

## Assoc. Prof. PELİN TELKOPARAN AKILLILAR

### Personal Information

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### International Researcher IDs

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ORCID: 0000-0003-0337-0763

### Education Information

Doctorate, Ihsan Dogramaci Bilkent University, Institute of Engineering and Science, Molecular Biology and Genetics , Turkey 2009 - 2013

Undergraduate, Hacettepe University, Fen Fakültesi, Biyoloji Bölümü, Turkey 2001 - 2006

### Foreign Languages

English, C1 Advanced

### Dissertations

Doctorate, Characterization of the coiled-coil domain-containing protein 124 (CCDC124) as a novel centrosome and MIDBODY component involved in cytokinesis, Ihsan Dogramaci Bilkent University, Bilkent University, 2013

### Research Areas

Health Sciences, Natural Sciences

### Academic Titles / Tasks

Associate Professor, Gazi University, Tıp Fakültesi, Temel Tıp Bilimleri, 2024 - Continues

Assistant Professor, University Of Higher Specialization, Faculty of Medicine, Medical Biology, 2015 - 2024

Research Assistant, Ihsan Dogramaci Bilkent University, Faculty of Science, Molecular Biology and Genetics, 2009 - 2015

Researcher, University of California, San Francisco, School of Medicine, Biochemistry and Biophysics, 2014 - 2014

Researcher, Universiteit Utrecht, School of Medicine, Molecular Cancer Research, 2010 - 2010

### Academic and Administrative Experience

Manager of Research and Application Center, University Of Higher Specialization, Tıp Fakültesi, Temel Tıp, 2023 - 2024

Fakülte Kurulu Üyesi, University Of Higher Specialization, Tıp, Temel Tıp, 2019 - 2024

Fakülte Yönetim Kurulu Üyesi, University Of Higher Specialization, Tıp, Temel Tıp, 2016 - 2024

Head of Department, University Of Higher Specialization, Tıp, Temel Tıp, 2015 - 2024

Yüksekökol Yönetim Kurulu Üyesi, University Of Higher Specialization, Tıp, Temel Tıp, 2018 - 2023  
Program Koordinatörü, University Of Higher Specialization, Tıp, Temel Tıp, 2016 - 2022  
Assistant Director of the Institute, University Of Higher Specialization, Tıp Fakültesi, Temel Tıp, 2018 - 2020

