

## **Prof. AHMET KOÇ**

### **Personal Information**

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**Address:** İnönü Üniversitesi, Tıp Fakültesi, Tibbi Genetik A.D., Malatya

### **International Researcher IDs**

ORCID: 0000-0003-3484-2137

Yoksis Researcher ID: 110769

### **Education Information**

Post Doctorate, The University of Nebraska-Lincoln, The Beadle Genetic Research Center, Genetics / Biochemistry, United States Of America 2001 - 2003

Doctorate, Oregon State University, Genetik, United States Of America 1998 - 2002

### **Foreign Languages**

English, C1 Advanced

### **Research Areas**

Medicine, Health Sciences, Fundamental Medical Sciences, Medical Biology, Internal Medicine Sciences, Medical Genetics, Life Sciences, Biochemistry, Molecular Biochemistry, Molecular Biology and Genetics, Genetic Engineering, Genomics, Natural Sciences

### **Academic Titles / Tasks**

Professor, Inonu University, Tıp Fakültesi, Dahili Tıp Bilimleri, 2016 - Continues

### **Academic and Administrative Experience**

Vice Dean, Inonu University, Tıp Fakültesi, Dahili Tıp Bilimleri, 2024 - Continues

Head of Department, Inonu University, Tıp Fakültesi, Dahili Tıp Bilimleri, 2023 - Continues

Izmir Institute Of Technology, Moleküler Biyoloji Ve Genetik, 2011 - 2016

### **Courses**

Moleküler Biyoloji, Undergraduate Minor, 2018-2019

Moleküler Genet-II, Undergraduate Double Major, 2018-2019

Tıp Dönem-I Biyoloji/Genetik, Undergraduate, 2018-2019

İLERİ HÜCRE BİYOLOJİSİ, Doctorate, 2017 - 2018, 2016 - 2017

Moleküler Genetik Teknikleri, Doctorate, 2017 - 2018  
Diş Hekimliği Dönem-I Biyoloji/Genetik, Undergraduate, 2018-2019  
Diş Hekimliği Dönem-1 Komite-genetik, Undergraduate, 2016 - 2017  
İLERİ HÜCRE BİYOLOJİSİ, Undergraduate Minor, 2017-2018  
Moleküler Genetik Teknikleri, Undergraduate Minor, 2017-2018  
Moleküler Genetik-2, Postgraduate, 2016 - 2017  
Diş Hekimliği Dönem-1 Komite-genetik, Undergraduate, 2016-2017  
İleri Hücre Biyolojisi, Undergraduate Minor, 2016-2017  
Moleküler Genetik-2, Undergraduate Double Major, 2016-2017  
BİYOKİMYA 2, Undergraduate, 2013-2014

## Advising Theses

KOÇ A., Biochemical characterizations of the short living yeast mutants that lack the genes of the mitochondrial electron transport system, Doctorate, I.ESMER(Student), 2016  
KOÇ A., Characterization of short living yeast deletion mutants that lack mitochondrial carbohydrate metabolism genes., Doctorate, K.AVŞAR(Student), 2016  
KOÇ A., Molecular and genetic investigation of aging: The role of mitochondrial metabolism genes on life span determination, Doctorate, A.MUID(Student), 2016  
KOÇ A., Elucidation of molecular mechanisms conferring arsenic tolerance to yeast cells, Postgraduate, E.IŞIK(Student), 2015  
KOÇ A., Identification of doxorubicin drug resistance mechanisms by using genomic techniques, Doctorate, A.BANU(Student), 2015  
KOÇ A., Elucidation of boron stress signaling pathways in yeast, Doctorate, İ.ULUIŞIK(Student), 2015  
KOÇ A., Characterization of drug resistance mechanism against antifungal agent voriconazole, Postgraduate, İ.ERCAN(Student), 2015  
KOÇ A., Identification of molecular resistance mechanisms against systemically used antifungal drugs, Amphotericin B and Caspofungin, Doctorate, Ç.IŞIK(Student), 2013  
KOÇ A., Regulation of human P53 tumor suppressor gene activity by thiol-dependent oxidoreductases, Postgraduate, G.BEKKİ(Student), 2011  
KOÇ A., Proteomic analysis of boron stress response in yeast *saccharomyces cerevisiae*, Postgraduate, K.AVŞAR(Student), 2011  
KOÇ A., Molecular mechanisms of boron toxicity and identification of boron metabolism genes, Postgraduate, İ.ULUIŞIK(Student), 2010  
KOÇ A., Assesment of chronological life span dependent molecular damages of *S. cerevisiae* deficient in mitochondrial antioxidant genes, Postgraduate, A.BANU(Student), 2009  
KOÇ A., Identification of mitochondrial electron transport chain mutations that effect ageing, Postgraduate, E.HACIOĞLU(Student), 2009  
KOÇ A., Redox regulation of human p53 tumor suppressor gene activity: identification of redox genes that play role in human p53 reporter gene activity, Postgraduate, B.ATAÇ(Student), 2008  
KOÇ A., Identification of genes that play role in boron metabolism, Postgraduate, A.KAYA(Student), 2008  
KOÇ A., Effects of deleting mitochondrial antioxidant genes on aging, Postgraduate, E.SELÇUK(Student), 2007

