

## Assoc. Prof. IŞIL ÖZAKCA GÜNDÜZ

### Personal Information

Office Phone: [+90 312 203 3139](tel:+903122033139)

Fax Phone: [+90 312 213 1085](tel:+903122131085)

Email: [ozakca@ankara.edu.tr](mailto:ozakca@ankara.edu.tr)

Other Email: [isilozakca@gmail.com](mailto:isilozakca@gmail.com)

Web: <https://avesis.ankara.edu.tr/ozakca>

### International Researcher IDs

ORCID: 0000-0003-0602-0355

ScopusID: 19933951800

Yoksis Researcher ID: 102484

### Education Information

Doctorate, Ankara University, Sağlık Bilimleri Enstitüsü, Farmakoloji (Dr) (Eczacılık), Turkey 2005 - 2011

Postgraduate, Ankara University, Sağlık Bilimleri Enstitüsü, Farmakoloji (YI) (Tezli), Turkey 2002 - 2005

Undergraduate, Ankara University, Eczacılık Fakültesi, Eczacılık Pr., Turkey 1998 - 2002

### Foreign Languages

English, C1 Advanced

### Dissertations

Doctorate, Kronik izoprenalin infüzyonunun sıçan kalbindeki beta adrenoseptör alttıpleri üzerindeki fonksiyonel ve moleküler etkisi, Ankara University, Sağlık Bilimleri Enstitüsü, Farmakoloji (Dr) (Eczacılık), 2011

Postgraduate, Streptozotosin-diyabetik sıçan izole gastrik fundus preparatında 946-adrenerjik reseptör yanıtlarındaki olası değişiklikler, Ankara University, Sağlık Bilimleri Enstitüsü, Farmakoloji (YI) (Tezli), 2005

### Research Areas

Pharmacology

### Academic Titles / Tasks

Associate Professor, Ankara University, Eczacılık Fakültesi, Eczacılık Meslek Bilimleri Bölümü, 2020 - Continues

Assistant Professor, Ankara University, Eczacılık Fakültesi, Eczacılık Meslek Bilimleri Bölümü, 2016 - 2020

Research Assistant, Ankara University, Eczacılık Fakültesi, Eczacılık Meslek Bilimleri Bölümü, 2007 - 2016

### Academic and Administrative Experience

## Courses

### Postgraduate

Uzmanlık Alan Dersi, Postgraduate, 2018 - 2019, 2017 - 2018  
Tez Çalışması, Postgraduate, 2018 - 2019  
Deneysel Hipertansiyon Modelleri (Uygulama), Postgraduate, 2017 - 2018  
Deneysel Farmakoloji I (Uygulama), Postgraduate, 2017 - 2018  
Otonom Sinir Sistemi Farmakolojisi, Postgraduate, 2017 - 2018  
Seminer, Postgraduate, 2017 - 2018  
İyon Kanalları Farmakolojisi, Postgraduate, 2017 - 2018  
İlaç-Reseptör Etkileşimleri, Postgraduate, 2017 - 2018  
Araştırma Yöntemleri, Postgraduate, 2017 - 2018  
Hücrel Sinyal Transdüksiyon Mekanizmaları, Postgraduate, 2017 - 2018  
Dönem Projesi, Postgraduate, 2016 - 2017

### Undergraduate

Pharmacology II, Undergraduate, 2018 - 2019, 2017 - 2018  
Pharmacology III, Undergraduate, 2018 - 2019  
Physiology, Undergraduate, 2018 - 2019  
Farmakoloji III, Undergraduate, 2018 - 2019, 2017 - 2018, 2016 - 2017  
Farmakoloji II, Undergraduate, 2018 - 2019, 2017 - 2018, 2016 - 2017  
Farmakoterapi, Undergraduate, 2017 - 2018  
Farmasötik Bakım, Undergraduate, 2017 - 2018, 2016 - 2017  
Farmakoloji I, Undergraduate, 2017 - 2018, 2016 - 2017  
Pharmacology I, Undergraduate, 2017 - 2018  
Farmakoterapötikler, Undergraduate, 2016 - 2017

## Supervised Theses

ÖZAKCA GÜNDÜZ I., In vitro hiperglisemik ortamda gözlenen EDCF yanıtına rho-kinaz ve AMPK sinyal yollarının katkısı, Doctorate, C.BALCILAR(Student), 2017

