

# Ruzanna Arsen Shushanyan

✉ ruzanna.shushanyan@ysu.am



## Research Institute of Biology

Laboratory of Human and Animal Integrative and Adaptive Physiology  
Researcher

## Education

<b>Institution</b>	Yerevan State University
<b>Faculty</b>	Faculty of Biology, Chair of Human and Animal Physiology
<b>Date</b>	2019 - 2021
<b>Degree name</b>	Masters

<b>Institution</b>	Yerevan State University
<b>Faculty</b>	Faculty of Biology, Chair of Zoology
<b>Date</b>	2015 - 2019
<b>Degree name</b>	Bachelor

## Scientific Rank/degree

<b>Institution</b>	Yerevan State University
<b>Date</b>	2025
<b>Degree name</b>	Candidate
<b>Specialty</b>	Biological sciences
<b>Scientific Supervisor</b>	Anna Karapetyan
<b>Research Topic</b>	Assessment of morphofunctional changes in some organs of rats under acute hypobaric hypoxic conditions

## Language skills

Հայերեն English Русский

## Work experience

<b>Institution</b>	Yerevan State University, Research Institute of Biology
<b>Period of time</b>	2025 till now
<b>Rank/degree</b>	Researcher

<b>Institution</b>	YSU, Faculty of Biology, Department of Human and Animal Physiology
<b>Period of time</b>	2023 - 2025
<b>Rank/degree</b>	Senior Laboratory Assistant

<b>Institution</b>	Yerevan State University, Research Institute of Biology
<b>Period of time</b>	2021 - 2024
<b>Rank/degree</b>	Junior researcher

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<b>Institution</b>	Institute for Informatics and Automation Problems NAS RA
<b>Period of time</b>	2019 till now
<b>Rank/degree</b>	Junior researcher

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## Scientific interests

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- Neuroscience
  - Neuroanatomy
  - Histology
  - Human Physiology
  - Science Communication & Policy Analysis
  - Scientometrics
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## Participation in international conferences and seminars

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<b>06/10/2025 - 08/10/2025</b>	9th Congress of the Serbian Neuroscience Society Serbia
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<b>23/07/2025 - 26/07/2025</b>	XXIX International Symposium on Morphological Sciences (ISMS 2025) Portugal
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<b>12/06/2025 - 14/06/2025</b>	Multifaceted Neuroscience:MFN 2025 Conference Georgia
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<b>02/06/2025 - 08/06/2025</b>	PROM – Short-Term Academic Exchange Program John Paul II Catholic University of Lublin Poland
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<b>22/03/2021 - 04/04/2021</b>	Best Practices for Biomedical Research Data Management Harvard Medical School United States of America (the)
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<b>21/10/2024 - 23/10/2024</b>	The 1st International Conference for Young Neuroscientists “Brain and Neuroplasticity” Georgia
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<b>29/06/2024 - 03/07/2024</b>	The 48th FEBS Congress 'Mining biochemistry for human health and well-being' Italy
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08/07/2023 -  
12/07/2023

The 47th FEBS Congress 'Together in bioscience for a better future'  
France

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## Membership

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**Institution** International Youth Neuroscience Association  
**Period of time** 2025 till now

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**Institution** FENS Federation of European Neuroscience Societies  
**Period of time** 2025 till now

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**Institution** Society for Neuroscience SfN  
**Period of time** 2025 till now

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**Institution** Federation of European Biochemical Societies  
**Period of time** 2022 - 2025

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**Institution** BIO-SEE Society (Biomedical Imaging Organization for South East Europe)  
**Period of time** 2022 - 2025

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## Publications

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*Article*

**Tissue remodeling during high-altitude pulmonary edema in rats: Biochemical and histomorphological analysis**

Ruzanna A. Shushanyan, Hasmik M. Karapetyan, Edita E. Nadiryan, Nikolay V. Avtandilyan, Anna V. Grigoryan, Anna F. Karapetyan

Tissue and Cell 2025 102727

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*Article*

**Histomorphological assessment of T-2 toxin, ochratoxin A, and aflatoxin B1-induced renal damage in a rat model**

Anna Grigoryan, Tamara Abgaryan, Ruzanna Shushanyan, Ruzanna Adamyan, Marieta Mkhitarian, Lyudmila Niazyan, Anna Karapetyan

Ukrainian Journal of Nephrology and Dialysis 2025 14-23

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*Article*

**Investigating the interplay of immune response and redox homeostasis in hypoxic brain injury at high altitude**

Ruzanna Shushanyan, Hasmik Karapetyan, Nona Adamyan, Anna Karapetyan

European Journal of Anatomy 2025 551-561

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*Article*

**Salivary Nitric Oxide Metabolites and Hemodynamics in Students Experiencing Psycho-Emotional Stress**

E. S. Gevorkyan, R. A. Shushanyan, L. E. Ghukasyan, K. R. Hovhannisyan, A. F. Karapetyan  
Human Physiology (Физиология человека) 2025 525-531

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*Article*

**Morphological abnormalities of peripheral blood cells among patients with COVID-19 disease**

Anna Karapetyan, Lyudmila Niazyan, Ruzanna Shushanyan, Tamara Abgaryan, Sevan Iritsyan,

Tehmine Galechyan, Sargsyan Knarik, Anna Grigoryan

Heliyon 2024 e24527

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*Article*

**The role of oxidative stress and neuroinflammatory mediators in the pathogenesis of high-altitude cerebral edema in rats**

