FATMA BETUL DINCASLAN

Available for post-doc/research opportunities in computational biology and bioinformatics

🖥 RESEARCH

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 created a pipeline for total RNA-seq data analysis using open-source tools. I validated the assay on different cell lines and Peripheral Blood Mononuclear Cells (PBMCs).

High-Throughput Profiling of Secreting Single Cells

In this side project, 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. I performed qPCRs for in vivo confirmations after isolating RNA of model zebrafish embryos. I further investigated the relationship between ache and the retinal genes by using the tools like Gene Onthology (GO).

🎓 EDUCATION

2019
|
2023

Ph.D., Biomedical Engineering
Thesis: Development of an Assay for High-Throughput Total RNA Sequencing of Single Cells

📍 NUS, Singapore

2017
|
2019

M.Sc., Molecular Biology and Genetics
Thesis: Tissue Specific Transcriptome of Zebrafish in AChE Mutant Embryos

📍 Bilkent University, Ankara, Turkey

2011
|
2016

B.Sc., Molecular Biology and Genetics
(First year is English Prep School) 📍 Bilkent University, Ankara, Turkey

CONTACT INFO

✉ fatmab.dincaslan@gmail.com

in linkedin.com/fbdincaslan

🐙 github.com/dincaslan

medium.com/dincaslan

For more information, please contact me via email.

SOFT SKILLS

Teamwork
Analytical Thinking
Resilience
Life-long learning attitude
Active listening

I used R package **pagedown** to create this resume. Last updated on 2023-12-24.

🧠 SELECTED 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.   📍Ankara&Singapore
• Cell Culture and FACS basics.
• Library Preparation and Illumina Sequencing.
2017-2023

🖥 TEACHING

2020
|
2022

BN2301 Fundamental Biochemistry and Biomaterials for Bioengineers, NUS
Teaching Assistant (TA)   📍Singapore

2017
|
2018

MBG326 Introduction to Bioinformatics, Bilkent University
TA for introduction to bioinformatics and R/RStudio (e.g., common databases and tools, data analysis using Bioconductor/CRAN packages)

📍Ankara, Turkey

2017
|
2018

MBG223 Molecular Genetics and MBG302 Molecular Biology of The Cell-II, Bilkent University
MBG223 - TA for molecular cloning experiments: plasmid editing, restriction enzyme digestion, ligation and miniprep. MBG302 - TA for the cell culture experiments: scratch, kinase inhibition and crystal violet assays.

📍Ankara, Turkey

🎖 AWARDS AND HONOUR

2019
|
2023

NUS Research Scholarship
Awarded by Singapore-MOE and NUS for PhD in Biomedical Engineering   📍Singapore

2022

eLife Ambassador
Short-term trainee of "learning and community-building"   📍Earth

2020
|
2022

ISCB Student Council Active Member
Virtual seminars (webinar) team member in ISCB-SC and Organization team of Asian Student Council Symposium, #ASCS2022

📍World

2018
|
present

ISCB-RSG Student Council Turkey
Previously social media team, symposium organization, later Med&Omics   📍Turkey

2011
|
2016

Comprehensive Scholarship
Awarded by Bilkent University   📍Ankara, Turkey

PUBLICATIONS AND POSTERS

2023

High-Throughput Total RNA-Sequencing of Single Cells
Oral Presentation for jointly hosted CSI-ENS Symposium: Single-Cell Res/volution 2023 📍 Singapore
Fatma Betul Dincaslan, Lih Feng Cheow

2023

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

2022

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 Dinçaslan**, Handan Melike Dönertaş

2021

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 Betul Dincaslan**, Afshan Nabi, Huma Shehwana, and Ozlen Konu

2018

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

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