

Assoc. Prof. ASLI KOÇ



Personal Information

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International Researcher IDs

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Dissertations

Doctorate, RAW 264.7 makrofaj hücrelerinde nitrik oksit sentezi üzerine L-karnitinin etkisi, Ankara University, Sağlık Bilimleri Enstitüsü, Biyokimya (Dr) (Eczacılık), 2011

Research Areas

Biochemistry

Academic Titles / Tasks

Associate Professor, Ankara University, Eczacılık Fakültesi, Temel Eczacılık Bilimleri Bölümü, 2022 - Continues

Assistant Professor, Ankara University, Eczacılık Fakültesi, Temel Eczacılık Bilimleri Bölümü, 2017 - Continues

Research Assistant, Ankara University, Eczacılık Fakültesi, Temel Eczacılık Bilimleri Bölümü, 2009 - 2011

Courses

Biochemical Basis of Disease, Undergraduate, 2023 - 2024, 2022 - 2023

Araştırma Projesi I, Undergraduate, 2023 - 2024, 2022 - 2023, 2021 - 2022, 2019 - 2020, 2018 - 2019

Beslenme Biyokimyası, Undergraduate, 2023 - 2024, 2022 - 2023, 2020 - 2021, 2019 - 2020

Araştırma Projesi II, Undergraduate, 2022 - 2023, 2021 - 2022, 2019 - 2020, 2018 - 2019

Biochemistry I, Undergraduate, 2022 - 2023, 2021 - 2022, 2020 - 2021, 2019 - 2020, 2018 - 2019

Hücre Biyolojisi, Postgraduate, 2022 - 2023, 2020 - 2021, 2019 - 2020, 2018 - 2019

Biyokimya 1, Undergraduate, 2022 - 2023, 2021 - 2022, 2020 - 2021

Hücresel Sinyal İletimi, Doctorate, 2021 - 2022, 2019 - 2020

Uzmanlık alan dersi, Doctorate, 2021 - 2022

Ölüm Nedeninin saptanmasında Postmortem Biyokimya, Postgraduate, 2021 - 2022, 2019 - 2020

Hormonlar, Doctorate, 2021 - 2022, 2019 - 2020, 2018 - 2019

Hastalıkların Biyokimyasal Temeli, Undergraduate, 2022 - 2023, 2021 - 2022, 2020 - 2021, 2019 - 2020

Nutritional Biochemistry, Undergraduate, 2022 - 2023, 2021 - 2022

Biochemistry II, Undergraduate, 2021 - 2022, 2020 - 2021, 2019 - 2020, 2018 - 2019

Biyokimya Uygulama, Undergraduate, 2021 - 2022, 2020 - 2021, 2019 - 2020, 2018 - 2019

Biyokimya II, Undergraduate, 2021 - 2022, 2020 - 2021, 2019 - 2020, 2018 - 2019
Biochemistry Practice, Undergraduate, 2021 - 2022, 2020 - 2021, 2019 - 2020, 2018 - 2019
Proteinlerin kimyası ve yapısal Analizi, Doctorate, 2021 - 2022, 2020 - 2021, 2018 - 2019
Su ve mineral metabolizması, Postgraduate, 2020 - 2021, 2019 - 2020, 2018 - 2019

Jury Memberships

PhD Thesis Monitoring Committee Member, PhD Thesis Monitoring Committee Member, Ankara Üniversitesi, July, 2021

