

Prof. HASAN ONGUN ONARAN

Personal Information

Office Phone: [+90 312 595 8172](tel:+903125958172)

Email: onaran@medicine.ankara.edu.tr

Other Email: ongun.onaran@gmail.com

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

International Researcher IDs

ORCID: 0000-0001-6766-4774

Publons / Web Of Science ResearcherID: AAI-5348-2020

ScopusID: 6701835178

Yoksis Researcher ID: 29348

Education Information

Expertise In Medicine, Ankara University, Ankara Tıp Fakültesi, Turkey 1986 - 1990

Undergraduate, Ankara University, Tıp Fakültesi, Tıp Pr., Turkey 1980 - 1986

Foreign Languages

Spanish, A1 Beginner

English, C1 Advanced

French, A1 Beginner

Research Areas

Pharmacology and Clinical Pharmacology

Academic Titles / Tasks

Professor, Ankara University, Tıp Fakültesi, Dahili Tıp Bilimleri Bölümü, 2000 - Continues

Associate Professor, Ankara University, Tıp Fakültesi, Dahili Tıp Bilimleri Bölümü, 1993 - 2000

Assistant Professor, Ankara University, Tıp Fakültesi, Dahili Tıp Bilimleri Bölümü, 1990 - 1993

Lecturer PhD, Ankara University, Tıp Fakültesi, Dahili Tıp Bilimleri Bölümü, 1990 - 1990

Research Assistant, Ankara University, Tıp Fakültesi, Dahili Tıp Bilimleri Bölümü, 1986 - 1990

Academic and Administrative Experience

Ankara University, 2013 - 2016

Courses

Diüretik İlaçlar, Undergraduate, 2023 - 2024

Solunum sistemi farmakolojisi, Undergraduate, 2017 - 2018, 2016 - 2017, 2015 - 2016, 2014 - 2015, 2013 - 2014, 2012 - 2013, 2011 - 2012, 2010 - 2011, 2009 - 2010, 2008 - 2009

Genel Farmakoloji, Undergraduate, 2017 - 2018

GENEL FARMAKOLOJİ (FARMAKODİNAMİK-FARMAKOKİNETİK), Undergraduate, 2016 - 2017, 2015 - 2016, 2014 - 2015, 2013 - 2014, 2012 - 2013, 2011 - 2012, 2010 - 2011, 2009 - 2010, 2008 - 2009, 2007 - 2008, 2006 - 2007, 2005 - 2006

ÖZEL DENEYSEL FARMAKOLOJİ, Doctorate, 2015 - 2016, 2014 - 2015, 2013 - 2014

FARMAKOLOJİDE ÖLÇME VE DEĞERLENDİRME YÖNTEMLERİ VE BİLGİSAYAR UYGULAMALARI, Doctorate, 2015 - 2016, 2014 - 2015, 2012 - 2013, 2011 - 2012, 2000 - 2001

FARMAKOKİNETİK, Doctorate, 2015 - 2016, 2014 - 2015, 2013 - 2014

İLAÇ ETKİ MEKANİZMALARI, Doctorate, 2015 - 2016, 2014 - 2015, 2013 - 2014

LİTERATÜR ARAŞTIRMA VE DEĞERLENDİRME TEKNİKLERİ, Doctorate, 2012 - 2013

Advising Theses

ONARAN H. O., Granulocyte-colony stimulating factor analog production by recombinant Escherichia coli, Postgraduate, O.ERSOY(Student), 2017

ONARAN H. O., Hek-293 kültür hücrelerinde beta2-adrenerjik reseptör ligandlarının cAMP ve ERK yanıtları bakımından hücre kontaktına bağlı koşullu fonksiyonel seçiciliği, Expertise In Medicine, G.ÖZCAN(Student), 2011

ONARAN H. O., İnsan b2-adrenerjik reseptöründe oluşturulan bazı mutasyonların reseptör-yeşil floresan protein füzyonu ile hücre içi dağılımının incelenmesi, Doctorate, O.ALTUNTAŞ(Student), 2007

ONARAN H. O., G proteinlerine kenetli reseptörlerde, reseptör-G proteinini kenetinin sinyal transdüksiyon verimi bakımından incelenmesi, Expertise In Medicine, K.SAYAR(Student), 1999

