

# B. Ogan Mancarci

3858 Dunbar St. V6S 2E2  
Vancouver, BC  
Canada

[ogan.mancarci@alumni.ubc.ca](mailto:ogan.mancarci@alumni.ubc.ca)  
[github.com/oganm](https://github.com/oganm)  
Tel: +1 778 995 1591

## 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](https://github.com/oganm/brain-CellTypeSpecificGenes)).
  - Development of a web application to visualize gene expression in brain cell types ([neuroexpresso.org](https://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

## Awards and Scholarships

- 2016 1st place in HackSeq hackaton - [hackseq.com](http://hackseq.com)
- 2015 3rd place in SportsHack hackaton - [sportshackweekend.org/ca/2015](http://sportshackweekend.org/ca/2015)
- 2013-2014 Canadian Institutes of Health Research Training Program Scholarship
- 2009-2013 Bilkent 50% Scholarship

## Presentations

**Society for Neuroscience Annual Meeting 2016:** Tripathy, S., Tebaykin, D., **Mancarci, O.**, Toker, L., and Pavlidis, P. (2016). Transcriptomic correlates of brain-wide electrophysiological diversity.

**Society for Neuroscience Annual Meeting 2016:** **Mancarci, O.**, Toker, L., and Pavlidis, P. (2016). Comparison of single cell and pooled cell expression data from mouse and human brain.

**24th Annual International Conference on Intelligent Systems for Molecular Biology:** **Mancarci, O.**, Toker, L., Li, B., Tripathy, S., and Pavlidis, P. (2016). Identification of novel markers for mammalian brain cell types.

**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., Pavlidis, P., **Mancarci, O.**, Toker, L., Tripathy, S., and Pavlidis, P. (2015). A comprehensive database of cell-type specific marker genes for the mammalian brain. F1000Research 4.

**23rd Annual International Conference on Intelligent Systems for Molecular Biology:** Toker, L., **Mancarci, O.**, Tripathy, S., and Pavlidis, P. (2015). 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

**NeuroEspresso:** A web application for visualization of gene expression data in brain cell types. Available at [neuroexpresso.org](https://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](https://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](https://daattali.com/shiny/cfl)