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Isolation and Bioactivities Screening of Turkish *Microcosmus vulgaris***
Konuklugil B., Sertdemir M., Heydari H., KOÇ A.
TURKISH JOURNAL OF FISHERIES AND AQUATIC SCIENCES, vol.19, no.8, pp.653-659, 2019 (SCI-Expanded)
- II. **Expression analysis of Akirin-2, NF kappa B-p65 and beta-catenin proteins in imatinib resistance of chronic myeloid leukemia**
Karabay A. Z., Koç A., Özkan T., Hekmatshoar Y., Altınok Güneş B., Sunguroğlu A., Buyukbingol Z., Atalay A., Aktan F.
HEMATOLOGY, vol.23, no.10, pp.765-770, 2018 (SCI-Expanded)
- III. **Apoptotic Effects of Some Tetrahydronaphthalene Derivatives on K562 Human Chronic Myelogenous Leukemia Cell Line**
KOÇ A., ÖZKAN T., Hekmatshoar Y., Gurkan-Alp A. S., AKTAN F., Buyukbingol Z., SUNGUROĞLU A., Buyukbingol E., KARABAY A. Z.
ANTI-CANCER AGENTS IN MEDICINAL CHEMISTRY, vol.17, no.14, pp.1924-1930, 2017 (SCI-Expanded)
- IV. **Methylsulfonylmethane Induces p53 Independent Apoptosis in HCT-116 Colon Cancer Cells**
KARABAY A. Z., KOÇ A., ÖZKAN T., Hekmatshoar Y., SUNGUROĞLU A., AKTAN F., Buyukbingol Z.
INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES, vol.17, no.7, 2016 (SCI-Expanded)
- V. **Inhibitory effects of indole alpha-lipoic acid derivatives on nitric oxide production in LPS/IFN gamma activated RAW 264.7 macrophages**
KARABAY A. Z., KOÇ A., Gurkan-Alp A. S., Buyukbingol Z., Buyukbingol E.
CELL BIOCHEMISTRY AND FUNCTION, vol.33, no.3, pp.121-127, 2015 (SCI-Expanded)
- VI. **Effect of L-carnitine on the synthesis of nitric oxide in RAW 264•7 murine macrophage cell line**
Koc A., ÖZKAN T., Karabay A. Z., SUNGUROĞLU A., Aktan F.
CELL BIOCHEMISTRY AND FUNCTION, no.8, pp.679-685, 2011 (SCI-Expanded)

Articles Published in Other Journals

- I. **Investigation into Antimicrobial and Antiproliferative Effects of Secondary Metabolites of *Lactobacillus saerimneri* Novel Isolated from Vaginal Flora.**
GÜRPINAR S. S., ERYILMAZ M., KOÇ A., PALABIYIK İ. M., GERÇEKER D.
TURKISH JOURNAL OF PHARMACEUTICAL SCIENCES, vol.17, no.1, 2020 (ESCI)
- II. **L-Karnitin ve alfa-lipoik asitin, HCT 116 / ve -/- kolon kanser hücre serilerinin proliferasyonu üzerindeki sinerjetik etkileri**
KOÇ A., KARABAY A. Z., ÖZKAN T., BÜYÜKBİNGÖL Z., SUNGUROĞLU A., AKTAN F.
Ankara Sağlık Hizmetleri Dergisi, vol.15, no.2, pp.1-8, 2016 (Peer-Reviewed Journal)
- III. **Effects of glucosamine on LPS/IFN-γ induced RAW 264.7 macrophage apoptosis**
KARABAY A. Z., KOÇ A., ÖZKAN T., SUNGUROĞLU A., AKTAN F., BÜYÜKBİNGÖL Z.
Ankara Üniversitesi Tıp Fakültesi Mecmuası, vol.65, no.1, pp.11-18, 2012 (Peer-Reviewed Journal)
- IV. **Effect of Taurine on Hydrogen Peroxide Production in Lipopolysaccharide Induced RAW 264.7**

Macrophage Cells

KARABAY A. Z., KOÇ A., ÖZKAN T., BÜYÜKBİNGÖL Z., SUNGUROĞLU A., AKTAN F.
FABAD J. Pharm. Sci., vol.33, pp.187-192, 2011 (Peer-Reviewed Journal)

Books & Book Chapters

I. İlaç keşfinde biyokimya

Karabay A. Z., Koç A.

in: İlaç keşfi ve geliştirilmesi, Mehmet Alp, Editor, Akademisyen Yayınevi Kitabevi, Ankara, pp.1-254, 2021

