

Varvara Lazarenko

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Date of birth 29.12.1998 (26 years)

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PERSONAL STATEMENT

I am a curious and dedicated graduate with a Master's degree in Medical Biology, driven by a passion for advancing healthcare through science. My experience spans both fundamental research and clinical trial development. With a solid biomedical background and a keen interest in sharing knowledge, I am motivated to learn new research methods and to grow within the clinical, pharmaceutical, or academic field.

EDUCATION

09/2022 - 08/2024 MSc in Medical Biology - Radboud University, Nijmegen, The Netherlands

- ✓ <u>Specialisation</u>: Science, Management and Innovation
- ✓ GPA result: 7.63/10.00
- ✓ <u>Principal subjects</u>: Future of health, How Health Systems Work, Sustainable Innovation Management, Molecular and Cellular Neurobiology, Molecular Therapy, Trends in Stem Cell Biology
- ✓ <u>Master thesis</u>: «Potential added value of home telemonitoring technology in elderly care», GPA result: **8.00/10.00**

09/2016 - 06/2020 BSc in Biology - Lomonosov Moscow State University (MSU), Moscow, Russia

- ✓ <u>Specialisation</u>: Human and Animal Physiology
- ✓ GPA result: 4.83/5.00
- ✓ <u>Principal subjects</u>: Human and animal physiology, Electrophysiology of excited cells, Physiology of central nervous and visceral systems, Physiology of circulation, Biochemistry, Immunology, Genetics, Microbiology, Embryology
- ✓ <u>Skills</u>: qPCR, RT-PCR, gel electrophoresis, wire myography, western blotting, ELISA,HPLC, microscopy, cell culture, immunohistochemistry, intracellular recording (microelectrodes, patch clamp), behaviour tests (open field test, elevated plus maze, light-dark box test)
- ✓ <u>Bachelor thesis</u>: «Role of TASK-1 channels in arterial tone regulation in different organs in rats», GPA result: 5.00/5.00

WORK EXPERIENCE

10/2024 - current Part-time staff while searching for a life sciences position Renato's Pizzeria - Nijmegen, The Netherlands

- ✓ Providing customer service
- √ Selling the restaurant's menu

02/2024 - 08/2024 Intern at <u>Digital Transformation of Rehabilitation Care</u>

HAN University of Applied Sciences - Nijmegen, The Netherlands

- ✓ Added value research of home telemonitoring in elderly care based on the HTA framework presented onto the Quadruple aim
- ✓ Deployment of surveys (22) in Dutch and interviewing (7) medical professionals in English on their home telemonitoring experience/attitude
- ✓ Cost-effectiveness analysis (Markov model cohort simulation) on home telemonitoring in the Netherlands

02/2023 - 08/2023 Intern at Neuronal Networks of Memory

Donders Institute - Nijmegen, The Netherlands

- ✓ In vivo Ca²+ imaging of the retrosplenial cortex in mice during head-fixed virtual social learning using two-photon microscopy
- ✓ Management of laboratory animals (GCaMP6 transgenic mice, handling & feeding, craniotomy)
- ✓ Computational analysis of the obtained data (Python, DeepLabCut)

Assistant at the Science Department of the Contract Research Organization 08/2021 - 08/2022

LABMGMU, LLC - Moscow, Russia

- ✓ Developing designs, synopses, protocols, investigator's brochures for more than 35 phase I, II, III clinical trials and bioequivalence trials
- ✓ More than 30 user interviews (testing the readability of pharmaceuticals' package leaflets)
- ✓ Advising on the number & design of (pre-)clinical studies for pharma clients
- ✓ Project management (control of the deadlines; compliance with the sponsor's requirements)
- ✓ Computational analysis of the obtained data (STATISTICA, GraphPad Prism)

10/2020 - 10/2021 Junior Research Assistant at Faculty of Biology

Lomonosov Moscow State University - Moscow, Russia

- ✓ Physiological experiments (wire myography technique, rat coronary and renal arteries)
- ✓ Molecular experiments (RNA extraction, reverse transcription, qPCR, western blotting)
- ✓ Cell and tissue culture experiments (cultivation of arteries in the presence of methoxamine, isoproterenol, and H2O)
- ✓ Management of laboratory animals (Wistar rats: housing, care, breeding)
- ✓ Statistical analysis of the obtained data (STATISTICA, GraphPad Prism)
- ✓ Project management (experiment and research strategy planning)
- ✓ Presentation of the results at the virtual conference ARTERY20, 23-24 October 2020, and at the Conference "Lomonosov-2021", 12-23 April 2021

SCIENTIFIC JOURNAL PUBLICATIONS

- 1. Shvetsova Anastasia A., Lazarenko Varvara S., Gaynullina Dina K., Tarasova Olga S., Schubert Rudolf (2022). TWIK-Related Acid-Sensitive Potassium Channels (TASK-1) Emerge as Contributors to Tone Regulation in Renal Arteries at Alkaline pH. Frontiers in physiology, 13: 895863. https://doi.org/10.3389/fphys.2022.895863
- 2. Lazarenko Varvara, Shvetsova Anastasia, Gaynullina Dina, Schubert Rudolph (2020). TASK-1 Channels Play an Anticontractile Role in Rat Septal Coronary Artery Under Pharmacological Blockade of Endothelium. Artery Research, 26(S1): S58. https://doi.org/10.2991/artres.k.201209.048
- 3. Borzykh A.A., Kuzmin I.V., Kiryukhina O.O., Selivanova E.K., Shvetsova A.A., Lazarenko V.S., Los-Arkos Uvarova S., Nesterenko A.M., Tarasova O.S. (2020). Voluntary running training of female rats during gestation: characteristics of an experimental model [in Russian]. Aviakosmicheskaya i Ekologicheskaya Meditsina, 54(2): 89-95. https://www.elibrary.ru/item.asp?id=42721639

