



## Assoc. Prof. Banu ORTA YILMAZ

### Personal Information

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### International Researcher IDs

ScholarID: JEjhZkoAAAAJ

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Publons / Web Of Science ResearcherID: AAC-7970-2020

ScopusID: 57203840980

Yoksis Researcher ID: 33332



### Education Information

2013 - 2017	Doctorate, Istanbul University, Fen Bilimleri , Turkey
2010 - 2012	Postgraduate, Istanbul University, Fen Bilimleri , Turkey
2009 - 2010	Masters (Non-Thesis), Istanbul University, Fen Bilimleri , Turkey
2005 - 2009	Undergraduate, Marmara University, Faculty Of Arts And Sciences, Biyoloji, Turkey

### Foreign Languages

English, B2 Upper Intermediate

### Certificates, Courses and Trainings

2011	Eppendorf Pipette Clinic & Centrifuges Clinic Katılım Kursu, Health&Medicine, Eppendorf
2011	Deney Hayvanları Kullanım Kursu, Health&Medicine, İ.Ü. DETAE Deney Hayvanları Biyolojisi ve Biyomedikal Uygulama Teknikleri Anabilim Dalı

### Dissertations

2013	Sodyum florürün Leydig hücrelerinde steroidogenik yolak üzerinde in vitro etkileri, Istanbul University, Faculty of Science, Biyoloji, Doctorate
2012	Sodyum Florür'ün TM4 Sertoli Hücreleri Üzerinde Oluşturduğu Oksidatif Hasara Vitamin C'nin Etkisi, Istanbul University, Faculty of Science, Biyoloji, Postgraduate

### Research Areas

Life Sciences, Animal Biology, Animal Tissue Culture, Animal Development and Maturation, Animal Reproduction, Molecular Biology and Genetics, Animal Molecular Genetics, Natural Sciences

## Academic Titles / Tasks

2021 - Continues	Associate Professor, Istanbul University, Faculty of Science, Department of Biology
2017 - 2021	Research Assistant PhD, Istanbul University, Faculty of Science, Department of Biology
2014 - 2017	Research Assistant, Istanbul University, Faculty of Science, Department of Biology

## Academic and Administrative Experience

2021 - Continues	Bölüm Akademik Teşvik Değerlendirme Komisyonu Üyesi, Istanbul University, Faculty Of Science, Department of Biology
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## Courses

2021 - 2022	Gelişim Biyolojisinde Seçme Konular, Undergraduate
2021 - 2022	HÜCRE VE MOLEKÜLER BİYOLOJİ ARAŞTIRMALARI II, Undergraduate
2021 - 2022	Hücre İskeleti Yapı ve Fonksiyonu, Postgraduate
2021 - 2022	Moleküler Genetik, Undergraduate
2021 - 2022	İnsan Embriyolojisine Giriş, Undergraduate
2021 - 2022	Gametogenez, Postgraduate
2021 - 2022	Genetik Toksikoloji Araştırma Yöntemleri, Undergraduate
2021 - 2022	HÜCRE VE MOLEKÜLER BİYOLOJİ ARAŞTIRMALARI I, Undergraduate

