

Assoc. Prof. NURAY VAROL

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International Researcher IDs

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Publons / Web Of Science ResearcherID: AHD-5692-2022

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Education Information

Doctorate, Gazi University, Sağlık Bilimleri Enstitüsü, Tıbbi Biyoloji Ve Genetik (Dr), Turkey 2009 - 2013

Research Areas

Health Sciences

Academic Titles / Tasks

Associate Professor, Gazi University, Tıp Fakültesi, Temel Tıp Bilimleri Bölümü, 2020 - Continues

Associate Professor, Afyonkarahisar Health Sciences University, Tıp Fakültesi, Dahili Tıp Bilimleri Bölümü, 2019 - 2020

Assistant Professor, Afyon Kocatepe University, Tıp Fakültesi, Dahili Tıp Bilimleri Bölümü, 2014 - 2019

Academic and Administrative Experience

Afyon Kocatepe University, Sağlık Bilimleri Enstitüsü, 2014 - 2017

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Male infertility is associated with differential DNA methylation signatures of the imprinted gene GNAS and the non-imprinted gene CEP41**
Ozkocer S. E., Guler I., Ugras Dikmen A., Bozkurt N., Varol N., Konac E.
Journal of Assisted Reproduction and Genetics, vol.41, no.9, pp.2289-2300, 2024 (SCI-Expanded)
- II. **Methylation analysis of histone 4-related gene HIST1H4F and its effect on gene expression in bladder cancer**
Varol N., Keles İ., Yildiz H., Karaosmanoglu C., Karalar M., Zengin K., Sarici H., Tokyol C.
Gene, vol.866, 2023 (SCI-Expanded)
- III. **Boron, a Trace Mineral, Alleviates Gentamicin-Induced Nephrotoxicity in Rats**
Ince S., Kucukkurt I., Demirel H. H., Arslan-Acaroz D., Varol N.
BIOLOGICAL TRACE ELEMENT RESEARCH, vol.195, no.2, pp.515-524, 2020 (SCI-Expanded)