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

- I. **7,8-dihydroxyflavone reduces lipid peroxidation, proinflammatory cytokines, and mediators in chemically induced-phenylketonuria model**  
Cicek C., TELKOPARAN AKILLILAR P.  
Acta neurobiologiae experimentalis, vol.84, no.3, pp.243-255, 2024 (SCI-Expanded)
- II. **Investigation of endoplasmic reticulum stress-regulated chaperones as biomarkers in idiopathic nonobstructive azoospermia**  
Cicek C., TELKOPARAN AKILLILAR P., Sertyel S., Bilgi C., Ozgun O. D.  
Cell Stress and Chaperones, vol.29, no.5, pp.654-665, 2024 (SCI-Expanded)
- III. **P53: A key player in diverse cellular processes including nuclear stress and ribosome biogenesis, highlighting potential therapeutic compounds**  
Temaj G., Chichiarelli S., TELKOPARAN AKILLILAR P., Saha S., Nuhii N., Hadziselimovic R., Saso L.  
Biochemical Pharmacology, vol.226, 2024 (SCI-Expanded)
- IV. **Advances in molecular function of UPF1 in Cancer**  
Temaj G., Chichiarelli S., TELKOPARAN AKILLILAR P., Saha S., Nuhii N., Hadziselimovic R., Saso L.  
Archives of Biochemistry and Biophysics, vol.756, 2024 (SCI-Expanded)
- V. **Redox Homeostasis and Nrf2-Regulated Mechanisms Are Relevant to Male Infertility**  
Signorini C., Saso L., Ghareghomi S., Telkoparan-Akillilar P., Collodel G., Moretti E.  
Antioxidants, vol.13, no.2, 2024 (SCI-Expanded)
- VI. **Proteomics analysis identifies the ribosome associated coiled-coil domain-containing protein-124 as a novel interaction partner of nucleophosmin-1**  
Çakırca G., Öztürk M. T., Telkoparan-Akillilar P., Güllülü Ö., Çetinkaya A., Tazebay U. H.  
Biology of the Cell, vol.116, no.1, 2024 (SCI-Expanded)
- VII. **An intricate rewiring of cancer metabolism via alternative splicing**  
Temaj G., Chichiarelli S., Saha S., Telkoparan-Akillilar P., Nuhii N., Hadziselimovic R., Saso L.  
Biochemical Pharmacology, vol.217, 2023 (SCI-Expanded)
- VIII. **Identification of differentially expressed miRNAs and mRNAs associated with the regulation of breast cancer via in silico and in vitro methods**  
Telkoparan-Akillilar P., Cevik D.  
Cytotechnology, vol.75, no.5, pp.363-379, 2023 (SCI-Expanded)
- IX. **Recoding of Nonsense Mutation as a Pharmacological Strategy**  
Temaj G., Telkoparan-Akillilar P., Nuhii N., Chichiarelli S., Saha S., Saso L.  
Biomedicines, vol.11, no.3, 2023 (SCI-Expanded)
- X. **NRF2, a crucial modulator of skin cells protection against vitiligo, psoriasis, and cancer**  
Panieri E., Telkoparan-Akillilar P., Saso L.  
BioFactors, vol.49, no.2, pp.228-250, 2023 (SCI-Expanded)
- XI. **Clitocybe nebularis extract and 5-fluorouracil synergistically inhibit the growth of HT-29 colorectal cancer cells by inducing the S phase arrest**  
ONAR O., Telkoparan-Akillilar P., YILDIRIM Ö.  
3 Biotech, vol.13, no.2, 2023 (SCI-Expanded)
- XII. **Interplay between Non-Coding RNAs and NRF2 in Different Cancers: Spotlight on MicroRNAs and Long Non-Coding RNAs**  
YAYLIM İ., Farooqi A. A., Telkoparan-Akillilar P., Saso L.  
Journal of Pharmacology and Experimental Therapeutics, vol.384, no.1, pp.28-34, 2023 (SCI-Expanded)
- XIII. **An Overview of NRF2-Activating Compounds Bearing  $\alpha,\beta$ -Unsaturated Moiety and Their Antioxidant**

## Effects

Egbujor M. C., Buttari B., Profumo E., Telkoparan-Akillilar P., Saso L.

International Journal of Molecular Sciences, vol.23, no.15, 2022 (SCI-Expanded)

