Assoc. Prof. ERKAN TUNCAY

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International Researcher IDs
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Education Information

Doctorate, Ankara University, Sağlık Bilimleri Enstitüsü, Biyofizik (Dr) (Tıp), Turkey 2008 - 2014
Postgraduate, Ankara University, Sağlık Bilimleri Enstitüsü, Biyofizik (Yl) (Tezli) (Tıp), Turkey 2005 - 2008
Undergraduate, Gazi University, Fen Fakültesi, Fizik Bölümü, Turkey 2001 - 2005

Foreign Languages

English, C1 Advanced

Certificates, Courses and Trainings

Health&Medicine, ESC7: Single Molecule Approaches, Groninngen University, 2023

Dissertations

Doctorate, Kalp fonksiyon bozukluğunda rol oynayan hücre içi Zn2 derişimi ve kontrolsüz sarkoplazmik retikulum Ca2 sızıntısı arasındaki ilişkinin elektrofizyolojik ve biyokimyasal tekniklerle incelenmesi, Ankara University, Sağlık Bilimleri Enstitüsü, Biyofizik (Dr) (Tıp), 2014
Postgraduate, Diyabetik kardiyomiyopatide seçici olmayan beta blokör etkilerinin elektrofizyolojik yöntemlerle incelenmesi, Ankara University, Sağlık Bilimleri Enstitüsü, Biyofizik (Yl) (Tezli) (Tıp), 2008

Research Areas

Biophysics, Biological Spectroscopy, Cell Membrane and Liposomes, Molecular Biophysics, Neurobiophysics, Radiation Biophysics, Structural Biophysics

Academic Titles / Tasks

Associate Professor, Ankara University, Sağlık Bilimleri Enstitüsü, Sinir Bilimleri Anabilim Dalı, 2021 - Continues
Associate Professor, Ankara University, Tıp Fakültesi, Temel Tıp Bilimleri Bölümü, 2020 - Continues
Research Assistant, Aksaray University, Fen-Edebiyat Fakültesi, Fizik Bölümü, 2009 - 2013
Research Assistant, Aksaray University, Sağlık Yüksekokulu, Hemşirelik Bölümü, 2007 - 2009

Academic and Administrative Experience

Deney Hayvanları ve Araştırma Laboratuvarı Komisyon Başkanlı, Ankara University, Tıp Fakültesi, Temel Tıp Bilimleri Bölümü, 2023 - Continues

Courses

Doku Biyolojisi, Undergraduate, 2022 - 2023, 2021 - 2022
Biyofizikte temel elektrofizyolojik yöntemler, Undergraduate, 2022 - 2023, 2021 - 2022
Vücut yapı ve işlev bilgisi, Undergraduate, 2022 - 2023, 2021 - 2022
Advances in Cardiovascular System Biophysics , Undergraduate, 2022 - 2023, 2021 - 2022
Tissue Biology, Undergraduate, 2022 - 2023
Dolaşım ve Solunum Sistemleri, Undergraduate, 2022 - 2023
Dolaşım biyofiziği, Postgraduate, 2022 - 2023, 2021 - 2022, 2020 - 2021
BASIC ELEKTROPHYSIOLOGICAL APPLICATIONS IN BIOPHYSICS, Undergraduate, 2022 - 2023, 2021 - 2022, 2020 - 2021
Vücut Yapı ve İşlev Bilgisi I , Undergraduate, 2022 - 2023
Tez Çalışması, Postgraduate, 2021 - 2022
Cell biology, Undergraduate, 2022 - 2023, 2021 - 2022
Nöronal Haberleşme, Doctorate, 2022 - 2023, 2021 - 2022, 2020 - 2021
Uzmanlık alan dersi YL, Postgraduate, 2021 - 2022
Uzmanlık alan dersi, Doctorate, 2022 - 2023
Hücre Biyolojisi, Undergraduate, 2022 - 2023
Seminer, Doctorate, 2022 - 2023
Medikal Fizik, Undergraduate, 2016 - 2017
Biyofizik, Undergraduate, 2016 - 2017

Advising Theses

, Tuncay E., İnsülin Direnci Geliştirilmiş H9C2 Hücre Hatlarında Epigenetik Değişimlerin ÇinkoTransporterları Üzerindeki Rolü, Postgraduate, İ.AKTAY(Student), 2022

