

Anastassiya Udalova

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[LinkedIn profile](#)

Summary

Medical doctor and experienced cardiologist transitioning into **molecular biology with a strong academic foundation** and **hands-on laboratory experience**. Recently completed Master's in Molecular Biology and Genetics with a thesis on **stem cell therapy for cardiac diseases**. Eager to apply combined clinical and molecular biology expertise in biotech or pharmaceutical settings.

Experience

- Internship in Translational Cardiology Laboratory**, Department of Molecular Medicine – Pavia, Italy Nov, 2023 - present
- Investigating the cardioprotective potential of AMSC-derived EVs and the secretome.
 - Designed and conducted in vitro angiogenesis, oxidative stress, and anti-fibrosis assays using HUVEC, H9C2 and iPSC-derived cardiac fibroblast
- Erasmus+BIP program**, Redox biology in health and disease – Barcelona, Spain Feb, 2025
- Contributed to a team project on oxidative stress response; presented experimental findings to international faculty, receiving top 10% project score.
 - Performed hands-on experiments on detection of nitrated albumin; achieved reproducible results with <15% variation.
- GP/Cardiologist**, American Medical Center – Astana, KZ 2021 – 2023
- Managed care for over 500 international patients with 95% satisfactory rating
 - Reduced unnecessary cardiology referrals by 30% through evidence-based primary diagnostics
- Cardiologist**, Covid City Hospital – Astana, KZ 2020 – 2021
- Developed individualized cardiac treatment protocols for COVID-19 ICU patients; contributed to 20% reduction in cardiac complication rate.
 - Performed >300 emergency echo cardiographies, enabling faster critical care decisions
 - Contributed to publication on cytokine adsorption therapy presented at the nephrology congress
- Research Assistant, part-time**, National Scientific Medical Center – Astana, KZ 2018 – 2020
- Worked on research project focused on stem cells therapy in HF
 - Analyzed data from over 100 experimental samples using R, achieving statistically significant findings ($p < 0.05$).
 - Led literature review that supported grant application
- Cardiologist**, National Scientific Medical Center – Astana, KZ 2018 – 2020
- Performed TTE, ECG, stress echo; managed acute cardiac emergencies

Education

- University of Pavia, Italy**, M.Sc. in Molecular Biology and Genetics Sept 2023 – Dec 2025
- **Thesis:** Cardioprotective potential of AMSC-derived secretome/exosomes
Translational Cardiology Lab, Molecular Medicine department
- National Research Cardiac Surgery Center, Kazakhstan**, Cardiology residency 2015 – 2018
- GPA: 3.78/4.0

Astana Medical University, Kazakhstan, Bachelor's degree, General Medicine

2008 – 2015

- GPA: 3.78/4.0

Courses

Introduction to the Principles and Practice of Clinical Research 2024-2025,
National Institutes of Health

June - July 2025

Skills

- **Techniques:** RT-PCR, Western Blot, In-Cell Western, Jess, Immunofluorescence, Immuno-chemiluminescence, Gel Electrophoresis
- **Cell Work:** Cell culture, sample preparation, staining, imaging.
- **Software:** ImageJ, GraphPad Prism, Compass, Odyssey
- **Coding:** Python (basic), R (basic), Bash (basic), Nextflow (basic).
- **Clinical Research:** Patient care and monitoring, protocol adherence, informed consent awareness, documentation, data collection and analysis, adverse event tracking.
- **Regulatory Knowledge:** GCP principles, ethical research practices, scientific writing.

Publications

Comparison of death odds ratio in COVID-19 patients with conservative therapy vs cytokine adsorption.

2020

Presented at 38th Vicenza Course on AKI and CRRT.

<https://www.jafroninternational.com/uploadfile/202206/b3451828b25345d.pdf>

Dynamics of procalcitonin, IL-6, and CRP (C-reactive protein) during cytokine adsorption (HA-330).

2020

Presented at 38th Vicenza Course on AKI and CRRT.

<https://www.jafroninternational.com/uploadfile/202206/5df1788c03386b6.pdf>

Languages

- Russian (Native), English (C1), Kazakh (B2), German (A2), Italian (A2)