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

- I. The impact of subdermal adipose derived stem cell injections and early excision on systemic oxidative stress and wound healing in rats with severe scald burns.  
Gürünlüoğlu K., Satılmış B., Gül M., Dündar M., Göktürk N., Akbulut A. S., Koç A., Gürünlüoğlu S., Aslan M., Karaaslan E., et al.

- BURNS, vol.50, no.8, pp.2056-2069, 2024 (SCI-Expanded)
- II. **Evaluation of genotoxic and mitotoxic effects of TAF-loaded chitosan nanoparticles in HepG2 cells.**  
Korkmaz Sezer S., Yuksel S., Koc A., Ulu A., Ates B.  
Drug and chemical toxicology, vol.47, no.5, pp.516-526, 2024 (SCI-Expanded)
- III. **NBR and GBA Genes Methylation Levels in Peripheral Blood of Parkinson's Patients.**  
Gemici Y. I., Koc A.  
Journal of movement disorders, 2024 (SCI-Expanded)
- IV. **Kayısı Katkılı Sporcu İçeceğiinin Zorlu Egzersiz Yaptırılan Sıçanlarda Kardiyak Mitokondriyal Disfonksiyona Etkisi**  
Özer M. Y., Düzova H., Gül M., Arslan Ö., Elmas F., Koç A., Durmaz G., Gül S., Özden Ç.  
ACTA PHYSIOLOGICA, vol.240, pp.51, 2023 (SCI-Expanded)
- V. **Synthesis, antimicrobial activity and molecular docking study of benzyl functionalized benzimidazole silver(I) complexes**  
Arı E., Şahin N., Üstün E., Dündar M., Karci H., Özdemir İ., Koç A., Gürbüz N., Özdemir İ.  
JBIC Journal of Biological Inorganic Chemistry, vol.28, pp.725-736, 2023 (SCI-Expanded)
- VI. **N-alkylbenzimidazole silver(I) complexes: Synthesis, biological evaluation and molecular docking study**  
Arı E., Şahin N., Üstün E., Dündar M., Karci H., Özdemir İ., Koç A., Gürbüz N., Özdemir İ.  
POLYHEDRON, no. 1873-3719, pp.1873-3719, 2023 (SCI-Expanded)
- VII. **Toll-interacting protein may affect doxorubicin resistance in hepatocellular carcinoma cell lines.**  
Demir A. B., Baris E., Kaner U. B., Alotaibi H., Atabey N., Koc A.  
Molecular biology reports, vol.50, no.10, pp.8551-8563, 2023 (SCI-Expanded)
- VIII. **Boron stress signal is transmitted through the TOR pathway.**  
Yilmaz İ. U., Koc A.  
Journal of trace elements in medicine and biology : organ of the Society for Minerals and Trace Elements (GMS), vol.79, pp.127222, 2023 (SCI-Expanded)
- IX. **Melatonin Attenuates Cerebral Ischemia/Reperfusion Injury Through Suppressing Apoptosis and Inducing Autophagy**  
Yilmaz Ü., Tanbek K., Gül M., Koç A., Sandal S.  
NEUROENDOCRINOLOGY, vol.1, no.1, pp.1-10, 2023 (SCI-Expanded)
- X. **Nephrotoxicity Development of a Clinical Decision Support System Based on Tree-Based Machine Learning Methods to Detect Diagnostic Biomarkers from Genomic Data in Methotrexate-Induced Rats**  
Cicek I. B., Colak C., Yologlu S., Kucukakcali Z., Ozhan O., Taslidere E., Danis N., Koc A., Parlakpinar H., Akbulut S.  
APPLIED SCIENCES-BASEL, vol.1, pp.1, 2023 (SCI-Expanded)
- XI. **Modeling Based on Ensemble Learning Methods for Detection of Diagnostic Biomarkers from LncRNA Data in Rats Treated with Cis-Platinum-Induced Hepatotoxicity.**  
Kucukakcali Z., Colak C., Gozukara Bag H. G., Balikci Cicek I., Ozhan O., Yildiz A., Danis N., Koc A., Parlakpinar H., Akbulut S.  
Diagnostics (Basel, Switzerland), vol.13, no.9, 2023 (SCI-Expanded)
- XII. **Effect of high-intensity exercise on endoplasmic reticulum stress and proinflammatory cytokine levels**  
Düzova H., Koç A., Taşlıdere A.  
SCIENCE AND SPORTS, vol.1, no.1, pp.1-10, 2023 (SCI-Expanded)
- XIII. **Novel benzimidazolium salts and their silver(I)-N-heterocyclic carbene complexes: synthesis, characterization and their biological properties**  
Belhi Z., Karci H., Dündar M., Gürbüz N., Özdemir İ., Koç A., Cherit A., Özdemir İ.  
JOURNAL OF COORDINATION CHEMISTRY, vol.76, no.1, pp.120-133, 2023 (SCI-Expanded)
- XIV. **Global gene expression profiling in congenital diaphragmatic hernia (CDH) patients**  
GÜRÜNLÜOĞLU K., DÜNDAR M., Unver T., AKPINAR N., GÖKCE İ. K., Gurunluoglu S., DEMİRCAN M., KOÇ A.  
FUNCTIONAL & INTEGRATIVE GENOMICS, vol.22, no.3, pp.359-369, 2022 (SCI-Expanded)

