Veronika Romero

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Professional Summary

Mission-driven scientist with over 15 years in biomedical research. Passionate about analysis and visualization of complex data. Strong background in life sciences, biomedical research, and healthcare. Proficient in statistical analysis and diverse laboratory techniques in neuroscience and pathophysiology. Curiosity-driven critical thinker able to pick up new concepts and techniques quickly. A problem-solver who can bridge multiple disciplines and communicate effectively with colleagues from different backgrounds.

Technical Skills

- **Data Wrangling and Analysis Tools:** R, Python, SQL, SPSS, Excel
- **Data Visualization:** R (ggplot2, shiny), Python (Matplotlib, Seaborn), Tableau
- **Statistical Methods:** correlation, linear and logistic regression, Kolmogorov-Smirnov test, t-test, Wilcoxon, Mann-Whitney, Kruskal-Wallis tests, ANOVA, chi-square, Fisher's exact test, Kaplan Meier Analysis, etc
- **Machine Learning:** Dimensionality Reduction, Random Forest, Clustering, k-NN, Regression
- **Other Tools:** Quarto, MS Office, front-end web development, Adobe Photoshop & Illustrator

Education

PhD analogue in Pathophysiology

Bogomoletz Institute of Physiology, Kyiv, Ukraine — 2011-2015

 Relevant projects: Role of microRNA-1 in experimental pathology of the heart **|** Genetic factors increasing risks of cardiovascular pathology **|** Cardiac microRNAs in the blood as predictors for the heart attack outcomes

Doctor of Medicine in General Medicine

Bogomolets National Medical University, Kyiv, Ukraine — 2005-2011

 Relevant coursework: Biostatistics | Medical informatics | Epidemiology | others

Professional Experience

University of Utah, Salt Lake City, UT

Research Scientist / Laboratory Manager

September 2023 – October 2024

- Analyzed high-dimensional genomic datasets (single-cell and bulk RNA-seq), helping to establish the directions for the future research.
- Developed and maintained well documented R scripts and reporting workflows to ensure the reproducibility of ETL, analysis, and visualizations of the data.
- Managed the laboratory and performed research activities to study meninges in zebrafish.

Senior Laboratory Specialist / Laboratory Manager

March 2021 – September 2023

- Built a neuroscience genomics research laboratory from scratch.
- Assisted in establishing and implementation the workflows for laboratory procedures and data analysis.
- Optimized and troubleshooted multiple protocols (especially, cell culture and analysis of RNA-seq data).
- Trained graduate students, managed the lab, and performed variety of research activities in the field of neuroscience and genomics.

Research Fellow

July 2018 – June 2020

- Used induced pluripotent stem cells (iPSC) and iPSC-derived neurons and brain organoids to study a rare case of microcephaly.
- Collected, analyzed, and presented data on the project.

Bogomoletz Institute of Physiology, Kyiv, Ukraine
Junior Research Fellow
November 2015 – August 2018
- Worked with clinical researchers on the projects in the field of cardiovascular diseases.
- Contributed to experimental designs, analyzed and visualized data, prepared reports.
- Collaborated on 3 shiny applications and 2 publications.

Graduate Research Fellow (PhD student)
August 2011 – November 2015
- Analyzed, visualized, and interpretated data for my graduate project.
- Presented results at the meetings and conferences
- Prepared 5 research papers and multiple abstracts.

Laboratory Technician
May 2009 – August 2011
- Performed DNA genotyping and evaluated gene expression using qPCR, analyzed data.
- Contributed to multiple projects resulting in 6 research papers and multiple abstracts.

BioLabTech Ltd., Kyiv, Ukraine
Product Manager
December 2016 – June 2017
- Represented a product portfolio of BioLabTech Ltd. in the field of genomics and medical genetics
- Trained and provided product support to the customers.

Bogomolets National Medical University, Kyiv, Ukraine
Teaching Associate
August 2011 – October 2013
- Was teaching pathophysiology seminars and labs to year 3 medical students and year 2 dentistry students, developed explanatory and extracurricular materials.

Certification
- **Business Data Analytics** professional program from Utah Valley University — November 2020

Selected data workshops and summer schools
- Workshops by the DELPHI Data Science Initiative at the University of Utah, Salt Lake City, UT: *Introduction to R Carpentries Workshop | Version Control and Collaboration with Git and GitHub | Databases and SQL | Introduction to Python for Data Analysis | Natural Language Processing with Applications to Clinical Data Science | Geographical Analysis and Visualization in R Workshop | Data Cleaning with R | Advanced R.* 2023-2024
- (audit) Computational Genomics class (prof. Aaron Quinlan). University of Utah. 2024
- RECOMB 2018, Research in Computational Molecular Biology, Paris, France. 2018
- de.NBI Summer School Computational genomics and RNA Biology, Berlin, Germany, 2017

Leadership
- 2016-2018: Established and organized scientific seminars, workshops, and conferences in the field of computational biology and precision medicine. It involved dozens of speakers and hundreds of participants including 8 seminars and two major events: [Integrative Biology & Medicine](#) | [single-cell RNABIO & organoids](#).
- 2008-2013: Led a pathophysiology interest group at the Bogomolets National Medical University first as a student and then as a member of the teaching faculty.
- Taught multiple R and Python intro workshops to diverse audiences. Co-authored an internally used manual on R for Data Analysis (in Ukrainian).
- Mentored and trained students of different levels.

Additional Information

Languages: English (fluent), Ukrainian (native), russian (native), German (beginner)

Volunteer Experience:
- 2014-2017: volunteer at the scientific outreach events in Ukraine
- 2016-2018 – on volunteer bases, end-to-end organization of scientific events in Ukraine
- 2022 – joined a team initiating the urgent support and remote opportunities for researchers in Ukraine upon the beginning of full-scale war. It resulted in new policies and programs. One of publications: Chhugani et al., Science, 2022.

References

Available upon request.