- XIV. **cAMP/PKA-CREB-BDNF signaling pathway in hippocampus of rats subjected to chemically-induced phenylketonuria**  
Cicek C., EREN KOÇAK E., Telkoparan-Akillilar P., Gok M., BODUR E.  
Metabolic Brain Disease, vol.37, no.2, pp.545-557, 2022 (SCI-Expanded)
- XV. **Expression patterns of miR-34a, miR-125b, miR-221 and antioxidant gene NRF2 in plasma samples of patients with atherosclerosis.**  
Telkoparan-Akillilar P., Cevik D., Yilmaz A.  
Journal of biosciences, vol.47, 2022 (SCI-Expanded)
- XVI. **Identification of miR-17, miR-21, miR-27a, miR-106b and miR-222 as endoplasmic reticulum stress-related potential biomarkers in circulation of patients with atherosclerosis**  
Telkoparan-Akillilar P., Cevik D.  
Molecular Biology Reports, vol.48, no.4, pp.3503-3513, 2021 (SCI-Expanded)
- XVII. **Therapeutic targeting of the NRF2 signaling pathway in Cancer**  
Telkoparan-Akillilar P., Panieri E., Cevik D., SÜZEN S., Saso L.  
Molecules, vol.26, no.5, 2021 (SCI-Expanded)
- XVIII. **Coiled-coil domain-containing protein-124 (Ccdc124) is a novel RNA binding factor up-regulated in endometrial, ovarian, and urinary bladder cancers**  
Arslan Ö., Soylu N. K., Akillilar P., Tazebay U. H.  
Cancer Biomarkers, vol.31, no.2, pp.149-164, 2021 (SCI-Expanded)
- XIX. **The applications of next-generation sequencing (Ngs) in drug development for cancer therapy**  
Telkoparan-Akillilar P., Cevik D.  
Current Analytical Chemistry, vol.17, no.8, pp.1074-1081, 2021 (SCI-Expanded)
- XX. **The nrf2/keap1 axis in the regulation of tumor metabolism: Mechanisms and therapeutic perspectives**  
Panieri E., Telkoparan-Akillilar P., SÜZEN S., Saso L.  
Biomolecules, vol.10, no.5, 2020 (SCI-Expanded)
- XXI. **Potential applications of NRF2 modulators in cancer therapy**  
Panieri E., Buha A., Telkoparan-Akillilar P., Cevik D., Kouretas D., Veskoukis A., Skaperda Z., Tsatsakis A., Wallace D., Suzen S., et al.  
Antioxidants, vol.9, no.3, 2020 (SCI-Expanded)
- XXII. **Pharmacological applications of Nrf2 inhibitors as potential antineoplastic drugs**  
Telkoparan-Akillilar P., SÜZEN S., Saso L.  
International Journal of Molecular Sciences, vol.20, no.8, 2019 (SCI-Expanded)
- XXIII. **Targeting IRE1 with small molecules counteracts progression of atherosclerosis**  
Tufanli O., Akillilar P., Acosta-Alvear D., Kocaturk B., ONAT U. İ., Hamid S. M., Çimen I., Walter P., Weber C., Erbay E.  
Proceedings of the National Academy of Sciences of the United States of America, vol.114, no.8, 2017 (SCI-Expanded)
- XXIV. **Coiled-Coil Domain Containing Protein 124 Is a Novel Centrosome and Midbody Protein That Interacts with the Ras-Guanine Nucleotide Exchange Factor 1B and Is Involved in Cytokinesis**  
Telkoparan P., Erkek S., Yaman E., ALOTAİBİ H., Bayik D., Tazebay U. H.  
PLoS ONE, vol.8, no.7, 2013 (SCI-Expanded)
- XXV. **Ras family of proteins: Cellular function, molecular control, and its role in oncogenesis Ras protein ailesi: Hücresel işlevi, moleküler kontrolü, onkogenezdaki rolü**  
Telkoparan P., Tazebay U. H.  
Turkish Journal of Biochemistry, vol.36, no.4, pp.367-373, 2011 (SCI-Expanded)
- XXVI. **The ability to generate senescent progeny as a mechanism underlying breast cancer cell heterogeneity**  
Mumcuoglu M., Bagislar S., Yuzugullu H., Alotaibi H., Senturk S., Telkoparan P., Gur-Dedeoglu B., Cingoz B., Bozkurt

B., Tazebay U. H., et al.

PLoS ONE, vol.5, no.6, 2010 (SCI-Expanded)

**XXVII. Intronic elements in the Na<sup>+</sup>/I<sup>-</sup> symporter gene (NIS) interact with retinoic acid receptors and mediate initiation of transcription**

ALOTAİBİ H., Yaman E., Salvatore D., di Dato V., Telkoparan P., di Lauro R., Tazebay U. H.

Nucleic Acids Research, vol.38, no.10, pp.3172-3185, 2010 (SCI-Expanded)

## Articles Published in Other Journals

- I. **Investigation of Some Inflammation Related Gene Expressions Under Lipotoxic Endoplasmic Reticulum Stress In Mouse Macrophage Cell Line**  
TELKOPARAN AKILLILAR P.  
Acibadem Üniversitesi Sağlık Bilimleri Dergisi, vol.4, pp.607-614, 2020 (Peer-Reviewed Journal)
- II. **Anticancer, Antioxidant Properties and Phenolic, Flavonoid Composition of Heracleum platytaenium Plant Methanolic Extracts**  
TELKOPARAN AKILLILAR P., Tuğlu Y. B., Shomali Moghaddam N.  
JOURNAL OF RESEARCH IN PHARMACY, vol.22, no.1, pp.69-77, 2018 (Scopus)
- III. **Role of Circulating Tumor Cells and Cell-Free Tumor Deoxyribonucleic Acid Fragments as Liquid Biopsy Materials in Breast Oncology**  
TELKOPARAN AKILLILAR P., YILDIZ G.  
TURK ONKOLOJİ DERGİSİ, vol.32, pp.35-41, 2017 (Scopus)
- IV. **DNA Damage Repair and Related Human Diseases**  
TELKOPARAN AKILLILAR P., YILDIZ G.  
Koruproceedings, 2016 (Peer-Reviewed Journal)

