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Research Areas

- ✓ Phytosterols and cell death mechanisms in cancer treatment approaches
- ✓ Combination index of the drugs and cytotoxicity
- ✓ Apoptotic mechanisms
- ✓ Oxidative stress and apoptosis
- ✓ Mesenchimal Stem cells in cancer treatment approaches
- ✓ Cellular changes with exercise intensity and training
- ✓ New markers and marker panels for colon and over cancer diagnosis and treatment monitoring
- ✓ Neuronal cell death, neurodegeneration and neuroprotective agents
- ✓ Neuroendocrinology
- ✓ Biomarkers in Diseases of Central nervous system
- ✓ Biochemical Hypothesis in Psychiatric Diseases
- ✓ In-vitro Blood-Brain-Barrier Model
- ✓ Cholesterol metabolism Of brain tissue
- ✓ Quality Management in Medical laboratory
- ✓ Method validation in medical Laboratory

- ✓ The destruction of hazardous liquid waste in medical laboratory
- ✓ Patient Safety, Laboratory Safety and Environment Safety
- ✓ Endocrine-disrupting agents
- ✓ Vascular biology, angiogenesis
- ✓ Tissue engineering, cell-biomaterial interactions
- ✓ Stem cells; Stem cell metabolism.
- ✓ Diabetes and obesity
- ✓ Analytical interference and hemolysis
- ✓ Point of care analysis and blood gas tests
- ✓ Medical informatics and laboratory information systems
- ✓ Mass Spectrometry based proteomics, small molecule quantitation, oxidative DNA damage product measurement and toxicology
- ✓ Oxidative stress
- ✓ Ischemia reperfusion
- ✓ PhD education
- ✓ Oxidative stress and anti-oxidant system
- ✓ Extracellular matrix in health and disease
- ✓ Quality Management in Medical laboratory
- ✓ Method validation in medical Laboratory
- ✓ The destruction of hazardous liquid waste in medical laboratory
- ✓ Patient Safety, Laboratory Safety and Environment Safety
- ✓ Hemostasis
- ✓ Thrombosis
- ✓ Biomarkers in Diseases of Central nervous system
- ✓ Preanalytic Laboratory Errors
- ✓ Tumor migration, invasion and metastasis
- ✓ Matrix metalloproteinases (MMPs)
- ✓ Voltage Gated Sodium Channels (VGSC α - and β - subunits)
- ✓ Colorectal cancer and Liver metastasis
- ✓ Breast Cancer and Ion channels
- ✓ Thyroid cancer and Vitamin D
- ✓ Preclinical Small Animal Imaging (Optical Imaging)
- ✓ In vivo Small Animal Molecular Imaging

Recent Publications

- Kme T, Siřman AR, Solak A, Tuęlu B, Cinkooęlu B, Coker C. The effects of different syringe volume, needle size and sample volume on blood gas analysis in syringes washed with heparin. *Biochem Med (Zagreb)*. 2012;22(2):189-201. PMID: 22838185
- Uysal S, Coker C, Onvural B. Sharing our experience in improving postgraduate clinical biochemistry training with laboratory practice articles. *Clin Chem Lab Med*. 2012 Jan 26;50(6):1141-3. doi:10.1515/ccim-2011-0944. PMID: 22706263
- Arslan N, Tokgoz Y, Kume T, Bulbul M, Sayın O, Harmancı D, Akdogan GG. Evaluation of serum neopterin levels and its relationship with adipokines in pediatric obesity-related nonalcoholic fatty liver disease and healthy adolescents. *J Pediatr Endocrinol Metab*. 2013;26(11-12):1141-7. doi: 10.1515/jpem-2013-0029. PMID: 23740679
- Cavdar Z, Egrilmez MY, Altun ZS, Arslan N, Yener N, Sayin O, Genc S, Genc K, Islekel H, Oktay G, Akdogan GG. Resveratrol reduces matrix metalloproteinase-2 activity induced by oxygen-glucose deprivation and reoxygenation in human cerebral microvascular endothelial cells. *Int J Vitam Nutr Res*. 2012 Aug;82(4):267-74. doi: 10.1024/0300-9831/a000119. PMID: 23591664
- Micılı SC, Ergur BU, Ozoęul C, Sarioęlu S, Baęrıyanık HA, Tuęyan K, Pekcetin C, Sonmez U, Tekmen I, Erbil G, Akdoęan GG, Ozyurt D, Buldan Z. Effects of lipoic acid in an experimentally induced hypertensive and diabetic rat model. *Clin Exp Hypertens*. 2013;35(5):373-81. doi: 10.3109/10641963.2012.732647. Epub 2012 Oct 16. PMID: 23072377
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serum levels of main minerals and postmenopausal osteoporosis. *Maturitas*. 2013 Dec;76(4):320-5. doi: 10.1016/j.maturitas.2013.07.015. Epub 2013 Aug 22. PMID: 24011991

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- Sevin G, Ozsarlak-Sozer G, Keles D, Gokce G, Reel B, Ozgur HH, Oktay G, Kerry Z. Taurine inhibits increased MMP-2 expression in a model of oxidative stress induced by glutathione depletion in rabbit heart. *Eur J Pharmacol*. 2013 Apr 15;706(1-3):98-106. doi: 10.1016/j.ejphar.2013.02.052. Epub 2013 Mar 14. PMID: 23500209
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