Refereed Congress / Symposium Publications in Proceedings

- I. **Determination of the Cytotoxic Effects of Antidepressant Drugs (Amitriptyline, Paroxetine, Sertraline and Trazadone) in Human Lung Fibroblast Cells and Their Effects On the Expressions of Suicide Candidate Genes (GRIK2 and Plscr4).**
ÇOBANKAYA H., KOÇ A.
8th international Hippocrates Congress on medical and health sciences, Turkey, 04 March 2022
- II. **Role of exosomal miRNAs in imatinib resistance of chronic myeloid leukemia**
KARABAY A. Z., ÖZKAN T., KOÇ A., KARADAĞ GÜREL A., Hekmatshoar Y., SUNGUROĞLU A., AKTAN F., BÜYÜKBİNGÖL Z.
13th International Symposium on Pharmaceutical Sciences, Turkey, 22 June 2021
- III. **Evaluation of the effects of SIRT5 modulators on the apoptosis of K562 cells and and SIRT5 and cytochrome c proteins**
KOÇ A., ÖZKAN T.
13th International Symposium on Pharmaceutical Sciences, Turkey, 22 June 2021
- IV. **Effect of Poloxamer 407 (Pluronic F-127) on the proliferation of K562 imatinib sensitive and resistance chronic myelogenous cell line**
KOÇ A.
2. International Baku Scientific Researchers Conference Baku, Azerbaijan, Odlar Yurdu University, Azerbaijan, 28 April 2021
- V. **Effect of Lipoic Acid Taurine Combination on Activated Raw 264.7 Macrophages**
KOÇ A., YAPRAK A., ÖZKAN T.
3rd International Hippocrates Congress on Medicinal and Health Sciences, Ankara, Turkey, 06 March 2020
- VI. **Effects of Probucol on K562 chronic myelogenous leukemia cell line**
AKTAN F., KOÇ A., BÜYÜKBİNGÖL Z., KARABAY A. Z.
16th Annual World Congress on Insulin Resistance, Diabetes and Cardiovascular Disease (WCIRDC), 29 November - 01 December 2018
- VII. **Bazı yeni imidazopiridin türevlerinin sentezi, yapı aydınlatılması ve biyolojik aktivite çalışmaları**
KARAASLAN Ç., KOÇ A., KARABAY A. Z., GÖKER A. H.
2. Ulusal Marmara Eczacılık Kongresi, Turkey, 14 - 16 November 2018
- VIII. **Comparison of the cytotoxic effects of different solvents on HCT 116, HL-60 AND K562 cell proliferations**
KOÇ A., KARABAY A. Z., BÜYÜKBİNGÖL Z., AKTAN F.
12th International Symposium of Pharmaceutical Sciences, 26 - 29 June 2018
- IX. **Modulation of ER stress related genes by MSM in HCT-116 colon cancer cells**
hekmatshoar y., ÖZKAN T., KARABAY A. Z., KOÇ A., SUNGUROĞLU A.
43rd FEBS Congress, 7 - 12 July 2018
- X. **Synthesis and Anticancer Activity Studies of Some Novel Indole Retinoid Derivatives**
Gurkan-Alp A. S., Koç A., Karabay A. Z., Büyükbingöl M. E.

International Symposium on Pharmaceutical Sciences (ISOPS-12), Ankara, Turkey, 26 - 29 June 2018, pp.399