## Books & Book Chapters

- I. **MikroRNA'ların Meme Kanserinin Tanı ve Takibinde Kullanımı**  
TELKOPARAN AKILLILAR P.  
in: HÜCRESEL TIP VE MEDİKAL BIYOTEKNOLOJİ UYGULAMALARI, Can ÖZLÜ, Nilüfer KÖYLÜOĞLU, Aysun ÖZLÜ, Hilmi Sefa YANGAL, Mehmet Ali GEDİK, Editor, Akademisyen Kitabevi A.Ş., pp.1, 2021
- II. **Endoplazmik Retikulum Stres ve Katlanmamış Protein Yanıtının AterosklerozGelişimindeki Rolü**  
TELKOPARAN AKILLILAR P.  
in: Sağlık BilimleriÖrnek Araştırmalar Kitabı, Prof. Dr. İnci Gülmez, Öğr. Gör. Dr. Duygu Sevim, Editor, NOBEL AKADEMİK YAYINCILIK, Ankara, pp.621-633, 2019
- III. **Iodine in milk: transport, metabolic implications, and relation to endocrine functions**  
TELKOPARAN AKILLILAR P., TAZEBAY U. H.  
in: Handbook of dietary and nutritional aspects of human breast milk, Sherma Zibadi, Ronald Ross Watson, Victor R. Preedy, Editor, Wageningen Academic Publisher, pp.371-387, 2013

## Refereed Congress / Symposium Publications in Proceedings

- I. **Üçlü negatif meme kanserinde Endoplazmik retikulum sensor protein IRE1'nın RNAz aktivitesine bağımlı miRNA'ların ve hedef genlerin belirlenmesi**  
TELKOPARAN AKILLILAR P., Perktaş N., ÇEVİK D.  
18. Tıbbi Biyoloji ve Genetik Kongresi, Ankara, Turkey, 26 October 2023
- II. **Understanding The Crosstalk Between Endoplasmic Reticulum Stress And Oxidative Stress In Diseases**

TELKOPARAN AKILLILAR P.

12th Annual International Conference Pharmaceutical and Natural Sciences, Prishtina, Serbia, 28 October 2023

