

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.



EDUCATION

Current
|
2022



PhD Student, Cellular biology

Koltzov Institute of Developmental Biology of Russian Academy of Sciences

📍 Moscow, Russia

2022
|
2020



Master's degree (with honors), 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
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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 previously 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.

View and download the latest version of this CV with links at <https://github.com/JaneChik/cv> or [here](#)

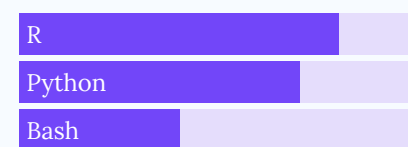
CONTACT

✉ chikina.evgeniia@gmail.com

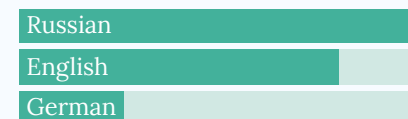
🐙 github.com/JaneChik

in [evgenia_chikina](#)

SKILLS



LANGUAGES



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
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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: ShinyApp¹
 - Certificate by the link²

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


2023

- **Lomonosov 2023**
30th International Scientific Conference for Undergraduate and Graduate Students and Young Scientists "Lomonosov"  Moscow, Russia
 - **Evgeniia Chikina**. *Study of diabetes-specific hypothalamic changes at the single cell level*. ISBN 978-5-317-06952-0

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>




ACHIEVEMENTS

- 2023 ● **IMGC 2023: Best virtual trainee poster**
36th International Mammalian Genome Conference  Tsukuba, Japan (online)
- 2021 ● **Bioinformatics Contest 2021**  Stepik, Online
- Participant⁴
- 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
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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/1SEglqYqY7m2tne_XPy9rAscXteFH957N/view?usp=sharing