ONARAN H. O., Reseptör-G proteinini kenetinin beta adrenerjik reseptör-Gs-adenilat sıklaz sisteminde incelenmesi ve bu kenetle ilgili sayısal modellerin irdelenmesi, Expertise In Medicine, Ö.YAZAR(Student), 1994

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Community guidelines for GPCR ligand bias: IUPHAR review 32**
Kolb P., Kenakin T., Alexander S. P. H., Bermudez M., Bohn L. M., Breinholt C. S., Bouvier M., Hill S. J., Kostenis E., Martemyanov K. A., et al.
BRITISH JOURNAL OF PHARMACOLOGY, vol.179, no.14, pp.3651-3674, 2022 (SCI-Expanded)
- II. **Biased agonism at G protein-coupled receptors**
Nagi K., ONARAN H. O.
CELLULAR SIGNALLING, vol.83, 2021 (SCI-Expanded)
- III. **Conceptual and experimental issues in biased agonism**
ONARAN H. O., Costa T.
CELLULAR SIGNALLING, vol.82, 2021 (SCI-Expanded)
- IV. **Vasopressin receptor 2 mutations in the nephrogenic syndrome of inappropriate antidiuresis show different mechanisms of constitutive activation for G protein coupled receptors**
Vezzi V., Ambrosio C., Gro M. C., Molinari P., Sural G., Costa T., ONARAN H. O., Cotecchia S.
SCIENTIFIC REPORTS, vol.10, no.1, 2020 (SCI-Expanded)
- V. **Systematic errors in detecting biased agonism: Analysis of current methods and development of a new model-free approach**
ONARAN H. O., Ambrosio C., UĞUR Ö., Koncz E. M., Gro M. C., Vezzi V., Rajagopal S., Costa T.
SCIENTIFIC REPORTS, vol.7, 2017 (SCI-Expanded)
- VI. **A Unifying Approach to the Duality of "Energetic" Versus "Conformational" Formulations of Allosteric Coupling: Mechanistic Implications for GPCR Allostery**

ONARAN H. O., Costa T.

ALLOSTERISM IN DRUG DISCOVERY, vol.56, pp.131-155, 2017 (SCI-Expanded)

- VII. **What is biased efficacy? Defining the relationship between intrinsic efficacy and free energy coupling**

ONARAN H. O., Rajagopal S., Costa T.

TRENDS IN PHARMACOLOGICAL SCIENCES, vol.35, no.12, pp.639-647, 2014 (SCI-Expanded)

- VIII. **Ligands Raise the Constraint That Limits Constitutive Activation in G Protein-coupled Opioid Receptors**

Vezzi V., ONARAN H. O., Molinari P., Guerrini R., Balboni G., Calo G., Costa T.

JOURNAL OF BIOLOGICAL CHEMISTRY, vol.288, no.33, pp.23964-23978, 2013 (SCI-Expanded)

- IX. **Where have all the active receptor states gone?**

ONARAN H. O., Costa T.

NATURE CHEMICAL BIOLOGY, vol.8, no.8, pp.674-677, 2012 (SCI-Expanded)

- X. **Cell Contact-dependent Functional Selectivity of beta(2)-Adrenergic Receptor Ligands in Stimulating cAMP Accumulation and Extracellular Signal-regulated Kinase Phosphorylation**

Kaya A. I., ONARAN H. O., Ozcan G., Ambrosio C., Costa T., Balli S., UĞUR Ö.

JOURNAL OF BIOLOGICAL CHEMISTRY, vol.287, no.9, pp.6362-6374, 2012 (SCI-Expanded)

- XI. **Long and short distance movements of beta(2)-adrenoceptor in cell membrane assessed by photoconvertible fluorescent protein dendra2-beta(2)-adrenoceptor fusion**

Kaya A. I., UĞUR Ö., Altuntas O., SAYAR K., ONARAN H. O.

BIOCHIMICA ET BIOPHYSICA ACTA-MOLECULAR CELL RESEARCH, vol.1813, no.8, pp.1511-1524, 2011 (SCI-Expanded)

- XII. **beta(2)-Adrenoceptor, Gs and adenylate cyclase coupling in purified detergent-resistant, low density membrane fractions**

Oner S. S., Kaya A. I., ONARAN H. O., Ozcan G., Ugur O.

EUROPEAN JOURNAL OF PHARMACOLOGY, vol.630, no.1-3, pp.42-52, 2010 (SCI-Expanded)

- XIII. **Coupling of beta 2-Adrenoceptors to XL alpha(s) and G alpha(s): A New Insight into Ligand-Induced G Protein Activation**

Kaya A. I., Ugur Ö., Oener S. S., Bastepe M., ONARAN H. O.