- III. **Evaluation of the suitability of serum-infrared spectroscopy combined with multivariate analysis tools for the diagnosis of atherosclerosis**  
YONAR D., ÇEVİK D., TELKOPARAN AKILLILAR P.  
5th International/34th National Biophysics Congress, İzmir, Turkey, 6 - 09 September 2023, pp.215-216
- IV. **Posters**  
ÇİÇEK Ç., TELKOPARAN AKILLILAR P.  
47th FEBS Congress, July 8–12, 2023, Tours, France, Tours, France, 08 July 2023, vol.13, pp.61-258
- V. **Ccdc124 İfadesinin Azaltılmasının Zebra Balığı Embriyolarındaki Etkileri**  
TELKOPARAN AKILLILAR P., TAZEBAY U. H.  
11. ULUSAL MOLEKÜLER BİYOLOJİ VE BİYOTEKNOLOJİ KONGRESİ. 8 Ekim 2022, Turkey, 08 October 2022
- VI. **Expression Changes of MicroRNAs as a Result of IRE1-RNase Domain Inhibition in MDA-MB-231 Cells**  
Perktaş N., TELKOPARAN AKILLILAR P., ÇEVİK D.  
8th International Congress of the Molecular Biology Association of Turkey, İstanbul, Turkey, 09 June 2022
- VII. **Meme kanseri tanı ve tedavisi için olası anahtar mikroRNA'lar ve hedef genlerin etkilediği moleküler mekanizmaların in silico analiz yöntemleriyle belirlenmesi**  
TELKOPARAN AKILLILAR P.  
17. Tıbbi Biyoloji ve Genetik Kongresi 28-31 Ekim 2021, Turkey, 28 - 31 October 2021
- VIII. **Analysis Of The Role Of Endoplasmic Reticulum Stress Sensor Proteins In Breast Cancer Via In Silico Methods**  
TELKOPARAN AKILLILAR P.  
Uluslararası Bilimsel Araştırmalar ve Yenilikçi Çalışmalar Sempozyumu (International Symposium of Scientific Research and Innovative Studies), Turkey, 22 - 25 February 2021
- IX. **Palmitat ile Muamele Edilen Kemik İliği Kaynaklı Makrofajların RNA-seq Transkriptom Analizi**  
TELKOPARAN AKILLILAR P., ERBAY E.  
XVI. TIBBİ BİYOLOJİ VE GENETİK KONGRESİ, Muğla, Turkey, 27 - 30 October 2019
- X. **Learning and memory mechanism in Phenylketonuria with BDNF pathway**  
ÇİÇEK Ç., GÖK M., EREN KOÇAK E., TELKOPARAN AKILLILAR P., BODUR E.  
THE 44th FEBS CONGRESS, Israel, 6 - 11 July 2019
- XI. **Inositol- Requiring Enzyme 1 (Ire1) Inhibitor, Stf-083010, Downregulates Proatherogenic Gene Expression in Bone Marrow Derived Macrophages**  
TELKOPARAN AKILLILAR P., Tufanlı O., Acosta Alvear D., Walter P., ERBAY E.  
12th International Symposium on Pharmaceutical Sciences (ISOPS), Ankara, Turkey, 26 June 2018 - 29 June 2019
- XII. **Karaciğer kanseri hücrelerinin ilaç muamelesine hassasiyetle ilişkili moleküller ağı**  
YILDIZ G., TELKOPARAN AKILLILAR P.  
24. Ulusal Farmakoloji Kongresi, Trabzon, Turkey, 17 - 20 October 2017
- XIII. **Investigation on potential roles of centrosomal protein Ccdc124 in DNA damageresponse**  
TELKOPARAN AKILLILAR P., Bayık D., TAZEBAY U. H.  
12. Ulusal TIBBİ GENETİK KONGRESİ, Turkey, 5 - 09 October 2016
- XIV. **The effect of Heracleum platytaenium plant on breast cancer and the determination of the amount of some phenolic-flavonoid compounds and enzyme activity**  
Tuglu Y., TELKOPARAN AKILLILAR P., Shomali N.  
BEWS2017, Turkey, 3 - 05 May 2017
- XV. **Inositol requiring enzyme 1 IRE1 dependent RNasequencing mediated transcriptome analysis of mouse bone marrow derived macrophages BMDM**  
TELKOPARAN AKILLILAR P., yagbasan b., ERBAY E.  
14. Ulusal Tıbbi Biyoloji ve Genetik Kongresi, Muğla, Turkey, 28 - 31 October 2015
- XVI. **Ccdc124 Proteininin Ökaryotik Hücre Bölünmesindeki Rolü**  
TELKOPARAN AKILLILAR P.

14. Tıbbi Biyoloji ve Genetik kongresi Fethiye, Turkey, 27 - 30 October 2015

- XVII. **Hücre bölünmesinde rol oynayan yeni bir sentrozom ve orta cisimcik midbody proteini olan coiled coil domain containing protein 124 Ccdc124 ün moleküler karakterizasyonu**  
TELKOPARAN AKILLILAR P., ERKEK ÖZHAN S., ALOTAİBİ H., YAMAN E., TAZEBAY U. H.  
13. Ulusal Tıbbi Biyoloji ve Genetik Kongresi (Kuşadası), Turkey, 28 - 31 October 2013

