


# Ruzanna Arsen Shushanyan

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## Research Institute of Biology

Laboratory of Integrative and Adaptive Physiology of Humans and Animals  
Researcher

## Education

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

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

## Scientific Rank/degree

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

## Language skills

Հայերեն English Русский

## Work experience

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

Institution	YSU, Faculty of Biology, Department of Human and Animal Physiology
Period of time	2023 - 2025
Rank/degree	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

<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

## Scientific interests

- Neuroscience, Neuroanatomy, Neurochemistry, Histology, Physiology

## Participation in international conferences and seminars

<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 - 06/06/2025</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>20/08/2022 - 09/09/2022</b>	Online Summer School of Molecular Medicine University of Jena Germany
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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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<b>08/07/2023 - 12/07/2023</b>	The 47th FEBS Congress 'Together in bioscience for a better future' France
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## Membership

<b>Institution</b>	Society for Neuroscience SfN
<b>Period of time</b>	2025 till now
<b>Institution</b>	Federation of European Biochemical Societies
<b>Period of time</b>	2022 till now
<b>Institution</b>	BIO-SEE Society (Biomedical Imaging Organization for South East Europe)
<b>Period of time</b>	2022 - 2025

## Publications

### 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

### 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

### 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

### 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

### 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

### 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 Yeranossyan, 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 Gevorgyan, 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. Gevorgyan, 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**

Ruzanna Shushanyan, Anna Grigoryan, Tamara Abgaryan, Anna Karapetyan  
Acta Histochemica 2023 152114

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*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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