


FATMA BETUL DINCASLAN

I am an experimentalist with strong background and solid experience in sequencing data analysis.

RESEARCH EXPERIENCE

2019
|
2023

● NUS Research Scholar (Thesis Defended)

Biomedical Eng., NUS (Supervisor: Lih Feng CHEOW)  Singapore
High-Throughput Total RNA-Sequencing of Single Cells


My PhD project was about the development of single cell high-throughput assay for total RNA sequencing, which could be easily applied on popular platforms like 10X Chromium. Later, I used open-source tools for total RNA-seq data analysis. I validated the assay on different cell lines and Peripheral Blood Mononuclear Cells (PBMCs).

High-Throughput Profiling of Secreting Single Cells

We aimed to develop an assay to profile secreting vs. non-secreting cells of pancreatic islets upon certain stimuli. (Not Completed)

2016
|
2019

● Master's Student

MBG, Bilkent University (Supervisor: Ozlen KONU)  Ankara, Turkey
Tissue Specific Transcriptome of Zebrafish in AChE Mutant Embryos

I analyzed tissue specificity (TS) of zebrafish, considering the dynamicity of gene expression, using specific metrics such as Tau, Tsi. Furthermore, I compared the outcome of different normalization methods on TS discovery. Then, I applied the TS analysis on publicly available datasets of mutant zebrafish embryos.

RESEARCH SKILLS

● Dry-Lab

- Common bioinformatics databases/tools such as NCBI, Primer3, UCSC Genome Browser, Ensembl, Expression Atlas, STRING, GO/Panther.
- Bulk and Single Cell Transcriptomics Data Analysis using Command Line Tools and R.

 Ankara&Singapore

2017-2023

● Wet-Lab

- DNA and RNA isolation, q/PCR.
- Cell Culture and FACS basics.
- Library Preparation and Illumina Sequencing.

2017-2023



CONTACT INFO

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OTHER INTERESTS

Playing Basketball and Bullet Chess, Running, Indoor Climbing

Reproducibility in Science and Open Science

Data Visualization in R and Blogging

Learning data science basics via [SoloLearn](#) and [Kaggle](#)

Exploring cultures via languages using [Duolingo](#)



SOFT SKILLS

- Teamwork
 - Analytical Thinking
 - Resilience
 - Life-long learning attitude
 - Active listening
- 2015-2023

📍 Ankara&NY&Singapore



EDUCATION

2019
|
2023

2017
|
2019

2011
|
2016

- **Ph.D., Biomedical Engineering**
Thesis: Development of High-Throughput Total RNA Sequencing of Single Cells 📍 NUS, Singapore
- **M.Sc., Molecular Biology and Genetics**
Thesis: Tissue Specific Transcriptome of Zebrafish in AChE Mutant Embryos 📍 Bilkent University, Ankara, Turkey
- **B.Sc., Molecular Biology and Genetics**
(First year is English Prep School) 📍 Bilkent University, Ankara, Turkey



PUBLICATIONS AND POSTERS

2023

2023

2022

2021

2018

- **High-Throughput Total RNA-Sequencing of Single Cells**
Oral Presentation for jointly hosted CSI-ENS Symposium: Single-Cell Res/volution 2023 📍 Singapore
Fatma Betül Dincaslan, Lih Feng Cheow
- **1st ASCS: Expanding the ISCB Student Council Symposia to Asia**
F1000Research, DOI: 10.12688/f1000research.135767.1
Aayush Grover, Arsalan Riaz, Syed Muktadir Al Sium, **Fatma B. Dincaslan**, Sanjana Fatema Chowdhury, Gabriel J Olguin-Orellana, R. Gonzalo Parra, Pradeep Eranti
- **Lessons from a ten-year-long journey: building a student-driven computational biology society across Turkey**
F1000Research, DOI: 10.12688/f1000research.107886.1
Yasin Kaya, Tülay Karakulak, Cemil Can Saylan, E. Ravza Gür, Engin Tatlıdil, Sevilay Güleşen, **Fatma Betül Dincaslan**, Handan Melike Dönertaş
- **Functional analysis of co-expression networks of zebrafish ace2 reveals enrichment of pathways associated with development and disease**
Genome, DOI: 10.1139/gen-2021-0033
Ayse Gokce Keskus, Melike Tombaz, Burcin Irem Arici, **Fatma Betül Dincaslan**, Afshan Nabi, Huma Shehwana, and Ozlen Konu
- **A pipeline for examination of tissue-specificity of differentially expressed genes in zebrafish mutants: Application to AChE mutants**
Poster for International Symposium on Health Informatics and Bioinformatics (HIBIT) 📍 Antalya, Turkey
Fatma B. Dincaslan, Afshan Nabi, M. Efe Isilak, Ayse G. Keskus, M. Ender Avci, Michelle M. Adams, Ozlen Konu