Anzhela Ashot Sargsyan

Faculty of Biology
Chair of Genetics and Cytology
Head of Chair (Assistant)

Faculty of Biology

Chair of Genetics and Cytology

Head of Chair (Assistant)

Faculty of Biology

Research Institute of Biology

Genomic Instability and Molecular Mutagenesis Group

Scientific Worker

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(060) 71-05-16
angela.sargsyan@ysu.am

Education

Institution	Yerevan State University
Faculty	Faculty of Biology, Department of Genetics and Cytology
Date	2016 - 2020
Degree name	PhD student

Institution	Yerevan State University
Faculty	Faculty of Biology, Department of Genetics and Cytology
Date	2014 - 2016
Degree name	Masters

Institution	Yerevan State University
Faculty	Faculty of Biology
Date	2010 - 2014
Degree name	Bachelor

Scientific Rank/degree

Institution	Yerevan State University
Date	2025
Degree name	Candidate
Scientific Supervisor	Rouben Aroutiounian
Research Topic	The genetic and epigenetic effects of xenobiotics in bioindicator organisms from different regions of Armenia

Language skills

Հայերեն English Русский

Work experience

Institution	Yerevan State University, Faculty of Biology, Research Institute of Biology, Group of Genomic Instability and Molecular Mutagenesis
Period of time	2025 till now
Rank/degree	Researcher

Institution	Yerevan State University, Faculty of Biology, Research Institute of Biology, Laboratory of General and Molecular Genetics
Period of time	2024 - 2025
Rank/degree	Specialist of Laboratory

Institution	Yerevan State University, Faculty of Biology, Department of Genetics and Cytology
Period of time	2021 till now
Rank/degree	Lecturer

Institution	Yerevan State University, Faculty of Biology, Department of Genetics and Cytology
Period of time	2020 - 2023
Rank/degree	Head of Educational Laboratory

Institution	Yerevan State University, Faculty of Biology, Department of Genetics and Cytology
Period of time	2016 till now
Rank/degree	Senior Specialist of Laboratory

Participation in international conferences and seminars

01/07/2024 - 04/07/2024	Third evolution-complexity conference: The Evolution of complexity and statistical physics A. Alikhanyan National Science Laboratory Armenia
25/06/2023 - 30/06/2023	72nd Lindau Nobel Laureate Meeting Council for the Lindau Nobel Laureate Meetings Germany
27/03/2023 - 28/03/2023	Armenian meeting – 2023. Climate changes: adaptation A. Alikhanyan National Science Laboratory Armenia
04/07/2022 - 08/07/2022	The 3rd International Workshop on “Ultrafast Beams and Applications” "CANDLE" synchrotron research institute Armenia

05/10/2021 - 10/10/2021	Fifth International Conference, Dedicated to N. W. Timofeeff-Ressovsky and His Scientific School “Modern Problems of Genetics, Radiobiology, Radioecology, and Evolution” Nor Amberd International Conference Centre of the Yerevan Physics Institute Armenia
09/03/2021 - 11/03/2021	1st DNAQUA International Conference COST Action DNAqua-Net, Online Germany
11/04/2016 - 16/04/2016	“Nobel days in Yerevan: Be inspired and create” Yerevan State Medical University after Mkhitar Heratsi Armenia
23/06/2015 - 26/06/2015	III International Scientific Conference of Young Researchers "Armbiotechnology" Scientific and Production Center of NAS RA Armenia
16/06/2015 - 17/06/2015	“Science from the first hands. Epigenetic” Young scientist school Yerevan State University Armenia
07/11/2022 - 05/12/2022	Business trip, Invited researcher Institute of Human Genetics Germany
01/10/2019 - 10/11/2019	Business trip, Invited researcher Institute of Human Genetics Germany
09/03/2018 - 08/05/2018	Business trip, Invited researcher Institute of Human Genetics Germany
01/09/2017 - 30/11/2017	Business trip, Invited researcher Institute of Human Genetics Germany

Publications

Conference

New biomarkers of genomic instability for evaluation of genotoxic effects of accelerated electron radiation in human cells

Harutyunyan T, Hovhannisyan G, Sargsyan A, Kalashyan L, Avagyan E, Tadevosyan G, Baghdasaryan L, Babayan N, Grigoryan B, Davtyan H, Liehr T, Aroutiounian R

2026 13 - 14

http://candle.am/uba26/

Article

Assessing the Environmental Impacts of Pesticides: A Case Study From Armenia
Meri Arzumanyan, Lusine Margaryan, Narine Zakaryan, Ruzanna Matevosyan, Inessa Eloyan,