## Advising Theses

2022	Orta Yılmaz B., Postgraduate, B.YILMAZ(Student), Furanın Leydig Hücrelerinde Genotoksik Profilin Değerlendirilmesi
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## Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Disruption of Leydig cell steroidogenic function by sodium arsenite and/or sodium fluoride.**  
Orta Yılmaz B., Aydın Y.  
Theriogenology, vol.193, no.193, pp.146-156, 2022 (SCI-Expanded)
- II. **Synergistic effects of arsenic and fluoride on oxidative stress and apoptotic pathway in Leydig and Sertoli cells**  
Aydın Y., Orta Yılmaz B.  
TOXICOLOGY, vol.475, pp.1-11, 2022 (SCI-Expanded)
- III. **Evaluation of citrinin-induced toxic effects on mouse Sertoli cells**  
Aydın Y., Orta Yılmaz B., Yıldızbayrak N., Korkut A., Arabul-Kursun M., İrez T., Erkan M.  
Drug And Chemical Toxicology, vol.44, no.6, pp.559-565, 2021 (SCI-Expanded)
- IV. **Effects of Curcumin on Sodium Arsenite Induced Neoplastic Cell Transformation in Balb/c 3T3 Cells**  
Demircioğlu B., Aydın Y., Orta Yılmaz B., Yıldızbayrak N., Erkan M. B.  
Brazilian Archives Of Biology And Technology, vol.64, pp.1-10, 2021 (SCI-Expanded)
- V. **Vitamin C inhibits glycidamide-induced genotoxicity and apoptosis in Sertoli cells**  
ORTA YILMAZ B., Yildizbayrak N., AYDIN Y.  
JOURNAL OF BIOCHEMICAL AND MOLECULAR TOXICOLOGY, 2020 (SCI-Expanded)
- VI. **Acrolein exerts a genotoxic effect in the Leydig cells by stimulating DNA damage-induced apoptosis**  
Yildizbayrak N., Orta-Yilmaz B., Aydın Y., Erkan M.  
ENVIRONMENTAL SCIENCE AND POLLUTION RESEARCH, 2020 (SCI-Expanded)
- VII. **Protective effects of vitamin C and curcumin against acrylamide toxicity in embryonic fibroblast cells**

Orta-Yilmaz B.

Toxicological and Environmental Chemistry, vol.101, pp.389-403, 2019 (SCI-Expanded)

- VIII. **Protective effects of curcumin on biochemical and molecular changes in sodium arsenite-induced oxidative damage in embryonic fibroblast cells**  
Perker M. C. , Yilmaz B. O. , Yildizbayrak N., Aydın Y., Erkan M. B.  
JOURNAL OF BIOCHEMICAL AND MOLECULAR TOXICOLOGY, vol.33, no.7, 2019 (SCI-Expanded)
- IX. **Evaluation of citrinin-induced toxic effects on mouse Sertoli cells.**  
Aydın Y., Yilmaz B. O. , Yildizbayrak N., Korkut A., Kursun M. A. , Irez T., Erkan M.  
Drug and chemical toxicology, pp.1-7, 2019 (SCI-Expanded)
- X. **Sodium fluoride disrupts testosterone biosynthesis by affecting the steroidogenic pathway in TM3 Leydig cells**  
Yilmaz B. O. , Korkut A., Erkan M.  
CHEMOSPHERE, vol.212, pp.447-455, 2018 (SCI-Expanded)
- XI. **Sodium arsenite-induced detriment of cell function in Leydig and Sertoli cells: the potential relation of oxidative damage and antioxidant defense system**  
ORTA YILMAZ B., Yildizbayrak N., ERKAN M. B.  
DRUG AND CHEMICAL TOXICOLOGY, no.9, pp.1-9, 2018 (SCI-Expanded)
- XII. **Evidence of acrylamide- and glycidamide-induced oxidative stress and apoptosis in Leydig and Sertoli cells**  
Yilmaz B., Yildizbayrak N., Aydın Y., Erkan M. B.  
Human and Experimental Toxicology, vol.36, pp.1225-1235, 2017 (SCI-Expanded)
- XIII. **EFFECTS OF VITAMIN C ON SODIUM FLUORIDE-INDUCED OXIDATIVE DAMAGE IN SERTOLI CELLS**  
Yilmaz B., Erkan M.  
FLUORIDE, vol.48, no.3, pp.241-251, 2015 (SCI-Expanded)
- XIV. **EFFECTS OF VITAMIN C ON ANTIOXIDANT SYSTEMS AND STEROIDOGENIC ENZYMES IN SODIUM FLUORIDE-EXPOSED TM4 SERTOLI CELLS**  
Orta B., Erkan M.  
FLUORIDE, vol.47, no.2, pp.139-151, 2014 (SCI-Expanded)