Jury Memberships

Doctoral Examination, Doctoral Examination, Gazi Üniversitesi, May, 2023
Doctoral Examination, Doctoral Examination, Çukurova Üniversitesi, March, 2023
PhD Thesis Monitoring Committee Member, PhD Thesis Monitoring Committee Member, Ankara Üniversitesi, January, 2023
PhD Thesis Monitoring Committee Member, PhD Thesis Monitoring Committee Member, Ankara Üniversitesi, January, 2023
PhD Thesis Monitoring Committee Member, PhD Thesis Monitoring Committee Member, Ankara Üniversitesi, January, 2023
PhD Thesis Monitoring Committee Member, PhD Thesis Monitoring Committee Member, Ankara Üniversitesi, January, 2023

PhD Thesis Monitoring Committee Member, PhD Thesis Monitoring Committee Member, Ankara Üniversitesi, January, 2023

PhD Thesis Monitoring Committee Member, PhD Thesis Monitoring Committee Member, Ankara Üniversitesi, January, 2023

Published journal articles indexed by SCI, SSCI, and AHCI

I. **Cardioprotective role of a magnolol and honokiol complex in the prevention of doxorubicin-mediated cardiotoxicity in adult rats**
Aktay I., BİTİRİM C. V., OLĞAR Y., DURAK A., TUNCAY E., BİLLUR D., AKÇALI K. C., TURAN B.
Molecular and Cellular Biochemistry, vol.479, no.2, pp.337-350, 2024 (SCI-Expanded)

II. **An increase in intercellular crosstalk and electrotonic coupling between cardiomyocytes and nonmyocytes reshapes the electrical conduction in the metabolic heart characterized by short QT intervals in ECGs.**
Billur D., Olgar Y., Durak A., Yozgat A. H., Unay S., Tuncay E., Turan B.
Cell biochemistry and function, vol.41, no.8, pp.1526-1542, 2023 (SCI-Expanded)

III. **Clinical evaluation of DIAGNOVIR SARS-CoV-2 ultra-rapid antigen test performance compared to PCR-based testing**
Seymen A. A., Gulten E., Ozgur E., Ortaç B., Akdemir I., Cinar G., Saricaoglu E. M., Guney-Esken G., Akkus E., Can F., et al.
SCIENTIFIC REPORTS, vol.13, no.1, 2023 (SCI-Expanded)

IV. **Overexpression of Slc30a7/ZnT7 increases the mitochondrial matrix levels of labile Zn2+ and modifies histone modification in hyperinsulinemic cardiomyoblasts**
TUNCAY E., Aktay I., TURAN B.
Journal of Trace Elements in Medicine and Biology, vol.78, 2023 (SCI-Expanded)

V. **The cardioprotective role of sirtuins is mediated in part by regulating K(ATP) channel surface expression.**
Tuncay E., Gando I., Huo J., Yepuri G., Samper N., Turan B., Yang H., Ramasamy R., Coetzee W. A.
American journal of physiology. Cell physiology, 2023 (SCI-Expanded)

VI. **Editorial: Insulin resistance and cardiovascular disease**
Stewart A. J., TUNCAY E., Pitt S. J., Rainbow R. D.
Frontiers in Endocrinology, vol.14, 2023 (SCI-Expanded)

VII. **An Overexpression of SLC30A6 Gene Contributes to Cardiomyocyte Dysfunction via Affecting Mitochondria and Inducing Activations in K-Acetylation and Epigenetic Proteins**
Aktay I., BİLLUR D., TUNCAY E., TURAN B.
Biochemical Genetics, 2023 (SCI-Expanded)

VIII. **Comparisons of pleiotropic effects of SGLT2 inhibition and GLP-1 agonism on cardiac glucose intolerance in heart dysfunction**
TURAN B., DURAK A., OLĞAR Y., TUNCAY E.
MOLECULAR AND CELLULAR BIOCHEMISTRY, vol.477, no.11, pp.2609-2625, 2022 (SCI-Expanded)

