

# Anzhela Ashot Sargsyan

**Faculty of Biology**  
Chair of Genetics and Cytology  
Senior laboratory assistant

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## Education

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

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

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<b>Institution</b>	Yerevan State University
<b>Faculty</b>	Faculty of Biology
<b>Date</b>	2010 - 2014
<b>Degree name</b>	Bachelor

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## Language skills

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Հայերեն English Русский

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## Work experience

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<b>Institution</b>	Yerevan State University, Faculty of Biology, Research Institute of Biology, Laboratory of General and Molecular Genetics
<b>Period of time</b>	2024 till now
<b>Rank/degree</b>	Specialist of Laboratory

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

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

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

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## Scientific interests

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- Genetics
  - Cell Biology
  - Molecular cytogenetics
  - Mutagenesis
  - Ecogenotoxicology
  - Genotoxicology and cytotoxicology
  - Epigenetics
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## Participation in international conferences and seminars

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**01/07/2024 - 04/07/2024** - Third evolution-complexity conference: The Evolution of complexity and statistical physics  
A. Alikhanyan National Science Laboratory  
Armenia

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**25/06/2023 - 30/06/2023** - 72nd Lindau Nobel Laureate Meeting  
Council for the Lindau Nobel Laureate Meetings  
Germany

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**27/03/2023 - 28/03/2023** - Armenian meeting – 2023. Climate changes: adaptation  
A. Alikhanyan National Science Laboratory  
Armenia

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**04/07/2022 - 08/07/2022** - The 3rd International Workshop on “Ultrafast Beams and Applications”  
"CANDLE" synchrotron research institute  
Armenia

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**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

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**09/03/2021 - 11/03/2021** - 1st DNAQUA International Conference  
COST Action DNAqua-Net, Online  
Germany

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**11/04/2016 - 16/04/2016** - “Nobel days in Yerevan: Be inspired and create”  
Yerevan State Medical University after Mkhitar Heratsi  
Armenia

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**23/06/2015 - 26/06/2015** - III International Scientific Conference of Young Researchers  
"Armbiotechnology" Scientific and Production Center of NAS RA  
Armenia

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**16/06/2015 - 17/06/2015** - "Science from the first hands. Epigenetic" Young scientist school  
Yerevan State University  
Armenia

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**07/11/2022 - 05/12/2022** - Business trip, Invited researcher  
Institute of Human Genetics  
Germany

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**01/10/2019 - 10/11/2019** - Business trip, Invited researcher  
Institute of Human Genetics  
Germany

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**09/03/2018 - 08/05/2018** - Business trip, Invited researcher  
Institute of Human Genetics  
Germany

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**01/09/2017 - 30/11/2017** - Business trip, Invited researcher  
Institute of Human Genetics  
Germany

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## Publications

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*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

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*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

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*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

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*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

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*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

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*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

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*Article*

**Increased Yield of Residual  $\gamma$ H2AX 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

БЮЛЛЕТЕНЬ ЭКСПЕРИМЕНТАЛЬНОЙ БИОЛОГИИ И МЕДИЦИНЫ (BULLETIN OF EXPERIMENTAL BIOLOGY AND MEDICINE)  
2022 760-763

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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

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*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

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*Article*

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

A. A. Саргсян

Доклады НАН РА 2020 206-213

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Article

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

Tigran Harutyunyan, Galina Hovhannisyanyan, Anzhela Sargsyan, Bagrat Grigoryan, Ahmed H. Al-Rikabi, Anja Weise, Thomas Liehr, Rouben Aroutiounian  
Molecular Cytogenetics 2019 18 (1-6)

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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 Hovhannisyanyan, Marine Arakelyan, Rouben Aroutiounian  
MUTATION RESEARCH - GENETIC TOXICOLOGY AND ENVIRONMENTAL MUTAGENESIS 2019 117-124

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Article

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

Anna Simonyan, Galina Hovhannisyanyan, Anzhela Sargsyan, Marine Arakelyan, Seyran Minasyan, Rouben Aroutiounian  
Ecotoxicology and Environmental Safety 2018 13-18

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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. Hovhannisyanyan, N. S. Badalyan, S. H. Minasyan  
JOURNAL OF WATER CHEMISTRY AND TECHNOLOGY 2018 367-369

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Article

**ԲԵՏԱՅԻՆԻ ՀԱՎԱՍՈՒՄԳԵԼԱՅԻՆ ՀԱՏԿՈՒԹՅՈՒՆՆԵՐԻ ԳԼԱՀԱՏՈՒՄԸ KCL - 22 ԲԶԻԶԼԵՐՈՒՄ ԴԼԹ - ԿՈՍԵՏ ՍԵԹՈՂՈՎ**

Անժելա Սարգսյան, Աննա Սիմոնյան, Գալինա Հովհաննիսյան  
ԵՊՀ ՈՒԳԸ գիտական հոդվածների ժողովածու 2017 137-141

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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  
Հայաստանի կենսաբանական հանդես 2015 65-67

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

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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

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Conference

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

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

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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.

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Conference

**DOXORUBICIN-INDUCED MTDNA INSERTIONS IN NUCLEAR GENOME OF HUMAN LYMPHOCYTES**

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

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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

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Conference

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

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

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Conference

**GENOTOXICOLOGICAL AND MOLECULAR-GENETIC RESEARCH OF CORONAVIRUS IN ARMENIA**

Tigran Harutyunyan, Anzhela Sargsyan, Nara Stepanyan, Galina Hovhannisyan, Lilit Ghoukasyan, Arsen Arakelyan, Rouben Aroutiounian

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