- IV. **Proteomic analysis of the anticancer effect of various extracts of endemic *Thermopsis turcica* in human cervical cancer cells**
Yildiz M., Terzi H., Yildiz S. H., Varol N., Ozdemir Erdogan M., Kasap M., Akcali N., Solak M.
TURKISH JOURNAL OF MEDICAL SCIENCES, vol.50, no.8, pp.1993-2004, 2020 (SCI-Expanded)
- V. **Bisphenol-A induced oxidative stress, inflammatory gene expression, and metabolic and histopathological changes in male Wistar albino rats: protective role of boron**
Acaroz U., Ince S., Arslan-Acaroz D., Gurler Z., Demirel H. H., Kucukkurt I., Eryavuz A., Kara R., Varol N., Zhu K.
TOXICOLOGY RESEARCH, vol.8, no.2, pp.262-269, 2019 (SCI-Expanded)
- VI. **Boron ameliorates arsenic-induced DNA damage, proinflammatory cytokine gene expressions, oxidant/antioxidant status, and biochemical parameters in rats**
Ince S., Kucukkurt I., Acaroz U., Arslan-Acaroz D., Varol N.
JOURNAL OF BIOCHEMICAL AND MOLECULAR TOXICOLOGY, vol.33, no.2, 2019 (SCI-Expanded)
- VII. **THE EFFECT OF HEAT SHOCK PROTEIN 90 INHIBITORS ON HISTONE 4 LYSINE 20 METHYLATION IN BLADDER CANCER**
Coban N., Varol N.
EXCLI JOURNAL, vol.18, pp.195-203, 2019 (SCI-Expanded)
- VIII. **Relationship between SIRT1 gene expression level and disease in age-related cataract cases**
Agaoglu N. B., Varol N., Yildiz S. H., Karaosmanoglu C., Duman R., Erdogan M. O., Solak M.
TURKISH JOURNAL OF MEDICAL SCIENCES, vol.49, no.4, pp.1068-1072, 2019 (SCI-Expanded)
- IX. **Effect of gene polymorphisms in transmembrane protein 18 (TMEM18) and neuronal growth regulator 1 (NEGR1) on body mass index in obese subjects**
Erdogan M. O., Avci K., Yildiz S. H., Terzi E. S. A., Soylemez Z., Varol N., Solak M.
BIOTECHNOLOGY & BIOTECHNOLOGICAL EQUIPMENT, vol.32, no.6, pp.1567-1574, 2018 (SCI-Expanded)
- X. **The ameliorative effects of boron against acrylamide-induced oxidative stress, inflammatory response, and metabolic changes in rats**
Acaroz U., Ince S., Arslan-Acaroz D., Gurler Z., Kucukkurt I., Demirel H. H., Arslan H. O., Varol N., Zhu K.
FOOD AND CHEMICAL TOXICOLOGY, vol.118, pp.745-752, 2018 (SCI-Expanded)
- XI. **Taurine alleviates malathion induced lipid peroxidation, oxidative stress, and proinflammatory cytokine gene expressions in rats**
Ince S., Arslan-Acaroz D., Demirel H. H., Varol N., Ozyurek H. A., Zemheri F., Kucukkurt I.
BIOMEDICINE & PHARMACOTHERAPY, vol.96, pp.263-268, 2017 (SCI-Expanded)
- XII. **DNA Methylation Dynamics in Human Carotid Plaques After Cerebrovascular Events**
Zaina S., Goncalves I., Javier Carmona F., Gomez A., Heyn H., Mollet I. G., Moran S., Varol N., Esteller M.
ARTERIOSCLEROSIS THROMBOSIS AND VASCULAR BIOLOGY, vol.35, no.8, pp.1835-1842, 2015 (SCI-Expanded)
- XIII. **Synergistic effects of cisplatin and proteasome inhibitor bortezomib on human bladder cancer cells**
Konaç E., Varol N., Kiliccioglu I., Bilen C. Y.
ONCOLOGY LETTERS, vol.10, no.1, pp.560-564, 2015 (SCI-Expanded)
- XIV. **Does Wnt/beta-catenin pathway contribute to the stability of DNMT1 expression in urological cancer cell lines?**
Varol N., Konaç E., Bilen C. Y.
EXPERIMENTAL BIOLOGY AND MEDICINE, vol.240, no.5, pp.624-630, 2015 (SCI-Expanded)
- XV. **The Inhibitory Effect of Platelet-Rich Plasma on Botulinum Toxin Type-A: An Experimental Study in Rabbits**
Bulam H., Ayhan M. S., Sezgin B., Zinnuroğlu M., Konaç E., Varol N., Fındıkçioğlu K., Tuncer S., Cenetoglu S.
AESTHETIC PLASTIC SURGERY, vol.39, no.1, pp.134-140, 2015 (SCI-Expanded)
- XVI. **The DNA methylation drift of the atherosclerotic aorta increases with lesion progression**
Del Pilar Valencia-Morales M., Zaina S., Heyn H., Javier Carmona F., Varol N., Sayols S., Condom E., Ramirez-Ruz J., Gomez A., Moran S., et al.
BMC MEDICAL GENOMICS, vol.8, 2015 (SCI-Expanded)
- XVII. **Methylation analysis of the DAPK1 gene in imatinib-resistant chronic myeloid leukemia patients**
Celik S., Akcora D., Ozkan T., Varol N., Aydos S., Sunguroglu A.

