B. Ogan Mancarci

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Education

2013-2018 (expected)	**PhD, Bioinformatics**; University of British Columbia (Vancouver, Canada) *Thesis title: Identification/validation of cell type marker genes of the brain and their use in estimating cell type proportions in brain samples.*
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/validation of cell type marker genes of the brain and their use in estimating cell type proportions in brain samples (**github.com/oganm/brain-CellTypeSpecificGenes**).
- 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

2016 **Teaching Assitant for Exploratory Data Analysis course (STAT 545) at UBC** - Instructor: Dr. Jenny Brian

2015 **Teaching Assitant for Exploratory Data Analysis course (STAT 545) at UBC** - Instructor: Dr. Jenny Brian

2015   **Instructional Skills Workshop at UBC** - iswnetwork.ca

▬▬▬▬ Awards and Scholarships

2016   1st place in HackSeq hackaton - **hackseq.com**

2015   3rd place in SportsHack hackaton - **sportshackweekend.org/ca/2015**

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

(Submitted) Mancarci, B.O., Toker, L., Tripathy, S.J., Li, B., Rocco, B.R., Sibille, E.L., and Pavlidis, P. NeuroExpresso: A cross-laboratory database of brain cell-type expression profiles with applications to marker gene identification and bulk brain tissue transcriptome interpretation

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 visualization of gene expression data in brain cell types. Available at **neuroexpresso.org**.

VASCO: A web application for visualization of gene expression data from single cell RNA sequencing experiments. Developed for HackSeq hackaton. Available at **hackseq.github.io/vasco**.

Impact Replays: A web application for visualization play-by-play data from football games. Developed for SportsHack hackaton. Available at **daattali.com/shiny/cfl**