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

- I. **Design and in vitro/in vivo Evaluation of Polyelectrolyte Complex Nanoparticles Filled in Enteric-Coated Capsules for Oral Delivery of Insulin**  
Arpaç B., DEVRİM GÖKBERK B., KÜÇÜKTÜRKMEN B., ÖZAKCA GÜNDÜZ I., PALABIYIK İ. M., BOZKIR A.  
Journal of Pharmaceutical Sciences, vol.112, no.3, pp.718-730, 2023 (SCI-Expanded)
- II. **Development of composite carbon quantum dots-insulin formulation for oral administration br**  
Camlik G., ÖZAKCA GÜNDÜZ I., Bilakaya B., ÖZÇELİKAY A. T., Velaro A. J., Wasnik S., Degim I. T.  
JOURNAL OF DRUG DELIVERY SCIENCE AND TECHNOLOGY, vol.76, 2022 (SCI-Expanded)
- III. **Contributions of Rho-kinase and AMP-related kinase signaling pathways to responses mediated by endothelium-derived contracting factors in diabetic rat aorta**  
Balcilar C., ÖZAKCA GÜNDÜZ I., ALTAN V. M.  
CANADIAN JOURNAL OF PHYSIOLOGY AND PHARMACOLOGY, vol.97, no.7, pp.600-610, 2019 (SCI-Expanded)
- IV. **Chronic inhibition of nitric oxide synthase modulates calcium handling in rat heart**  
ÖZAKCA GÜNDÜZ I., ÖZÇELİKAY A. T.

CANADIAN JOURNAL OF PHYSIOLOGY AND PHARMACOLOGY, vol.97, no.4, pp.313-319, 2019 (SCI-Expanded)

