Veronika Romero

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Professional Summary

Mission-driven scientist with 10+ years in biomedical research. Passionate about data analysis and visualization of complex datasets. Curiosity-driven critical thinker picking up new concepts and techniques quickly. Problem-solver who can bridge disciplines, collaborate with colleagues from diverse backgrounds, and optimize workflows.

Education

Postdoctorate in the field of Neuroscience

University of Utah, Salt Lake City, UT, USA | using hiPSC-derived organoids to study microcephaly

PhD analogue in Pathophysiology

Bogomoletz Institute of Physiology, Kyiv, Ukraine | microRNA-1 in experimental pathology of the heart

Doctor of Medicine in General Medicine

Bogomolets National Medical University, Kyiv, Ukraine | Biostatistics, Medical informatics, Epidemiology

Professional Experience

University of Utah, Salt Lake City, UT

Research Scientist / Senior Laboratory Specialist / Laboratory Manager | March 2021 - October 2024

- Built and managed new laboratories (in vivo and in vitro neuroscience & genomics and zebrafish imaging).
- Established and implemented the workflows for laboratory procedures and data analysis.
- Troubleshooted multiple protocols including cell culture and sample preparation for genomic applications.
- Analyzed genomic datasets (single-cell and bulk RNA-seq) aimed to establish future research directions.
- Developed R scripts and reporting workflows for reproducible ETL, analysis, and visualizations of the data.

Bogomoletz Institute of Physiology, Kyiv, Ukraine

Junior Research Fellow | November 2015 – August 2018

- Collaborated with clinical researchers on the projects in the field of cardiovascular diseases.
- Contributed to experiments, analyzed and visualized data, co-authored 3 shiny apps and 2 publications.

Laboratory Technician / Graduate researcher | May 2009 – August 2011

Contributed to multiple projects resulting in 6 research papers and multiple abstracts.

BioLabTech Ltd., Kyiv, Ukraine

Product Manager | December 2016 – June 2017

Hosted training sessions and workshops for the customers in the field of genomics and medical genetics.

Bogomolets National Medical University, Kyiv, Ukraine

University Trainer | August 2011 - October 2013

• Taught seminars and labs to medical students, explained complex concepts at different depth levels.

Technical Skills

- Data Wrangling and Analysis Tools: R, Python, SQL, SPSS, Excel
- Data Visualization: R (ggplot2, shiny), Python (Matplotlib, Seaborn), Tableau
- Applied Statistics and ML: 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, Dimensionality Reduction, Random Forest, Clustering, k-NN, Regression
- Other Tools: Quarto, MS Office, front-end web development, Adobe Photoshop & Illustrator
- **Laboratory skills:** Cell culture (iPSC, HEK, primary neurons and cardiomyocytes), molecular biology (qPCR, WB), imaging (*in situ* RNA hybridizations, ICC, IHC, live imaging, confocal), genomics sample prep.

Certification

• Business Data Analytics, Utah Valley University — November 2020

Languages

Bilingual: English and Ukrainian

Leadership

- 2016-2018: Established and organized scientific seminars, workshops, and conferences in computational biology
 and precision medicine. It involved dozens of speakers, hundreds of participants, dozens of sponsors, thousands
 of raised dollars, as well as end-to-end logistics of 8 smaller and two major events:
 - o Integrative Biology & Medicine
 - single-cell RNABIO & organoids
- Received grants for organization of scientific and outreach events.
- 2008-2013: Led a pathophysiology interest group at the Bogomolets National Medical University.
- Taught multiple R and Python intro workshops to diverse audiences. Co-authored a manual on R for Data Analysis (Ukrainian). Contributed to multiple syllabuses of courses teaching data science.
- · Mentored and trained students of different levels.

Volunteer Experience

- 2022: project initiating urgent support for researchers in Ukraine during the war (Chhugani et al., Science, 2022)
- 2014-2017: volunteer at the scientific outreach events
- 2016-2018: end-to-end organization and co-organization of scientific events

Selected workshops and conferences

- Series of workshops by the DELPHI Data Science Initiative at the University of Utah, Salt Lake City, UT. 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
- The Non-Coding Genome EMBO|EMBL Symposium, Heidelberg, Germany. 2013

References

Available upon request.