

Department of Medical Biology and Genetics

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Research Areas:

Cancer molecular biology and genetics
Molecular mechanisms of breast cancer
Non-invasive molecular detection of cancer
Personalized Medicine
Recombinant DNA technologies
IGF system and pathway analysis
Nonalcoholic steatohepatitis
Inflammatory Bowel disease
Viral hepatitis (Hepatitis B, Hepatitis C)
Oxidative stress
Apoptosis and its detection methods
Mitochondrial DNA variations
Noncoding RNA
Noninvasiv serum biomarkers
Molecular genetics of inflammatory pathway
Polymorphism, mutation detection methods (Conventional PCR methods, Real Time PCR, Sanger Sequencing)
Transcriptomics and genomics (New Generation Sequencing)
Experimental disease models (Animal and Cell Culture Models)
Pharmacogenetics

Hereditary cancer

Genetics and epigenetics of autoimmune disorders

Recent Publications (2013- 2016)

- Phosphatidylinositol 3-kinase regulatory subunit 1 and phosphatase and tensin homolog as therapeutic targets in breast cancer. Dirican E, Akkiprik M. *Tumour Biol.* 2017 Mar;39(3):1010428317695529. doi: 10.1177/1010428317695529. Review.
- Enhanced mRNA expression of plasminogen activator inhibitor-1 in livedoid vasculopathy lesions. Agirbasli M, Göktay F, Peker I, Gunes P, Aker FV, Akkiprik M. *Cardiovasc Ther.* 2017 Jun;35(3). doi: 10.1111/1755-5922.12255.
- Functional and clinical significance of SALL4 in breast cancer. Dirican E, Akkiprik M. *Tumour Biol.* 2016 Sep;37(9):11701-11709. Epub 2016 Jul 21. Review.
- Comparison of telomere length and insulin-like growth factor-binding protein 7 promoter methylation between breast cancer tissues and adjacent normal tissues in Turkish women. Kaya Z, Akkiprik M, Karabulut S, Peker I, Gullu Amuran G, Ozmen T, Gulluoglu BM, Kaya H, Ozer A. *J Clin Lab Anal.* 2016 Oct 24. doi: 10.1002/jcla.22083. [Epub ahead of print]
- Correlation between the DNA methylation and gene expression of IGFBP5 in breast cancer. Karabulut S, Kaya Z, Amuran GG, Peker I, Özmen T, Güllüoğlu BM, Kaya H, Erzik C, Özer A, Akkiprik M. *Breast Dis.* 2016;36(4):123-131. doi: 10.3233/BD-160234.
- Mutation distributions and clinical correlations of PIK3CA gene mutations in breast cancer. Dirican E, Akkiprik M, Özer A. *Tumour Biol.* 2016 Jun;37(6):7033-45. doi: 10.1007/s13277-016-4924-2. Epub 2016 Feb 26. Review.
- Impact of glucocorticoid receptor gene (NR3C1) polymorphisms in Turkish patients with metabolic syndrome. Kaya Z, Caglayan S, Akkiprik M, Aral C, Ozisik G, Ozata M, Ozer A. *J Endocrinol Invest.* 2016 May;39(5):557-66. doi: 10.1007/s40618-015-0409-1. Epub 2015 Nov 23.
- Identification of Differentially Expressed IGFBP5-Related Genes in Breast Cancer Tumor Tissues Using cDNA Microarray Experiments. Akkiprik M, Peker İ, Özmen T, Amuran GG, Güllüoğlu BM, Kaya H, Özer A. *Genes (Basel).* 2015 Nov 10;6(4):1201-14. doi: 10.3390/genes6041201.
- Treatment with either obestatin or ghrelin attenuates mesenteric

ischemia-reperfusion-induced oxidative injury of the ileum and the remote organ lung. Şen LS, Karakoyun B, Yeğen C, Akkiprik M, Yüksel M, Ercan F, Özer A, Yeğen BÇ. *Peptides*. 2015 Sep;71:8-19. doi: 10.1016/j.peptides.2015.04.014. Epub 2015 May 30.

- Clinical significance of miR-140-5p and miR-193b expression in patients with breast cancer and relationship to IGFBP5. Güllü G, Peker I, Haholu A, Eren F, Küçükodacı Z, Güleç B, Baloglu H, Erzik C, Özer A, Akkiprik M. *Genet Mol Biol*. 2015 Mar;38(1):21-9. doi: 10.1590/S1415-475738120140167. Epub 2014 Mar 17.
- Spectrophotometric, voltammetric and cytotoxicity studies of 2-hydroxy-5-methoxyacetophenone thiosemicarbazone and its N(4)-substituted derivatives: a combined experimental-computational study. Akgemci EG, Saf AO, Tasdemir HU, Türkkın E, Bingol H, Turan SO, Akkiprik M. *Spectrochim Acta A Mol Biomol Spectrosc*. 2015 Feb 5;136 Pt B:719-25. doi: 10.1016/j.saa.2014.09.087. Epub 2014 Sep 30.
- Detection of PIK3CA gene mutations with HRM analysis and association with IGFBP-5 expression levels in breast cancer. Dirican E, Kaya Z, Gullu G, Peker I, Ozmen T, Gulluoglu BM, Kaya H, Ozer A, Akkiprik M. *Asian Pac J Cancer Prev*. 2014;15(21):9327-33.
- Melatonin protects against ischemic heart failure in rats. Şehirli AÖ, Koyun D, Tetik Ş, Özsavcı D, Yiğiner Ö, Çetinel Ş, Tok OE, Kaya Z, Akkiprik M, Kılıç E, Şener G. *J Pineal Res*. 2013 Sep;55(2):138-48. doi: 10.1111/jpi.12054. Epub 2013 Mar 29.
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- Avcilar T, Kirac D, Ergec D, Koc G, Ulucan K, Kaya Z, Kaspar EC, Turkeri L, Guney AI. Investigation of the association between mitochondrial DNA and p53 gene mutations in transitional cell carcinoma of the bladder. *Oncol Lett*. 2016;12(4):2872-2879. PMID: 27698873
- Kirac D, Kasimay Cakir O, Avcilar T, Deyneli O, Kurtel H, Yazici D, Kaspar EC, Celik N, Guney AI. Read at DeepDyve »Effects of MC4R, FTO, and NMB gene variants to obesity, physical activity, and eating behavior phenotypes. *IUBMB Life*. 2016;68(10):806-16. doi: 10.1002/iub.1558. PMID: 27634552
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spectrum of nonalcoholic fatty liver disease. *Eur J Gastroenterol Hepatol.* 2014 Nov;26(11):1292-5. doi: 10.1097/MEG.000000000000184. PubMed PMID: 25171027.

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