- ONCOLOGY LETTERS, vol.9, no.1, pp.399-404, 2015 (SCI-Expanded)
- XVIII. **Does Pattern Scan Laser (PASCAL) photocoagulation really induce less VEGF expression in murine retina than conventional laser treatment?**
Konaç E., Sonmez K., Bahçeliöğlü M., Take Kaplanoğlu G., Varol N., Sarac G. N., Ozcan P. Y.
GENE, vol.549, no.1, pp.156-160, 2014 (SCI-Expanded)
- XIX. **DNA Methylation Map of Human Atherosclerosis**
Zaina S., Heyn H., Javier Carmona F., Varol N., Sayols S., Condom E., Ramirez-Ruz J., Gomez A., Goncalves I., Moran S., et al.
CIRCULATION-CARDIOVASCULAR GENETICS, vol.7, no.5, pp.692-700, 2014 (SCI-Expanded)
- XX. **The Epigenetically Regulated Effects of Wnt Antagonists on the Expression of Genes in the Apoptosis Pathway in Human Bladder Cancer Cell Line (T24)**
Varol N., Konaç E., Onen I. H., Gurocak S., Alp E., Yilmaz A., Menevse S., Sozen S.
DNA AND CELL BIOLOGY, vol.33, no.7, pp.408-417, 2014 (SCI-Expanded)
- XXI. **Effects of AG490 and S31-201 on regulation of the JAK/STAT3 signaling pathway in relation to angiogenesis in TRAIL-resistant prostate cancer cells in vitro**
Gurbuz V., Konaç E., Varol N., Yilmaz A., Gurocak S., Menevse S., Sozen S.
ONCOLOGY LETTERS, vol.7, no.3, pp.755-763, 2014 (SCI-Expanded)
- XXII. **Apoptotic effects of proteasome and histone deacetylase inhibitors in prostate cancer cell lines**
Kiliccioglu I., Konac E., Varol N., Gurocak S., Bilen C. Y.
GENETICS AND MOLECULAR RESEARCH, vol.13, no.2, pp.3721-3731, 2014 (SCI-Expanded)
- XXIII. **DNA methyltransferase inhibitor-mediated apoptosis in the Wnt/beta-catenin signal pathway in a renal cell carcinoma cell line**
Konaç E., Varol N., Yilmaz A., Menevse S., Sozen S.
EXPERIMENTAL BIOLOGY AND MEDICINE, vol.238, no.9, pp.1009-1016, 2013 (SCI-Expanded)
- XXIV. **Potential genotoxic effect of Re-186-HEDP on human lymphocyte cells: in-vitro evaluation with micronucleus-FISH analysis**
Ozkal-Baydin P., Gumus-Akay G., Varol N., Rustemoglu A., Koroglu R., Yuksel S., Kucuk O., Aras G., Ibis E., Sunguroglu A.
NUCLEAR MEDICINE COMMUNICATIONS, vol.33, no.4, pp.415-421, 2012 (SCI-Expanded)
- XXV. **The realm of microRNAs in cancers**
Varol N., Konaç E., Gürocak Ö. S., Sozen S.
MOLECULAR BIOLOGY REPORTS, vol.38, no.2, pp.1079-1089, 2011 (SCI-Expanded)
- XXVI. **Effects of aqueous garlic extract on oxidant/antioxidant status in 32D and 32Dp210 cell lines**
Avci A., Sunguroglu A., Erguder I. B., Akay G. G., Devrim E., Baydin P. O., Varol N., Durak I.
TURKISH JOURNAL OF MEDICAL SCIENCES, vol.40, no.6, pp.881-888, 2010 (SCI-Expanded)

Articles Published in Other Journals

- I. **Relationship between expression levels of TDRD7 and CRYBB3 and development of age-related cortico-nuclear cataracts**
Yildiz S. H., Karaosmanoğlu C., Duman R., Varol N., Özdemir Erdoğan M., Solak M., Duman R., Elmas M.
Egyptian Journal of Medical Human Genetics, vol.24, no.1, 2023 (ESCI)
- II. **Konvansiyonel Kemoterapötikler ve Isı Şok Protein 90 İnhibitör Kombinasyonunun Mesane Kanseri Hücreleri Üzerine Apoptotik Etkisi**
VAROL N.
Sakarya Tıp Dergisi, 2019 (Peer-Reviewed Journal)
- III. **Sıçanlarda Akrilamid ile İndüklenen Oksidatif Strese Karşı Taurinin Koruyucu Etkisi**
İNCE S., ACARÖZ U., ARSLAN ACARÖZ D., VAROL N., GÜRLER Z., KÜÇÜKKURT İ., ERYAVUZ A.
Kocatepe Veterinary Journal, vol.11, pp.479-490, 2018 (Peer-Reviewed Journal)
- IV. **GELDANAMİSİN VE TRİKOSTATİN A’NIN İNSAN MESANE KANSERİ HÜCRELERİ ÜZERİNE SİNERJİSTİK**

ETKİSİ

VAROL N., ÇOBAN N.

Kocatepe Tıp Dergisi, 2018 (Peer-Reviewed Journal)

V. **Gemsitabin Uygulanan Prostat Kanseri Hücre Hatlarında Oxaliplatinve Sisplatinin Kemoterapötik Etkilerinin Belirlenmesi**

ÖZYÜREK H. A., AVCI G., VAROL N.

