

## **Prof. AHMET KOÇ**

### **Personal Information**

**Email:** ahmet.koc@inonu.edu.tr

**Web:** <https://scholar.google.com.tr/citations?user=SejpCIkAAAAJ&hl=tr&oi=ao>

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

### **International Researcher IDs**

ORCID: 0000-0003-3484-2137

Publons / Web Of Science ResearcherID: ABI-3322-2020

Yoksis Researcher ID: 110769

### **Education**

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

Postgraduate, Oregon State University, Genetik, United States Of America 1996 - 1998

### **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 Positions**

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

Professor, Izmir Institute Of Technology, Moleküler Biyoloji ve Genetik, 2014 - 2016

Associate Professor, Izmir Institute Of Technology, Moleküler Biyoloji ve Genetik, 1998 - 2014

### **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**

**Doctorate**

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

Moleküler Genetik Teknikleri, Doctorate, 2017 - 2018

**Postgraduate**

Moleküler Genetik-2, Postgraduate, 2016 - 2017

**Undergraduate**

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

Diş Hekimliği Dönem-I Biyoloji/Genetik, Undergraduate, 2018-2019

Diş Hekimliği Dönem-1 Komite-genetik, Undergraduate, 2016 - 2017

Diş Hekimliği Dönem-1 Komite-genetik, Undergraduate, 2016-2017

BİYOKİMYA 2, Undergraduate, 2013-2014

**Undergraduate Minor**

Moleküler Biyoloji, Undergraduate Minor, 2018-2019

İLERİ HÜCRE BİYOLOJİSİ, Undergraduate Minor, 2017-2018

Moleküler Genetik Teknikleri, Undergraduate Minor, 2017-2018

İleri Hücre Biyolojisi, Undergraduate Minor, 2016-2017

**Undergraduate Double Major**

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

Moleküler Genetik-2, Undergraduate Double Major, 2016-2017

**Supervised 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

## Journal articles indexed in SCI, SSCI, and AHCI

- I. **Synthesis, electrochemical, biological and catalytical studies of half-sandwich Ru(II)-NSHC complexes bearing benzothiazol-2-ylidene**  
Tuncer H., Kilinçarslan R., Karci H., Dündar M., Özdemir İ., Koç A., Özdemir N., Güzel M., Ak M., Özdemir İ., et al.  
JOURNAL OF MOLECULAR STRUCTURE, vol.1318, pp.139424, 2024 (SCI-Expanded)
- II. **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 : journal of the International Society for Burn Injuries, vol.50, no.8, pp.2056-2069, 2024 (SCI-Expanded)
- III. **Evaluation of genotoxic and mitotoxic effects of TAF-loaded chitosan nanoparticles in HepG2 cells.**  
Korkmaz Sezer S., Yuksel Ş., Koc A., Ulu A., Ates B.  
Drug and chemical toxicology, vol.47, no.5, pp.516-526, 2024 (SCI-Expanded)
- IV. **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)
- V. **Synthesis, characterisation, anticancer and antimicrobial activity of Ag-N-heterocyclic carbene complexes containing benzimidazole derivatives**  
Karci H., Dündar M., Nawaz Z., Özdemir İ., Gürbüz N., Koç A., Özdemir İ., Mansour L., Hamdi N.  
INORGANICA CHIMICA ACTA, vol.565, pp.121992, 2024 (SCI-Expanded)
- VI. **The roles of SFKs in the regulation of proinflammatory cytokines and NLRP3 in familial mediterranean fever patients.**  
İçen Taşkin I., Gürbüz S., Koç A., Kocabay S., Yolbaş S., Keser M. F.  
Cytokine, vol.179, pp.156615, 2024 (SCI-Expanded)
- VII. **Intracerebroventricular BDNF infusion may reduce cerebral ischemia/reperfusion injury by promoting autophagy and suppressing apoptosis.**  
Yilmaz U., Tanbek K., Gul S., Koc A., Gul M., Sandal S.  
Journal of cellular and molecular medicine, vol.28, no.8, 2024 (SCI-Expanded)
- VIII. **Effects of glucagon as a neurohormone on the central nervous system and glucose homeostasis.**  
Tanbek K., Yilmaz U., Gul S., Koç A., Gul M., Sandal S.  
European review for medical and pharmacological sciences, vol.28, no.1, pp.163-179, 2024 (SCI-Expanded)
- IX. **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)
- X. **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)
- XI. **Kayısı Kataklı Sporcu İçeceğinin Zorlu Egzersiz Yaptırılan Sıçnlarda 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)
- XII. **Toll-interacting protein may affect doxorubicin resistance in hepatocellular carcinoma cell lines.**  
Demir A. B., Baris E., Kaner U. B., Alotaibi H., Atabay N., Koc A.  
Molecular biology reports, vol.50, no.10, pp.8551-8563, 2023 (SCI-Expanded)
- XIII. **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)
- XIV. **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)
- XV. **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)
- XVI. **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)
- XVII. **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)
- XVIII. **Effects of central FGF21 infusion on the glucose homeostasis in rats (brain-pancreas axis).**  
Tanbek K., Yilmaz U., Gul M., Koç A., Sandal S. Archives of physiology and biochemistry, pp.1-8, 2023 (SCI-Expanded)
- XIX. **Melatonin Attenuates Cerebral Ischemia/Reperfusion Injury through Inducing Autophagy.**  
Yilmaz U., Tanbek K., Gul S., Gul M., Koc A., Sandal S. Neuroendocrinology, vol.113, no.10, pp.1035-1050, 2023 (SCI-Expanded)
- XX. **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)
- XXI. **Global gene expression profiling in congenital diaphragmatic hernia (CDH) patients**  
GÜRÜNLÜÖĞLU 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)
- XXII. **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)
- XXIII. **Effects of Severe Aerobic Exercise on Endoplasmic Reticulum Stress and Cellular Damage**  
Korkmaz K., DÜZOVA H., Durmus K., KOÇ A., TAŞLİDERE A. ACTA PHYSIOLOGICA, vol.234, pp.37, 2022 (SCI-Expanded)
- XXIV. **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)
- XXV. **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)
- XXVI. **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)