- XV. **Identification of novel arsenic resistance genes in yeast**  
 Işık E., Balkan Ç., Karl V., Karakaya H. Ç., Hua S., Rauch S., Tamas M., Koç A.  
*MICROBIOLOGYOPEN*, vol.11, no.11:e1284, pp.1-16, 2022 (SCI-Expanded)
- XVI. **Investigation of the Neuroprotective Effect of N-(p-amylcinnamoyl) Anthranilic Acid on Hippocampal Endoplasmic Reticulum Stress in WAG/Rij Rats with Absence Epilepsy**  
 Kaya G. B., DÜZOVA H., Kaya M., DÜNDAR M., KOÇ A.  
*ACTA PHYSIOLOGICA*, vol.234, pp.13, 2022 (SCI-Expanded)
- XVII. **Effects of Severe Aerobic Exercise on Endoplasmic Reticulum Stress and Cellular Damage**  
 Korkmaz K., DÜZOVA H., Durmus K., KOÇ A., TAŞLIDERE A.  
*ACTA PHYSIOLOGICA*, vol.234, pp.37, 2022 (SCI-Expanded)
- XVIII. **Effects of Glucagon on Central Nervous System in Regulating Glucose Homeostasis in Rats**  
 TANBEK K., YILMAZ Ü., GÜL S., KOÇ A., Gul M., SANDAL S.  
*ACTA PHYSIOLOGICA*, vol.234, pp.50, 2022 (SCI-Expanded)
- XIX. **Preparation, Controlled Drug Release, and Cell Viability Evaluation of Tenofovir Alafenamide-Loaded Chitosan Nanoparticles**  
 Ulu A., Sezer S. K., YÜKSEL Ş., KOÇ A., ATEŞ B.  
*STARCH-STARKE*, 2021 (SCI-Expanded)
- XX. **Silver (I)-N-heterocyclic carbene complexes: Synthesis and characterization, biological evaluation of Anti-Cholinesterase, anti-alpha-amylase, anti-lipase, and antibacterial activities, and molecular docking study**  
 Sandeli A. E., Khiri-Meribout N., Benzerka S., GÜRBÜZ N., DÜNDAR M., Karci H., Bensouici C., Mokrani E. H., ÖZDEMİR İ., KOÇ A., et al.  
*INORGANICA CHIMICA ACTA*, vol.525, 2021 (SCI-Expanded)
- XXI. **New silver N-heterocyclic carbenes complexes: Synthesis, molecular docking study and biological activities evaluation as cholinesterase inhibitors and antimicrobials**  
 Lasmari S., İkhlef S., Boulcina R., Mokrani E. H., Bensouici C., GÜRBÜZ N., Dundar M., Karci H., ÖZDEMİR İ., KOÇ A., et al.  
*JOURNAL OF MOLECULAR STRUCTURE*, vol.1238, 2021 (SCI-Expanded)
- XXII. **Whole exome sequencing analysis for mutations in isolated type III biliary atresia patients**  
 Gürünlüoğlu K., Koç A., Durmuş K., Gözükara Bağ H. G., Ceran Özcan C., Gürünlüoğlu S., Yıldız T., Gül M., Demircan M.  
*Clinical and Experimental Hepatology*, vol.6, no.4, pp.347-353, 2020 (SCI-Expanded)
- XXIII. **tRNA Wobble Base Modifications and Boric Acid Resistance in Yeast: Boron-Resistant Deletion Mutants Induce the General Amino Acid Control Mechanism and Activate Boron Efflux**  
 Uluişik İ., Karakaya H. Ç., Koç A.  
*JOURNAL OF MOLECULAR BIOLOGY*, vol.54, no.3, pp.396-401, 2020 (SCI-Expanded)
- XXIV. **Investigation of the cardiotoxic effects of parenteral nutrition in rabbits**  
 GÜRÜNLÜOĞLU K., GÜL M., KOÇBIYIK A., KOÇ A., ÜREMİŞ N., GURUNLUOGLU S., Bag H. G., Karaca Y., TAŞÇI A., Gul S., et al.  
*JOURNAL OF PEDIATRIC SURGERY*, vol.55, no.3, pp.465-474, 2020 (SCI-Expanded)
- XXV. **The Effects of Different Burn Dressings on Length of Telomere and Expression of Telomerase in Children With Thermal Burns**  
 GÜRÜNLÜOĞLU K., DEMİRCAN M., KOÇ A., KOÇBIYIK A., Taşçı A., Durmuş K., CAFEROĞLU GÜRÜNLÜOĞLU S., GÖZÜKARA BAĞ H. G.  
*JOURNAL OF BURN CARE & RESEARCH*, vol.40, no.3, pp.302-11, 2019 (SCI-Expanded)
- XXVI. **A Rare Mosaic Karyotype of 45,X/46,X,psu idic(Y)(p11.32)/46, XY with SHOX Haploinsufficiency, External Male Genitalia, and Short Stature**  
 Ekici C., Esener Z., KORKMAZ S., Salturk N., YÜKSEL Ş., KOÇ A.  
*SEXUAL DEVELOPMENT*, vol.13, no.1, pp.41-46, 2019 (SCI-Expanded)
- XXVII. **The importance of boron in biological systems**  
 Uluisik İ., KARAKAYA H. Ç., KOÇ A.  
*JOURNAL OF TRACE ELEMENTS IN MEDICINE AND BIOLOGY*, vol.45, pp.156-162, 2018 (SCI-Expanded)