Kocatepe Veterinary Journal, 2017 (Peer-Reviewed Journal)

Books

I. **The Impact of Cancer-Derived Exosomes on the Epigenetic Regulation of Recipient Cells**

Varol N.

in: Innovative Approaches in Cancer Diagnosis and Treatment, Atiye Seda Yar Sağlam, Editor, Türkiye Klinikleri, Ankara, pp.38-43, 2024

II. **KANSERDE EPİGENETİK DEĞİŞİKLİKLER**

Varol N.

in: Epigenetik, Selcen Çelik Uzuner, Editor, Nobel Yayınevi, Ankara, pp.115-135, 2024

III. **HİSTON PROTEİNLERİNİN EPİGENETİK MODİFİKASYONLARI**

Varol N.

in: Epigenetik, Selcen Çelik Uzuner, Editor, Nobel Yayınevi, Ankara, pp.33-53, 2024

Papers Published in Refereed Scientific Meetings

I. **Effect of Exosomal DNA Methyltransferases on DNA Methylation in Prostate Cancer Cells**

DURGUT Ş. G., VAROL N., YILDIZ S. H.

1st Extracellular Vesicles Conference 2024, 20 September 2024

Supported Projects

VAROL N., ŞAHİN U., Project Supported by Higher Education Institutions, Tedaviye Dirençli Akut Graft Versus Host Hastalığının Öngörülmesinde miRNA Profilinin Değerlendirilmesi, 2024 - Continues

VAROL N., ÇETİN S., POLAT F., Project Supported by Higher Education Institutions, Mesane Kanseriinde SEPTIN9 Geninin İfadeleme Profili, 2023 - 2024

Varol N., Gümüş Akay G., Çıkkılı Uytun M., Research Project of the Presidency of Turkey Health Institutes (TÜSEB), Otizm Spektrum Bozukluğunda Plazma Kaynaklı Eksozomal mir-135a-5p'nin İfadesinin Araştırılması, 2023 - 2024

Varol N., TÜBİTAK Project, Meme Kanseri Hücrelerinde Mycothermus thermophilus Kaynaklı Katalaz-Fenol Oksidazın Fenolik Bileşiklerle Potansiyel Kombin Terapötik Etkisinin In vitro İncelenmesi, 2023 - 2024

Varol N., TÜBİTAK Project, TNF-? sinyal yolağı aktivasyonuna yanıtta TAK1 inhibitörü Takinib'in prostat kanseri hücrelerindeki etkisinin incelenmesi, 2023 - 2024

Varol N., Çiçek M., TÜBİTAK Project, Sosyal Stresin Zaman Algısı Üzerine Etkisi: Epigenetik Ve Beyin Görüntüleme Çalışması, 2020 - 2024

Varol N., TÜBİTAK Project, Mesane Kanseriinde Septin 9 Geninin Rolü, 2022 - 2023

VAROL N., YILDIZ H., Project Supported by Higher Education Institutions, Prostat Kanseri Hücrelerinde Eksozomal DNA Metiltransferazların DNA Metilasyonu Üzerine Etkisi, 2021 - 2023

Varol N., Project Supported by Higher Education Institutions, Kolorektal Kanseriinde Çoklu Sinyal Yolaklarının Dnmt1 İfadeleme Üzerine Etkisi, 2015 - 2016

Memberships / Tasks in Scientific Organizations

MOLEKÜLER KANSER ARAŞTIRMA DERNEĞİ, Member, 2022 - Continues, Turkey
ASCO, Member, 2017 - Continues, United States Of America
AACR, Member, 2016 - Continues, United States Of America
Moleküler Biyoloji Derneği, Member, 2015 - Continues, Turkey
Tıbbi Biyoloji ve Genetik Derneği, Member, 2012 - Continues, Turkey
EACR, Member, 2010 - Continues, United Kingdom

Peer Reviews in Scientific Publications

Medicine Science, National Scientific Refreed Journal, September 2023
DUZCE MEDICAL JOURNAL = DÜZCE TIP FAKÜLTESİ DERGISI, National Scientific Refreed Journal, March 2023
GENE, Journal Indexed in SCI-E, December 2021

Tasks In Event Organizations

Yar Sağlam A. S., Varol N., Konaç E., Önen H. İ., ESENTÜRK YAYLA K. G., 18. TIBBİ BİYOLOJİ VE GENETİK KONGRESİ,
Scientific Congress, Ankara, Turkey, Ekim 2023
Varol N., International Congress on Biological and Health Sciences, Scientific Congress, Turkey, Nisan 2023
Varol N., International Congress on Biological and Health Sciences, Scientific Congress, Afyonkarahisar, Turkey, Şubat
2022

Metrics

Publication: 42
Citation (WoS): 667
Citation (Scopus): 789
H-Index (WoS): 14
H-Index (Scopus): 14

Non Academic Experience

IDIBELL, Cancer Epigenetics and Biology Program, Stajer
National Institutes of Health (NIH), Stajer