- V. **Antihypertrophic Effects of Nebivolol on Neonatal Cardiomyocyte Hypertrophy Models**  
ÖZAKCA GÜNDÜZ I.  
JOURNAL OF CARDIOVASCULAR PHARMACOLOGY, vol.73, no.3, pp.155-164, 2019 (SCI-Expanded)
- VI. **beta(3)-Adrenoceptor Control of Lower Genitourinary Tract Organs and Function in Male: An Overview**  
Kaya E., Sikka S. C., Oral D. Y., ÖZAKCA GÜNDÜZ I., GÜR S.  
CURRENT DRUG TARGETS, vol.19, no.6, pp.602-612, 2018 (SCI-Expanded)
- VII. **THE BENEFICIAL EFFECT OF HYDROGEN SULFIDE DONOR, SODIUM HYDROSULFIDE ON ERECTILE DYSFUNCTION IN L-NAME-INDUCED HYPERTENSIVE RATS**  
Oral Y. D., Kaya E., Yilmaz E., Bayatli N., Cengiz T., ÖZAKCA GÜNDÜZ I., GÜR S.  
JOURNAL OF SEXUAL MEDICINE, vol.14, no.4, 2017 (SCI-Expanded)
- VIII. **Effects of Silodosin, a Selective Alpha-1A Adrenoceptor Antagonist, on Erectile Function in a Rat Model of Partial Bladder Outlet Obstruction**  
Bastaskin T., Kaya E., ÖZAKCA GÜNDÜZ I., Yilmaz D., Bayatli N., Akdemir A. O., GÜR S.  
NEUROUROLOGY AND URODYNAMICS, vol.36, no.3, pp.597-603, 2017 (SCI-Expanded)
- IX. **Intracavernous Injection of Human Umbilical Cord Blood Mononuclear Cells Improves Erectile Dysfunction in Streptozotocin-Induced Diabetic Rats**  
Cengiz T., Kaya E., Oral D. Y., Özakca Gündüz I., Bayatli N., Karabay A. Z., Ensari T. A., Karahan S. T., Yilmaz E., Gür S.  
JOURNAL OF SEXUAL MEDICINE, vol.14, no.1, pp.50-58, 2017 (SCI-Expanded)
- X. **beta(3)-Adrenoceptor-mediated responses in diabetic rat heart**  
KAYKI MUTLU G., ARIOĞLU İNAN E., ÖZAKCA GÜNDÜZ I., ÖZÇELİKAY A. T., Altan V. M.  
GENERAL PHYSIOLOGY AND BIOPHYSICS, vol.33, no.1, pp.99-109, 2014 (SCI-Expanded)
- XI. **Roles of PKC Isoforms in Development of Diabetes-Induced Cardiovascular Complications**  
ÖZAKCA GÜNDÜZ I., ÖZÇELİKAY A. T.  
DIABETIC CARDIOMYOPATHY: BIOCHEMICAL AND MOLECULAR MECHANISMS, vol.9, pp.269-284, 2014 (SCI-Expanded)
- XII. **The role of insulin-thyroid hormone interaction on beta-adrenoceptor-mediated cardiac responses**  
ARIOĞLU İNAN E., ÖZAKCA GÜNDÜZ I., KAYKI MUTLU G., SEPİCİ DİNÇEL A., Altan V. M.  
EUROPEAN JOURNAL OF PHARMACOLOGY, vol.718, no.1-3, pp.533-543, 2013 (SCI-Expanded)
- XIII. **Nebivolol prevents desensitization of beta-adrenoceptor signaling and induction of cardiac hypertrophy in response to isoprenaline beyond beta(1)-adrenoceptor blockage**  
ÖZAKCA GÜNDÜZ I., ARIOĞLU İNAN E., Esfahani H., Altan V. M., Balligand J., KAYKI MUTLU G., ÖZÇELİKAY A. T.  
AMERICAN JOURNAL OF PHYSIOLOGY-HEART AND CIRCULATORY PHYSIOLOGY, vol.304, no.9, 2013 (SCI-Expanded)
- XIV. **Cardioprotective effects of 44Bu, a newly synthesized compound, in rat heart subjected to ischemia/reperfusion injury**  
Basgut B., KAYKI MUTLU G., Bartosova L., ÖZAKCA GÜNDÜZ I., Seymen A., KANDİLCİ H. B., UĞUR M., Turan B., ÖZÇELİKAY A. T.  
EUROPEAN JOURNAL OF PHARMACOLOGY, vol.640, no.1-3, pp.117-123, 2010 (SCI-Expanded)
- XV. **The changes in  $\beta$ -adrenoceptor-mediated cardiac function in experimental hypothyroidism: The possible contribution of cardiac  $\beta$ 3-adrenoceptors**  
Arioglu E., Guner S., ÖZAKCA GÜNDÜZ I., Altan V. M., ÖZÇELİKAY A. T.  
Molecular and Cellular Biochemistry, vol.335, no.1-2, pp.59-66, 2010 (SCI-Expanded)
- XVI. **Role of beta-3-adrenoceptor in catecholamine-induced relaxations in gastric fundus from control and diabetic rats**  
ÖZAKCA GÜNDÜZ I., Arioglu E., Guner S., Altan V. M., ÖZÇELİKAY A. T.  
Pharmacology, vol.80, no.4, pp.227-238, 2007 (SCI-Expanded)
- XVII. **The effects of chronic trimetazidine treatment on mechanical function and fatty acid oxidation in diabetic rat hearts**  
BEŞİKCİ A., Guner S., Arioglu E., ÖZAKCA GÜNDÜZ I., ÖZÇELİKAY A. T., Altan V. M.

Canadian Journal of Physiology and Pharmacology, vol.85, no.5, pp.527-535, 2007 (SCI-Expanded)

- XVIII. **Substrate metabolism and function of fructose-fed rat heart**  
Guner S., BEŐIKCİ A., Arioglu E., ÖZAKCA GÜNDÜZ I., Altan V. M., ÖZÇELİKAY A. T.  
CARDIOVASCULAR DRUGS AND THERAPY, vol.20, no.6, pp.408, 2006 (SCI-Expanded)
- XIX. **The effects of chronic trimetazidine treatment on mechanical parameters and fatty acid oxidation in 14-week diabetic rat hearts**  
BEŐIKCİ A., Guner S., Arioglu E., ÖZAKCA GÜNDÜZ I., Ozcelikay T., Altan V. M.  
CARDIOVASCULAR DRUGS AND THERAPY, vol.20, no.6, pp.417, 2006 (SCI-Expanded)