- XI. **Effect of secondary metabolites of Lactobacillus species isolated from vaginal cultures on the proliferation of HCT 116 colon cancer cells.**
ERYILMAZ M., KOÇ A., GÜRPINAR S. S., PALABIYIK İ. M., GERÇEKER D.
6th Congress of the Microbiologists of Macedonia with International Participation, and FEMS Supported Symposium entitled "Emerging Infections", Ohrid, Macedonia, 30 May - 02 June 2018
- XII. **Aspirin inhibits bcr-abl and its downstream effectors in chronic myeloid leukemia**
KARABAY A. Z., KOÇ A., HEKMATSHOARY, KARADAĞ A., ÖZKAN T.
VI. Molecular Medicine Congress, 22 - 25 May 2017, vol.2, pp.55
- XIII. **Retinoid analoglarının kronik miyeloid lösemi k562 hücrelerindeki apoptotik etkileri**
Koç A., Karabay A. Z., Özkan T., Gurkan-Alp A. S., Aktan F., Büyükbingöl Z., Büyükbingöl M. E.
23. Ulusal Biyoloji Kongresi, Gaziantep, Turkey, 5 - 09 September 2016, pp.183
- XIV. **Retinoid Analoglarının Kronik Miyeloid Lösemi K562 Hücrelerindeki Apoptotik Etkileri**
KOÇ A., KARABAY A. Z., ÖZKAN T., ALP A. S., AKTAN F., BÜYÜKBİNGÖL Z., BÜYÜKBİNGÖL M. E.
23. Ulusal Biyoloji Kongresi, Gaziantep, Turkey, 5 - 09 September 2016, pp.183
- XV. **Effects of indole alpha lipoic acid derivatives on cell viability parameters in K562 leukemia cell line**
Karabay A. Z., Koç A., Gurkan-Alp A. S., Büyükbingöl Z., Büyükbingöl M. E.
11th International Symposium on Pharmaceutical Sciences (ISOPS-11), Ankara, Turkey, 9 - 12 June 2015, pp.43
- XVI. **Effect of microenvironment on imatinib resistance of K562 cells**
KARABAY A. Z., KOÇ A., AKTAN F., BÜYÜKBİNGÖL Z.
40th FEBS congress The Biochemical Basis of Life, Germany, 04 July 2015
- XVII. **Synergetic effects of L-Carnitine and α -lipoic acid on viability of HCT 116 cell line.**
AKTAN F., KARABAY A. Z., KOÇ A.
WCIRD, 20 - 22 November 2014
- XVIII. **Effects of indole α -lipoic acid derivatives on nitric oxide production in LPS/IFN- γ activated RAW 264.7 macrophages.**
Karabay A. Z., Koç A., Gurkan A. S., Büyükbingöl Z., Büyükbingöl M. E.
FES/EMBO, Paris, France, 30 August - 04 September 2014, pp.281
- XIX. **Differences between akirin protein levels in imatinib resistant and sensitive K562 cell lines**
KOÇ A., KARABAY A. Z., ÖZKAN T., ALTINOK GÜNEŞ B., BÜYÜKBİNGÖL Z., SUNGURUĞLU A., AKTAN F.
Molecular Life Sciences International Symposium of the German Society for Biochemistry and Molecular Biology, 3 - 06 October 2013
- XX. **Interaction of NF κ B and akirin proteins in imatinib resistant and sensitive K562 cell lines.**
KOÇ A., ÖZKAN T., KARABAY A. Z., SUNGURUĞLU A., BÜYÜKBİNGÖL Z., AKTAN F.
Analysis of autophagy regulation: Discussion of recent research and new technologies meeting, 03 October 2013
- XXI. **Examination of common gene targets for β -catenin and NF κ B proteins in imatinib sensitive and resistant K562 cell lines. Analysis of autophagy regulation: Discussion of recent research and new technologies meeting**
KARABAY A. Z., KOÇ A., ÖZKAN T., SUNGURUĞLU A., BÜYÜKBİNGÖL Z., AKTAN F.
Analysis of autophagy regulation: Discussion of recent research and new technologies meeting, 03 October 2013
- XXII. **Effects of methylsulfonylmethane on viability of HCT-116 cell line.**
KARABAY A. Z., ÖZKAN T., KOÇ A., SUNGURUĞLU A., BÜYÜKBİNGÖL Z.
22nd IUBMB& 37th FEBS Congress, 4 - 09 September 2012
- XXIII. **Effect of Poloxamer 407 on Nitric Oxide Production and Cell Viability in LPS Induced RAW 264.7 Macrophage Cell Line.**
KOÇ A., AKTAN F.
8. Annual World Congress on Insulin Resistance, Diabetes and Cardiovascular Disease, 4 - 06 November 2010
- XXIV. **Effect of wnt3a or lithium chloride preconditioning on nitric oxide production in RAW264.7 macrophages and K562 leukemic cell line.**
Karabay A. Z., Özkan T., Koç A., Karadağ A., Altınok Güneş B., Büyükbingöl Z., Sunguroğlu A.
35th Congress of the Federation-of-European-Biochemical-Societies, Gothenburg, Sweden, 26 June - 01 July 2010,

