

# Galina Georgiy Hovhannisyan

✉ galinahovhannisyan@ysu.am



## Faculty of Biology

Chair of Genetics and Cytology

Professor

## Education

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| <b>Institution</b> | YSU                  |
| <b>Faculty</b>     | Faculty of Biology   |
| <b>Date</b>        | 1978 - 1983          |
| <b>Degree name</b> | Qualified specialist |

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## Scientific Rank/degree

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| <b>Institution</b>    | YSU   |
| <b>Date</b>           | 2013  |
| <b>Degree name</b>    | Doctor  |
| <b>Specialty</b>      | Biological sciences                                       |
| <b>Research Topic</b> | Localization of DNA and chromosomal damage in human cells |

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| <b>Institution</b>           | YSU  |
| <b>Date</b>                  | 1990   |
| <b>Degree name</b>           | Candidate  |
| <b>Specialty</b>             | Biological sciences  |
| <b>Scientific Supervisor</b> | Rouben Aroutiounian  |
| <b>Research Topic</b>        | The study of anticlastogens under the action of chemical mutagens in the cells of allergic patients and healthy donors |

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## Language skills

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Հայերեն Русский English

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## Work experience

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| <b>Institution</b>    | YSU, Faculty of Biology |
| <b>Period of time</b> | 2020 till now           |
| <b>Rank/degree</b>    | Professor               |

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## Scientific interests

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- genetic toxicology, molecular cytogenetics, environmental genetics, mutagenesis, antimutagenesis

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## Membership

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| <b>Institution</b>    | YSU Faculty of Biology Scientific Council |
| <b>Period of time</b> | 2019 till now                             |

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

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| <b>Institution</b>    | 051 Specialized Council at YSU on Biophysics |
| <b>Period of time</b> | 2019 till now                                |

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## State awards and honorary titles

2019 YSU Gold Medal

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## Publications

*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*

**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

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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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*Manual*

**Cytogenomics: Approaches for studying epigenetic aspects of the human genome**

Harutyunyan Tigran, Hovhannisyan Galina

2021 54

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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 Hovhannisyana, Rouben Aroutiounian,

Thomas Liehr

International Journal of Molecular Sciences 2020 1-11

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Manual

**Մարդու գենետիկայի հիմունքները**

Լիր Թումաս, Հարությունյան Տիգրան, Հովհաննիսյան Գալինա

2020 170

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Article

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

Tigran Harutyunyan, Galina Hovhannisyana, 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 Hovhannisyana, Marine Arakelyan, Rouben Aroutiounian

MUTATION RESEARCH - GENETIC TOXICOLOGY AND ENVIRONMENTAL MUTAGENESIS 2019 117-124

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Article

**DNA Copy Number Variations as Markers of Mutagenic Impact**

Hovhannisyana Galina, Harutyunyan Tigran, Aroutiounian Rouben, Liehr Thomas

International Journal of Molecular Sciences 2019 1-19

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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 Hovhannisyana, Anzhela Sargsyan, Marine Arakelyan, Seyran Minasyan,

Rouben Aroutiounian

Ecotoxicology and Environmental Safety 2018 13-18

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Article

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

Babayan N, Grigoryan B, Hovhannisyana G, Tadevosyan G, Khondkaryan L, Grigoryan R, Sarkisyan N,

Aroutiounian R

*Article*

**Micronuclei and what they can tell us in cytogenetic diagnostics**

Hovhannisyany Galina, Harutyunyan Tigran, Aroutiounian Rouben

Current Genetic Medicine Reports 2018 144-154

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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. Hovhannisyany, N. S. Badalyan, S. H. Minasyan

JOURNAL OF WATER CHEMISTRY AND TECHNOLOGY 2018 367-369

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*Article*

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

Nelly Babayan, Galina Hovhannisyany, Bagrat Grigoryan, Ruzanna Grigoryan, Natalia Sarkisyan,