CERTIFICATES

2023	A FELASA accredited course on Laboratory Animal Science (EU function B) at Radbouldumc
2021	An upgrade training on ICH guidelines on Good Clinical Practice (GCP) at LABMGMU

ACADEMIC HONORS AND AWARDS

2022-2024	Awarded Orange Tulip Scholarship for the studies at Radboud University
2020-2021	Awarded MSU Increased State Academic Scholarship for scientific and academic achievements
2021	Second prize-winner in the Lomonosov Universiade on modern problems of biology

DIGITAL SKILLS

Python (beginner), DeepLabCut, STATISTICA, GraphPad Prism, Rotor-Gene Q Series, and MS Office softwares

LANGUAGES

Russian (native), English (fluent – C_2), German (intermediate – B_1 - B_2), Dutch (low intermediate – A_2 - B_1), French (beginner - A_1)

VOLUNTEERING ACTIVITY

2024	Mentorship of the international exchange and Master's students at the Radboud Intro
2023	Organization of the BBB Career Event 2023, Nijmegen
2022-2023	Organization of volleyball tournaments in the international volleyball group at Radboud
2018-2021	Mentorship of the first-year students at Faculty of Biology, MSU, Moscow

HOBBIES

Animals (horses & dogs), volleyball, reading, drawing, guitar playing, traveling

MOTIVATION LETTER

Dear Dr. Hilton, Dr. Jonkman, and Selection Committee,

I would like to express my strong interest in the PhD position in Neurocognition of Shyness and Social Anxiety in Development within the Department of Cognitive Neuroscience at Maastricht University. This inspiring position resonates deeply with my passion for neuroscience and to psychology, and I am eager to apply my scientific background and interdisciplinary experience to investigate the cognitive mechanisms underlying social functioning.

I hold a BSc in Biology and an MSc in Medical Biology, during which I developed a solid foundation in physiology, neuroscience, and cognitive biology. I have always been fascinated by how the brain works and what mechanisms underlie neurocognitive diseases, and through both coursework and research, I got the chance to explore these questions. During my BSc, I gained hands-on exposure to EEG by practicing measurements on fellow students and participated in an MRI study on mice, which gave me early insight into how neuroimaging methods are applied in practice. Later, during my Master's internship at the Donders Institute, I got the chance to study the empathy- and anxiety-related processes in mice by investigating the mechanisms of social fear learning with a technically demanding two-photon calcium imaging setup. This work required me to integrate experimental design, behavioural data collection, and computational analysis in Python and DeepLabCut, which taught me how to translate complex datasets into functional insights about cognition and behaviour. I also completed a Master's internship at HAN University of Applied Sciences, where I evaluated telemonitoring innovations in elderly care. I pursued this project because I wanted to explore the direct societal benefits that research and healthcare can bring, which further strengthened my motivation to focus on translational science.

Earlier, as a Junior Research Assistant, I studied vascular regulation using *ex vivo* artery models in rats, combining wire myography, molecular biology, and statistical analysis. These projects taught me how to handle sensitive biological systems with precision and strengthened my skills in planning, data analysis, and scientific reporting, while also helping me realise that my interest lies more in neuroscience than in circulation research. Beyond academia, I broadened my translational perspective while working at a Contract Research Organization, where I supported clinical trials and gained experience with regulatory compliance and interdisciplinary teamwork.

What excites me most about this PhD is the chance to explore how executive functions and attentional processes contribute to the development of shyness and social anxiety. My experience at the Donders Institute inspired me to focus on developmental research in humans, as I believe it offers the most direct societal benefits. I would be excited to design innovative behavioural tasks, work with EEG, fMRI, and eye-tracking, and study participants across childhood, adolescence, and adulthood.

I thrive in international, collaborative teams and value clear communication. I am fluent in English and currently learning Dutch (A2–B1 level), with the aim of supporting participant interaction and integrating into the academic community. I also value knowledge sharing and have experience mentoring younger students, which makes me particularly enthusiastic about interacting with children and adolescents, as well as about the teaching part of this position. I see this PhD project as a vital step toward my goal of becoming an independent scientist in neuroscience and cognition research.

Thank you for considering my application. I would be honoured to join Maastricht University's Faculty of Psychology and Neuroscience and to contribute to advancing our understanding of the neurocognitive mechanisms of shyness and social anxiety.

Warm regards, Varvara Lazarenko

REFEREES

 Arie Kim, supervisor of the first master's internship, arie.k

 $2. \ Geert \ Frederix, \ supervisor \ of \ the \ second \ master's \ internship, \ geert.frederix@han.nl$