Iren Shahazizyan, Anzhela Sargsyan, Anahit Atoyants, Siranush Nanagulyan

Biological Science and Innovation for Achieving the Sustainable Development Goals 2026 241 - 262

https://www.scopus.com/pages/publications/105042017324?origin=resultslist

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Article

Application of Tradescantia-based test systems for the assessment of genotoxic effects of environmental radioactivity of undisturbed mountain soils (Aragats Massif, Armenia)
Olga Belyaeva, Rimma Avalyan, Anzhela Sargsyan, Anahit Atoyants, Evelina Agadjanyan,

Rouben Aroutiounian

Isotopes in Environmental and Health Studies 2025 1-16

Article

Knockdown of histone H1–5 gene affects the sensitivity of MRC-5 and HeLa cells to DNA damaging agents
Tigran Harutyunyan, Anzhela Sargsyan, Gohar Tadevosyan, Lily Kalashyan, Rouben Aroutiounian,

Galina Hovhannisyan

Human Gene 2025 1-9

Conference

Genotoxic effects of low LET irradiation by electron pulses in human cells
R.M. Aroutiounian, G.G. Hovhannisyan, N. S. Babayan, A.A. Sargsyan, B.A. Grigoryan, T. Liehr,

T.A. Harutyunyan

2025 19 - 19

https://imb.am/rad2025/

Conference

Telomere Lengths of Human Chromosomes as Potential Biomarkers of Genomic Instability Induced by Electron Beam Radiation
L.A. Kalashyan, A.A. Sargsyan, B.A. Grigoryan, H.D. Davtyan, R.M. Aroutiounian, T. Liehr,

G.G. Hovhannisyan, T.A. Harutyunyan

2025 41 - 41

https://imb.am/rad2025/

Conference

APPLICATION OF WATER GENOTOXICITY BIOMARKERS IN LAKE SEVAN
Aroutiounian R.M., Hovhannisyan G.G., Avalyan R.E., Atoyants A.L., Gabrielyan B.K., Sargsyan A.A.

2025 7 - 7

https://sczhe.sci.am/conference/

Conference

Application of Modern Genetic Biomarkers in Environmental Monitoring
Rouben Aroutiounian, Anzhela Sargsyan, Galina Hovhannisyan

2025 11- 11

Conference

Assessing the Environmental Impacts of Pesticides: A Case Study from Armenia

L.V. Margaryan, M.V. Arzumanyan, N.A. Zakaryan, R.E. Matevosyan, I.M. Eloyan, I.V. Shahazizyan,

A.A. Sargsyan, A.L. Atoyants, S.G. Nanagulyan

2025 98 - 98

Conference

8-OHdG Elevation in Hypoxic COVID-19: A Potential Link to Inflammation and Disease Severity
Tigran Harutyunyan, Gohar Tadevosyan, Anzhela Sargsyan, Lily Kalashyan, Naira Stepanyan,

Rouben Aroutiounian, Galina Hovhannisyan

2025 78 - 78

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

Conference

Leukocyte Telomere Length Changes in Hypoxic COVID-19 patients
Tigran Harutyunyan, Anzhela Sargsyan, Lily Kalashyan, Naira Stepanyan, Thomas Liehr,

Rouben Aroutiounian, Galina Hovhannisyan

2025 85 - 85

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

Conference

Micronuclei levels in doxorubicin- and mitomycin C-treated MRC-5 and HeLa cells with knockdown of the histone H1-5 gene
T. Harutyunyan, A. Sargsyan, G. Tadevosyan, L. Kalashyan, R. Aroutiounian, G. Hovhannisyan

2025 152 - 152

https://crispr2025.rau.am/

Conference

Hybrid Track-Etched Membranes as Antiviral Filters
Rouben Aroutiounian, Tigran Harutyunyan, Anzhela Sargsyan, Evgeny Andreev, Alexander Nechaev,

Pavel Apel, Galina Hovhannisyan, Hovakim Zakaryan

2025 86-86

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

Article

Changes in Telomere Length in Leukocytes and Leukemic Cells after Ultrashort Electron Beam Radiation
Tigran Harutyunyan, Anzhela Sargsyan, Lily Kalashyan, Hovhannes Igityan, Bagrat Grigoryan,

Hakob Davtyan, Rouben Aroutiounian, Thomas Liehr, Galina Hovhannisyan

International Journal of Molecular Sciences 2024 6709

Article

CELL-FREE MITOCHONDRIAL DNA IN DOXORUBICIN-TREATED KCL22 AND K562 CELL LINES
Tigran A. Harutyunyan, Anzhela A. Sargsyan, Lily A. Kalashyan, Hovhannes A. Igityan,

