Galina Georgiy Hovhannisyan

galinahovhannisyan@ysu.am

Faculty of Biology
Chair of Genetics and Cytology
Professor

Faculty of Biology
Chair of Genetics and Cytology
Professor

Faculty of Biology
Research Institute of Biology
Laboratory of General and Molecular Genetics
Senior Researcher

Education

Institution	Yerevan State University
Faculty	Faculty of Biology
Date	1978 - 1983
Degree name	Qualified specialist

Scientific Rank/degree

Institution	Yerevan State University
Date	2013
Degree name	Doctor
Research Topic	Localization of DNA and chromosomal damage in human cells

Institution	Yerevan State University
Date	1990
Degree name	Candidate
Scientific Supervisor	Rouben Aroutiounian
Research Topic	The study of anticlastogens under the action of chemical mutagens in the cells of allergic patients and healthy donors

Language skills

Հայերեն Русский English

Work experience

Institution	YSU, Faculty of Biology, Research Institute of Biology, Laboratory of General and Molecular Genetics
Period of time	2024 till now
Rank/degree	senior researcher

Institution	YSU, Faculty of Biology, Research Institute of Biology, Laboratory of General and Molecular Genetics
Period of time	2020 - 2024
Rank/degree	leading researcher

Institution	YSU, Faculty of Biology, Department of Genetics and Cytology
Period of time	2020 till now
Rank/degree	Professor

Institution	YSU, Faculty of Biology, Research Institute of Biology, Laboratory of General and Molecular Genetics
Period of time	2014 - 2020
Rank/degree	senior researcher

Institution	YSU, Faculty of Biology, Laboratory of Cytogenetics
Period of time	1995 - 2014
Rank/degree	senior researcher

Institution	YSU, Faculty of Biology, Laboratory of Cytogenetics
Period of time	1994 - 1995
Rank/degree	researcher

Membership

Institution	YSU Faculty of Biology Scientific Council
Period of time	2019 till now

Institution	042 Specialized Council at Institute of Molecular Biology of the National Academy of Sciences of the Republic of Armenia on Biochemistry
Period of time	2022 till now

Institution	051 Specialized Council at YSU on Biophysics
Period of time	2019 till now

State awards and honorary titles

2019 YSU Gold Medal

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

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

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

Article

The Diagnostic, Prognostic, and Therapeutic Potential of Cell-Free DNA with a Special Focus on COVID-19 and Other Viral Infections

Galina Hovhannisyan, Tigran Harutyunyan, Rouben Aroutiounian, Thomas Liehr

International Journal of Molecular Sciences 2023 14163

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

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

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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Study manual

Cytogenomics: Approaches for studying epigenetic aspects of the human genome
Harutyunyan Tigran, Hovhannisyan Galina

2021 54

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

Study manual

Մարդու գենետիկայի հիմունքները
Լիր Թոմաս, Հարությունյան Տիգրան, Հովհաննիսյան Գալինա

2020 170

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 Copy Number Variations as Markers of Mutagenic Impact
Hovhannisyan Galina, Harutyunyan Tigran, Aroutiounian Rouben, Liehr Thomas

International Journal of Molecular Sciences 2019 1-19

Conference

Кинетика репарации ДНК и эпигенетические изменения при облучении сверхкороткими импульсами ускоренных электронов

Арутюнян Р.М., Оганесян Г.Г., Григорян Б.А., Арутюнян Т.А., Бабаян Н.С.

2019 16-19

http://www.jinr.ru/posts/radiatsionnaya-genetika-rezultaty-i-plany/

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

Gender differences in DNA damage/repair after laser-generated ultrafast electron beam irradiation

Babayan N, Grigoryan B, Hovhannisyan G, Tadevosyan G, Khondkaryan L, Grigoryan R, Sarkisyan N, Aroutiounian R

International Journal of Radiology & Radiation Therapy 2018 85-86

Article

Micronuclei and what they can tell us in cytogenetic diagnostics

Hovhannisyan Galina, Harutyunyan Tigran, Aroutiounian Rouben

Current Genetic Medicine Reports 2018 144-154

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

Conference

The genotoxic and cytotoxic effects of ochratoxin a and t-2 toxin in rats bone marrow and blood cells

Harutyunyan Tigran, Hovhannisyan Galina, Babayan Nelli, Arakelyan Arsen, Aroutiounian Rouben

2018 S28

http://ist2018.sci.am/index.php

Conference

Оценка повреждений и репарации ДНК при облучении сверхкороткими импульсами ускоренных электронов.

Арутюнян Р.М., Оганесян Г.Г.,, Григорян Б.А., Цаканова Г.В., Арутюнян С.Г., Арутюнян Т.А., Бабаян Н.С.

2018 16-18

http://www.jinr.ru/posts/mezhdunarodnaya-konferentsiya-problemy-himicheskoj-zas...