- XXVIII. **Evidence for the Presence of a Second Electron Donor for Cytoplasmic Thioredoxins in the Yeast *S cerevisiae***  
KOÇ A.  
TURKISH JOURNAL OF BIOLOGY, vol.133, pp.133-135, 2017 (SCI-Expanded)
- XXIX. **High-Copy Overexpression Screening Reveals PDR5 as the Main Doxorubicin Resistance Gene in Yeast**  
Demir A. B., Koc A.  
PLOS ONE, vol.10, no.12, 2015 (SCI-Expanded)
- XXX. **Functional characterization of new mutations in Wilson disease gene (ATP7B) using the yeast model**  
Papur O. S., Terzioglu O., Koc A.  
JOURNAL OF TRACE ELEMENTS IN MEDICINE AND BIOLOGY, vol.31, pp.33-36, 2015 (SCI-Expanded)
- XXXI. **Absence of superoxide dismutase activity causes nuclear DNA fragmentation during the aging process**  
Muid K. A., Karakaya H. C., Koc A.  
BIOCHEMICAL AND BIOPHYSICAL RESEARCH COMMUNICATIONS, vol.444, no.2, pp.260-263, 2014 (SCI-Expanded)
- XXXII. **Identification of respiratory chain gene mutations that shorten replicative life span in yeast**  
Hacioglu E., Demir A. B., Koc A.  
EXPERIMENTAL GERONTOLOGY, vol.47, no.2, pp.149-153, 2012 (SCI-Expanded)
- XXXIII. **Boron Stress Activates the General Amino Acid Control Mechanism and Inhibits Protein Synthesis**  
Uluisik I., Kaya A., Fomenko D. E., Karakaya H. C., Carlson B. A., Gladyshev V. N., Koc A.  
PLOS ONE, vol.6, no.11, 2011 (SCI-Expanded)
- XXXIV. **Roles of ATR1 paralogs YMR279c and YOR378w in boron stress tolerance**  
Bozdag G. O., Uluisik I., Gulcular G. S., Karakaya H. C., Koc A.  
BIOCHEMICAL AND BIOPHYSICAL RESEARCH COMMUNICATIONS, vol.409, no.4, pp.748-751, 2011 (SCI-Expanded)
- XXXV. **Thiol peroxidases mediate specific genome-wide regulation of gene expression in response to hydrogen peroxide**  
Fomenko D. E., Koc A., AGİSHEVA N., Jacobsen M., KAYA A., Malinouski M., Rutherford J. C., Siu K., Jin D., Winge D. R., et al.  
PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA, vol.108, no.7, pp.2729-2734, 2011 (SCI-Expanded)
- XXXVI. **Proteomic changes during boron tolerance in barley *Hordeum vulgare* and role of vacuolar proton translocating ATPase subunit E**  
KOÇ A.  
TURKISH JOURNAL OF BOTANY, vol.135, no.379, pp.379-388, 2011 (SCI-Expanded)
- XXXVII. **The roles of thiol oxidoreductases in yeast replicative aging**  
Hacioglu E., Esmer I., Fomenko D. E., Gladyshev V. N., Koc A.  
MECHANISMS OF AGEING AND DEVELOPMENT, vol.131, pp.692-699, 2010 (SCI-Expanded)
- XXXVIII. **Compartmentalization and Regulation of Mitochondrial Function by Methionine Sulfoxide Reductases in Yeast**  
Kaya A., Koc A., Lee B. C., Fomenko D. E., Rederstorff M., Krol A., Lescure A., Gladyshev V. N.  
BIOCHEMISTRY, vol.49, no.39, pp.8618-8625, 2010 (SCI-Expanded)
- XXXIX. **Assessment of chronological lifespan dependent molecular damages in yeast lacking mitochondrial antioxidant genes**  
Demir A. B., Koc A.  
BIOCHEMICAL AND BIOPHYSICAL RESEARCH COMMUNICATIONS, vol.400, no.1, pp.106-110, 2010 (SCI-Expanded)
- XL. **Effect of Thioredoxin Deletion and p53 Cysteine Replacement on Human p53 Activity in Wild-Type and Thioredoxin Reductase Null Yeast**  
Stoner C. S., Pearson G. D., Koc A., Merwin J. R., Lopez N. I., Merrill G. F.  
BIOCHEMISTRY, vol.48, no.38, pp.9156-9169, 2009 (SCI-Expanded)
- XLI. **Identification of a Novel System for Boron Transport: Atr1 Is a Main Boron Exporter in Yeast**  
Kaya A., Karakaya H. C., Fomenko D. E., Gladyshev V. N., Koc A.

