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Education Information

Post Doctorate, Temple University, Lewis Katz School of Medicine, Center of Translational Medicine, United States Of America 2018 - 2019

Associate Degree, Anadolu University, Open Education Faculty, Department Of Hotel, Restaurant And Catering Services, Turkey 2016 - 2018

Doctorate, Ankara University, Sağlık Bilimleri Enstitüsü, Farmakoloji (Dr) (Eczacılık), Turkey 2009 - 2015

Postgraduate, Ankara University, Sağlık Bilimleri Enstitüsü, Farmakoloji (YI) (Tezli), Turkey 2006 - 2009

Undergraduate, Ankara University, Eczacılık Fakültesi, Eczacılık Pr., Turkey 2002 - 2006

Dissertations

Doctorate, Kardiak hipertrofi Beta 3-AR'lerin Na/K-ATPaz enzimi üzerindeki etkisi, Ankara University, Sağlık Bilimleri Enstitüsü, Farmakoloji (Dr) (Eczacılık), 2015

Postgraduate, DİABETİN Beta3-ADRENOSEPTÖR ARACILI KARDİYAK YANITLAR ÜZERİNDEKİ ETKİSİ, Ankara University, Sağlık Bilimleri Enstitüsü, Farmakoloji (YI) (Tezli), 2009

Research Areas

Professional Sciences, Pharmacology, Health Sciences

Academic Titles / Tasks

Assistant Professor, Ankara University, Eczacılık Fakültesi, Eczacılık Meslek Bilimleri Bölümü, 2022 - Continues
Researcher, Duke University, School of Medicine , 2024 - 2024

Research Assistant, Ankara University, Eczacılık Fakültesi, Eczacılık Meslek Bilimleri Bölümü, 2007 - 2022

Researcher, Temple University, School of Medicine, Center of Translational Medicine, 2018 - 2019

Courses

Physiology, Undergraduate, 2017 - 2018

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **A year in pharmacology: new drugs approved by the US Food and Drug Administration in 2023**
KAYKI MUTLU G., Aksoyalp Z. S., Wojnowski L., Michel M. C.
Naunyn-Schmiedeberg's Archives of Pharmacology, vol.397, no.5, pp.2949-2970, 2024 (SCI-Expanded)
- II. **A year in pharmacology: new drugs approved by the US Food and Drug Administration in 2022**
KAYKI MUTLU G., Aksoyalp Z. S., Wojnowski L., Michel M. C.
Naunyn-Schmiedeberg's Archives of Pharmacology, vol.396, no.8, pp.1619-1632, 2023 (SCI-Expanded)
- III. **Novel roles for G protein-coupled receptor kinases in cardiac injury and repair**
Kayki-Mutlu G., Koch W. J.
BIOCHEMICAL SOCIETY TRANSACTIONS, no.2, pp.715-724, 2023 (SCI-Expanded)
- IV. **Sex Differences in Glucose Homeostasis**
ARIOĞLU İNAN E., KAYKI MUTLU G.
SEX AND GENDER EFFECTS IN PHARMACOLOGY, pp.219-239, 2023 (SCI-Expanded)
- V. **Sponging Away Cardiac Injury A Natural Compound Shows Cardioprotective Promise**
Kayki-Mutlu G., Ferrero K. M., Koch W. J.
JACC-BASIC TO TRANSLATIONAL SCIENCE, vol.7, no.11, pp.1117-1119, 2022 (SCI-Expanded)
- VI. **A year in pharmacology: new drugs approved by the US Food and Drug Administration in 2021**
KAYKI MUTLU G., Aksoyalp Z. S., Wojnowski L., Michel M. C.
NAUNYN-SCHMIEDEBERGS ARCHIVES OF PHARMACOLOGY, vol.395, no.8, pp.867-885, 2022 (SCI-Expanded)
- VII. **A year in pharmacology: new drugs approved by the US Food and Drug Administration in 2020**
KAYKI MUTLU G., Michel M. C.
NAUNYN-SCHMIEDEBERGS ARCHIVES OF PHARMACOLOGY, vol.394, no.5, pp.839-852, 2021 (SCI-Expanded)
- VIII. **Nitric Oxide and S-Nitrosylation in Cardiac Regulation: G Protein-Coupled Receptor Kinase-2 and beta-Arrestins as Targets**
Kayki-Mutlu G., Koch W. J.
INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES, vol.22, no.2, 2021 (SCI-Expanded)
- IX. **Cardiac and Vascular alpha(1)-Adrenoceptors in Congestive Heart Failure: A Systematic Review**
KAYKI MUTLU G., Papazisi O., Palmen M., Danser A. H. J., Michel M. C., ARIOĞLU İNAN E.
CELLS, vol.9, no.11, 2020 (SCI-Expanded)
- X. **Beta-3 adrenoceptors: A potential therapeutic target for heart disease**
KAYKI MUTLU G., Karaomerlioglu I., ARIOĞLU İNAN E., Altan V. M.
EUROPEAN JOURNAL OF PHARMACOLOGY, vol.858, 2019 (SCI-Expanded)
- XI. **Cardiac beta(3)-adrenoceptors-A role in human pathophysiology?**
ARIOĞLU İNAN E., KAYKI MUTLU G., Michel M. C.
BRITISH JOURNAL OF PHARMACOLOGY, vol.176, no.14, pp.2482-2495, 2019 (SCI-Expanded)
- XII. **Aging related functional and structural changes in the heart and aorta: MitoTEMPO improves aged-cardiovascular performance**
OLĞAR Y., DEĞİRMENCİ S., DURAK A., BİLLUR D., CAN B., KAYKI MUTLU G., Arioglu-Inan E., Turan B.
Experimental Gerontology, vol.110, pp.172-181, 2018 (SCI-Expanded)
- XIII. **Role of the beta(3)-adrenergic receptor subtype in catecholamine-induced myocardial remodeling**
Mutlu G., ARIOĞLU İNAN E., Karaomerlioglu I., ALTAN V. M., YERSAL N., KORKUSUZ P., Rocchetti M., Zaza A.
MOLECULAR AND CELLULAR BIOCHEMISTRY, vol.446, no.1-2, pp.149-160, 2018 (SCI-Expanded)
- XIV. **Onset of decreased heart work is correlated with increased heart rate and shortened QT interval in high-carbohydrate fed overweight rats**
DURAK A., OLĞAR Y., TUNCAY E., Karaomerlioglu I., Mutlu G., ARIOĞLU İNAN E., Altan V. M., Turan B.
CANADIAN JOURNAL OF PHYSIOLOGY AND PHARMACOLOGY, vol.95, no.11, pp.1335-1342, 2017 (SCI-Expanded)
- XV. **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)
- XVI. **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)