## Articles Published in Other Journals

- I. **The Effects of in vitro Hyperglycemic Incubation on A23187-Mediated Contractile Responses of Rat Thoracic Aorta**  
ÖZAKCA GÜNDÜZ I.  
GAZI MEDICAL JOURNAL, vol.30, no.1, pp.35-38, 2019 (ESCI)
- II. **Contribution of Rho-kinase and Adenosine Monophosphate-Activated Protein Kinase Signaling Pathways to Endothelium-Derived Contracting Factors Responses**  
Balcilar C., ÖZAKCA GÜNDÜZ I., Altan V. M.  
TURKISH JOURNAL OF PHARMACEUTICAL SCIENCES, vol.14, no.2, pp.207-212, 2017 (ESCI)
- III. **Diyabetik Sıçan Kalbinde İskemi/Reperfüzyon Hasarına Karşı Artmış Tolerans Kalp Atım Hızından Bağımsızdır**  
ALTUNKAYNAK ÇAMCA H. Ö., ARIOĞLU İNAN E., ÖZAKCA GÜNDÜZ I., KAYKI MUTLU G., ÖZÇELİKAY A. T.  
Ankara Üniversitesi Eczacılık Fakültesi Dergisi, vol.38, no.4, pp.305-315, 2009 (Scopus)
- IV. **INCREASED TOLERANCE AGAINST ISCHEMIA/REPERFUSION INJURY in DIABETIC RAT HEART IS INDEPENDENT from HEART RATE DİYABETİK SIÇAN KALBİNDE İSKEMİ/ REPERFÜZYON HASARINA KARŞI ARTMIŐ TOLERANS KALP ATIM HIZINDAN BAĞIMSIZDIR**  
Altunkaynak H. Ö., Ariođlu E., ÖZAKCA GÜNDÜZ I., Kayki G., ÖZÇELİKAY A. T.  
Ankara Üniversitesi Eczacılık Fakültesi Dergisi, vol.38, no.4, pp.305-315, 2009 (Scopus)
- V. **Increased tolerance against ischemia reperfusion injury in diabetic rat heart is independent from heart rate**  
ALTUNKAYNAK H. Ö., ARIOĞLU İNAN E., ÖZAKCA I., KAYKI MUTLU G., ÖZÇELİKAY A. T.  
Journal of Faculty of Pharmacy of Ankara University, vol.38, no.4, pp.305-315, 2009 (Peer-Reviewed Journal)

## Books

- I. **Alerjik Rinitler**  
ÖZÇELİKAY A. T., ÖZAKCA GÜNDÜZ I.  
in: Farmakoterapi El Kitabı Türkçe Çevirisi, 10. Baskı., Turgay Çelik, Editor, Güneő Tıp Kitabevleri, Ankara, pp.833-842, 2019
- II. **Kronik Obstrüktif Akciđer Hastalığı**  
ÖZÇELİKAY A. T., ÖZAKCA GÜNDÜZ I.  
in: Farmakoterapi El Kitabı Türkçe Çevirisi, 10. Baskı., Turgay Çelik, Editor, Güneő Tıp Kitabevleri, Ankara, pp.859-866, 2019
- III. **Astım**  
ÖZÇELİKAY A. T., ÖZAKCA GÜNDÜZ I.  
in: Farmakoterapi El Kitabı Türkçe Çevirisi, 10. Baskı., Turgay Çelik, Editor, Güneő Tıp Kitabevleri, Ankara, pp.843-858, 2019
- IV. **Roles of PKC Isoforms in Development of Diabetes-induced Cardiovascular Complications**  
ÖZAKCA I., ÖZÇELİKAY A. T.