Gohar Tsakanova, Samvel Haroutiunian, Rouben Aroutiounian

Journal of Radiation Research 2017 894-897

<https://academic.oup.com/jrr>

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*Article*

**ԲԵՏԱՅԻՆԻ ՀԱԿԱՍՈՒՏԱԳԵՆԱՅԻՆ ՀԱՏԿՈՒԹՅՈՒՆՆԵՐԻ ԳՆԱՀԱՏՈՒՄԸ KCL - 22 ԲԶԻԶՆԵՐՈՒՄ ԴՆԹ - ԿՈՄԵՏ ՄԵԹՈԴՈՎ**

Անժելա Սարգսյան, Աննա Սիմոնյան, Գալինա Հովհաննիսյան

ԵՊՀ ՈՒԳԸ գիտական հոդվածների ժողովածու 2017 137-141

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*Manual*

**Fluorescence in situ Hybridization (FISH) - Application Guide.PART V. INTERPHASE FISH. Comet-FISH**

Hovhannisyany G, Aroutiounian R

2017 6

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*Manual*

**Micronucleus FISH, Fluorescence In Situ Hybridization (FISH) Application Guide, Second Edition**

Galina Hovhannisyany, Tigran Harutyunyan, Thomas Liehr

2017 379-383

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*Article*

**Comparative analysis of individual chromosome involvement in micronuclei induced by mitomycin C and bleomycin in human leukocytes.**

Hovhannisyany G, Aroutiounian R, Babayan N, Harutyunyan T, Liehr T

Molecular Cytogenetics 2016 7

<https://molecularcytogenetics.biomedcentral.com/>

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*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, Hovhannisyany G, Aroutiounian R

Bulletin of Environmental Contamination and Toxicology 2016 309-313

*Article*

**"Կենսաբանություն" առարկայից սովորողների գիտելիքների ընթացիկ գնահատման տեսակները**  
Ա.Ֆ.Կարապետյան, Գ.Գ. Հովհաննիսյան, Ի.Վ. Շահագիզյան  
Բնագետ 2016 31-39

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*Article*

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

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*Manual*

**Գենետիկական թունաբանության հիմունքներ**  
Հովհաննիսյան Գալինա  
2016 72

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*Article*

**Influence of aflatoxin B1 on copy number variants in human leukocytes in vitro.**  
Harutyunyan T, Hovhannisyanyan G, Babayan N, Othman MA, Liehr T, Aroutiounian R  
Molecular Cytogenetics 2015 25; 5  
<https://molecularcytogenetics.biomedcentral.com/>

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*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., Hovhannisyanyan G., Aroutiounian R., Hamid A.B., Liehr Th.  
Journal of Pediatric Genetics 2015 199-200  
<http://childscience.org/jpg/about.html>

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*Article*

**Combined Genotoxic Effects of Aflatoxin B1, Ochratoxin A and Zearalenone in Rat Bone Marrow and Blood Leukocytes**  
Harutyunyan Tigran, Karapetyan Anna, Hovhannisyanyan Galina, Aroutiounian Rouben  
Korean Journal of Environmental Biology 2013 189-191  
<http://www.ebr.or.kr/AboutUs/01.php>

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*Article*

**In vitro testing of cyto- and genotoxicity of new porphyrin water-soluble metal derivatives**  
Gennadi Gasparyan, Galina Hovhannisyanyan, Robert Ghazaryan, Lida Sahakyan, Artak Tovmasyan,  
Rusanna Grigoryan, Natalia Sarkissyan, Samvel Haroutiunian, Rouben Aroutiounian  
International Journal of Toxicology 2007 497-502

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*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., Hovhannisyanyan G.G., Aroutiounian R.M.

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Conference

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

А.Э. Симонян, Г.Г. Оганесян, Б.К. Габриелян, С.Г. МИНАСЯН, Т.А. Арутюнян, А.Л. Геворкян,

Р.М. Арутюнян

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Conference

**Изучение мутагенеза методами молекулярной цитогенетики.**

Арутюнян Р.М., Арутюнян Т.А., Симонян А.Э., Оганесян Г.Г.

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Conference

**Ecogenetic studies in Armenia.**

Aroutiounian R.M., Hovhannisyan G.G., Simonyan A.E.

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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

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Conference

**Genetic effects: DNA radiation damage and repair**

R. Aroutiounian, G. Hovhannisyan, B. Grigoryan, G. Tsakanova, S. Haroutiunian, T. Harutyunyan,

N. Babayan

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Conference

**Genetic damage in bioindicator organisms and heavy metal content in ecogenotoxic studies**

Rouben Aroutiounian, Galina Hovhannisyan, Anna Simonyan

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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

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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.

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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.

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Conference

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

Anzhela Sargsyan, Anna Simonyan, Galina Hovhannisyan, 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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