Rouben M. Aroutiounian, Galina G. Hovhannisyan

Proceedings of the YSU B Chemical and Biological Sciences 2024 9-16

Article

DNA Damage in Moderate and Severe COVID-19 Cases: Relation to Demographic, Clinical, and Laboratory Parameters
Tigran Harutyunyan, Anzhela Sargsyan, Lily Kalashyan, Naira Stepanyan, Rouben Aroutiounian,

Thomas Liehr, Galina Hovhannisyan

International Journal of Molecular Sciences 2024 10293

Article

EVALUATION OF GENOTOXIC EFFECTS IN COVID-19 PATIENTS AS A POTENTIAL MARKER OF VIRUS-HOST ADAPTATION

Tigran Harutyunyan, Anzhela Sargsyan, Nara Stepanyan, Galina Hovhannisyan, Rouben Aroutiounian

ARMENIAN MEETING “Climate Changes: Adaptation” Yerevan, March 27–28, 2023 ABSTRACTS PAPERS BY YOUNG SCIENTISTS
2023 8-10

Conference

GENOTOXICOLOGICAL AND MOLECULAR-GENETIC RESEARCH OF CORONAVIRUS IN ARMENIA

Tigran Harutyunyan, Anzhela Sargsyan, Nara Stepanyan, Galina Hovhannisyan, Lilit Ghoukasyan,

Arsen Arakelyan, Rouben Aroutiounian

2023 7 - 7

https://indico.jinr.ru/event/3444/

Conference

ԳԵՆԵՏԻԿԱԿԱՆ ԱՆԿԱՅՈՒՆՈՒԹՅԱՆ ԿԵՆՍԱՄԱՐԿԵՐՆԵՐԻ ԿԻՐԱՌՈՒՄԸ ՄԻՋԻՆ ԵՎ ԾԱՆՐ ԸՆԹԱՑՔՈՎ COVID-19 ՀԻՎԱՆԴՆԵՐԻ ԽՄԲԵՐՈՒՄ

Հարությունյան Ռ., Հովհաննիսյան Գ., Սարգսյան Ա., Ստեփանյան Ն., Ղուկասյան Լ., Առաքելյան Ա.,

Հարությունյան Տ.

2023 39 - 39

https://www.ysu.am/conference/770

Article

Increase in the Level of Doxorubicin-Induced DNA Damage in HeLa Cells with CRISPR/Cas9 Mediated HIST1H1B Gene Knockout

E. T. Kuchukyan, A. A. Sargsyan, T. A. Harutyunyan

Physics of Particles and Nuclei Letters 2022 287-288

Article

Application of land snail Helix lucorum for evaluation of genotoxicity of soil pollution

Anzhela Sargsyan, Galina Hovhannisyan, Anna Simonyan, Marine Arakelyan, Meri Arzumanyan,

Rouben Aroutiounian

Mutation Research/Genetic Toxicology and Environmental Mutagenesis 2022 503500

Article

Increased Yield of Residual γH2AX Foci in p53-Deficient Human Lung Carcinoma Cells Exposed to Subpicosecond Beams of Accelerated Electrons

N. Yu. Vorobyeva, N. S. Babayan, B. A. Grigoryan, A. A. Sargsyan, L. G. Khondkaryan, L. S. Apresyan,

A. K. Chigasova, E. I. Yashkina, D. V. Guryev, S. M. Rodneva, A. A. Tsishnatti, Yu. A. Fedotov,

R. M. Arutyunyan, A. N. Osipov

Bulletin of Experimental Biology and Medicine 2022 760-763

Conference

Genetic effects of ultrashort pulsed electron beam irradiation - 7 years of joint experience

Rouben Aroutiounian, Tigran Harutyunyan, Andrean Osipov, Natalya Vorobyeva, Galina Hovhannisyan,

Anzhela Sargsyan, Bagrat Grigoryan, Samvel Haroutiunian, Thomas Liehr, Nelly Babayan

2022 14

http://candle.am/uba22/

Conference

Assessment of aquatic genotoxicity of the Lake Sevan basin, Armenia using natural bioindicators

Anzhela Sargsyan, Anna Simonyan, Galina Hovhannisyan, Bardukh Gabrielyan, Rouben Aroutiounian

2021 1-2

https://symposium.inrae.fr/dnaqua-conference-evian2021/

Conference

APPLICATION OF BIOINDICATORS FOR ASSESSMENT OF HEAVY METALS' GENETIC AND EPIGENETIC EFFECTS IN DIFFERENT REGIONS OF ARMENIA

Sargsyan A, Hovhannisyan G., Simonyan A., Arakelyan M., Minasyan S., Aroutiounian R.

