ANASTASIYA PUNKO

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Linkedin, Github

EDUCATION

HIGHER SCHOOL OF ECONOMICS, MOSCOW. MASTER'S DEGREE, 2022 – 2024.
DATA ANALYSIS IN BIOLOGY AND MEDICINE

BELARUSIAN STATE UNIVERSITY, MINSK. BACHELOR DEGREE, 2014 – 2018.
BIOLOGICAL FACULTY, SPECIALIZATION: GENETICS

EMPLOYMENT

RESEARCHER, CENTER FOR ADVANCED TECHNOLOGIES ; TASHKENT. SEP 2024 — PRESENT

RESEARCHER, REPUBLICAN SPECIALIZED SCIENTIFIC AND PRACTICAL MEDICAL CENTER
OF ONCOLOGY AND RADIOLOGY; TASHKENT. SEP 2024 — PRESENT

JUNIOR RESEARCHER, BELARUSIAN PEDIATRIC CENTER OF ONCOLOGY, HEMATOLOGY
AND IMMUNOLOGY; MINSK. APR 2017 – SEP 2022

Performing NGS and statistically analyzing the data with bioinformatics tools; Designing experiments, collecting data, working with control sets; Diagnosis of patients by various molecular-genetic methods: chimerism; minimal residual disease; diagnostics of brain tumors using the NGS panel; Writing and reporting results

MOLECULAR DIAGNOSTIC SPECIALIST, TOSILENA; MINSK. OCT2021 – DEC2021

CLINICAL BIOINFORMATICIAN, INDEPENDENT CLINICAL BIOINFORMATICS LABORATORY,
MOSCOW. JUN 2021 – AUG 2021

RESEARCHER, MODELING & SIMULATION DECISIONS; MOSCOW. JAN 2023 – JUN 2024

Mathematical modelling of immunotherapy; Compilation of a database of published experiments; Reproduction of a mathematical model; Calibration of the model; Model simulation. Data processing and plotting using R programming language.

SKILLS

DNA, RNA isolation and purification
Molecular assays: dierent methods of PCR analysis; primers and TaqMan probes design
Sanger sequencing and data analysis
NGS sequencing and data analysis
Mathematical Modeling in medicine: PKPD, QSP, Monolix.
R Programming, Python
Machine Learning, Dashboards and Analytical Systems Design

LANGUAGES

Russian (native)
English (B2)

CERTIFICATES AND TRAINING

‣Training in EPAM "Introduction to Python" Minsk, 15 – 28 October, 2019.

‣4th NGS Data Analysis School "MGNGS School'19" Moscow, 28 October – 1 November 2019.

‣Courses in STEPIK platform: "Introduction to Linux" , "Basics of Statistics", "Introduction to NGS".

‣Courses in EDX platform: "Introduction to Data Science" , "Data Science Tools", "CS50's Introduction to Programming with Python" .

‣School of Mathematical Modeling in Pharmaceutics. Moscow, December 5-9, 2022.

‣Intensive course "Analysis of bacterial genomic variants". Moscow, February 24-26, 2023.

‣Winter school on Analytics and Data Science. Moscow, February 3-4, 2024.

‣PKanalix® Summer School. September 9-13, 2024

ABSTRACTS AND PUBLICATIONS

1. Punko A., Lavrinenko V., Mareiko Y. (2018) Influence Of The Underlying Disease On Chimerism Dynamics After Allogeneic Hematopoietic Stem Cell Transplantation.Russian Journal Of Pediatric HematologyAnd Oncology. P: 123–124.

2. Vashkevich E. P., Migas A. A., Matveyenko M.A., Savich Y., Punko A., Yermilova T. I., Tarasevich I., Shman T., Aleinikova O. V. (2019) Experience in application of NK cells expanded in the presence of genetically modified line K-562. Russian Journal Of Pediatric HematologyAnd Oncology. P: 158.

3. Punko A., Lavrinenko V. (2019) Comparison of chimerism in patients with aplastic anemia and primary immunodeficiencies after allogenic hemapoetic stem cell transplantation. 14th Bialystok International Medical Congress. P: 73.

4. Aleinikova O., Naumovich M., Barovskaya Y., Vashkevich E., Matveenko M., Migas A., Isaikina Y., Mishkova O., Punko A., Shman T. (2019) Natural Killer Cells in Immunotherapy of Hematological Malignancies in Children. Hematology. Transfusiology. Eastern Europe. Vol.5, No 4. P:377-386.

5. Irina E. Guryanova, Vladislav R. Vertelco, Silvia Berra, Chiara Suritti,Alexandr A. Migas, Ekaterina A. Polyakova, Andrei S. Babenka, Anastasiya V. Punko, Elena I. Lebedeva, Debora Parolin, Mikhail V. Belevtsev, Natalia E. Konoplya, Sonia Caccia (2020) Whole Exome Sequencing identified novel candidate genes associated with hereditary angioedema of unknown origin. 2020 HAE Virtual Global Conference. P: 9.

6. Aleinikova O., Migas A., Stolyarova E., Punko A., Movchan L., Klych A., Mishkova O., Hill A., Meleshko A., Konoplya N. (2021) The first experience of using locally manufactured CAR-T cells in patients with relapsed/refractory acute lymphoblastic leukemia in Belarus. Pediatric Hematology/ Oncology and Immunopathology. Vol.20 (2). P: 30–38.

7. Punko A., Volkova A. (2024) Mathematical modeling of CAR-T immunotherapy in multiple myeloma. XXX Symposium on Bioinformatics and Computer-Aided Drug Discovery (Virtual, September 16-28, 2024).