- XVII. **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)
- XVIII. **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., KANDILCI H. B., UĞUR M., Turan B., ÖZÇELİKAY A. T.
EUROPEAN JOURNAL OF PHARMACOLOGY, vol.640, no.1-3, pp.117-123, 2010 (SCI-Expanded)

Articles Published in Other Journals

- I. **Cardiac adrenergic receptors and GRKs: mitochondrial modulation in the heart**
KAYKI MUTLU G., ARIOĞLU İNAN E.
Current Opinion in Physiology, vol.37, 2024 (ESCI)
- II. **Direct effects of epigallocatechin gallate (EGCG) on isolated rat cardiomyocytes under normal and high glucose concentrations Epigallokateşin Gallat (EGCG)'in normal ve yüksek glukoz ortamında izole sıçan kardiyomyositleri üzerindeki direkt etkileri**
KAYKI MUTLU G., Yeşilyurt Z. E., Erdoğan B. R., Karaömerlioğlu I., Müderrisoğlu A. E., ARIOĞLU İNAN E., Ari N.
Ankara Üniversitesi Eczacılık Fakültesi Dergisi, vol.43, no.1, pp.72-78, 2019 (Scopus)
- III. **EPİGALLOKATEŞİN GALLAT (EGCG)'İN NORMAL VE YÜKSEK GLUKOZ ORTAMINDA İZOLE SIÇAN KARDİYOMYOSİTLERİ ÜZERİNDEKİ DİREKT ETKİLERİ**
KAYKI MUTLU G., Yeşilyurt Z. E., ERDOĞAN B. R., KARAÖMERLİOĞLU İ., Müderrisoğlu A. E., ARIOĞLU İNAN E., ARI N.
Ankara Üniversitesi Eczacılık Fakültesi Dergisi, vol.43, no.1, 2019 (Scopus)
- IV. **The effect of nitric oxide synthase on beta 3 adrenoceptor mediated relaxation in STZ diabetic rat heart**
KAYKI MUTLU G., Karaömerlioğlu I., ARIOĞLU İNAN E.
Ankara Üniversitesi Eczacılık Fakültesi Dergisi, vol.43, no.1, pp.64-71, 2019 (Scopus)
- V. **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)
- VI. **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)
- VII. **INCREASED TOLERANCE AGAINST ISCHEMIA/REPERFUSION INJURY in DIABETIC RAT HEART IS INDEPENDENT from HEART RATE DİYABETİK SIÇAN KALBİNDE İSKEMİ/ REPERFÜZYON HASARINA KARŞI ARTMIŞ TOLERANS KALP ATIM HIZINDAN BAĞIMSIZDIR**
Altunkaynak H. Ö., Arioğlu E., ÖZAKCA GÜNDÜZ I., Kayki G., ÖZÇELİKAY A. T.
Ankara Üniversitesi Eczacılık Fakültesi Dergisi, vol.38, no.4, pp.305-315, 2009 (Scopus)

