

OSMAN UGUR SEZERMAN, Prof. - Curriculum Vitae and List of Publications

Computational Biology and Protein Engineering Lab

Acibadem University

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Education and Employment

From (year)	to (year)	
1987	1993	Ph.D Boston University Biomedical Engineering Dept.
1985	1987	M.Sc. Bogazici University Biomedical Eng. Dept.
1980	1985	B.Sc. Bogazici University Electrical Eng. Dept.

Research (*main areas*)

Protein Engineering and design , Bioinformatics, Omics analysis, GWAS, Algorithms for Next Gen Sequencing, Pathway analysis, Molecular Modelling , Docking, Phylogenetics, Recombinant Protein Production, Biomarker analysis, Biosensors

Projects

“ Industrial Scale Production of Modified Cellulases Specific for Viscone” (State Planning Agency), 2006-2009.
“ Protein Microchip Design; Cardiovascular Risk Assessment Platform” “TUBITAK 2006-2008
“Epigenetics of Epilepsy” IntenC International Collaboration Grant 2010-2013
“Enhancing Temperature Stability of Cellulases via protein Engineering for Industrial Applications” CNR International Collaboration Grant, TUBITAK 2012-2014
“Production of modified cellulases for textile applications” SANTEZ (Science, Industry and Technology Ministry Grant) 2013-2015.
“Directed evolution of enzymes using DNA shuffling technology” TUBITAK . 2013-2015.
“Advanced bioinformatics for genome and metagenome analyses and discovery of novel biocatalists from extremophiles: implications for improving industrial bioprocesses` (Horizon 2020 – Marie Curie-Sklodowska RISE). 2014-2018.
“ Identification of epigenetic factors and targeted pathways affecting Colon Cancer aetiology”, TUBITAK. 2015-2018.

PUBLICATIONS (Last 3 Years)

Authors	Title	Journal	Page-Year
Timucin, Emel; Sezerman, O. Ugur	Zinc Modulates Self-Assembly of <i>Bacillus thermocatenulatus</i> Lipase	BIOCHEMISTRY	30;54(25):3901-10,2015
Akcapinar, Gunseli Bayram; Venturini, Alessandro; Martelli, Pier Luigi; Casadio, Rita; Sezerman, Ugur O.	Modulating the thermostability of Endoglucanase I from <i>Trichoderma reesei</i> using computational approaches	PROTEIN ENGINEERING DESIGN & SELECTION	doi: 10.1093/protein/gzv012, 2015
Avsar, Timucin; Durasi, Ilknur Melis; Uygunoglu, Ugur; Tutuncu, Melih; Demirci, Nuri Onat; Saip, Sabahattin; Sezerman, O. Ugur; Siva, Akse; Turanli, Eda Tahir	CSF Proteomics Identifies Specific and Shared Pathways for Multiple Sclerosis Clinical Subtypes	PLOS One	doi: 10.1371/journal.pone.0122045, 2015
Bayram-Akcapinar G., Kappel L., Sezerman O.U., Seidl-Seiboth V.	Molecular diversity of LysM carbohydrate-binding motifs in fungi	Current Genetics (2015)	61:103-113, 2015
Bakir-Gungor B., Remmers E., Meguro A., Mizuki N., Kastner D., Gul A., Sezerman O.U.	Reply to Stoimenis et al.	European Journal of Human Genetics	PMID: 25585694, 2015
Bakir-Gungor B., Remmers E., Meguro A., Mizuki N., Kastner D., Gul A., Sezerman O.U.	Identification of Possible Pathogenic Pathways in Behçet's Disease Using Genome-wide Association Study Data from Two Different Populations	European Journal of Human Genetics	doi:10.1038/ejhg.2014.158, 2015
Yavuz A.S., Sezerman O.U.	Predicting sumoylation sites using support vector machines based on various sequence features, conformational flexibility and disorder	BMC Genomics	15/S9/S18, 2014
Tadaa S., Timucin E., Kitajimaa T., Sezerman O.U., Ito Y.	Direct in vitro selection of titanium-binding epidermal growth factor	Biomaterials	35/11/3497-3503, 2014
Bakir-Gungor B., Egemen E., Sezerman O.U.	PANOGA: a web-server for identification of SNP targeted pathways from genome-wide association study data	Bioinformatics	30/9/1287-1289, 2014
Timucin E., Sezerman O.U.	The Conserved Lid Tryptophan, W211, Potentiates Thermostability and Thermoactivity in Bacterial	PLOS ONE	8/12/e85186, 2013

