

Mikayel Martik Ginovyan

✉ mikayel.ginovyan@ysu.am



Research Institute of Biology

Basic and Pathological Biochemistry Laboratory

Researcher

Education

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|--------------------|--------------------------|
| Institution | Yerevan State University |
| Faculty | Faculty of biology |
| Date | 2013 - 2016 |
| Degree name | PhD student |

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| Institution | Yerevan State University |
| Faculty | Faculty of biology |
| Date | 2011 - 2013 |
| Degree name | Masters |

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|--------------------|--------------------------|
| Institution | Yerevan State University |
| Faculty | Faculty of biology |
| Date | 2005 - 2009 |
| Degree name | Bachelor |

Scientific Rank/degree

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|------------------------------|---|
| Institution | Yerevan State University |
| Date | 2018 |
| Degree name | Candidate |
| Specialty | Biological sciences |
| Scientific Supervisor | Professor Armen Trchounian |
| Research Topic | Biochemical characteristics of some herbs from Armenian flora |

Language skills

English Русский

Work experience

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| Institution | Laboratory of Basic and Pathological Biochemistry, Research Institute of Biology, Yerevan State University |
| Period of time | 2019 till now |

Rank/degree Researcher

Institution Laboratory of Basic and Pathological Biochemistry, Research Institute of Biology,
Yerevan State University

Period of time 2016 - 2019

Rank/degree Junior Researcher

Participation in international conferences and seminars

09/07/2022 - 14/07/2022 The Biochemistry Global Summit (the 25th IUBMB, 46th FEBS and 15th PABMB Congresses), Lisbon, Portugal
Portugal

18/06/2023 - 21/06/2023 ISBT Congress 2023 (33rd Regional ISBT Congress), Gothenburg, Sweden
Sweden

08/07/2023 - 12/07/2023 The 47th FEBS Congress, Tours, France
France

20/03/2024 - 21/03/2024 COST EURESTOP GENERAL MEETING, Rome, Italy
Italy

23/06/2024 - 27/06/2024 ISBT 38th Congress, Barcelona, Spain
Spain

29/06/2024 - 03/07/2024 FEBS 48th Congress, Milan, Italy
Italy

04/07/2024 COST Action CA21145 EURESTOP WG meeting, Brussels, Belgium
Belgium

Membership

Institution COST Action CA21145, European Network for diagnosis and treatment of antibiotic-resistant bacterial infections (EURESTOP) - Management committee member

Period of time 2023 till now

Institution International Society of Blood Transfusion (ISBT)

Period of time 2023 till now

Institution COST Action CA16112 (NutRedOx) MC Observer from COST Near neighbour
Countries

Period of time 2019 - 2021

Institution The American Society for Microbiology (ASM)
Period of time 2015 till now

Institution Federation of European Biochemical Societies (FEBS)
Period of time 2013 till now

Publications

Article

Hypericum alpestre extract exhibits in vitro and in vivo anticancer properties by regulating the cellular antioxidant system and metabolic pathway of L-arginine

Mikayel Ginovyan, Hayarpi Javrushyan, Hasmik Karapetyan, Izabela Koss-Mikołajczyk,

Barbara Kusznierevicz, Anna Grigoryan, Alina Maloyan, Agnieszka Bartoszek, Nikolay Avtandilyan

Cell Biochemistry and Function 2024 1-21

Article

5-fluorouracil and Rumex obtusifolius extract combination trigger A549 cancer cell apoptosis: uncovering PI3K/Akt inhibition by in vitro and in silico approaches

Mikayel Ginovyan, Hayarpi Javrushyan, Svetlana Hovhannisyanyan, Edita Nadiryan, Gohar Sevoyan,

Tigran Harutyunyan, Smbat Gevorgyan, Zaruhi Karabekian, Alina Maloyan, Nikolay Avtandilyan

Scientific Reports 2024 1-16

Article

Anti-cancer effect of in vivo inhibition of nitric oxide synthase in a rat model of breast cancer

Nikolay Avtandilyan, Hayarpi Javrushyan, Mikayel Ginovyan, Anna Karapetyan, Armen Trchounian

Molecular and Cellular Biochemistry 2023 261-275

Article

Anti-cancer effect of Rumex obtusifolius in combination with arginase/nitric oxide synthase inhibitors via downregulation of oxidative stress, inflammation, and polyamine synthesis

Mikayel Ginovyan, Hayarpi Javrushyan, Gayane Petrosyan, Barbara Kusznierevicz,

Izabela Koss-Mikołajczyk, Zuzanna Koziara, Monika Kuczyńska, Patrycja Jakubek, Anna Karapetyan,

Naira Sahakyan, Alina Maloyan, Agnieszka Bartoszek, Nikolay Avtandilyan

International Journal of Biochemistry & Cell Biology 2023 106396

Article

Screening revealed the strong cytotoxic activity of Alchemilla smirnovii and Hypericum alpestre ethanol extracts on different cancer cell lines

Mikayel Ginovyan, Svetlana Hovhannisyanyan, Hayarpi Javrushyan, Gohar Sevoyan, Zaruhi Karabekyan,

Narine Zakaryan, Naira Sahakyan, Nikolay Avtandilyan

AIMS Biophysics 2023 12-22

Article

The Action Mechanisms, Anti-Cancer and Antibiotic-Modulation Potential of Vaccinium myrtillus L. Extract