Books & Book Chapters

- I. **Differences in Glucose Homeostasis.**
Arioğlu İnan E., Kayki Mutlu G.
in: Handbook of Experimental Pharmacology, Stella E. Tsirka, Maricedes Acosta-Martinez, Editor, Springer, London/Berlin , London, pp.219-239, 2023

II. Diuretic Agents

Arioğlu İnan E., Kayki Mutlu G.

in: Comprehensive Pharmacology, Terry Kenakin, Editor, Elsevier Science, Oxford/Amsterdam , North Carolina, pp.634-655, 2022

Refereed Congress / Symposium Publications in Proceedings

- I. **GRK2 'nin kardiyak patolojilerdeki metabolik rolleri**
Kayki Mutlu G.
9th European Section Meeting of the International Academy of Cardiovascular Sciences (IACS-ES), Timisoara, Romania, 4 - 07 October 2023
- II. **Mitochondrial GRK2 Dependent Regulation of the Cellular and Transcriptional Composition after Myocardial Infarction**
Slone S., Chuprun K., Kayki-Mutlu G., Roy R., Ibeti J., Gao E., Tucker N., Hulke M.
Annual meeting of the American-Society-for-Pharmacology-and-Experimental-Therapeutics (ASPET), Missouri, United States Of America, 18 - 21 May 2023
- III. **GRK2 in the Mitochondria: Uncovering Novel Mechanism in Heart Failure**
Ferrero K., KAYKI MUTLU G., Pflieger J., Tilley D., Koch W.
AHA Scientific Sessions, 13 - 17 November 2020
- IV. **Effects of Cardiac β 3-Adrenoceptors on the Inhibition of G Protein-Coupled Receptor Kinase 2 via S-Nitrosylation**
KAYKI MUTLU G., Roy R., Lucchese A. M., Gao E., Koch W.
Basic Cardiovascular Science Scientific Sessions 2020, 27 - 30 July 2020
- V. **Mitokondriyal GRK2 lokalizasyonunun önlenmesinin myokard infarktüsünde koruyucu etkileri**
KAYKI MUTLU G., Koch W.
25.Ulusal Farmakoloji Kongresi, Turkey, 4 - 07 November 2019
- VI. **Changes in β -adrenoceptor mediated responses and protein expression in dapagliflozin treated HFD and low dose STZ diabetic rat heart**
KARAÖMERLİOĞLU İ., Yeşilyurt Z. E., ERDOĞAN B. R., KAYKI MUTLU G., Müderrisoğlu A. E., ALTAN V. M., ARIOĞLU İNAN E.
CVOT Summit 2019, Munich, Germany, 24 - 25 October 2019
- VII. **Effects of aliskiren treatment on cardiac myocyte dysfunction in a rat model of insulin resistance**
CAN T., TARHAN N., OZANSOY F. G., CEYLAN IŞIK A. F., KAYKI MUTLU G., ARI N.
12th International Symposium on Pharmaceutical Sciences (ISOPS-12), Ankara, Turkey, 26 - 29 June 2018, pp.133
- VIII. **Effects Of Three Different Flavonoids On Cardiac Contractility Under High Glucose Concentrations**
KAYKI MUTLU G., Yeşilyurt Z. E., ERDOĞAN B. R., KARAÖMERLİOĞLU İ., Müderrisoğlu A. E., ARI N.
12th International Symposium On Pharmaceutical Sciences, 26 - 29 June 2018
- IX. **Regulation of Na-K pump by β 3-adrenergic receptors in aortas from noradrenaline-treated rats**
KAYKI MUTLU G., Müderrisoğlu A. E., KARAÖMERLİOĞLU İ., ERDOĞAN B. R., ALTAN V. M., ARIOĞLU İNAN E.
Pharmacology 2017, Londrina, Brazil, 11 - 13 December 2017
- X. **The effects of leptin on cardiac function in streptozotocin diabetic rats**
ARIOĞLU İNAN E., KAYKI MUTLU G., ERDOĞAN B. R., Müderrisoğlu A. E., KARAÖMERLİOĞLU İ., Yeşilyurt Z. E., DEĞİRMENCİ S., TURAN B., ALTAN V. M.
Pharmacology 2017, Londrina, Brazil, 11 - 13 December 2017
- XI. **The effect of sitagliptin on beta-adrenoceptor-mediated cardiac responses in streptozotocin induced diabetic rats**
UYAR BOZTAŞ C., ARIOĞLU İNAN E., MÜDERRİSOĞLU A. E., KAYKI MUTLU G., ERDOĞAN B. R., YEŞİLYURT Z. E., KARAÖMERLİOĞLU İ., ALTAN V. M.
3rd CVOT (cardiovascular Outcome Trial) Summit Of The D CVD Study Group, Munich, Germany, 26 - 27 October 2017