- XXVII. **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)
- XXVIII. **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)
- XXIX. **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)
- XXX. **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**  
Uluisik İ., Karakaya H. Ç., Koç A.  
JOURNAL OF MOLECULAR BIOLOGY, vol.54, no.3, pp.396-401, 2020 (SCI-Expanded)
- XXXI. **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)
- XXXII. **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)
- XXXIII. **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)
- XXXIV. **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)
- XXXV. **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)
- XXXVI. **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)
- XXXVII. **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)
- XXXVIII. **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)
- XXXIX. **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)
- XL. **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)
- XLI. **Roles of ATR1 paralogs YMR279c and YOR378w in boron stress tolerance**  
Bozdag G. O., Uluisik I., Gulculer G. S., Karakaya H. C., Koc A.  
BIOCHEMICAL AND BIOPHYSICAL RESEARCH COMMUNICATIONS, vol.409, no.4, pp.748-751, 2011 (SCI-Expanded)
- XLII. **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)
- XLIII. **Proteomic changes during boron tolerance in barley *Hordeum vulgare* and role of vacuolar proton translocatingATPase subunit E**  
KOÇ A.  
TURKISH JOURNAL OF BOTANY, vol.135, no.379, pp.379-388, 2011 (SCI-Expanded)
- XLIV. **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)
- XLV. **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)
- XLVI. **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)
- XLVII. **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)
- XLVIII. **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)
- XLIX. **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)
- L. **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)
- LI. **Methionine sulfoxide reduction and the aging process**  
Koc A., Gladyshev V. N.  
BIOGERONTOLOGY: MECHANISMS AND INTERVENTIONS, vol.1100, pp.383-386, 2007 (SCI-Expanded)
- LII. **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)
- LIII. **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)
- LIV. **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)
- LV. 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)
- LVI. 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)
- LVII. 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)
- LVIII. 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. Familial Mediterranean fever gene variations could trigger VPS16-associated early-onset dystonia and diabetes mellitus: clinical identification of a family with MEFV and VPS16 genetic variation association.**  
Inalkac Gemici Y., Ekici C., Batum M., Akbostancı C., Koc A., Mavioglu H.  
Rheumatology advances in practice, vol.8, no.3, 2024 (ESCI)
- II. Epigenetic analysis of heat shock activator complex in the peripheral blood of Parkinson's disease patients and its clinical significance**  
Gemici Y. İ., Tasçi İ., Dundar M., Ozgen N., Danis N., Gozukara H. G., Koc A.  
Turkish Journal of Neurology, vol.30, no.2, pp.76-85, 2024 (Scopus)
- III. 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)
- IV. 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)
- V. 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)
- VI. Regulation of Yeast Life Span by Autophagy Related Genes**  
ESMER DEMİRCİ İ., KARAKAYA H. Ç., KOÇ A.  
J. App. Biol. Sci, vol.9, no.2, pp.7-12, 2015 (Peer-Reviewed Journal)

### Papers Presented at Peer-Reviewed Scientific Conferences

- I. SB-005 Şiddetli Haşlanma Yanığı Olan Sığanlarda Subdermal Kök Hücre Enjeksiyonu ve Erken Debritman In Sistemik Oksidatif Stres ve Yara iyileşmesi Üzerine Etkisi**

- GÜRÜNLÜOĞLU K., SATILMIŞ B., GÜL M., DÜNDAR M., Göktürk N., AKBULUT A. S., KOÇ A., GÜRÜNLÜOĞLU S., ASLAN M., Karaaslan E., et al.
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- 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
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- KOÇ A., TUBITAK Project, Doktorubisin dirençliliğinin genomik yöntemlerle belirlenmesi, 2014 - 2016
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## **Memberships and Roles in Scientific Organizations**

Uluslararası Projeler Araştırma Grubu, Consultant, 2021 - Continues, Turkey

## **Scientific Consultations**

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

## **Metrics**

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## **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