JOURNAL OF PHARMACOLOGY AND EXPERIMENTAL THERAPEUTICS, vol.329, no.1, pp.350-359, 2009 (SCI-Expanded)

- XIV. **Allosteric Coupling and Conformational Fluctuations in Proteins**

ONARAN H. O., Costa T.

CURRENT PROTEIN & PEPTIDE SCIENCE, vol.10, no.2, pp.110-115, 2009 (SCI-Expanded)

- XV. **Long and short distance movements of beta 2-adrenoceptor in cell membrane assessed by photoconvertible fluorescent protein dendra-beta 2-adrenoceptor fusion**

Kaya A., Altuntas O., Ugur O., ONARAN H. O.

FUNDAMENTAL & CLINICAL PHARMACOLOGY, vol.22, pp.40, 2008 (SCI-Expanded)

- XVI. **Ability of beta-2 adrenoceptor ligands to selectively induce receptor mediated cAMP formation and ERK phosphorylation**

Kaya A., ONARAN H. O., Ugur O.

FUNDAMENTAL & CLINICAL PHARMACOLOGY, vol.22, pp.7, 2008 (SCI-Expanded)

- XVII. **Exploring allosteric coupling in the alpha-subunit of Heterotrimeric G proteins using evolutionary and ensemble-based approaches**

SAYAR K., Ugur Ö., Liu T., Hilser V. J., ONARAN H. O.

BMC STRUCTURAL BIOLOGY, vol.8, 2008 (SCI-Expanded)

- XVIII. **Guanine nucleotide exchange-independent activation of G(s) protein by beta(2)-adrenoceptor**

Ugur Ö., Oner S., Molinari P., Ambrosio C., Sayar K., ONARAN H. O.

MOLECULAR PHARMACOLOGY, vol.68, no.3, pp.720-728, 2005 (SCI-Expanded)

- XIX. **Gs in the caveola is coupled to adenylyl cyclase but not to beta 2-adrenergic receptor**

Oner S. S., Ugur O., ONARAN H. O.

FUNDAMENTAL & CLINICAL PHARMACOLOGY, vol.18, pp.39, 2004 (SCI-Expanded)