- MOLECULAR AND CELLULAR BIOLOGY, vol.29, no.13, pp.3665-3674, 2009 (SCI-Expanded)
- XLII. Functional Analysis of Free Methionine-R-sulfoxide Reductase from *Saccharomyces cerevisiae***  
 Le D. T., Lee B. C., Marino S. M., Zhang Y., Fomenko D. E., Kaya A., Hacioglu E., Kwak G., Koc A., Kim H., et al.  
 JOURNAL OF BIOLOGICAL CHEMISTRY, vol.284, no.7, pp.4354-4364, 2009 (SCI-Expanded)
- XLIII. Checkpoint deficient rad53-11 yeast cannot accumulate dNTPs in response to DNA damage**  
 Koc A., Merrill G. F.  
 BIOCHEMICAL AND BIOPHYSICAL RESEARCH COMMUNICATIONS, vol.353, no.2, pp.527-530, 2007 (SCI-Expanded)
- XLIV. Effects of deleting mitochondrial antioxidant genes on life span**  
 ÜNLÜ E. S., Koc A.  
 BIOGERONTOLOGY: MECHANISMS AND INTERVENTIONS, vol.1100, pp.505-509, 2007 (SCI-Expanded)
- XLV. Methionine sulfoxide reduction and the aging process**  
 Koc A., Gladyshev V. N.  
 BIOGERONTOLOGY: MECHANISMS AND INTERVENTIONS, vol.1100, pp.383-386, 2007 (SCI-Expanded)
- XLVI. Thioredoxin is required for deoxyribonucleotide pool maintenance during S phase**  
 Koc A., Mathews C. K., Wheeler L. J., Gross M. K., Merrill G. F.  
 JOURNAL OF BIOLOGICAL CHEMISTRY, vol.281, no.22, pp.15058-15063, 2006 (SCI-Expanded)
- XLVII. Methionine sulfoxide reductase regulation of yeast lifespan reveals reactive oxygen species-dependent and -independent components of aging**  
 Koc A., Gasch A., Rutherford J., KİM H. Y., Gladyshev V.  
 PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA, vol.101, no.21, pp.7999-8004, 2004 (SCI-Expanded)
- XLVIII. Hydroxyurea arrests DNA replication by a mechanism that preserves basal dNTP pools**  
 Koc A., WHEELER L., MATHEWS C., Merrill G.  
 JOURNAL OF BIOLOGICAL CHEMISTRY, vol.279, no.1, pp.223-230, 2004 (SCI-Expanded)
- XLIX. Replication-independent MCB gene induction and deoxyribonucleotide accumulation at G(1)/S in *Saccharomyces cerevisiae***  
 Koc A., Wheeler L., Mathews C., Merrill G.  
 JOURNAL OF BIOLOGICAL CHEMISTRY, vol.278, no.11, pp.9345-9352, 2003 (SCI-Expanded)
- L. Reaction mechanism, evolutionary analysis, and role of zinc in *Drosophila* Methionine-R-sulfoxide reductase**  
 Kumar R., Koc A., Cerny R., Gladyshev V.  
 JOURNAL OF BIOLOGICAL CHEMISTRY, vol.277, no.40, pp.37527-37535, 2002 (SCI-Expanded)
- LI. Selenoprotein R is a zinc-containing stereo-specific methionine sulfoxide reductase**  
 Kryukov G., Kumar R., Koc A., SUN Z., Gladyshev V.  
 PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA, vol.99, no.7, pp.4245-4250, 2002 (SCI-Expanded)