## Papers Published in Refereed Scientific Meetings

- I. **The possible effects of nebivolol treatment on cardiac calcium handling and mitogenic activation induced by acute beta-adrenoceptor stimulation**  
ÖZAKCA GÜNDÜZ I., KÖROĞLU G.  
ISOPS-12, 26 - 29 June 2018
- II. **In vivo kardiyak hipertrofi modellerinde nebivolol tedavisinin AMPK ve ACC fosforilasyon düzeyleri üzerindeki etkileri**  
ÖZAKCA GÜNDÜZ I.  
2. Ulusal Marmara Eczacılık Kongresi (UMEK-2), Turkey, 14 - 16 November 2018
- III. **Therapeutic effects of human umbilical cord blood mononuclear cell transplantation on bladder dysfunction in streptozotocin-induced diabetic rats**  
GÜR S., YILMAZ D., KAYA SEZGİNER E., BAYATLI N., ÖZAKCA I., CENGİZ T.  
The International Society for Stem Cell Research 2017 Annual Meeting, 14 - 17 June 2017
- IV. **The beneficial effect of hydrogen sulfide donor, sodium hydrosulfide on erectile dysfunction in l-name-induced hypertensive rats**  
YILMAZ D., KAYA E., YILMAZ E., BAYATLI N., CENGİZ T., ÖZAKCA I., GÜR S.  
19th Congress of the European Society for Sexual Medicine, 2 - 04 February 2017, vol.14, pp.117-118
- V. **Timolol improves vascular dysfunction via inhibition of oxidative stress in DOCAsalt hypertensive rats**  
ÇİÇEK M., ÖZİŞ S. E., ÖZAKCA I., BEŞİKCİ A., ÖZÇELİKAY A. T.  
7th European Congress of Pharmacology (EPHAR 2016), İstanbul, Turkey, 26 - 30 June 2016
- VI. **Nebivolol mediates p44 42 MAPK phosphorylation in experimental cardiac hypertrophy model induced by neurohumoral stimulation**  
ÖZAKCA I., ÇİÇEK M., ALTAN V. M., ÖZÇELİKAY A. T.  
EPHAR 2016, 26 - 30 June 2016
- VII. **Intracavernous Injection of Human Umbilical Cord Blood Mononuclear Cells Improves Erectile Dysfunction in Streptozotocin-induced Diabetic Rats**  
Gur S., Cengiz T., Oral D. Y., Kaya E., Karabay A. Z., Ensari T. A., Bayatli N., KARAHAN S. T., ÖZAKCA GÜNDÜZ I., Yilmaz E.  
76th Scientific Sessions of the American-Diabetes-Association, Louisiana, United States Of America, 10 - 14 June 2016, vol.65
- VIII. **Doca tuz hipertansif sıçan modelinde kalp fonksiyonu ve Ca<sup>2+</sup> regülasyonundan sorumlu proteinlerin düzeylerindeki değişimler**  
ÇİÇEK M., ÖZAKCA I., ÖZİŞ S. E., ÖZÇELİKAY A. T.  
23. Ulusal Farmakoloji Kongresi, Turkey, 7 - 10 September 2015
- IX. **The effects of in vivo L NAME treatment on cardiac troponin I phosphorylations in rats**  
ÖZAKCA I., ÇİÇEK M., ALTAN V. M., ÖZÇELİKAY A. T.  
ISOPS-11, 9 - 12 June 2015
- X. **The effect of thyroid hormone insulin interaction on diabetic rat aorta.**  
ARIOĞLU İNAN E., ÖZAKCA I., KAYKI MUTLU G., KARAÖMERLİOĞLU İ., ALTAN V. M.  
ISOPS-11, 9 - 12 June 2015
- XI. **5 Hydroxytryptamine mediated vasocontraction and Ca<sup>2+</sup> Calmodulin and Src kinase dependent epidermal growth factor receptor transactivation in rat aorta**  
Güner Ş., Özakca I., Kandilci H. B., Zoto Mustafayeva T., Duman Dalkılıç B., Gürdal H.  
Experimental Biology 2014, California, United States Of America, 26 - 30 April 2014, vol.28, pp.1065
- XII. **Nebivololün metoprolol ile karşılaştırılabilir olarak sıçan papiller kas ve torakik aortasındaki etkileri**