IX. **Functional evaluation of the tachycardia patient-derived iPSC cardiomyocytes carrying a novel pathogenic SCN5A variant**
Sahoglu S. G., Kazci Y. E., Tuncay E., Torun T., Akdeniz C., Tuzcu V., Cagavi E.
JOURNAL OF CELLULAR PHYSIOLOGY, vol.237, no.10, pp.3900-3911, 2022 (SCI-Expanded)

X. **Bimodal Effects of P2Y(12) Antagonism on Matrix Metalloproteinase-Associated Contractile Dysfunction in Insulin-Resistant Mammalian Heart**
OLĞAR Y., TUNCAY E., BİLLUR D., Turan B.
BIOLOGICAL TRACE ELEMENT RESEARCH, vol.200, no.5, pp.2195-2204, 2022 (SCI-Expanded)

XI. **STIM1-Orai1 interaction mediated calcium influx activation contributes to cardiac contractility of insulin-resistant rats**

DURAK A., OLĞAR Y., Genc K., TUNCAY E., AKAT F., DEĞİRMENCİ S., Turan B.
BMC CARDIOVASCULAR DISORDERS, vol.22, no.1, 2022 (SCI-Expanded)

XII. **Astaxanthin Enhances Gingival Wound Healing following High Glucose-Induced Oxidative Stress**
Aras Tosun D., Önder C., Akdogan N., Kurgan Ş., Aktay I., Tuncay E., Orhan K.
BIOMED RESEARCH INTERNATIONAL, vol.2022, 2022 (SCI-Expanded)

XIII. **Insulin acts as an atypical KCNQ1/KCNE1-current activator and reverses long QT in insulin-resistant aged rats by accelerating the ventricular action potential repolarization through affecting the beta(3)-adrenergic receptor signaling pathway**
OLĞAR Y., DURAK A., Bitirim C. V., TUNCAY E., Turan B.
JOURNAL OF CELLULAR PHYSIOLOGY, vol.237, no.2, pp.1353-1371, 2022 (SCI-Expanded)

XIV. **Insulin-induced recovery in KCNQ1/KCNE1-current accelerates the ventricular action potential repolarization in insulin-resistant aged-rats via affecting beta(3)-adrenergic receptors**
OLĞAR Y., DURAK A., BİTİRİM C. V., TUNCAY E., Turan B.
BIOPHYSICAL JOURNAL, vol.121, no.3, pp.87, 2022 (SCI-Expanded)

XV. **Modulatory role of OKG on delayed rectifier potassium channels in ventricular cardiomyocytes from metabolic syndrome rats**
TUNCAY E., OLĞAR Y., DURAK A., BİTİRİM C. V., Turan B.
BIOPHYSICAL JOURNAL, vol.121, no.3, 2022 (SCI-Expanded)

XVI. **Glucagon-like peptide-1 receptor agonist treatment of high carbohydrate intake-induced metabolic syndrome provides pleiotropic effects on cardiac dysfunction through alleviations in electrical and intracellular Ca2+ abnormalities and mitochondrial dysfunction**
Durak A., Akkuş E., Gökçay Canpolat A., Tuncay E., Çorapçıoğlu D., Turan B.
CLINICAL AND EXPERIMENTAL PHARMACOLOGY AND PHYSIOLOGY, vol.49, pp.46-59, 2022 (SCI-Expanded)

XVII. **Ticagrelor alleviates high-carbohydrate intake induced altered electrical activity of ventricular cardiomyocytes by regulating sarcoplasmic reticulum-mitochondria miscommunication**
OLĞAR Y., DURAK A., Degirmenci S., TUNCAY E., BİLLUR D., ÖZDEMİR S., Turan B.
MOLECULAR AND CELLULAR BIOCHEMISTRY, vol.476, no.10, pp.3827-3844, 2021 (SCI-Expanded)

XVIII. **Molecular and Electrophysiological Role of Diabetes-Associated Circulating Inflammatory Factors in Cardiac Arrhythmia Remodeling in a Metabolic-Induced Model of Type 2 Diabetic Rat**
Zayas-Arrabal J., Alquiza A., TUNCAY E., Turan B., Gallego M., Casis O.
INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES, vol.22, no.13, 2021 (SCI-Expanded)

XIX. **The role of labile Zn2+ and Zn2+-transporters in the pathophysiology of mitochondria dysfunction in cardiomyocytes**
Turan B., TUNCAY E.
MOLECULAR AND CELLULAR BIOCHEMISTRY, vol.476, no.2, pp.971-989, 2021 (SCI-Expanded)

