

Hüseyin Çimen



Assistant Professor

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Research Interest

Obesity, diabetes, metabolic disorders and diseases, parkinson's and alzheimer's disease, aging, longevity, cancer, calorie restriction, boron, nicotinamide, kaempferol, biotechnology, metabolomics, proteomics, quantitative proteomics, mitochondria, mitochondrial biogenesis, oxidative phosphorylation, succinate dehydrogenase, post-translational modifications, protein acetylation and phosphorylation, NAD⁺-dependent deacetylases and ribosyltransferases, SIRTUIN, SIRT3, LC-MS/MS mass spectrometry, 2DGE two dimensional gel electrophoresis, SRM, MRM, shotgun proteomics, protein separation and purification.

Biography

BSc: Molecular Biology and Genetics, Middle East Technical University, 2006
MSc - PhD: Biochemistry, Microbiology, and Molecular Biology, Pennsylvania State University, 2012

Paper

2016 Sodium borate affects the metabolism of DU-145 prostate cancer cells by altering sirtuin activity. E Esendir and **H Çimen** *Biol Trace Elem Res* (under revision)

2015 Sodium borate treatment induces metabolic reprogramming in hepatocellular carcinoma through SIRT3 activation. B Ustuner and **H Çimen** *Turk J Biol*, 40: 906-914 10.3906/biy-1508-31

2014 Recent advancements in the mass spectrometry-based analysis of protein acetylation changes upon boron treatment. **H Çimen**, E Esendir, B Ustuner. *Proteomics & Bioinformatics*, 7(8), Doi: 10.4172/0974-276X.S1.071, 1212859

2012 Impaired mitochondrial biogenesis contributes to depletion of functional mitochondria in chronic MPP⁺ toxicity: dual roles for ERK1/2. JH Zhu, AM Gusdon, **H Çimen**, B Van Houten, E Koc, CT Chu. *Cell death & Disease* 3 (5), e312

2011 Contacts between mammalian mitochondrial translational initiation factor 3 and ribosomal proteins in the small subunit. ME Haque, H Koc, **H Çimen**, EC Koc, LL Spremulli. *Biochimica et Biophysica Acta (BBA)-Proteins and Proteomics* 1814 (12), 1779-1784

2011 Mitochondrial ribosomal protein L12 selectively associates with human mitochondrial RNA polymerase to activate transcription. YV Surovtseva, TE Shutt, J Cotney, **H Çimen**, SY Chen, EC Koc, GS Shadel. *Proceedings of the National Academy of Sciences* 108 (44), 17921-17926

2010 NAD⁺-dependent deacetylase SIRT3 regulates mitochondrial protein synthesis by deacetylation of the ribosomal protein MRPL10. Y Yang, **H Çimen**, MJ Han, T Shi, JH Deng, H Koc, OM Palacios, L Montier, Y Bai, Q Tong, EC Koc. *Journal of Biological Chemistry* 285 (10), 7417-7429

2009 Regulation of succinate dehydrogenase activity by SIRT3 in mammalian mitochondria. **H Çimen**, MJ Han, Y Yang, Q Tong, H Koc, EC Koc. *Biochemistry* 49 (2), 304-311

Courses

Fall: GBE111 Biology I with Laboratory
GBE403 Molecular Biology I
GBE442 Genomics and Proteomics
BTEC604 Current Topics in Biotechnology

Spring: GBE102 Biology II
GBE405 Protein Chemistry
BTEC539 Protein Chemistry
BTEC641 Proteomics and Mass Spectrometry

Website*

Proteomics and Mass Spectrometry Laboratory (YediPROT, C551)

<http://proteomics.yeditepe.edu.tr/>