## Articles Published in Other Journals

- I. Possible bradykinesia occurrence in lymphocyte division in Parkinson's disease**  
 Gemici Y. İ., Taşçı İ., Dündar M., Özgen N., Gözükara Bağ H. G., Koç A.  
 JOURNAL OF EXPERIMENTAL AND CLINICAL MEDICINE, vol.41, no.1, pp.86-91, 2024 (Scopus)
- II. Overexpression of yeast YLR177w gene provides tolerance to antifungal drug tioconazole**  
 Koç S., Işık Ö. A., Dündar M., Koç A.  
 Annals of Medical Research, vol.29, no.11, pp.1273-1277, 2022 (Peer-Reviewed Journal)
- III. DELETION OF MITOCHONDRIAL INORGANIC PYRO PHOSPHATASE GENE EXTENDS LIFE SPAN IN HAPLOID YEAST ( *Saccharomyces cerevisiae* )**  
 KA M., KOÇ A.  
 J. biodivers. conserv. bioresour. manag, vol.3, no.2, pp.60-75, 2017 (Peer-Reviewed Journal)
- IV. Regulation of Yeast Life Span by Autophagy Related Genes**

## Refereed Congress / Symposium Publications in Proceedings

- I. Effects of intradermal Stem Cell Injection on Systemic Oxidative Stress and Wound Healing After Early Debridement in Massive Scalding Burns in Rats  
Gürünlüoğlu K., Şahin T. T., Gül M., Göktürk N., Koç A., Satılmış B., Akbulut A. S., Dündar M., Kayhan Kuştepe E., Türköz M. A., et al.  
Recent Advances in Surgery and Burns, Ankara, Turkey, 12 - 14 October 2023
- II. Effects of Cerebral Glucagon Administration on Blood Glucose Homeostasis in Rats  
TANBEK K., YILMAZ Ü., GÜL S., KOÇ A., GÜL M., SANDAL S.  
47. Ulusal Fizyoloji Kongresi, Antalya, Turkey, 01 November 2022, pp.274
- III. Cellular Toxicity Mechanisms of Boron  
Koç A., Uluşık İ.  
BORON22, İstanbul, Turkey, 5 - 07 October 2022, vol.1, no.1, pp.335-337
- IV. Borik Asitin NF-Kb Sinyali İletim Yolağına Etkisinin NF-Kb-GFP Belirteç Sistemi Entegre Edilmiş Transgenik HEK293 Hücre Hattı Kullanılarak Çalışılması  
Koç A., Yılmaz Dündar F.  
Boron22, İstanbul, Turkey, 5 - 07 October 2022, vol.1, no.1, pp.386-387
- V. İnsan Akciğer Epitel Hücresi ve Akciğer Kanseri Hücrelerinde Borik Asidin Endoplazmik Retikulum Stresi Üzerindeki Rolü  
Koç A., Elmas F.  
Boron22, İstanbul, Turkey, 5 - 07 October 2022, vol.1, no.1, pp.388-389
- VI. Ag-NHC COMPLEX WITH ANTIMICROBIAL POTENTIAL  
Karci H., Dündar M., Özdemir İ., Gürbüz N., Koç A., Özdemir İ.  
INTERNATIONAL GOBEKLITEPE APPLIED SCIENCES CONGRESS-IV, Şanlıurfa, Turkey, 9 - 11 September 2022, pp.24-25
- VII. Fonksiyonel Benzimidazolyum Tuzları ve Biyolojik Özellikleri  
Karci H., Dündar M., Özdemir İ., Gürbüz N., Koç A., Özdemir İ.  