Ruzanna A. Shushanyan, Nikolay V. Avtandilyan, Anna V. Grigoryan, Anna F. Karapetyan

Respiratory Physiology and Neurobiology 2024 104286

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*Article*

**THE EVALUATION OF MAST CELLS, TNF- $\alpha$  EXPRESSION AND TUNEL-POSITIVE NEURONS IN THE BRAIN DURING INFLAMMATORY RESPONSE INDUCED BY ACUTE HYPOBARIC HYPOXIA**

R.A. Shushanyan

Proceedings of the YSU B: Chemical and Biological Sciences 2024 86-94

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*Article*

**Histopathological changes of mice tissues in course of the envenomation by the *Macrovipera lebetina obtusa* venom and the neutralizing effect of the ovine-derived experimental antivenom**

Gevorg Avagyan, Hasmik Yerosyan, Arsen Kishmiryan, Ruzanna Shushanyan, Arthur Melkonian,

Naira M. Ayvazyan

Toxicon 2024 107821

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*Article*

**ASSESSMENT OF CHANGES IN HEART RATE VARIABILITY INDICES OF STUDENTS AFTER COVID-19 LOCKDOWN: A COHORT STUDY**

Emma Gevorkyan, Ruzanna Shushanyan, Karine Hovhannisyan, Marietta Karapetyan, Anna Karapetyan

Медицинские новости Грузии (Georgian medical news) 2024 199-204

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*Article*

**Antioxidant effects of *Crataegus laevigata* on rat's brain under hypobaric hypoxia-induced oxygen deficiency**

Karapetyan M.A., Adamyan N.Yu., Shushanyan R.A., Karapetyan A.F.

Neurochemical Journal 2023 477-481

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*Article*

**Cardiovascular Adaptability of Young Adults under Physical Activity during the Post-COVID-19 Period**

E. S. Gevorkyan, K. V. Baghdasaryan, R. A. Shushanyan, A. F. Karapetyan

Human Physiology (Физиология человека) 2023 562-572

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*Article*

**Histological and cytochemical analysis of the brain under conditions of hypobaric hypoxia-induced oxygen deficiency in albino rats**

*Article*

**HYPOBARIC HYPOXIA CAUSES HISTOMORPHOLOGICAL ALTERATIONS IN THE DIFFERENT PARTS OF THE RAT'S BRAIN**

R. A. SHUSHANYAN, A. V. GRIGORYAN, A. F. KARAPETYAN

Proceedings of the YSU B: Chemical and Biological Sciences 2022 266-274

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*Article*

**ASSESSMENT OF COLLABORATION PATTERNS IN THE FIELD OF BIOLOGY IN ARMENIA DURING 2007-2020: A BIBLIOMETRIC OVERVIEW**

R. A. Shushanyan, M. J. Ohanyan

Biological Journal of Armenia 2022 93-100

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*Article*

**The role of socio-economic and scientometric indicators in the cancer mortality rate**

Shushanik Sargsyan, Parandzem Hakobyan, Ruzanna Shushanyan, Aram Mirzoyan, Viktor Blaginin

Upravlenets (The Manager) 2022 54-68

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*Conference*

**Assessment of NO level and histological alterations in the rats brain during high altitude cerebral edema induced by hypobaric hypoxia**

R. Shushanyan, A. Karapetyan, A. Grigoryan

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*Conference*

**Cytotoxic effect of the of SARS COV-2 on peripheral blood cells in the pathogenesis of COVID-19 disease**

A. Karapetyan, A. Grigoryan, L. Niazyan, R. Shushanyan, T. Abgaryan, T. Galechyan, S. Iritsyan,

K. Sargsyan

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*Conference*

**Acute brain edema associated with the elevated levels of oxidative stress mediators and TNF-alpha in rats: biochemical and immunohistochemical assessment**

R. Shushanyan, A. Grigoryan, E. Nadiryan, A. Karapetyan

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*Conference*

**Assessment of long-term cardiovascular complications of SARS-COV-2 in young adults**

E. Gevorkyan, R. Shushanyan, K. Hovhannisyan, A. Karapetyan

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*Conference*

**The morphofunctional changes in rat's liver under conditions of 7, 12-DMBA-induced breast cancer after NG-Nitro-L-arginine methyl ester treatment**

A. Grigoryan, R. Shushanyan, N. Avtandilyan, A. Karapetyan

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*Conference*

**Impact of Sea Buckthorn Oil and Dexamethasone on Hematological Parameters in Hypoxia-Exposed Rats**

Anna Grigoryan, Ruzanna Shushanyan, Tamara Abgaryan, Milena Shahbazyan, Tatev Poghosyan,

Zarik Stepanyan, Nona Grigoryan, Anna Karapetyan

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*Conference*

**Liver Regeneration and Immune System Interactions: Evidence from Thymus and Bursa of Fabricius in Chickens**

Tamara Abgaryan, Anna Grigoryan, Ruzanna Shushanyan, Milena Shahbazyan, Anna Karapetyan

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*Conference*

**The impact of high altitude hypoxia on brain and liver: histomorphological insights into hepatic-neurovascular interactions**

R. Shushanyan, A. Grigoryan, T. Abgaryan, A. Karapetyan

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*Conference*

**MORPHOFUNCTIONAL CHANGES IN THE BURSA OF FABRICIUS DURING LIVER REGENERATION**

T. Abgaryan, A. Grigoryan, R. Shushanyan, A. Karapetyan

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