## Supported Projects

- Telkoparan Akıllılar P., Bitirim C. V., Turan B., Durak A., Tuncay E., Gökçay Canpolat A., Sezgin E., TÜBİTAK - AB COST Project, An investigation on the on-target and off-target action mechanisms of the dual GIP/GLP-1 receptor agonist Tirzepatide by using a "aging-associated cardio-metabolic heart model", 2024 - 2027
- Telkoparan Akıllılar P., Turan B., Çevik D., Tuncay E., Olğar Y., TUBİTAK Project, Investigation of new biomarkers affecting mitochondrial proteostasis in incretin-mediated therapies, 2023 - 2026
- Telkoparan Akıllılar P., Hacıoğlu Dervişoğlu G., Cırık S., Şirin C., Tezcan Yavuz B., Kabartan Çökeli E., Project Supported by Higher Education Institutions, The effect of alpha-pinene on NRF2 gene expression and spermatogenesis in methotrexate-induced testicular damage, 2023 - 2025
- Telkoparan Akıllılar P., Çevik D., TUBİTAK Project, Hepatoselüler Karsinoma Hücre Hatlarında Sülfurafan Tarafından Düzenlenen MikrornaAğının Belirlenmesi Ve Epitelyal Mezenkimal Geçiş (Emt) İle İlişkili Mikrornaların Ve Hedef Genlerinin Fonksiyonel Analizi, 2022 - 2025
- Telkoparan Akıllılar P., Çiçek Ç., Project Supported by Higher Education Institutions, Akut hiperfenilalaninemi modelinde 7,8-Dihidroksiflavon'un nöro-koruyucu etkisi, 2021 - 2023
- Telkoparan Akıllılar P., Çevik D., TUBİTAK Project, Investigation Expression Changes of MicroRNAs and Their target genes as a Result of IRE1-RNase Domain Inhibition in Metastatic Breast Cancer Cell Line MDA-MB-231 , 2020 - 2023
- Telkoparan Akıllılar P., Çevik D., Project Supported by Higher Education Institutions, Endoplazmik Retikulum Stres ve mikroRNA İlişkisinin Meme Kanseri Hücre Hattı MCF7 da araştırılması, 2020 - 2022
- Telkoparan Akıllılar P., Çevik D., Project Supported by Higher Education Institutions, Endoplazmik Retikulum Streste rol oynadığı bilinen başlıca mikroRNA'ların Ateroskleroz plak gelişimiyle ilişkisinin araştırılması, 2018 - 2019
- Telkoparan Akıllılar P., Çiçek Ç., Project Supported by Higher Education Institutions, Lipotoksik Endoplazmik Stres Sonucu İfadesi Değişen İnfilamasyon İlişkili Genlerin Analizi ve Validasyonu, 2017 - 2018
- Tazebay U. H., TUBİTAK Project, RasGEF1 Ailesine Ait Guanin Nükleotid Değişim Faktörlerinin Hücre İçi Etkinliklerini Düzenleyen Moleküler Mekanizmaların Belirlenmesi, 2010 - 2013
- Tazebay U. H., TUBİTAK Project, İnsanda İfadesi Yeni Bulunmuş Bir Genin Kodladığı Proteinin Ccdc124 İşlevsel Yönden İncelenmesi, 2009 - 2010

## Metrics

- Publication: 51  
Citation (WoS): 749  
Citation (Scopus): 700  
H-Index (WoS): 13  
H-Index (Scopus): 13

## Invited Talks

- 12th International Conference on Business, Technology and Innovation 2023, Seminar, 12th International Conference on Business, Technology and Innovation 2023, Kosovo, October 2023

## Awards

Telkoparan Akıllılar P., En İyi Proje Önerisi 3. lük Ödülü, Onkoloji Grubu Derneđi, January 2023

Telkoparan Akıllılar P., Sözlü Sunum Ödülü, Tıbbi Biyoloji Ve Genetik Derneđi, January 2017

Telkoparan Akıllılar P., Genç Arařtırmacı Ödülü, Tıbbi Biyoloji Ve Genetik Derneđi, January 2015

Telkoparan Akıllılar P., Sözlü sunum ödülü, Tıbbi Biyoloji Ve Genetik Derneđi, January 2013

Telkoparan Akıllılar P., Poster ödülü, Moleküler Biyoloji Ve Genetik Derneđi, January 2013

Telkoparan Akıllılar P., Poster ödülü, Moleküler Biyoloji Ve Genetik Derneđi, January 2012

Telkoparan Akıllılar P., Frontiers of FunctionalGenomics Grant Programme Short Term Scholarship, European Science Foundation (Esf), January 2010

Telkoparan Akıllılar P., EMBO Short Term Fellowship, Embo (European Molecular Biology Organization), January 2010

Telkoparan Akıllılar P., PhD. Scholarship (%100), Bilkent Üniversitesi, January 2009