34. Ulusal Kimya Kongresi, Yalova, Turkey, 1 - 06 September 2022, pp.388
- VIII. Gümüş Karben Komplekslerinin Antimikrobiyal Özellikleri  
Karci H., Dündar M., Özdemir İ., Gürbüz N., Koç A., Özdemir İ.  
34. Ulusal Kimya Kongresi, Şanlıurfa, Turkey, 1 - 06 September 2022, pp.389
- IX. Yeni Ag-NHC Kompleksleri ve Özellikleri  
Evren E., Karci H., Dündar M., Özdemir İ., Gürbüz N., Koç A., Özdemir İ.  
34. Ulusal Kimya Kongresi, Yalova, Turkey, 1 - 06 September 2022, pp.320
- X. N-Alkilbenzimidazol-Gümüş Komplekslerinin Biyolojik Özellikleri  
Arı E., Karci H., Dündar M., Özdemir İ., Şahin N., Koç A., Özdemir İ.  
34. Ulusal Kimya Kongresi, Yalova, Turkey, 1 - 06 September 2022, pp.321
- XI. ANTIMICROBIAL PROPERTIES OF BENZIMIDAZOLIUM SALTS  
Karci H., Dündar M., Özdemir İ., Gürbüz N., Koç A., Özdemir İ.  
INTERNATIONAL GOBEKLITEPE APPLIED SCIENCES CONGRESS-IV, Şanlıurfa, Turkey, 9 - 11 September 2022, pp.26-27
- XII. Effects of Glucagon on Central Nervous System in Regulating Glucose Homeostasis in Rats  
TANBEK K., YILMAZ Ü., GÜL S., KOÇ A., GÜL M., SANDAL S.  
46. Ulusal Fizyoloji Kongresi, Turkey, 8 - 10 October 2021, vol.234, pp.50
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- XV. **ETİLASETAL FONKSİYONLU GÜMÜŞ KARBEN KOMPLEKSLERİN ANTİMİKROBİYAL ÖZELLİKLERİ KARAKTERİZASYONU**  
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- XVII. **BENZIMİDAZOLIUM SALT AND BIOLOGICAL PROPERTIES**  
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XXXI. NATIONAL CONGRESS OF THE TURKISH BIOCHEMICAL SOCIETY 2020, Gaziantep, Turkey, 18 - 20 December 2020, pp.30
- XVIII. **Silver N-Heterocyclic Carbene Complexes and their Antibacterial Properties**  
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- XIX. **The roles of mitochondrial metabolism genes PPA2, DSS1 and AFG3 in mitochondrial functions and cellular longevity**  
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## Supported Projects

KOÇ A., TUBITAK Project, p53 tümör süpresör protein ile etkileşen diğer proteinlerin bulunması, 2018 - Continues

KOÇ A., EU Supported Other Project, Metalloid toksisitesinin mekanizmalarının araştırılması, 2015 - Continues

TOPRAK S., KOÇ A., EREN Ş., Project Supported by Higher Education Institutions, Berrak Hücreli Renal Hücreli Karsinom Hastalarında BAP-1, PBRM-1, SETD-2 Mutasyonlarının Varlığının Araştırılması ve İmmünohistokimyasal Olarak Korelasyonunun Değerlendirilmesi, 2021 - 2022