XX. **Ageing-associated increase in SGLT2 disrupts mitochondrial/sarcoplasmic reticulum Ca(2+)homeostasis and promotes cardiac dysfunction**
OLĞAR Y., TUNCAY E., Degirmenci S., BİLLUR D., Dhingra R., Kirshenbaum L., Turan B.
JOURNAL OF CELLULAR AND MOLECULAR MEDICINE, vol.24, no.15, pp.8567-8578, 2020 (SCI-Expanded)

XXI. **MitoTEMPO provides an antiarrhythmic effect in aged-rats through attenuation of mitochondrial reactive oxygen species**
OLĞAR Y., BİLLUR D., TUNCAY E., Turan B.
EXPERIMENTAL GERONTOLOGY, vol.136, 2020 (SCI-Expanded)

XXII. **Ticagrelor reverses the mitochondrial dysfunction through preventing accumulated autophagosomes-dependent apoptosis and ER stress in insulin-resistant H9c2 myocytes**
OLĞAR Y., TUNCAY E., BİLLUR D., DURAK A., ÖZDEMİR S., Turan B.
MOLECULAR AND CELLULAR BIOCHEMISTRY, vol.469, no.1-2, pp.97-107, 2020 (SCI-Expanded)

XXIII. **Altered mitochondrial metabolism in the insulin-resistant heart**
Makrecka-Kuka M., Liepinsh E., Murray A. J., Lemieux H., Dambrova M., Tepp K., Puurand M., Kaambre T., Han W. H., de Goede P., et al.
ACTA PHYSIOLOGICA, vol.228, no.3, 2020 (SCI-Expanded)

XXIV. **Differential expression of genes participating in cardiomyocyte electrophysiological remodeling via membrane ionic mechanisms and Ca2+-handling in human heart failure**
Kepenek E. S., ÖZÇINAR E., TUNCAY E., AKÇALI K. C., AKAR A. R., Turan B.
MOLECULAR AND CELLULAR BIOCHEMISTRY, vol.463, no.1-2, pp.33-44, 2020 (SCI-Expanded)

XXV. **Azoramide improves mitochondrial dysfunction in palmitate-induced insulin resistant H9c2 cells**
Okatan E. N., OLĞAR Y., TUNCAY E., Turan B.
MOLECULAR AND CELLULAR BIOCHEMISTRY, vol.461, no.1-2, pp.65-72, 2019 (SCI-Expanded)

XXVI. **beta(3)-adrenergic receptor activation plays an important role in the depressed myocardial contractility via both elevated levels of cellular free Zn2+ and reactive nitrogen species**
TUNCAY E., OLĞAR Y., DURAK A., Degirmenci S., BİTİRİM C. V., Turan B.
JOURNAL OF CELLULAR PHYSIOLOGY, vol.234, no.8, pp.13370-13386, 2019 (SCI-Expanded)

XXVII. **Mitochondria-Targeting Antioxidant Provides Cardioprotection through Regulation of Cytosolic and Mitochondrial Zn2+ Levels with Re-Distribution of Zn2+-Transporters in Aged Rat Cardiomyocytes**
OLĞAR Y., TUNCAY E., Turan B.
INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES, vol.20, no.15, 2019 (SCI-Expanded)

XXVIII. **Zn2+-transporters ZIP7 and ZnT7 play important role in progression of cardiac dysfunction via affecting sarco(endo)plasmic reticulum-mitochondria coupling in hyperglycemic cardiomyocytes**
TUNCAY E., BİTİRİM C. V., OLĞAR Y., DURAK A., Rutter G. A., Turan B.
MITOCHONDRION, vol.44, pp.41-52, 2019 (SCI-Expanded)

XXIX. **A SGLT2 inhibitor dapagliflozin suppresses prolonged ventricular-repolarization through augmentation of mitochondrial function in insulin-resistant metabolic syndrome rats**
DURAK A., OLĞAR Y., Degirmenci S., AKKUŞ E., TUNCAY E., Turan B.
CARDIOVASCULAR DIABETOLOGY, vol.17, 2018 (SCI-Expanded)