- XII. **The Effect Of Dapagliflozin Treatment On Beta Adrenoceptor-mediated Responses In High Fat Fed Diabetic Rat Heart**
KARAÖMERLİOĞLU İ., KAYKI MUTLU G., ÖZTÜRK N., ERDOĞAN B. R., MÜDERRİSOĞLU A. E., YEŞİLYURT Z. E., ALTAN V. M., ARIOĞLU İNAN E.
3rd CVOT (cardiovascular Outcome Trial) Summit Of The D CVD Study Group, Munich, Germany, 26 - 27 October 2017
- XIII. **Altered heart function in high sucrose fed overweight rats: in vivo and in vitro investigations**
ARIOĞLU İNAN E., toy durak a., olgar y., tuncay e., KAYKI MUTLU G., KARAÖMERLİOĞLU İ., ALTAN V. M., TURAN B.
DCVD Annual Meeting, 22 June - 24 July 2017
- XIV. **Altered Heart Function In HighSucrose-fed Overweight Rats: In Vivo And In Vitro Investigations**
ARIOĞLU İNAN E., Toy Durak A., Olgar Y., Tuncay E., KAYKI MUTLU G., KARAÖMERLİOĞLU İ., ALTAN V. M., TURAN B.
DCVD Annual Meeting, Milan, Italy, 22 - 24 June 2017
- XV. **β3-Adrenoceptör Altıtipinin Katekolamin ile İndüklenen Kardiyak Hipertrofi Üzerindeki Rolü ve Na/K Pompası ile İlişkisi**
KAYKI MUTLU G.
Türk Farmakoloji Derneği, Farmakoloji Eğitiminde Kuşaklararası Bilimsel Etkileşme Seminerleri, Turkey, 22 - 24 March 2017
- XVI. **The effect of leptin treatment on in vivo cardiac parameters of streptozotocin induced diabetic rats**
ARIOĞLU İNAN E., ERDOĞAN B. R., Müderrisoğlu E., KARAÖMERLİOĞLU İ., KAYKI MUTLU G., BEŞİKCİ A., ALTAN V. M.
9th Annual Meeting of the Diabetes and Cardiovascular Disease, 30 June - 02 July 2016
- XVII. **The Effect of Beta 3 ARs on Na K ATPase in Cardiac Hypertrophy**
KAYKI MUTLU G., ARIOĞLU İNAN E., KARAÖMERLİOĞLU İ., ALTAN V. M.
7th European Congress of Pharmacology, 26 - 30 June 2016
- XVIII. **The effect of 3 adrenoceptors on Na K pump modulation in noradrenaline incubated cardiomyocytes**
KAYKI MUTLU G., ROCCHETTI M., ALTAN V. M., ZAZA A.
EHRA EUROPACE-CARDIOSTIM 2015, Milan, Italy, 21 - 24 June 2015
- XIX. **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
- XX. **3 AR Modulation Of Cardiac Na K Pump In Diabetic Mice**
KAYKI MUTLU G., ROCCHETTI M., ALTOMARE C., ALTAN V. M., ZAZA A.
7th Annual Meeting of the Diabetes and Cardiovascular Disease, Milan, Italy, 6 - 08 November 2014
- XXI. **Beta 3 Adrenoceptor Mediated Responses In Diabetic Rat Thoracic Aorta**
ARIOĞLU İNAN E., KAYKI MUTLU G., KARAÖMERLİOĞLU İ., ALTAN V. M.
7th Annual Meeting of the Diabetes and Cardiovascular Disease, Milan, Italy, 6 - 08 November 2014
- XXII. **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
- XXIII. **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
- XXIV. **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
- XXV. **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

XXVI. **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

Metrics

Publication: 53

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Artistic Activity

KAYKI MUTLU G., Doğanın Coşkusu, March 2013