DÜZOVA H., DURMAZ G., KOÇ A., GÜL M., ÖZER M. Y., ÖZDEN Ç., GÜL S., Project Supported by Higher Education Institutions, Kayısı Kataklı Sporcu İçeceğiinin Zorlu Egzersiz Yaptırılan Sıçanlarda Kardiyak Mitokondriyal Disfonksiyona Etkisi, 2021 - 2022

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KOÇ A., İNALKAÇ GEMİCİ Y., Project Supported by Higher Education Institutions, İdiopatik Parkinson Hastalığının Patogenezinde Rol Alan Moleküller Yolaklarda Epigenetik Değişikliklerin Araştırılması, 2020 - 2022

İÇEN TAŞKIN I., KOÇ A., KOCABAY S., YOLBAŞ S., Project Supported by Higher Education Institutions, FMF Hastalarında SFK'ların Proinflamatuvar Sitokinler ve NLRP3 Regülasyonundaki Rollerinin Araştırılması, 2020 - 2022

YÜKSEL Ş., ATEŞ B., ULU A., KOÇ A., KORKMAZ S., Project Supported by Higher Education Institutions, Tenofovir Alafenamide TAF İçeren Kitosan Nanopartikülü Formülasyonlarının Hazırlanması, Genotoksik ve Mitotoksik Etkilerinin Araştırılması, 2018 - 2022

KOÇ A., KOÇ S., Project Supported by Higher Education Institutions, Yeni Nesil Triazole Gurubu Antifungal İlaçlardan Tiocanazole Dirençlilik Sağlayan Genlerin Bulunması, 2019 - 2020

KOÇ A., GÜRÜNLÜOĞLU K., DEMİRCAN M., Project Supported by Higher Education Institutions, BİLİYER ATREZİLİ HASTALARIN YENİ NESİL DNA DİZİ ANALİZİ YÖNTEMİYLE EKZOM SEKANSLARININ İNCELENMESİ, 2018 - 2019

KOÇ A., Project Supported by Higher Education Institutions, MEDİKAL GENOMİK VE PROTEOMİK ARAŞTIRMA LABORATUVARI ALTYAPISININ OLUŞTURULMASI, 2016 - 2018

KOÇ A., TUBITAK Project, Delesyonu Mayada Yaşam Süresini Uzatan Mitokondriyal Metabolizma Genlerinden Ppa2, Afg3 ve Dss1'e Ait Maya Mutantlarının Karakterizasyonu, 2015 - 2017

KOÇ A., TUBITAK Project, Doktorubusin dirençliliğinin genomik yöntemlerle belirlenmesi, 2014 - 2016

KOÇ A., TUBITAK Project, Doktorubisin İlaç Dirençlilik Mekanizmalarının Genomik Yöntemlerle Tespit Edilmesi, 2014 - 2015

KOÇ A., Other International Funding Programs, Sistemik Mantar İlaçlarına Karşı Gelişen İlaç Dirençlilik Mekanizmalarının Belirlenmesi, 2013 - 2015

KOÇ A., TUBITAK Project, Bor Toksisitesinin Moleküller Mekanizmalarının Araştırılması, 2011 - 2014

KOÇ A., TUBITAK Project, İnsan p53 Tümör Süpressör Gen Aktivitesinin Redoks Regülasyonu, 2008 - 2010

KOÇ A., TUBITAK Project, Borun Biyolojik Etki Mekanizması: Bor Metabolizmasında Rol Oynayan Genlerinin Tesbiti, 2005 - 2010

## Memberships / Tasks in Scientific Organizations

## Scientific Consultations

TÜBİTAK, Scientific Consultancy, Inonu University, Tıp Fakültesi, Dahili Tıp Bilimleri, Turkey, 2021 - Continues

## Metrics

Publication: 90

Citation (WoS): 1391

Citation (Scopus): 1232

H-Index (WoS): 16

H-Index (Scopus): 16

## Scholarships

Yurtdışı Lisansüstü eğitim bursu, Ministry of Education, 1995 - 2001

## Awards

Koç A., Üstün Başarı, Fevzi Akkaya Bilimsel Etkinlikleri Destekleme Fonu- Fabed, June 2012

Koç A., Üstün Başarılı Genç Bilim İnsanı, Türkiye Bilimler Akademisi, July 2007

## Non Academic Experience

İYTE

Nebraska Üniversitesi