- XX. **Intramolecular network of allosteric connectivity in GPCR: an improved evolutionary method combined with molecular dynamic simulations**
ONARAN H. O., Ugur O., Fanelli F.
FUNDAMENTAL & CLINICAL PHARMACOLOGY, vol.18, pp.76, 2004 (SCI-Expanded)
- XXI. **GDP-dependent activation of adenylate cyclase by beta(2)-adrenoceptor and Gs protein**
Ugur O., Oner S. S., Molinari P., Ambrosio C., ONARAN H. O.
FUNDAMENTAL & CLINICAL PHARMACOLOGY, vol.18, pp.78, 2004 (SCI-Expanded)
- XXII. **Partial rescue of functional interactions of a nonpalmitoylated mutant of the G-protein G alpha(s) by fusion to the beta-adrenergic receptor**
Ugur Ö., ONARAN H. O., Jones T.
BIOCHEMISTRY, vol.42, no.9, pp.2607-2615, 2003 (SCI-Expanded)
- XXIII. **Correlation between affinity and efficacy - Response from Kenakin and Onaran**
Kenakin T., ONARAN H. O.
TRENDS IN PHARMACOLOGICAL SCIENCES, vol.24, no.1, pp.5-6, 2003 (SCI-Expanded)
- XXIV. **The ligand paradox between affinity and efficacy: can you be there and not make a difference?**
Kenakin T., ONARAN H. O.
TRENDS IN PHARMACOLOGICAL SCIENCES, vol.23, no.6, pp.275-280, 2002 (SCI-Expanded)
- XXV. **Agonist-directed trafficking explaining the difference between response pattern of naratriptan and sumatriptan in rabbit common carotid artery**
Akin D., ONARAN H. O., GÜRDAL H.
BRITISH JOURNAL OF PHARMACOLOGY, vol.136, no.2, pp.171-176, 2002 (SCI-Expanded)
- XXVI. **Quasi-irreversible binding of agonist to beta-adrenoceptors and formation of non-dissociating receptor-G(s) complex in the absence of guanine nucleotides**
ONARAN H. O., GÜRDAL H.
EUROPEAN JOURNAL OF PHARMACOLOGY, vol.425, no.3, pp.181-188, 2001 (SCI-Expanded)
- XXVII. **Dietary selenium and vitamin E intakes alter beta-adrenergic response of L-type Ca-current and beta-adrenoceptor-adenylate cyclase coupling in rat heart**
Sayar K., Ugur M., GÜRDAL H., ONARAN H. O., Hotomaroğlu O., Turan B.
JOURNAL OF NUTRITION, vol.130, no.4, pp.733-740, 2000 (SCI-Expanded)
- XXVIII. **Receptor dimerization and Hill coefficients - Reply**
ONARAN H. O., GÜRDAL H.
TRENDS IN PHARMACOLOGICAL SCIENCES, vol.20, no.9, pp.358, 1999 (SCI-Expanded)
- XXIX. **Ligand efficacy and affinity in an interacting 7TM receptor model**
ONARAN H. O., GÜRDAL H.
TRENDS IN PHARMACOLOGICAL SCIENCES, vol.20, no.7, pp.274-278, 1999 (SCI-Expanded)
- XXX. **Pharmacokinetics of phenprobamate after oral administration to healthy subjects**
Tulunay F., ONARAN H. O., Ergun H., Ucar A., Usanmaz S., Embil K., Tulunay M.
ARZNEIMITTEL-FORSCHUNG-DRUG RESEARCH, vol.48, no.11, pp.1068-1071, 1998 (SCI-Expanded)
- XXXI. **Opioid receptor ligands in human hepatic encephalopathy**
Yurdaydin C., Karavelioglu D., ONARAN H. O., Celik T., Yasa M., Uzunalimoglu O.
JOURNAL OF HEPATOLOGY, vol.29, no.5, pp.796-801, 1998 (SCI-Expanded)
- XXXII. **Ca²⁺-induced inhibition of adenylyl cyclase in turkey erythrocyte membranes**
Demirel E., Ugur Ö., ONARAN H. O.
PHARMACOLOGY, vol.57, no.4, pp.222-228, 1998 (SCI-Expanded)
- XXXIII. **Decrease in apparent alpha(1)-adrenoceptor G protein coupling during maturation in rat aorta**
GÜRDAL H., Friedman E., Johnson M., ONARAN H. O.
JOURNALS OF GERONTOLOGY SERIES A-BIOLOGICAL SCIENCES AND MEDICAL SCIENCES, vol.53, no.4, 1998 (SCI-Expanded)
- XXXIV. **The effects of verapamil and nimodipine on bupivacaine-induced cardiotoxicity in rats: An in vivo and in vitro study**