2021 26

http://crd.yerphi.am/Nor_Amberd_International_Conference_Centre_

Conference

DOXORUBICIN-INDUCED MTDNA INSERTIONS IN NUCLEAR GENOME OF HUMAN LYMPHOCYTES

Aroutiounian R, Hovhannisyan G, Sargsyan A, Al-Rikabi A, Liehr T, Harutyunyan T

2021 44

https://indico.jinr.ru/event/1069/page/1034-second-announcement

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Article

IDENTIFICATION OF CYTOGENETICALLY VISIBLE mtDNA IN INTERPHASE NUCLEI OF HUMAN BLOOD LYMPHOCYTES EXPOSED TO DOXORUBICIN

T. A. HARUTYUNYAN, G. G. HOVHANNISYAN, A. A. SARGSYAN, T. LIEHR, A. AL-RIKABI,

R. M. AROUTIOUNIAN

Proceedings of the YSU B Chemical and Biological Sciences 2020 63-67

Article

Doxorubicin-induced translocation of mtDNA into the nuclear genome of human lymphocytes detected using a molecular-cytogenetic approach

Tigran Harutyunyan, Ahmed Al-Rikabi, Anzhela Sargsyan, Galina Hovhannisyan, Rouben Aroutiounian,

Thomas Liehr

International Journal of Molecular Sciences 2020 1-11

Article

Оценка повреждений ДНК с применением метода ДНК-комет в двух природных популяциях дождевых червей Lumbricus terrestris

А. А. Саргсян

Доклады НАН РА 2020 206-213

Article

Analysis of copy number variations induced by ultrashort electron beam radiation in human leukocytes in vitro

Tigran Harutyunyan, Galina Hovhannisyan, Anzhela Sargsyan, Bagrat Grigoryan, Ahmed H. Al-Rikabi,

Anja Weise, Thomas Liehr, Rouben Aroutiounian

Molecular Cytogenetics 2019 18 (1-6)

Article

Application of the comet assay, micronucleus test and global DNA methylation analysis in Darevskia lizards as a sentinel organism for genotoxic monitoring of soil pollution

Anzhela Sargsyan, Anna Simonyan, Galina Hovhannisyan, Marine Arakelyan, Rouben Aroutiounian

Mutation Research/Genetic Toxicology and Environmental Mutagenesis 2019 117-124

Article

DNA damage and micronuclei in parthenogenetic and bisexual Darevskia rock lizards from the areas with different levels of soil pollution

Anna Simonyan, Galina Hovhannisyana, Anzhela Sargsyan, Marine Arakelyan, Seyran Minasyan,

Rouben Aroutiounian

Ecotoxicology and Environmental Safety 2018 13-18

Article

Application of Crayfish Astacus Leptodactylus for the Analysis of Water Genotoxicity in the Lake Sevan Basin

A. E. Simonyan, A. A. Sargsyan, G. G. Hovhannisyan, N. S. Badalyan, S. H. Minasyan

JOURNAL OF WATER CHEMISTRY AND TECHNOLOGY 2018 367–369

Article

ԲԵՏԱՅԻՆԻ ՀԱԿԱՄՈՒՏԱԳԵՆԱՅԻՆ ՀԱՏԿՈՒԹՅՈՒՆՆԵՐԻ ԳՆԱՀԱՏՈՒՄԸ KCL - 22 ԲՋԻՋՆԵՐՈՒՄ ԴՆԹ - ԿՈՄԵՏ ՄԵԹՈԴՈՎ

Անժելա Սարգսյան, Աննա Սիմոնյան, Գալինա Հովհաննիսյան

ԵՊՀ ՈՒԳԸ գիտական հոդվածների ժողովածու 2017 137-141

Article

АНАЛИЗ ПОВРЕЖДЕНИЙ ДНК У ЯЩЕРИЦ DAREVSKIA RADDEI, ОБИТАЮЩИХ В ЗОНАХ С РАЗЛИЧНЫМ УРОВНЕМ ЗАГРЯЗНЕНИЯ ПОЧВ, МЕТОДОМ ДНК-КОМЕТ

А.Э. СИМОНЯН, А.Л. ГЕВОРКЯН, С.Г. МИНАСЯН, А.А. САРГСЯН, М.С. АРАКЕЛЯН

Biological Journal of Armenia 2015 65-67

http://www.flib.sci.am/eng/Biology/

Conference

Photodynamic activity and structure/activity relationship of new porphyrins in vitro as potential photosensitizers for application in photodynamic therapy of cancer

Angela A. Sargsyan, Sona V. Galstyan, Elen A. Hakobyan, Diana H. Vardanyan, Areg Galstyan,

Lusine H. Khondkaryan, Nelli S. Babayan

2015 75

http://armbiotech.am/arm/conf/conf3/index.html