pp.147

- XXV. **NF-kappaB activation and complex control of NOS2 gene promoter in K562 imatinib mesylate resistant CML cell line.**
ÖZKAN T., KARADAĞ A., ALTINOK B., KARABAY A. Z., KOÇ A., BOZKURT S., AYDOS O. S., SUNGUROĞLU A.
35th FEBS Congress Molecules of Life, Sweden, 26 June - 01 July 2010
- XXVI. **Effect of L-Carnitine on NF-kB Activity in lipopolysaccharide stimulated RAW 264.7 macrophage cell line.**
KOÇ A., ÖZKAN T., KARABAY A. Z., SUNGUROĞLU A., AKTAN F.
35. FEBS Kongresi, 26 June - 01 July 2010
- XXVII. **Effect of wnt3a or lithium chloride preconditioning on nitric oxide production in RAW 264.7 macrophages and K562 leukemic cell line.**
KARABAY A. Z., ÖZKAN T., KOÇ A., KARADAĞ A., ALTINOK B., BÜYÜKBİNGÖL Z., SUNGUROĞLU A.
35th FEBS Congress Molecules of Life, 26 June - 01 July 2010
- XXVIII. **Wheatgrass extract effects lipid peroxidation levels in human promyelocytic leukemia cell line HL-60**
ÖZKAN T., BAKAR F., KARABAY A. Z., KOÇ A., ALTINOK B., KARADAĞ A., AYDOS O. S., SUNGUROĞLU A.
. 34. FEBS Kongresi. Life's Molecular Interactions., 4 - 09 July 2009
- XXIX. **Effect of methylsulfonylmethane on proliferation and nitric oxide production in LPS activated RAW 264.7 cells.**
KARABAY A. Z., KOÇ A., ÖZKAN T., SUNGUROĞLU A., AKTAN F., BÜYÜKBİNGÖL Z.
34th FEBS Congress Life's Molecular Interactions., 4 - 08 July 2009

Supported Projects

Koç A., TUBITAK Project, "Kolorektal Kanserin Oral Yolla Tedavisinde Kullanılmak Üzere Nanopartiküler İlaç Taşıyıcı Sistemlerin Geliştirilmesi Ve Değerlendirilmesi" , 2024 - 2026

Koç A., Project Supported by Higher Education Institutions, Orlistat'ın LPS/IFN-γ ile Uyarılan RAW 264.7 Makrofaj Hücrelerinde Nitrik Oksit Sentezi Üzerindeki Etkilerinin NF-kB, VEGF, SIRT1, FASN Proteinleri Üzerindeki Etkileri İle Birlikte Değerlendirilmesi, 2024 - 2026

Palabıyık İ. M., Saltan İşcan H. G., Eryılmaz M., Koç A., Karaaslan M., Rızvanoğlu S. S., Gökdere N., Project Supported by Higher Education Institutions, Bazı Bitkisel Atıklardan Hareketle Yeşil Sentez Yöntemiyle Nanopartikül Eldesi Karakterizasyonu Antimikrobiyal ve Antikanser Aktivitelerinin Araştırılması, 2023 - 2026

Koç A., Project Supported by Higher Education Institutions, Motesanibin A2780 ovaryum kanseri hücre serisinde SIRT1/Nrf2 sinyal yolağı üzerindeki etkilerinin araştırılması, 2025 - 2025

Koç A., Project Supported by Higher Education Institutions, Antidepresan ilaçların (Trazodon sitalopram ve amitriptilinin)'in koruma ve tedavi protokolüne göre olası antiinflamatuvar etkinliklerinin karşılaştırılması, 2024 - 2025