	Thermoalkalophilic Lipases		
Korkmaz G., Tekirdag K.A., Ozturk D.G., Kosar A., Sezerman O.U., and Gozuacik D.	MIR376A Is a Regulator of Starvation-Induced Autophagy	PLOS ONE	8/12/e82556, 2013
Durmaz E., Kuyucak S., and Sezerman U.	Modifying the catalytic preference of tributyrin in <i>Bacillus thermocatenulatus</i> lipase through in-silico modeling of enzyme-substrate complex	Protein Engineering Design and Selection	26/5/325-333, 2013
Bakır-Güngör B., and Sezerman U. (2013)	The Identification of Pathway Markers in Intracranial Aneurysm Using Genome-wide Association Data from Two Different Populations	PLOS ONE	8/3/e57022, 2013
Bakır-Güngör B., Baykan B., Iseri U.S., Tuncer N.F., and Sezerman U.	Identifying SNP Targeted Pathways in Partial Epilepsies with Genome-wide Association Study Data	Epilepsy Research	105/1-2/92-102, 2013
Hirsh S.L., McKenzie D.R., Nosworthy N.J., Denman J.A., Sezerman U., and Bilek M.M.M.	The Vroman effect: competitive protein exchange with dynamic multilayer protein aggregates	Colloids and Surfaces B: Biointerfaces	103//395-404, 2013
Bakiş B., Otu H.H., Taşçı N., Meydan C., Bilgin N., Yüzbaşıoğlu S., and Sezerman U.	Testing robustness of relative complexity measure method constructing robust phylogenetic trees for <i>Galanthus L.</i> using the relative complexity measure	BMC Bioinformatics	14/20/, 2013
Meydan C., Otu H.H., and Sezerman U.	Prediction of peptides binding to MHC class I and II alleles by temporal motif mining	BMC Bioinformatics	14/13/, 2013
Kautto L., Grinyer J., Paulsen I., Tetu S., Pillai A., Pardiwalla S., Sezerman U., Bayram-Akçapınar G., Bergquist P., Te'o J., and Nevalainen, H.	Stress effects caused by the expression of a mutant cellobiohydrolase I and proteasome inhibition in <i>trichoderma reesei</i> rut-C30	New Biotechnology	30/2/183-191, 2013
Altıntaş Z., Kallempudi S.S., Sezerman U., and Gürbüz Y.	A novel magnetic particle-modified electrochemical sensor for immunosensor applications	Sensors and Actuators B: Chemical	174//187-194, 2012
Albayrak A., and Sezerman, U.	Discrimination of thermophilic and mesophilic proteins using reduced amino acid alphabets with n-grams	Current Bioinformatics	7/2/152-158, 2012
Bayram-Akçapınar G., Gül Ö., and Sezerman U.	From in silico to in vitro: modelling and production of <i>trichoderma reesei</i> endoglucanase 1 and its mutant in <i>pichia pastoris</i>	Journal of Biotechnology	159/1-2/61-68, 2012

Anbar M., Gül Ö., Lamed R., Sezerman U., and Bayer E.A.	Improved thermostability of clostridium thermocellum endoglucanase Cel8A by using consensus-guided mutagenesis	Applied and Environmental Microbiology	78/9/3458-3464, 2012
Uzbaş F., Sezerman U., Hartl L., Kubicek C.P., and Seiboth B.	A homologous production system for Trichoderma reesei secreted proteins in a cellulase-free background	Applied Microbiology and Biotechnology	93/4/1601-1608, 2012