACAL Ö.  
BIOCHIMIE, vol.138, pp.82-89, 2017 (SCI-Expanded)
- XVII. **Azure B reduces extracellular amyloid-beta levels in PS70 cells**  
BİBEROĞLU K., YÜKSEL TEK M., ÖNDER S., TACAL Ö.  
FEBS JOURNAL, vol.283, pp.266, 2016 (SCI-Expanded)

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

- I. **Toluidine blue O decreases tau phosphorylation at Thr181 and Ser202/Thr 205 in N2a mouse neuroblastoma cells stably expressing the human Swedish mutant APP695**

Önder S., Biberoglu K., Yüksel M., Tacal Ö.

13th International Symposium on Pharmaceutical Sciences (ISOPS), Ankara, Turkey, 22 - 25 June 2021, pp.1-2

- II. **Comparative inhibitory effect of safranin O on cholinesterases**  
Önder S., Sarı S., Tacal Ö.  
31. Ulusal Biyokimya Kongresi, 18 - 20 December 2020, pp.39-40
- III. **The effects of phenothiazine dyes on GAG-modified APLP2 and  $\beta$ -secretase 1 levels in Hs766t cells''**  
BİBEROĞLU K., YÜKSEL M., ÖNDER S., TACAL Ö.  
TBD Uluslararası Biyokimya Kongresi 2018 // 29. Ulusal Biyokimya Kongresi, 26 - 30 October 2018
- IV. **Detection of Diethoxyphospho-tyrosine Adducts on Proteins from HEK 293 Cells Using Monoclonal Antibody DepY for Enrichment**  
ÖNDER S., Schopfer L. M., TACAL Ö., Blake T. A., Johnson R. C., LOCKRIDGE O.  
The 13th International Meeting on Cholinesterases and the 7th International Conference on Paraoxonases, 9 - 14 September 2018
- V. **Inhibition of human acetylcholinesterase and butyrylcholinesterase by methylene violet 3RAX**  
ÖNDER S., BİBEROĞLU K., TACAL Ö.  
13th International Meeting on Cholinesterases, 9 - 14 September 2018
- VI. **Toluidine blue O reduces APLP2 and APLP2 CTF levels in Hs766T cells**  
BİBEROĞLU K., YÜKSEL M., ÖNDER S., TACAL Ö.  
43rd FEBS Congress, 7 - 12 July 2018
- VII. **The Inhibitory effects of phenothiazine dyes on B-secretase**  
BİBEROĞLU K., YÜKSEL M., ÖNDER S., TACAL Ö.  
12th International Symposium on Pharmaceutical Sciences, 26 - 29 June 2018
- VIII. **Toluidine blue o but not thionine alters APP procesing in 3XTg-AD mice**  
YÜKSEL M., BİBEROĞLU K., ÖNDER S., AKBULUT K. G., TACAL Ö.  
42nd Congress of the FEBS, 10 - 14 September 2017, vol.284
- IX. **Toluidine blue O, but not thionine, alters APP processing in 3xTg-AD mice**  
YÜKSEL M., BİBEROĞLU K., ÖNDER S., AKBULUT K. G., TACAL Ö.  
42nd FEBS CONGRESS, 10 - 14 September 2017, vol.284
- X. **Effect of toluidine blue O on tau pathology in an Alzheimer'xxs disease animal model.**  
YÜKSEL M., BİBEROĞLU K., ÖNDER S., AKBULUT K. G., TACAL Ö.  
FEBS Advanced Lecture Course ALC17-012 Nuclear Receptors and Epigenomic Mechanisms in Human disease and Aging, 26 August - 01 September 2017
- XI. **Effect of toluidine blue O on tau pathology in an Alzheimer's disease animal model**  
YÜKSEL M., BİBEROĞLU K., ÖNDER S., AKBULUT K. G., TACAL Ö.  
FEBS Advanced Lecture Course ALC17-012 Nuclear Receptors and Epigenomic Mechanisms in Human Disease and Aging, Spetses, Greece, 26 August - 01 September 2017
- XII. **Monoclonal antibodies that recognize diethoxyphosphate-tyrosine modified proteins**  
ÖNDER S., Dafferner A., Schopfer L. M., Blake T. A., Rudolph C J., TACAL Ö., Lockridge O.  
2017 Society for Developmental Biology West Coast Regional Meeting, Yosemite, United States Of America, 28 - 31 March 2017

## Supported Projects

TACAL Ö., BİBEROĞLU K., YÜKSEL M., ÖNDER S., Project Supported by Higher Education Institutions, Fenotiyazin yapısındaki kolinesteraz inhibitörlerinin amiloid prekürsör protein metabolizması ve tau üzerindeki etki mekanizmalarının araştırılması, 2019 - 2022

BİBEROĞLU K., YÜKSEL TEK M., ÖNDER S., TACAL Ö., Project Supported by Higher Education Institutions, İnsan pankreas kanseri hücre hattında fenotiyazin yapılı bileşiklerin amiloid prekürsörbenzeri protein 2 üzerindeki etkilerinin değerlendirilmesi ve etki mekanizmalarının araştırılması, 2017 - 2021

## **Metrics**

Publication: 29

Citation (WoS): 44

Citation (Scopus): 49

H-Index (WoS): 4

H-Index (Scopus): 5

## **Scholarships**

2214, TUBITAK, 2016 - 2018