## Articles Published in Other Journals

- I. **THE EFFECTS OF VITAMIN C ON GLYCIDAMIDE-INDUCED CELLULAR DAMAGE AND APOPTOSIS IN MOUSE LEYDIG CELLS**  
Orta Yilmaz B.  
TRAKYA UNIVERSITY JOURNAL OF NATURAL SCIENCES, vol.20, no.1, pp.9-17, 2019 (ESCI)

## Books & Book Chapters

- I. **Chapter 5 - Plant bioactives in immune modulation and their role in antiaging**  
AYDIN Y., DİKBASAN Y. Ü. , ORTA YILMAZ B.  
in: Plant Bioactives as Natural Panacea Against Age-induced Diseases, Pandey Kanti Bhooshan, Suttajit Maitree, Editor, Elsevier, Amsterdam, pp.85-109, 2022
- II. **Chapter 12 - Plant polyphenols in the regulation of ion channels during aging and induced diseases**  
ORTA YILMAZ B., YILMAZ B., AYDIN Y.  
in: Plant Bioactives as Natural Panacea Against Age-Induced Diseases, Pandey Kanti Bhooshan, Suttajit Maitree, Editor, Elsevier, Amsterdam, pp.235-252, 2022
- III. **42. Protective effects of vitamin C against fluoride toxicity**  
Erkan M., Aydın Y., Orta Yilmaz B., Yildizbayrak N.  
in: Toxicology- Oxidative Stress and Dietary Antioxidants, Vinood Patel, Victor Preedy, Editor, AP, London , London,

pp.435-442, 2021

- IV. **16. Arsenic-induced oxidative stress in reproductive systems**  
Erkan M., Aydın Y., Orta Yılmaz B., Yıldızbayrak N.  
in: Toxicology- Oxidative Stress and Dietary Antioxidants, Victor Preedy, Vinood Patel, Editor, AP, London , London, pp.145-153, 2021
- V. **The Role of Environmental Contaminants in Leydig Cell Steroidogenesis**  
Orta Yılmaz B., Erkan M.  
in: Leydig Cells: Structure, Functions and Clinical Aspects, Bruno Solomon (Editor), Editor, NOVA Science Publishers Inc. , New York, pp.49-70, 2020
- VI. **The Potential Role of Stem Cell Reprogramming in Antiaging**  
Orta Yılmaz B., Erkan M. B.  
in: Molecular Basis and Emerging Strategies for Anti-aging Interventions, Rizvi S. I., Çakatay U., Editor, Springer, London/Berlin , Singapore, pp.35-45, 2018
- VII. **İnsan Gelişiminin 1. Haftası**  
ORTA YILMAZ B.  
in: BRS Embriyoloji, İrez T., Erkan M., Editor, İstanbul Tıp Kitap Yayınevi, İstanbul, pp.12-17, 2016
- VIII. **Antioxidant activity of Genistein on Polychlorinated Biphenyl (Aroclor 1260) induced toxicity in TM3 cell line**  
Aydın Y., Orta Yılmaz B., Erkan M.  
in: Perspectives In Animal Ecology And Reproduction Vol.9, Gupta V. K., Verma A. K., Singh G., Editor, Daya Publishing House, New Delhi, pp.467-489, 2013

