

# Ekaterina Zheveliuk

+4917675866522 | [ezhevelyuk@gmail.com](mailto:ezhevelyuk@gmail.com) | Jena, Germany

## Work experience and projects participation

- Mar 2019-  
Sep 2023**      **Jena University Hospital**, Department of Haematology and Internal Oncology (PI: Prof Dr Sebastian Scholl)  
Project: *Detection, isolation and characterization of circulating tumor cells from liver and lung cancer*  
Funded by the competitive *Landesgraduiertenstipendium* scholarship of the state of Thuringia
- Aug 2017-  
Feb 2019**      Private tutor of Biology for school students
- Oct 2016-  
Jun 2017**      **Engelhardt Institute of Molecular Biology of Russian Academy of Sciences**, Laboratory of postgenomic studies (PI: Dr Anna Kudryavtseva)  
Project: *Molecular-genetic analysis of carotid body tumors with various clinical-pathological characteristics*
- Sept 2014-  
Jun 2015**      **Shemyakin-Ovchinnikov Institute of bioorganic chemistry**, Department of Genetics and Postgenomic Technologies, Laboratory of human genes structure and functions (PI: Evgeniy Sverdlov)  
Project: *Expression of the modified Dam-methylase gene in mammalian cells*

## Education

- Sept 2015-  
Jun 2017**      *MSc, Molecular Biology* **Lomonosov Moscow State University**, Russian Federation (degree awarded 30.06.2017)
- Sept 2011-  
Jun 2015**      *BSc, Molecular Biology* **Lomonosov Moscow State University**, Russian Federation (degree awarded 30.06.2015)
- Sept 2008-  
Jun 2011**      *School certificate*, **Gymnasium 1543**, Moscow, Russian Federation

## Research skills

- Molecular biology**      extraction and purification of nucleic acids, conventional PCR, RT qPCR, ddPCR, reverse transcription, cDNA synthesis, agarose electrophoresis of nucleic acids, western blotting, construction of plasmid vectors, whole genome and whole transcriptome amplification of a single cell, nucleic acids concentration analysis
- Cell biology**      plasmid cloning in bacteria, transient transfection of eukaryotic cells, mammalian cell culture, bacterial cell culture, individual cell picking with CellSelector
- Software**      MS Office; Unix shell basics; Python basics;  
R – basics, ggplot2, Bioconductor (vsna, DESeq2, etc), dplyr, gprofiler2

## Languages

**English** (IELTS 8.0, Advanced/Proficiency) | **German** (Intermediate) | **Russian** (Native)

## Workshops and specialised courses

- Dec 2023**      **Introduction to R**, Friedrich Schiller University Jena, Germany  
*Data importing, cleaning, processing, analysis and visualisation; work with functions, multiple variables and subsets of data*
- Nov 2023 – Feb 2024**      **Bioinformatics course**, Friedrich Schiller University Jena, Germany  
*Functional genomics, NGS, linear regression models, machine learning, sequence analysis*
- Nov 2023**      **Introduction to the command line**, Zedif workshop, Jena  
*Use of the command line to manage files and folders, start and control programs, search for files and within files, manipulate the content of files, create small scripts for repeating tasks*
- Oct 2023**      **Introduction to programming with Python**, Graduate academy workshop, Jena  
*Data types and variables, flow control and functions, file reading and writing, visualisation of data*
- Apr 2023**      **Academic writing skills**, Graduate academy workshop, Jena
- Oct 2021**      JSAM workshop “**Good scientific practice**”, Jena
- Aug-Sept 2018**      **Summer School of Molecular Medicine**, Jena  
*Modules: Novel technologies in leukaemia diagnostics; Tyrosine phosphorylation in oncogenesis; Circulating tumor cells - liquid biopsy of solid tumors; Imaging of molecular structures in cancer*
- Feb 2017**      **Applied NGS: human genome and exome analysis**. 3-day theoretical and practical course, Moscow  
*Sequence data quality control checks, sequence indexing, sequence alignment, variant calling, annotation*
- Jun-Jul 2013, Jul 2014**      **Laboratory course**, Pushchino  
*Physical and chemical methods in biology; biological spectroscopy; application of mathematical methods in biology*

## Conferences

- Jun 2023**      **IZKF retreat of the graduate program “Experimental medicine”**, Luisental  
Poster presentation: *Detection, isolation and characterization of circulating tumor cells from liver and lung cancer*
- Apr 2015**      **Science conference for students and young scientists “Lomonosov”**, Moscow State University  
Oral presentation: *Expression of the modified Dam-methylase gene in mammalian cells*

## Hobbies and extracurricular activities

**Hackathon** "Skinhack 2.0", 2nd prize (team competition), November 2017

**Shiseikan Budo**, 2<sup>nd</sup> kyu brown belt

**Music** – Singing and playing guitar and piano in a band; composing

**Bouldering**

## Publications

### *Peer-review journals*

- Snezhkina A.V., Lukyanova E.A., Kalinin D.V., Pokrovsky A.V., Pudova E.A., Fedorova M.S., Volchenko N.N., Stepanov O.A., **Zhevelyuk E.A.**, Kharitonov S.L., Lipatova A.V., Abramov I.S., Golovyuk A.L., Yegorov Y.E., Vishnyakova Kh.S., Moskalev A.A., Krasnov G.S., Melnikova N.V., Shcherbo D.S., Alekseev B.Y., Dmitriev A.A., Zaretsky A.R., Kudryavtseva A.V. *Exome analysis of carotid body tumor. BMC Medical Genomics*. 11(Suppl 1):17. DOI: 10.1186/s12920-018-0327-0.

### *Conference abstracts*

- Kudryavtseva A.V., Kalinin D.V., Zaretsky A.R., Golovyuk A.L., Fedorova M.S., Nyushko K.M., **Zhevelyuk E.A.**, Stepanov O.A., Krasnov G.S., Snezhkina A.V. *Identification of germline mutations in SDHx genes in carotid body tumour using next generation sequencing*. June 18-23, 2017, II Russian National conference “**High-throughput sequencing in genomics**”, Novosibirsk
- Snezhkina A.V., Kalinin D.V., Zaretsky A.R., Golovyuk A.L., Fedorova M.S., **Zhevelyuk E.A.**, Stepanov O.A., Krasnov G.S., Kudryavtseva A.V. *NGS application in search for germinal mutations in carotid body tumours*. April 26-28, 2017, **NGS in medical genetics 2017**, Suzdal