- ÖZAKCA I., ALTAN V. M., ÖZÇELİKAY A. T.  
22. Ulusal Farmakoloji Kongresi, Antalya, Turkey, 4 - 07 November 2013
- XIII. **Nebivolol regulates ANP mRNA levels independent from 1 AR blocking effect in rat heart**  
ÖZAKCA I., ALTAN V. M., ÖZÇELİKAY A. T.  
European Society of Cardiology Basic Science Summer School, Nice, France, 16 - 20 June 2013
- XIV. **The possible contribution of thyroid hormones to insulin effect on beta adrenoceptor mediated cardiac responses in diabetic rats**  
ARIOĞLU İNAN E., ÖZAKCA I., KAYKI MUTLU G., SEPİCİ DİNÇEL A., ALTAN V. M.  
D&CVD 2012, 15 - 17 November 2012
- XV. **Nebivolol but not metoprolol prevents functional morphologic and molecular abnormalities induced by isoprenaline in rat heart**  
ÖZÇELİKAY A. T., ÖZAKCA I., ARIOĞLU İNAN E., ALTAN V. M.  
6th European Congress of Pharmacology, EPHAR 2012, 17 - 20 July 2012
- XVI. **Functional consequences of diabetes induced changes on the expression of cardiac beta-adrenoceptors in rats.**  
GÜNER Ş., ARIOĞLU İNAN E., ÖZAKCA I., ALTAN V. M.  
4th Annual Meeting DCVD EASD Study Group Meeting, 27 - 29 October 2011
- XVII. **Increased tolerance by diabetes against ischemia reperfusion injury in rat heart is independent from heart rate**  
ALTUNKAYNAK H. Ö., ARIOĞLU İNAN E., ÖZAKCA I., KAYKI MUTLU G., ÖZÇELİKAY A. T.  
International Symposium on New Approaches in Cardiovascular Disorders, NACD2011, 4 - 08 May 2011
- XVIII. **Cardioprotective effects of 44Bu, a newly synthesized compound, in rat heart subjected to ischemia/reperfusion injury**  
Özçelikay A. T., Başgut B., Kayki Mutlu G., Özakca Gündüz I., Kandilci H. B., Uğur M., Turan B.  
ISHR 20. World Congress, Kyoto, Japan, 13 - 16 May 2010
- XIX. **THE EFFECT OF DIABETES ON beta 3-ADRENOCEPTOR-MEDIATED CARDIAC RESPONSES**  
Kayki G., Arioglu E., ÖZAKCA GÜNDÜZ I., Ozcelikay T., Altan M.  
14th Annual Meeting of the European-Council-for-Cardiovascular-Research, Nice, France, 9 - 11 October 2009, vol.54, pp.1180
- XX. **The effects of diabetes on beta 3 adrenoceptor mediated cardiac responses**  
KAYKI MUTLU G., ARIOĞLU İNAN E., ÖZAKCA I., ÖZÇELİKAY A. T., ALTAN V. M.  
14th Annual Meeting Of The European Council For Cardiovascular Research, Nice, France, 9 - 11 October 2009, vol.54, pp.1180
- XXI. **The effects of diabetes on B3-adrenoceptor-mediated cardiac responses**  
KAYKI MUTLU G., ARIOĞLU İNAN E., ÖZAKCA GÜNDÜZ I., ÖZÇELİKAY A. T., ALTAN V. M.  
14th Annual Meeting of the European Council for Cardiovascular Research (ECCR), 9 - 11 October 2009
- XXII. **The effect of beta adrenoceptor subtypes on cardiac function in hypothyroidism**  
ARIOĞLU İNAN E., GÜNER Ş., ÖZAKCA GÜNDÜZ I., ALTAN V. M., ÖZÇELİKAY A. T.  
NATO Advanced Research Workshop on Translational Knowledge for Heart Health, 12 - 16 May 2008
- XXIII. **The Effects of Prediabetes on Responsiveness and Expression of Cardiac Beta-adrenoceptors**  
GÜNER Ş., ARIOĞLU İNAN E., ÖZAKCA GÜNDÜZ I., BEŞİKCİ A., ALTAN V. M., ÖZÇELİKAY A. T.  
2nd International Congress on Prediabetes and the Metabolic Syndrome., 25 - 28 April 2007
- XXIV. **The effects of chronic trimetazidine treatment on mechanical parameters and fatty acid oxidation in 14 week diabetic rat hearts**  
BEŞİKCİ A., GÜNER Ş., ARIOĞLU İNAN E., ÖZAKCA GÜNDÜZ I., ÖZÇELİKAY A. T., ALTAN V. M.  
Society for Heart and Vascular Metabolism. 4th Annual Meeting, 6 - 09 September 2006
- XXV. **Substrate Metabolism and Function of Fructose-fed rat heart**  
GÜNER Ş., BEŞİKCİ A., ARIOĞLU İNAN E., ÖZAKCA GÜNDÜZ I., ALTAN V. M., ÖZÇELİKAY A. T.  
Society for Heart and Vascular Metabolism. 4th Annual Meeting, 6 - 09 September 2006
- XXVI. **Deneysel diabetik izole gastrik fundus preparatında beta 3 adrenoseptör yanıtlarındaki değişiklikler**  
ÖZAKCA I., ARIOĞLU İNAN E., GÜNER Ş., ALTAN V. M., ÖZÇELİKAY A. T.

## **Metrics**

Publication: 54

Citation (WoS): 131

Citation (Scopus): 152

H-Index (WoS): 8

H-Index (Scopus): 8