XXX. **Demonstration of subcellular migration of CK2 alpha localization from nucleus to sarco(endo)plasmic reticulum in mammalian cardiomyocytes under hyperglycemia**
BİTİRİM C. V., TUNCAY E., Turan B.
MOLECULAR AND CELLULAR BIOCHEMISTRY, vol.443, no.1-2, pp.25-36, 2018 (SCI-Expanded)

XXXI. **Intermittent hypoxia induces beneficial cardiovascular remodeling in left ventricular function of type 1 diabetic rat**
AKAT F., FIÇICILAR H., DURAK A., TUNCAY E., Dursun A. D., TOPAL ÇELİKKAN F., SABUNCUOĞLU B., Turan B., BAŞTUĞ M.
ANATOLIAN JOURNAL OF CARDIOLOGY, vol.19, no.4, pp.259-266, 2018 (SCI-Expanded)

XXXII. **Increased free Zn2+ correlates induction of sarco(endo)plasmic reticulum stress via altered expression levels of Zn2+-transporters in heart failure**
OLĞAR Y., DURAK A., TUNCAY E., BİTİRİM C. V., ÖZÇINAR E., İNAN M. B., TOKCAER KESKİN Z., AKÇALI K. C., AKAR A. R., Turan B.
JOURNAL OF CELLULAR AND MOLECULAR MEDICINE, vol.22, no.3, pp.1944-1956, 2018 (SCI-Expanded)

XXXIII. **Cytosolic increased labile Zn2+ contributes to arrhythmogenic action potentials in left ventricular cardiomyocytes through protein thiol oxidation and cellular ATP depletion**
DEĞİRMENCİ S., OLĞAR Y., DURAK A., TUNCAY E., Turan B.
JOURNAL OF TRACE ELEMENTS IN MEDICINE AND BIOLOGY, vol.48, pp.202-212, 2018 (SCI-Expanded)

XXXIV. **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)

XXXV. **Impact of Labile Zinc on Heart Function: From Physiology to Pathophysiology**
Turan B., TUNCAY E.
INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES, vol.18, no.11, 2017 (SCI-Expanded)

XXXVI. **European contribution to the study of ROS: A summary of the findings and prospects for the future from the COST action BM1203 (EU-ROS)**
Egea J., Fabregat I., Frapart Y. M., Ghezzi P., Gorlach A., Kietzmann T., Kubaichuk K., Knaus U. G., Lopez M. G., Olaso-

Gonzalez G., et al.
REDOX BIOLOGY, vol.13, pp.94-162, 2017 (SCI-Expanded)

XXXVII. **Cardioprotective Action of Intermittent Hypoxia on Left Ventricle Function in Type I Diabetic Rats**
Akat F., Ficicilar H., Baştuğ M., Tuncay E., Durak A., Dursun A. D., Celikkan F. T., Sabuncuoglu B., Turan B.
ACTA PHYSIOLOGICA, vol.221, pp.22, 2017 (SCI-Expanded)

XXXVIII. **Hyperglycemia-Induced Changes in ZIP7 and ZnT7 Expression Cause Zn2+ Release From the Sarco(endo)plasmic Reticulum and Mediate ER Stress in the Heart**
TUNCAY E., BİTİRİM C. V., DURAK A., Carrat G. R. J., Taylor K. M., Rutter G. A., Turan B.
DIABETES, vol.66, no.5, pp.1346-1358, 2017 (SCI-Expanded)

XXXIX. **Both Reactive ROS and RNS Contribute to Intracellular Free Zn2+ Regulation in Cardiomyocytes Via Zinc Transporter ZIP7 Under Hyperglycemia**
TUNCAY E., Bitirim V., DURAK A., Rutter G. A., Turan B.
FREE RADICAL BIOLOGY AND MEDICINE, vol.100, 2016 (SCI-Expanded)

XL. **Enhanced Antioxidant-Defense Preserves Cardiac Dysfunction via Regulation of Cytosolic Levels of Zn and Ca Ions in Hyperglycemic Cardiomyocytes**
Turan B., TUNCAY E.
FREE RADICAL BIOLOGY AND MEDICINE, vol.100, 2016 (SCI-Expanded)

