EVGENIIA CHIKINA

I am a bioinformatician with a medical background. I use my medical and biological knowledge to combine with the world of computer science. At the moment, I have particularly good knowledge and skills in analyzing single cell RNA sequencing data.

View and download the latest version of this CV with links at https://github.com/JaneChik/cv or here

EDUCATION

Current | 2022

PhD Student, Cellular biology

Koltzov Institute of Developmental Biology of Russian Academy of Sciences

Moscow, Russia

2022 | 2020

Master degree, Applied Mathematics and Informatics, Bioinformatics and System Biology

ITMO University

Saint-Petersburg, Russia

- **Thesis:** Metabolic Modules Identification in Single-Cell Data
- **Course Project:** Identifying Metabolic Modules in TCGA Datasets
- **Semester Project:** Effects of Background RNA Noise on Differential Expression Results in scRNA-seq

2020 | 2014

Specialist degree (with honors), Pediatrician

Saint-Petersburg State Pediatric Medical University

Saint-Petersburg, Russia

- Pediatrician

RESEARCH PROJECTS

2022 | 2021

Metabolic Modules Identification in Single-Cell Data

ITMO University

Saint-Petersburg, Russia

- Thesis
- Main goal of the project is to extend applications of the GAM-clustering tool on the *single-cell RNA-seq* data. In order to find optimal **clustering** algorithm performed and analysed multiple clustering strategies for the single-cell RNA-seq data. Used **trajectories** and **gene set enrichment** analysis for biological interpretation of the results. Involved in the *modification of the tool*.

2021

Identifying Metabolic Modules in TCGA Datasets

ITMO University

Saint-Petersburg, Russia

- Course Project
- With previousy developed GAM-clustering algorithm analyzed TCGA datasets (LUSC) - *bulk RNA-seq* data. Identified metabolic modules and performed biological analysis of them. During work was involved in *the modification of the tool and testing*.

2020

Effects of Background RNA Noise on Differential Expression Results in scRNA-seq

ITMO University

Saint-Petersburg, Russia

- Performed standart analysis of the single-cell data with Seurat pipeline and integration of multiple samples using SCTransform intgration. With help of `DropletUtils` R package identified ambient RNA and tried to estimate the impact of it on the differential expression results.

CONTACT

chikina.evgeniia@gmail.com

github.com/JaneChik

evgenia_chikina

SKILLS

- R
- Python
- Bash

LANGUAGES

- Russian
- English
- German

*Made with the R package **pagedown**.*

The source code is available on github.com/nstrayer/cv. Modified source code for this CV is available here

Last updated on 2023-09-11.

OTHER PROJECTS

Current | 2022

vDiveR ShinyApp

Perdana University (Students Project)

- DiveR is a graphical user interface (GUI)-based web application hosted on R Shiny for the visualization of DiMA results, a tool designed to facilitate the dissection of protein sequence diversity dynamics for viruses.
- Modifications of ShinyApp scripts
- https://github.com/pendy05/vDiveR_RShiny

2021

NGSprint Hackaton

NGSchool

Warsaw, Poland (online)

- Project: Data Visualization in Bioinformatics
- Result: ShinyApp[1]
- Certificate by the link[2]

CONFERENCES

2023

IMGC 2023

36th International Mammalian Genome Conference

Tsukuba, Japan (online)

- **Evgeniia Chikina**, Anastasiia Gainullina, Elena Shagimardanova, Alexander Nesmelov, Airat Bilyalov, Oleg Gusev, Roman Romanov. *Hypothalamic cell diversity underlying behavioral differences in the American mink (Neogale vison).*
- The best virtual trainee poster

2023

MCCMB'23

11th Moscow Conference on Computational Molecular Biology

Moscow, Russia

- **Evgeniia Chikina**, Victoria Melnikova, Anastasiia Gainullina, Roman A. Romanov. *Hypothalamic neurons in type I diabetes at a single-cell resolution.* ISBN 978-5-901158-33-3
- Poster

2022

Anniversary Scientific Conference «Nikolay Konstantinovich Koltzov and the Biology of the XXI century»

Koltzov Institute of Developmental Biology of Russian Academy of Sciences

Moscow, Russia

- **Evgeniia Chikina**, Anastasiia Gainullina, Roman A. Romanov. *Metabolic modules of single cells of the hypothalamus in normal conditions and in metabolic disorders.* ISBN 978-5-00204-554-9
- Poster

2018

Nationwide scientific forum of students and young scientists with international participation «Student science – 2018»

Saint-Petersburg State Pediatric Medical University

Saint-Petersburg, Russia

- **Chikina E.A.**, Shtukina E.D. *Study of microbiological landscape and microorganism susceptibility analysis to antibacterial drugs in the neonatal and premature infants intensive care department, cardiac intensive care department and neonatal pathology department for the period from 2014 to 2017.*[3]
- Pharmacology Section: 3d degree diploma

PUBLICATIONS

2022

iPSC-Derived Macrophages: The Differentiation Protocol Affects Cell Immune Characteristics and Differentiation Trajectories.

Klepikova, A.; Nenasheva, T.; Sheveleva, O.; Protasova, E.; Antonov, D.; Gainullina, A.; **Chikina, E.**; Sakovnich, O.; Gerasimova, T.; Nikitina, I.; et al. Int. J. Mol. Sci. 2022, 23, 16087. https://doi.org/10.3390/ijms232416087

Moscow, Russia

ACHIEVEMENTS

2023 **IMGC 2023: Best virtual trainee poster**
36th International Mammalian Genome Conference — Tsukuba, Japan (online)

2021 **Bioinformatics Contest 2021** — Stepik, Online
- Participant[4]

2018 **Annual University Olympiad in Pediatrics**
Saint-Petersburg State Pediatric Medical University — Saint-Petersburg, Russia
- 1st degree diploma

2017 **University Olympiad in Propaedeutics of Children's Diseases**
Saint-Petersburg State Pediatric Medical University — Saint-Petersburg, Russia
- 2nd degree diploma

TEACHING EXPERIENCE

2020 | 2018 **Chemistry/Biology School Tutor** — Saint-Petersburg, Russia
- I was teaching 6-9th grade school students chemistry and biology to increase their knowledge in the field and in some cases helped studying for school exams.

COURSES

2022 **Introduction to Probability and Data with R (en)**
Duke University — Coursera, Online
- https://www.coursera.org/account/accomplishments/certificate/RMP3NFYZA5BN

2020 **Molecular biology of the cell (ru)**
Bioinformatics Institute — Stepik, Online
- https://stepik.org/cert/353448

2019 **Programming in Python (ru)**
Bioinformatics Institute — Stepik, Online
- https://stepik.org/cert/209363

LINKS

1. https://github.com/JaneChik/NGSprint_Hackathon-TCGA_RShinyApp
2. https://drive.google.com/file/d/1PS_joxoZYsNmJzZyqR5xkMqH9ZiE5UrO/view?usp=sharing
3. https://www.elibrary.ru/item.asp?id=32783629
4. https://drive.google.com/file/d/1SEgIqYqY7m2tne_XPy9rAscXteFH957N/view?usp=sharing