Ruzanna Arsen Shushanyan

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Research Institute of Biology
Laboratory of Human and Animal Integrative and Adaptive Physiology
Scientific Worker

Faculty of Biology
Research Institute of Biology
Laboratory of Human and Animal Integrative and Adaptive Physiology
Scientific Worker

Faculty of Biology
Chair of Human and Animal Morphology and Physiology
Lecturer on an hourly basis

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

Date	2025
Degree name	Candidate
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 Español

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

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

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

Participation in international conferences and seminars

06/10/2025 - 08/10/2025	9th Congress of the Serbian Neuroscience Society Serbia
23/07/2025 - 26/07/2025	XXIX International Symposium on Morphological Sciences (ISMS 2025) Portugal
12/06/2025 - 14/06/2025	Multifaceted Neuroscience:MFN 2025 Conference Georgia
02/06/2025 - 08/06/2025	PROM – Short-Term Academic Exchange Program John Paul II Catholic University of Lublin Poland
22/03/2021 - 04/04/2021	Best Practices for Biomedical Research Data Management Harvard Medical School United States of America (the)
21/10/2024 - 23/10/2024	The 1st International Conference for Young Neuroscientists “Brain and Neuroplasticity” Georgia
29/06/2024 - 03/07/2024	The 48th FEBS Congress 'Mining biochemistry for human health and well-being' Italy
08/07/2023 - 12/07/2023	The 47th FEBS Congress 'Together in bioscience for a better future' France

Membership

Institution	International Youth Neuroscience Association
Period of time	2025 till now

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

Institution	Society for Neuroscience SfN
Period of time	2025 till now

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

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

Publications

Article

Oxidative stress level and histopathological changes in the rat brain following separate and combined administration of cisplatin and dexamethasone

Zh.V. Yavroyan, R.A. Shushanyan, A.L. Asatryan, N.R. Hakobyan, A.G. Hovhannisyan, A.V. Grigoryan, T.A. Abgaryan, E.S. Gevorgyan, A.F. Karapetyan

Brain Research 2026 1-8

https://www.sciencedirect.com/science/article/pii/S0006899326001988?via%3Dihub

Conference

Visual System Vulnerability to Acute Hypoxia: Structural Remodeling and Pharmacological Modulation

Ruzanna A. Shushanyan, Anna V. Grigoryan, Tamara A. Abgaryan, Anna F. Karapetyan

Acta Neurobiologiae Experimentalis 2026 I–CXCVI

https://www.neuronusforum.pl/

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 Mkhitaryan, Lyudmila Niazyan, Anna Karapetyan

Ukrainian Journal of Nephrology and Dialysis 2025 14-23

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

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 2025 525–531

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

2025 171-171

https://www.ysu.am/en/conference/869

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

2025 157-157

https://www.ysu.am/en/conference/869

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

2025 130 - 131

https://www.isms2025.org/

Conference

MORPHOFUNCTIONAL CHANGES IN THE BURSA OF FABRICIUS DURING LIVER REGENERATION

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

2025 101 - 101

https://www.isms2025.org/

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 & Neurobiology 2024 104286

Article

THE EVALUATION OF MAST CELLS, TNF-α 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 Yeranosyan, Arsen Kishmiryan, Ruzanna Shushanyan, Arthur Melkonian,

Naira M. Ayvazyan

Toxicon 2024 107821

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

Georgian Medical News 2024 199-204

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

2024 349-349

https://febs.onlinelibrary.wiley.com/toc/22115463/2024/14/S2

Conference

Assessment of long-term cardiovascular complications of SARS-COV-2 in young adults
E. Gevorkyan, R. Shushanyan, K. Hovhannisyan, A. Karapetyan

2024 520-520

https://febs.onlinelibrary.wiley.com/doi/epdf/10.1002/2211-5463.13856

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

2024 521-521

https://febs.onlinelibrary.wiley.com/doi/epdf/10.1002/2211-5463.13856

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

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 2023 562–572

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

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

2023 112-112

https://2023.febscongress.org/

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

2023 104-104

https://2023.febscongress.org/

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

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 2022 54-68

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