XLI. **Interplay Between Cytosolic Free Zn2+ and Mitochondrion Morphological Changes in Rat Ventricular Cardiomyocytes**
BİLLUR D., TUNCAY E., Okatan E. N., OLĞAR Y., Durak A., DEĞİRMENCİ S., CAN B., Turan B.
BIOLOGICAL TRACE ELEMENT RESEARCH, vol.174, no.1, pp.177-188, 2016 (SCI-Expanded)

XLII. **Intracellular Zn2+ Increase in Cardiomyocytes Induces both Electrical and Mechanical Dysfunction in Heart via Endogenous Generation of Reactive Nitrogen Species**
TUNCAY E., Turan B.
BIOLOGICAL TRACE ELEMENT RESEARCH, vol.169, no.2, pp.294-302, 2016 (SCI-Expanded)

XLIII. **Immuno-spin trapping detection of antioxidant/pro-oxidant properties of zinc or selenium on DNA and protein radical formation via hydrogen peroxide**
Deletioglu V., TUNCAY E., Toy A., Atalay M., Turan B.
MOLECULAR AND CELLULAR BIOCHEMISTRY, vol.409, no.1-2, pp.23-31, 2015 (SCI-Expanded)

XLIV. **Profiling of cardiac beta-adrenoceptor subtypes in the cardiac left ventricle of rats with metabolic syndrome: Comparison with streptozotocin-induced diabetic rats**
Okatan E. N., TUNCAY E., Hafez G., Turan B.
CANADIAN JOURNAL OF PHYSIOLOGY AND PHARMACOLOGY, vol.93, no.7, pp.517-525, 2015 (SCI-Expanded)

XLV. **Regulation of Cardiac beta(3)-Adrenergic Receptors in Hyperglycemia**
Turan B., TUNCAY E.
INDIAN JOURNAL OF BIOCHEMISTRY & BIOPHYSICS, vol.51, no.6, pp.483-492, 2014 (SCI-Expanded)

XLVI. **Regulation of cardiac β3-adrenergic receptors in hyperglycemia**
Turan B., TUNCAY E.
Indian Journal of Biochemistry and Biophysics, vol.51, no.6, pp.483-492, 2014 (SCI-Expanded)

XLVII. **Beta-blocker timolol alleviates hyperglycemia-induced cardiac damage via inhibition of endoplasmic reticulum stress**
ÇİÇEK F., Toy A., TUNCAY E., CAN B., Turan B.
JOURNAL OF BIOENERGETICS AND BIOMEMBRANES, vol.46, no.5, pp.377-387, 2014 (SCI-Expanded)

XLVIII. **Long-term treatment with a beta-blocker timolol attenuates renal-damage in diabetic rats via enhancing kidney antioxidant-defense system**
Gokturk H., Ulusu N. N., GÖK M., TUNCAY E., CAN B., Turan B.
MOLECULAR AND CELLULAR BIOCHEMISTRY, vol.395, no.1-2, pp.177-186, 2014 (SCI-Expanded)

XLIX. **Mitochondrial and ER-Targeted eCALWY Probes Reveal High Levels of Free Zn2+**
Chabosseau P., TUNCAY E., Meur G., Bellomo E. A., Hessels A., Hughes S., Johnson P. R. V., Bugliani M., Marchetti P., Turan B., et al.
ACS CHEMICAL BIOLOGY, vol.9, no.9, pp.2111-2120, 2014 (SCI-Expanded)

L. **Improvement of Functional Recovery of Donor Heart Following Cold Static Storage with Doxycycline Cardioplegia**
Ozcinar E., Okatan E. N., TUNCAY E., ERYILMAZ S., Turan B.
CARDIOVASCULAR TOXICOLOGY, vol.14, no.1, pp.64-73, 2014 (SCI-Expanded)

LI. **Increased oxidative stress triggers marked intracellular zinc elevation in cardiomyocytes under hyperglycaemia**
TUNCAY E., Lyon A., Rutter G. A., Turan B.
DIABETIC MEDICINE, vol.31, pp.55, 2014 (SCI-Expanded)

LII. **Regulation of cardiac β3-adrenergic receptors in hyperglycemia**
Turan B., TUNCAY E.
Indian Journal of Geo-Marine Sciences, vol.51, no.6, pp.483-492, 2014 (SCI-Expanded)