- Adsan H., Tulunay M., ONARAN H. O.
ANESTHESIA AND ANALGESIA, vol.86, no.4, pp.818-824, 1998 (SCI-Expanded)
- XXXV. **Effect of dietary selenium intake on beta-adrenoceptor-adenylyl cyclase coupling in the membranes of rat heart.**
Sayar K., Ugur M., Turan B., GÜRDAL H., ONARAN H. O.
NAUNYN-SCHMIEDEBERGS ARCHIVES OF PHARMACOLOGY, vol.358, no.1, 1998 (SCI-Expanded)
- XXXVI. **Contribution of spontaneous beta-adrenoceptor activity in forskolin stimulated adenylyl cyclase activity in rat heart membranes.**
Akin D., Tom B., ONARAN H. O., GÜRDAL H.
NAUNYN-SCHMIEDEBERGS ARCHIVES OF PHARMACOLOGY, vol.358, no.1, 1998 (SCI-Expanded)
- XXXVII. **Contribution of spontaneous beta-adrenoceptor activity in forskolin stimulated adenylyl cyclase activity in rat heart membranes.**
Akin D., Tom B., ONARAN H. O., GÜRDAL H.
NAUNYN-SCHMIEDEBERGS ARCHIVES OF PHARMACOLOGY, vol.358, no.1, 1998 (SCI-Expanded)
- XXXVIII. **An efficacy-dependent effect of cardiac overexpression of beta(2)-adrenoceptor on ligand affinity in transgenic mice**
GÜRDAL H., Bond R., Johnson M., Friedman E., ONARAN H. O.
MOLECULAR PHARMACOLOGY, vol.52, no.2, pp.187-194, 1997 (SCI-Expanded)
- XXXIX. **Allosteric equilibrium model explains steady-state coupling of beta-adrenergic receptors to adenylyl cyclase in turkey erythrocyte membranes**
Ugur Ö., ONARAN H. O.
BIOCHEMICAL JOURNAL, vol.323, pp.765-776, 1997 (SCI-Expanded)
- XL. **Pharmacokinetics of recombinant human erythropoietin in children with chronic renal failure**
ÇAKAR N., Ekim M., Tümer N., YALÇINKAYA F. F., Akar N., ONARAN H. O.
International Urology and Nephrology, vol.29, no.3, pp.377-383, 1997 (SCI-Expanded)
- XLI. **Agonist efficacy and allosteric models of receptor action**
ONARAN H. O., Costa T.
RECEPTOR CLASSIFICATION, vol.812, pp.98-115, 1997 (SCI-Expanded)
- XLII. **An efficacy-dependent effect of cardiac overexpression of β_2 -adrenoceptor on ligand affinity in transgenic mice**
GÜRDAL H., Bond R. A., Johnson M. D., Friedman E., ONARAN H. O.
Molecular Pharmacology, vol.52, no.2, pp.187-194, 1997 (SCI-Expanded)
- XLIII. **Opioid ligands in human hepatic encephalopathy.**
Yurdaydin C., Karavelioglu D., Yasa H., ONARAN H. O.
HEPATOLOGY, vol.24, no.4, pp.1309, 1996 (SCI-Expanded)
- XLIV. **Comparison of the effects of verapamil and nimodipine for prevention of bupivacaine cardiotoxicity using an isolated rat Langerdorff heart preparation:62.**
Adsan H., Tulunay M., Turker R., ONARAN H. O.
European Journal of Anaesthesiology, vol.13, no.2, pp.188-189, 1996 (SCI-Expanded)
- XLV. **LYSOLIPIDS REVERSIBLY INHIBIT CA-2+-DEPENDENT, GTP-DEPENDENT AND PH-DEPENDENT FUSION OF BIOLOGICAL-MEMBRANES**
CHERNOMORDIK L., VOGEL S., SOKOLOFF A., ONARAN H. O., LEIKINA E., ZIMMERBERG J.
FEBS LETTERS, vol.318, no.1, pp.71-76, 1993 (SCI-Expanded)
- XLVI. **BETA-GAMMA SUBUNITS OF GUANINE NUCLEOTIDE-BINDING PROTEINS AND REGULATION OF SPONTANEOUS RECEPTOR ACTIVITY - THERMODYNAMIC MODEL FOR THE INTERACTION BETWEEN RECEPTORS AND GUANINE NUCLEOTIDE-BINDING PROTEIN SUBUNITS**
ONARAN H. O., COSTA T., RODBARD D.
MOLECULAR PHARMACOLOGY, vol.43, no.2, pp.245-256, 1993 (SCI-Expanded)
- XLVII. **$\beta\gamma$ Subunits of guanine nucleotide-binding proteins and regulation of spontaneous receptor activity: Thermodynamic model for the interaction between receptors and guanine nucleotide-binding protein subunits**