Article

Dose-rate effect of ultrashort electron beam radiation on DNA damage and repair in vitro

Nelly Babayan, Galina Hovhannisyan, Bagrat Grigoryan, Ruzanna Grigoryan, Natalia Sarkisyan, Gohar Tsakanova, Samvel Haroutiunian, Rouben Aroutiounian

Journal of Radiation Research 2017 894–897

https://academic.oup.com/jrr

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

Conference

Genetic effects: DNA radiation damage and repair
R. Aroutiounian, G. Hovhannisyan, B. Grigoryan, G. Tsakanova, S. Haroutiunian, T. Harutyunyan,

N. Babayan

2017 27

https://www.nato.int/cps/en/natohq/news_146445.htm

Conference

Genetic damage in bioindicator organisms and heavy metal content in ecogenotoxic studies
Rouben Aroutiounian, Galina Hovhannisyan, Anna Simonyan

2017 52

http://eec-2017.mrda.md/

Study manual

Fluorescence in situ Hybridization (FISH) – Application Guide.PART V. INTERPHASE FISH. Comet-FISH
Hovhannisyan G, Aroutiounian R

2017 6

Study manual

Micronucleus FISH, Fluorescence In Situ Hybridization (FISH) Application Guide, Second Edition
Galina Hovhannisyan, Tigran Harutyunyan, Thomas Liehr

2017 379-383

Article

Comparative analysis of individual chromosome involvement in micronuclei induced by mitomycin C and bleomycin in human leukocytes.
Hovhannisyan G, Aroutiounian R, Babayan N, Harutyunyan T, Liehr T

Molecular Cytogenetics 2016 7

https://molecularcytogenetics.biomedcentral.com/

Article

Genotoxicity of Water Contaminants from the Basin of Lake Sevan, Armenia Evaluated by the Comet Assay in Gibel Carp (Carassius auratus gibelio) and Tradescantia Bioassays
Simonyan A, Gabrielyan B, Minasyan S, Hovhannisyan G, Aroutiounian R

Bulletin of Environmental Contamination and Toxicology 2016 309-313

http://www.springer.com/environment/pollution+and+remediation/journal/128

Article

"Կենսաբանություն" առարկայից սովորողների գիտելիքների ընթացիկ գնահատման տեսակները
Ա.Ֆ.Կարապետյան, Գ.Գ. Հովհաննիսյան, Ի.Վ. Շահազիզյան

Բնագետ 2016 31-39

Article

Cell viability and DNA damage in MRC5 and HeLa cell lines after histone H1 knockout by CRISPR-Cas9 genome editing technology

Hovhannisyan G, Aroutiounian R, Harutyunyan T, Babayan N

Proceedings of the YSU B Chemical and Biological Sciences 2016 64–66

http://www.ysu.am/science/hy/journals

Conference

PROTECTIVE EFFECTS OF SCHIFF BASE CYCLIC AMINO ACID DERIVATIVES AGAINST MYCOTOXINS GENO- AND CYTOTOXICITY

Tigran HARUTYUNYAN, Galina HOVHANNISYAN, Nelli BABAYAN, Thomas LIEHR, Arsen ARAKELYAN,

Rouben AROUTIOUNIAN, Margarita MALAKYAN

2016 64

http://jsmyco.org/ismyco2016/

Study manual

Գենետիկական թունաբանության հիմունքներ

Հովհաննիսյան Գալինա

2016 72

Article

Influence of aflatoxin B1 on copy number variants in human leukocytes in vitro.

Harutyunyan T, Hovhannisyan G, Babayan N, Othman MA, Liehr T, Aroutiounian R

Molecular Cytogenetics 2015 25; 5

https://molecularcytogenetics.biomedcentral.com/

Article

A New Case of a Complex Small Supernumerary Marker Chromosome: A Der(9)t(7;9)(p22;q22) due to a Maternal Balanced Rearrangement.

Manvelyan M., Simonyan I., Hovhannisyan G., Aroutiounian R., Hamid A.B., Liehr Th.

Journal of Pediatric Genetics 2015 199-200

http://childscience.org/jpg/about.html

Conference

DETECTION OF GENOTOXIC AND CLASTOGENIC EFFECTS OF SOILS POLLUTION IN ARMENIA WITH APPLICATION OF TRADESCANTIA (CLONE 02) TEST SYSTEM

Atoyants A.L., Aghajanyan E.A., Avalyan R.E., Hovhanisyan G.G., Aroutiounian R.M.

2015 86

http://mapeeg.ru/2015/images/2015.pdf

Conference

ЭКОГЕНОТОКСИКОЛОГИЧЕСКОЕ ИССЛЕДОВАНИЕ БАССЕЙНА ОЗЕРА СЕВАН С ПРИМЕНЕНИЕМ РЕЧНЫХ РАКОВ (ASTACUS LEPTODACTYLUS) И ТРАДЕСКАНЦИИ

А.Э. Симонян, Г.Г. Оганесян, Т.А. Арутюнян, А.Л. Геворкян, Р.М. Арутюнян, Б.К. Габриелян,

С.Г. МИНАСЯН

2015 168-176

http://www.ssc-ras.ru/ru/conferences/vserossiiskaja_konferencija/

Conference

Изучение мутагенеза методами молекулярной цитогенетики.
Арутюнян Р.М., Арутюнян Т.А., Симонян А.Э., Оганесян Г.Г.

2015 4-5

http://bionanomed.sfedu.ru/ru/program

Conference

Ecogenetic studies in Armenia.
Aroutiounian R.M., Hovhannisyan G.G., Simonyan A.E.

2015 103

http://lrb.jinr.ru/Timofeeff/Petersburg/Menu/MenuSet_15.htm

Article

Combined Genotoxic Effects of Aflatoxin B1, Ochratoxin A and Zearalenone in Rat Bone Marrow and Blood Leukocytes
Harutyunyan Tigran, Karapetyan Anna, Hovhannisyan Galina, Aroutiounian Rouben

Korean Journal of Environmental Biology 2013 189-191

http://www.ebr.or.kr/AboutUs/01.php

Article

In vitro testing of cyto- and genotoxicity of new porphyrin water-soluble metal derivatives
Gennadi Gasparyan, Galina Hovhannisyan, Robert Ghazaryan, Lida Sahakyan, Artak Tovmasyan,

Rusanna Grigoryan, Natalia Sarkissyan, Samvel Haroutiunian, Rouben Aroutiounian

International Journal of Toxicology 2007 497-502