LIII. **Enhancement of Cellular Antioxidant-Defence Preserves Diastolic Dysfunction via Regulation of Both Diastolic Zn2+ and Ca2+ and Prevention of RyR2-Leak in Hyperglycemic Cardiomyocytes**
TUNCAY E., Okatan E. N., Toy A., Turan B.
OXIDATIVE MEDICINE AND CELLULAR LONGEVITY, vol.2014, 2014 (SCI-Expanded)

LIV. **Cardioprotective effect of selenium via modulation of cardiac ryanodine receptor calcium release channels in diabetic rat cardiomyocytes through thioredoxin system**
Okatan E. N., TUNCAY E., Turan B.
JOURNAL OF NUTRITIONAL BIOCHEMISTRY, vol.24, no.12, pp.2110-2118, 2013 (SCI-Expanded)

LV. **beta-Blocker Timolol Prevents Arrhythmogenic Ca2+ Release and Normalizes Ca2+ and Zn2+ Dyshomeostasis in Hyperglycemic Rat Heart**
TUNCAY E., Okatan E. N., Vassort G., Turan B.
PLOS ONE, vol.8, no.7, 2013 (SCI-Expanded)

LVI. **Resveratrol and diabetic cardiac function: focus on recent in vitro and in vivo studies**
Turan B., TUNCAY E., Vassort G.
JOURNAL OF BIOENERGETICS AND BIOMEMBRANES, vol.44, no.2, pp.281-296, 2012 (SCI-Expanded)

LVII. **Cardioprotective effect of propranolol on diabetes-induced altered intracellular Ca2+ signaling in rat**
TUNCAY E., Zeydanli E. N., Turan B.
JOURNAL OF BIOENERGETICS AND BIOMEMBRANES, vol.43, no.6, pp.747-756, 2011 (SCI-Expanded)

LVIII. **Age-related regulation of excitation-contraction coupling in rat heart**
KANDİLCİ H. B., TUNCAY E., Zeydanli E. N., Sozmen N. N., Turan B.
JOURNAL OF PHYSIOLOGY AND BIOCHEMISTRY, vol.67, no.3, pp.317-330, 2011 (SCI-Expanded)

LIX. **Profound cardioprotection with timolol in a female rat model of aging-related altered left ventricular function**
Sozmen N. N., TUNCAY E., Bilginoglu A., Turan B.
CANADIAN JOURNAL OF PHYSIOLOGY AND PHARMACOLOGY, vol.89, no.4, pp.277-288, 2011 (SCI-Expanded)

LX. **Intracellular free zinc during cardiac excitation-contraction cycle: calcium and redox dependencies**
TUNCAY E., Bilginoglu A., Sozmen N. N., Zeydanli E. N., UĞUR M., Vassort G., Turan B.
CARDIOVASCULAR RESEARCH, vol.89, no.3, pp.634-642, 2011 (SCI-Expanded)

LXI. **Intracellular Zn2+ Release Modulates Cardiac Ryanodine Receptor Function and Cellular Activity**
Zeydanli E. N., TUNCAY E., Seymen A. A., Bilginoglu A., Sozen N., UĞUR M., Vassort G., Turan B.
BIOPHYSICAL JOURNAL, vol.98, no.3, 2010 (SCI-Expanded)

LXII. **Effects of beta-adrenergic receptor blockers on cardiac function: a comparative study in male versus female rats**
TUNCAY E., Seymen A. A., Sam P., GÜRDAL H., Turan B.
CANADIAN JOURNAL OF PHYSIOLOGY AND PHARMACOLOGY, vol.87, no.4, pp.310-317, 2009 (SCI-Expanded)

LXIII. **Antioxidants but not Doxycycline Treatments Restore Depressed Beta-Adrenergic Responses of the Heart in Diabetic Rats**
Bilginoglu A., Seymen A., TUNCAY E., Zeydanli E., Aydemir-koksoy A., Turan B.
CARDIOVASCULAR TOXICOLOGY, vol.9, no.1, pp.21-29, 2009 (SCI-Expanded)

LXIV. **BENEFICIAL EFFECTS WITH BETA-ADRENERGIC RECEPTOR BLOCKERS ON ALTERED INTRACELLULAR Ca2+ IN DIABETIC RAT HEART**
TUNCAY E., Seymen A. A., Turan B.
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