Koç A., Bozkır A., Öz U. C., Küçüktürkmen B., Nemutlu E., Karaman Y., Ateş A., Alçıgır M. E., Kaplan M., Bozkurt T. E., Research Project of the Presidency of Turkey Health Institutes (TÜSEB), Romatoid Artrit tedavisinde kullanılmak üzere nanoteknolojik ilaç taşıyıcı sistemlerin geliştirilmesi, 2023 - 2025

Koç A., Göker A. H., Doğanç F., Aydın A. S., Project Supported by Higher Education Institutions, Bazı Yeni 2- ve/veya 6-Sübstitüe-8-Fenilimidazopirimidin (Pürin) ve İmidazopiridin Türevlerinin Sentezi, Yapı ve Regioisomerizm Aydınlatılması, Antikanser Aktivitelerinin İncelenmesi, 2022 - 2024

Koç A., Project Supported by Higher Education Institutions, Sitalopram ve Bromokriptinin kombine etkilerinin, Caco-2 insan kolorektal adenokarsinoma hücre serisinde değerlendirilmesi, 2021 - 2023

Koç A., Project Supported by Higher Education Institutions, Antidepresan İlaçlar (Trazodone, Sertraline, Paroxetine, Amitriptyline)'ın, İnsan Akciğer ve Mikroglia Hücre Serilerindeki Olası Toksik Etkilerinin, SIRT1/PGC1α/TFAM Sinyal Yolağı ve İntihar Adayı Genler İle İlişkileri, 2020 - 2023

Koç A., Project Supported by Higher Education Institutions, 5-fluorourasil'in HCT-116 (p53+/+ ve p53-/-) Kolon Kanseri Hücrelerinin Proliferasyonu Üzerindeki Etki Mekanizmasında, Sirtuin-5, p53 ve FOXO3a Proteinlerinin Rolü, 2019 - 2022

Gökbulut A., Koç A., TUBITAK Project, 5-Azasitidin ve Trikostatin A'xxnın Ovaryum Kanseri Hücre Membranlarının Lipid

Profili Üzerindeki Etki Mekanizmasında P53 ve Sirtüin 1'xxin Rolü, 2018 - 2022

Koç A., Project Supported by Higher Education Institutions, Sirtüin 5'in K562 Kronik Miyeloid Lösemi hücrelerinin proliferasyonu üzerindeki etki mekanizması, 2018 - 2019

AKTAN F., SUNGUROĞLU A., KOÇ A., TUBITAK Project, K562 Hücrelerinin İmatinib'e Karşı Direnç Kazanımında Eksozom Aracılı miRNA Transferinin Rolü, 2015 - 2019

KOÇ A., Project Supported by Other Official Institutions, Antarktika Canlı Kaynaklarından Elde Edilen Mantarların Sekonder Metabolitleri, Biyoaktiviteleri ve İlaç Potansiyelleri, 2017 - 2018

KARABAY A. Z., KOÇ A., Project Supported by Higher Education Institutions, Probukolün K562 kronik miyeloid lösemi hücrelerindeki apoptotik etkileri, 2016 - 2017

KARABAY A. Z., TUBITAK Project, Beta-Katenin, Nükleer Faktör Kappa B Ve Akirin Proteinlerinin Birliktelikleri Ve Kronik Myeloid Lösemide İmatinib Direncindeki Rollerini, 2011 - 2013

TUBITAK Project, MSM, kondriotin sülfat ve glukozaminin LPS/İnterferon gama ile indüklenmiş RAW 264.7 makrofaj hücre serisinde apoptoz ve iNOS gen metilasyonu üzerine etkileri, 2010 - 2011

Activities in Scientific Journals

ANKARA UNIVERSİTESİ ECZACILIK FAKULTESİ DERGISİ, Committee Member, 2018 - Continues

Tasks In Event Organizations

Sezgin Bayındır Z., Eryılmaz M., KOÇ A., PHARMANKARA III, Scientific Congress, Ankara, Turkey, Ekim 2022

Metrics

Publication: 63

Citation (WoS): 165

Citation (Scopus): 172

H-Index (WoS): 8

H-Index (Scopus): 8