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

- I. **EFFECTS OF VITAMIN C AND ZINC ON FURAN INDUCED TOXICITY IN TM4 SERTOLI CELLS**  
Dumanoğlu Z., Orta Yılmaz B., Aydın Y.  
IV. International Agricultural, Biological & Life Science Conference, Edirne, Turkey, 29 - 31 August 2022, pp.253-263
- II. **ZINC AND VITAMIN C CAN PREVENT OXIDATIVE STRESS INDUCED BY LEAD NITRATE IN MOUSE LEYDIG CELLS**  
Saralioğlu İ., Keserci Y., Aydın Y., Orta Yılmaz B.  
IV. International Agricultural, Biological & Life Science Conference, Edirne, Turkey, 29 - 31 August 2022, pp.191-201
- III. **Evaluation of chlorpyrifos cytotoxicity in Sertoli cells**  
Orta Yılmaz B., Kurtel H.  
III. International Conference on Agricultural, Biological and Life Science, İstanbul, Turkey, 1 - 03 September 2021, pp.199
- IV. **Antioxidant activity of ascorbic acid on sodium fluoride induced cytotoxicity, oxidative damage, and apoptosis in Leydig cells**  
Orta Yılmaz B., Aydın Y.  
3rd International Eurasian Conference on Biological and Chemical Sciences (EurasianBioChem 2020), Ankara, Turkey, 19 - 20 March 2020, pp.15-22
- V. **Vitamin C prevents arsenic-induced oxidative and DNA damage in TM3 cell line**  
Orta Yılmaz B.  
3rd International Eurasian Conference on Biological and Chemical Sciences (EurasianBioChem 2020), Ankara, Turkey, 19 - 20 March 2020, pp.296
- VI. **Evaluation of the antioxidant defense system parameters in furan- induced toxicity in Leydig cells**  
ORTA YILMAZ B., YILMAZ B.  
International Conference on Natural Sciences and Technology, Prizren, Kosova, 26 - 30 August 2019, pp.1
- VII. **Ameliorative effects of vitamin C on testosterone biosynthesis in acrylamide-exposed Leydig cells**

ORTA YILMAZ B.

2ND INTERNATIONAL EURASIAN CONFERENCE ON BIOLOGICAL AND CHEMICAL SCIENCES, Ankara, Turkey, 28 - 29 June 2019, pp.344

VIII. **Vitamin C Effectively Ameliorates Glycidamide-Induced Cellular Damage and Apoptosis in Mouse Leydig Cells**

ORTA YILMAZ B.

International Symposium Ecology, Kastamonu, Turkey, 19 - 23 June 2018, pp.155

IX. **Anti-Oxidative Effects of Curcumin on Sodium Arsenite Induced Oxidative Damage in 3T3 Embryonic Fibroblast Cells**

ORTA YILMAZ B., AYDIN Y., Yıldızbayrak N., PERKER M. C. , ERKAN M. B.

INTERNATIONAL EURASIAN CONFERENCE ON BIOLOGICAL AND CHEMICAL SCIENCES, Ankara, Turkey, 26 - 27 April 2018, vol.1, no.1, pp.356

X. **Ameliorative effects of vitamin C on cellular oxidative damage and apoptosis induced by glycidamide in Sertoli cells**

AYDIN Y., ORTA YILMAZ B.

International Congress on Engineering and Life Sciences, Kastamonu, Turkey, 26 - 29 April 2018, vol.1, no.1, pp.1

XI. **Co-exposure to sodium arsenite and sodium fluoride induced cellular and oxidative damage in Sertoli cells**

ORTA YILMAZ B., AYDIN Y.

3rd International Congress on Environmental Researches and Technology (ICERAT), Belgrad, Serbia And Montenegro, 8 - 12 November 2017, pp.1-2

XII. **Effects of Fluoride on the Expression of Steroidogenesis Genes in TM3 Leydig Cells**

ORTA YILMAZ B., ERKAN M. B.

18TH EUROPEAN SYMPOSIUM ON FLUORINE CHEMISTRY, Kiev, Ukraine, 7 - 12 August 2016, pp.111

XIII. **Acrylamide and Glycidamide can Effect Leydig and Sertoli Cell Viability, Oxidative Damage and Apoptosis in vitro**

ORTA YILMAZ B., Yıldızbayrak N., ERKAN M. B.

9th World Congress on Alternatives and Animal Use in the Life Sciences, Prag, Czech Republic, 24 - 28 August 2014, pp.136-137

XIV. **Acrylamide and Glycidamide can effect Leydig and Sertoli cell viability, Oxidative Damage and Apoptosis in vitro**

ORTA YILMAZ B., Yıldızbayrak N., ERKAN M. B.

