B. Ogan Mancarci

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Skills

Programming languages: R, Python, Matlab. **Computing Environment:** Linux, Windows.

Bioinformatics: Experience with expression and sequencing datasets.

Laboratory techniques: Common techniques and cell culture.

Languages: Turkish (Mother Tongue), English (Fluent), French (Basic).

Education

2013-2018 (expected)

PhD, Bioinformatics; University of British Columbia (Vancouver, Canada)

Thesis title: Identification cell type marker genes of the brain and their use in iden-

tification of cell type proportions

2009-2013

BSc, Molecular Biology And Genetics; Bilkent University (Ankara, Turkey)

Research Experience

2014 - present

PhD Student at UBC Micheal Smith Laboratories - Supervisor: Dr. Paul Pavlidis

- Identification of cell type markers and their use in identification of cell type proportions. (github.com/oganm/brainCellTypeSpecificGenes)
- Development of a web application to visualize gene expression in brain cell types (neuroexpresso.org)

2013

Rotation at BC Children's Hospital - Supervisor: Dr. Wyeth Wasserman

Analysis of CAGE data for detection of microRNA transcription start sites

2013

Rotation at Simon Fraser University - Supervisor: Dr. Fiona Brinkman

Analysis of antisense transcription in genomic islands

2012

Summer internship at University of Zurich - Supervisor: Dr. Barbara Tschirren

 Selective mating of Japanese quails and computational analysis of various properties of quail and tit eggs

2011

Summer internship at Harvard Medical School - Supervisor: Dr. George Daley

Reprogramming of murine and human cells via viral vectors

Teaching Experience

2015 Teaching Assitant for Exploratory Data Analysis course (STAT 545A) at UBC

- Instructor: Dr. Jenny Brian

2015 Instructional Skills Workshop at UBC

Awards and Scholarships

2013-2014 Canadian Institutes of Health Research Training Program Scholarship

2009-2013 Bilkent 50% Scholarship

Presentations

Organization of Computational Neurosciences Conference 2015: Tripathy, S.J., Tebaykin, D., Li, B., **Mancarci, O.**, Toker, L., and Pavlidis, P. (2015). Large-scale analysis of brain-wide electrophysiological diversity reveals novel characterization of mammalian neuron types. BMC Neurosci 16, O4.

23rd Annual International Conference on Intelligent Systems for Molecular Biology: Mancarci O, Toker L, Tripathy S and Pavlidis P. A comprehensive database of cell-type specific marker genes for the mammalian brain [v1; not peer reviewed]. F1000Research 2015, 4(ISCB Comm J):428 (poster) (doi: 10.7490/f1000research.1110181.1)

23rd Annual International Conference on Intelligent Systems for Molecular Biology: Toker L, **Mancarci O**, Tripathy S and Pavlidis P. A transcriptomics approach for revealing cell-type proportion changes in psychiatric disorders

Publications

(Preparing for submission) Mancarci, B.O., Toker, L., Li, B., Rocco, B.R., Tripathy, S.J., and Pavlidis, P. Identification of cell type marker genes of the brain and their use in estimating cell type proportions.

Horvath, G.A., Demos, M., Shyr, C., Matthews, A., Zhang, L., Race, S., Stockler-Ipsiroglu, S., Van Allen, M.I., **Mancarci, O.**, Toker, L., et al. (2016). Secondary neurotransmitter deficiencies in epilepsy caused by voltage-gated sodium channelopathies: A potential treatment target? Mol. Genet. Metab. 117, 42–48.

Onder, T.T., Kara, N., Cherry, A., Sinha, A.U., Zhu, N., Bernt, K.M., Cahan, P., **Mancarci, B.O.**, Unternaehrer, J., Gupta, P.B., et al. (2012). Chromatin-modifying enzymes as modulators of reprogramming. Nature 483, 598–602.

Software

NeuroExpresso: A web application for visualisation of gene expression data in brain cell types. Available at (neuroexpresso.org)