- ONARAN H. O., Costa T., Rodbard D.
Molecular Pharmacology, vol.43, no.2, pp.245-256, 1993 (SCI-Expanded)
- XLVIII. **ACIDIC PH INDUCES FUSION OF CELLS INFECTED WITH BACULOVIRUS TO FORM SYNCYTIA**
LEIKINA E., ONARAN H. O., ZIMMERBERG J.
FEBS LETTERS, vol.304, no.2-3, pp.221-224, 1992 (SCI-Expanded)
- XLIX. **DRUG EFFICACY AT GUANINE NUCLEOTIDE-BINDING REGULATORY PROTEIN-LINKED RECEPTORS - THERMODYNAMIC INTERPRETATION OF NEGATIVE ANTAGONISM AND OF RECEPTOR ACTIVITY IN THE ABSENCE OF LIGAND**
COSTA T., OGINO Y., MUNSON P., ONARAN H. O., RODBARD D.
MOLECULAR PHARMACOLOGY, vol.41, no.3, pp.549-560, 1992 (SCI-Expanded)
- L. **ROLE OF ALPHA-ADRENOCEPTORS IN THE EFFECTS OF BUSPIRONE AND 5-CARBOXAMIDOTRYPTAMINE IN RABBIT ISOLATED THORACIC AORTA**
GÜRDAL H., ONARAN H. O., TULUNAY F.
GENERAL PHARMACOLOGY, vol.23, no.1, pp.43-47, 1992 (SCI-Expanded)
- LI. **ATYPICAL SCHILD PLOTS WITH HISTAMINE H-1 RECEPTOR AGONISTS AND ANTAGONISTS IN THE RABBIT AORTA**
BOKESoy T., ONARAN H. O.
EUROPEAN JOURNAL OF PHARMACOLOGY, vol.197, no.1, pp.49-56, 1991 (SCI-Expanded)
- LII. **REGIONAL HISTAMINERGIC POTENCIES IN RABBIT SYSTEMIC CIRCULATION**
GURBUZ H., ONARAN H. O., BOKESoy T.
GENERAL PHARMACOLOGY, vol.22, no.4, pp.659-661, 1991 (SCI-Expanded)
- LIII. **KINETICS OF ANTAGONISM AT HISTAMINE-H1 RECEPTORS IN ISOLATED RABBIT ARTERIES**
ONARAN H. O., BOKESoy T.
NAUNYN-SCHMIEDEBERGS ARCHIVES OF PHARMACOLOGY, vol.341, no.4, pp.316-323, 1990 (SCI-Expanded)
- LIV. **HETEROGENEITY OF HISTAMINE H-2-RECEPTOR MEDIATED RESPONSES IN THE RABBIT AORTA**
ONARAN H. O., BOKESoy T.
AGENTS AND ACTIONS, vol.24, no.3-4, pp.250-254, 1988 (SCI-Expanded)
- LV. **A SEMI-ITERATIVE METHOD FOR DERIVATION OF CONCENTRATION-RESPONSE PARAMETERS**
ONARAN H. O., TUNCALI T., BOKESoy T.
JOURNAL OF PHARMACOLOGICAL METHODS, vol.19, no.1, pp.39-45, 1988 (SCI-Expanded)

Books & Book Chapters

- I. **A Unifying Approach to the Duality of "Energetic" Versus "Conformational" Formulations of Allosteric Coupling: Mechanistic Implications for GPCR Allostery**
Onaran H. O., Costa T.
in: Allostery in Drug Discovery, Dario Doller, Editor, Royal Society of Chemistry, London, pp.131-155, 2017
- II. **Intramolecular dynamics and ligand-induced conformational changes: a stochastic model of receptor action**
ONARAN H. O., Costa T.
in: Biomedical Applications of Computer Modelling, Christopoulos A, Editor, CRC Press, New York, pp.109-134, 2001
- III. **A look into receptor efficacy. From the signalling network of the cell to the intramolecular motion of the receptor.**
ONARAN H. O., Scheer A., Cotecchia S., Costa T.
in: Handbook of Experimental Pharmacology vol 148, Kenakin TP, Agnus J, Editor, Springer, Berlin, pp.217-259, 2000

Refereed Congress / Symposium Publications in Proceedings

- I. Cerrahi servislerdeki asansörlerden elde edilen bakterilerin tanımlanması ve antimikrobiyal duyarlılıkları

ÖCAL D., KOZAN G., OKLAZ A., KÖSE M. N., KIRCA İ., KILIÇ Ş., BAKIRARAR B., ONARAN H. O.

İnfeksiyon Dünyası Çalıştayı 2022, Ankara, Turkey, 23 - 27 March 2022, pp.122-123

Supported Projects

Kandilci H. B., Şimşek G., Çelebier M., Kaplan O., Onaran H. O., TUBITAK Project, A Novel Role of Beta-arrestins in Intracellular pH Homeostasis: Investigating the Roles in Na⁺/H⁺ Exchanger-1 Regulatory Mechanisms in a Beta-arrestin-1/2 Overexpressed Hek-293 Cell Line in Normoxia and Hypoxia, 2023 - 2026

Onaran H. O., TUBITAK Project, Bias agonizmanın temelleri ve b2 adrenoseptörlerde ligand aracılı sinyal trafiğinin doğrudan ölçülmesi, 2014 - 2017

Activities in Scientific Journals

CELLULAR SIGNALLING, Special Issue Editor, 2021 - 2021

Scientific Refereeing

NAUNYN-SCHMIEDEBERG'S ARCHIVES OF PHARMACOLOGY, SCI Journal, October 2023

Metrics

Publication: 59

Citation (WoS): 1151

Citation (Scopus): 1173

H-Index (WoS): 16

H-Index (Scopus): 16