9th World Congress on Alternatives and Animal Use in the Life Sciences, Prag, Czech Republic, 24 - 28 August 2014, pp.136-137

## Supported Projects

2022 - Continues	Sodyum florür ve hesperidinin fare Leydig hücrelerinde genotoksisite üzerinde etkilerinin araştırılması, Project Supported by Higher Education Institutions
2022 - Continues	Furanın Leydig Hücrelerinde Genotoksik Profilinin Değerlendirilmesi, Project Supported by Higher Education Institutions
2021 - Continues	5-hidroksimetilfurfuralın erkek üreme toksisitesi üzerine etkisinin in vitro olarak incelenmesi, Project Supported by Higher Education Institutions
2021 - Continues	İstanbul Üniversitesi Araştırma Laboratuvarlarının Sürekliliği ve Geliştirilmesi, Project Supported by Higher Education Institutions
2022 - 2023	5-Hidroksimetilfurfuralın Erkek Üreme Toksikitesi Üzerine Etkisinin In Vivo Olarak İncelenmesi, TÜBİTAK Project
2021 - 2022	Kurşun nitratın Leydig hücreleri üzerinde oluşturduğu toksisiteye karşı C vitamini ve çinkonun etkisinin incelenmesi, Project Supported by Higher Education Institutions
2020 - 2021	Sertoli hücrelerinde klorpirifos sitotoksitesinin değerlendirilmesi, Project Supported by Higher Education Institutions

2018 - 2020	Glisidamid ile uyarılmış embriyonik fibroblast hücrelerinde oluşan toksisiteye hesperidin ve vitamin C'nin etkisi, Project Supported by Higher Education Institutions
2018 - 2019	Furanın Leydig hücrelerinde hücre canlılığı ve antioksidan savunma sistemi üzerindeki etkilerinin incelenmesi, Project Supported by Higher Education Institutions
2018 - 2019	Sodium fluoride disrupts testosterone biosynthesis by affecting the steroidogenic pathway in TM3 Leydig cells, Project Supported by Higher Education Institutions
2018 - 2019	Sodium arsenite induced detriment of cell function in Leydig and Sertoli cells the potential relation of oxidative damage and antioxidant defense system, Project Supported by Higher Education Institutions
2017 - 2018	Evidence of acrylamide and glycidamideinduced oxidative stress and apoptosis in Leydig and Sertoli cells, Project Supported by Higher Education Institutions
2015 - 2018	Akrilamid ve Glisidamid'in Leydig hücrelerinde apoptotik ve steroidogenik yolak üzerinde in vitro etkileri, Project Supported by Higher Education Institutions
2017 - 2017	Co-exposure to sodium arsenite and sodium fluoride induced cellular and oxidative damage in Sertoli cells, Project Supported by Higher Education Institutions
2014 - 2017	Sodyum florürün Leydig hücrelerinde steroidogenik yolak üzerinde in vitro etkileri, Project Supported by Higher Education Institutions
2014 - 2017	Hamsi balığı (Engraulis encrasicolus L., 1758)' nın genom karakteri ve kompozisyonunun araştırılması, Project Supported by Higher Education Institutions
2013 - 2017	Hamile sıçanlarda akrilamid, arsenik ve florürün erkek yavru steroidogenez profiline etkileri, Project Supported by Higher Education Institutions
2016 - 2016	EFFECTS OF VITAMIN C ON ANTIOXIDANT SYSTEMS AND STEROIDOGENIC ENZYMES IN SODIUM FLUORIDE EXPOSED TM4 SERTOLI CELLS, Project Supported by Higher Education Institutions
2013 - 2016	Antioxidant activity of Genistein on polychlorinated biphenyls (Aroclor 1260) Induced toxicity in TM3 cell line, Project Supported by Higher Education Institutions

## Contractual Researches

2022 - 2023	Hesperidin-Kurkumin Kompleksinin Kanser Tedavisinde Kullanılabilirliği, MEDİ PRİME İLAÇ SANAYİ VE TİCARET ANONİM ŞİRKETİ
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## Metrics

Publication: 37  
Citation (WoS): 80  
Citation (Scopus): 87  
H-Index (WoS): 5  
H-Index (Scopus): 5

## Awards

May 2014	Başarılı Araştırmacı Ödülü, İstanbul Üniversitesi Bilimsel Araştırma Projeleri Birimi
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