Mikayel Ginovyan, Anush Babayan, Anahit Shirvanyan, Alvard Minasyan, Meri Qocharyan,

Barbara Kusznierevicz, Izabela Koss-Mikołajczyk, Nikolay Avtandilyan, Anne Vejux, Agnieszka Bartoszek,

Naira Sahakyan
Discovery Medicine 2023 590-611

Article

The possible anti-inflammatory properties of hydro-ethanolic extract of Oregano

Armenuhi Moghrovyan, Mikayel Ginovyan, Nikolay Avtandilyan, Lilya Parseghyan, Armen Voskanyan,
Naira Sahakyan, Anna Darbinyan

Functional Foods in Health and Disease 2023 476-486

Article

THE CYTOTOXIC PROPERTIES OF ALCHEMILLA SMIRNOVII EXTRACT ON THE HELA CANCER CELLS VIA DOWNREGULATION OF ARGINASE ACTIVITY

S.M. Hovhannisyanyan, E.E. Nadiryanyan, M.V. Qocharyan, G.H. Petrosyan, G.P. Sevoyan, Z.I. Karabekyan,
H.G. Javrushyan, M.M. Ginovyan, N.V. Avtandilyan

ԵՊՀ գիտական տեղեկագիր. Քիմիա և կենսաբանություն: 2023 238-247

Article

REGULATORY EFFECTS OF RUMEX OBTUSIFOLIUS AND HYPERICUM ALPESTRE EXTRACTS ON THE QUANTITY OF IL-2 IN IN VITRO AND IN VIVO CANCER MODELS

E.E. Nadiryanyan, S.M. Hovhannisyanyan, M. V. Qocharyan, G.H. Petrosyan, H.G. Javrushyan, M.M. Ginovyan,
N.V. Avtandilyan

ԵՊՀ գիտական տեղեկագիր. Քիմիա և կենսաբանություն: 2023 248-257

Article

Hypericum alpestre extract affects the activity of the key antioxidant enzymes in microglial BV 2 cellular models

Mikayel Ginovyan, Pierre Andreoletti, Mustapha Cherkaoui-Malki, Naira Sahakyan

AIMS Biophysics 2022 161-171

Article

Ribes nigrum L. Extract-Mediated Green Synthesis and Antibacterial Action Mechanisms of Silver Nanoparticles

Zaruhi Hovhannisyanyan, Marina Timotina, Jemma Manoyan, Lilit Gabrielyan, Margarit Petrosyan,
Barbara Kusznierevicz, Agnieszka Bartoszek, Claus Jacob, Mikayel Ginovyan, Karen Trchounian,
Naira Sahakyan, Muhammad Jawad Nasim

Antibiotics 2022 1-17

Article

Growth inhibition of cultured cancer cells by Ribes nigrum leaf extract

Mikayel Ginovyan, Agnieszka Bartoszek, Izabela Koss-Mikołajczyk, Barbara Kusznierevicz,
Pierre Andreoletti, Mustapha Cherkaoui-Malki, Naira Sahakyan

AIMS Biophysics 2022 282-293

Article

EVALUATION OF THE ANTIOXIDANT ACTIVITY AND THE ANTI-CANCER PROPERTIES OF ALCHEMILLA SMIRNOVII JUZ. EXTRACT ON THE HELA CANCER CELL LINE

S. Hovhannisyanyan, E. Nadiryanyan, M. Qocharyan, G. Sevoyan, M. Ginovyan, N. Avtandilyan

СТУДЕНЧЕСКАЯ ГОДИЧНАЯ НАУЧНАЯ КОНФЕРЕНЦИЯ ЯРОССИЙСКО-АРМЯНСКИЙ УНИВЕРСИТЕТА 2022
40-46

Article

Antioxidant potential, biochemical activity and hypoglycemic effects of *R. obtusifolius* L. seed extracts used in Armenian traditional medicine

Mikayel Ginovyan, Naira Sahakyan, Anush Aghajanyan, Armen Trchounian

BIO Web of Conferences 2021 1-6

Article

NEW THERAPEUTIC APPROACHES IN BREAST ANTICANCER TREATMENT USING ARMENIAN HERBAL EXTRACTS

H.G. JAVRUSHYAN, N.V. AVTANDILYAN, M.M. GINOVYAN, A.H. TRCHOUNIAN

Biological Journal of Armenia 2021 32-38

Article

ANTIOXIDANT POTENTIAL OF SOME HERBS REPRESENTED IN ARMENIAN FLORA AND CHARACTERIZATION OF PHYTOCHEMICALS

M. M. Ginovyan, N. Zh. Sahakyan, M.T. Petrosyan, A. H. Trchounian

Proceedings of the YSU B: Chemical and Biological Sciences 2021 25-38

Article

Phytochemical Screening and Detection of Antibacterial Components from Crude Extracts of Some Armenian Herbs Using TLC-Bioautographic Technique

Ginovyan Mikayel, Ayvazyan Arpine, Nikoyan Armine, Tumanyan Lilit, Trchounian Armen

Current Microbiology 2020 1223-1232

Article

ANTIBACTERIAL AND ANTI-PHAGE ACTIVITY OF PLANTAGO MAJOR L. RAW MATERIAL

N.Zh. Sahakyan, M. M. Ginovyan, M. T. Petrosyan, A. H. Trchounian

Proceedings of the YSU B: Chemical and Biological Sciences 2019 59-64

Article

Herbs Extracts in the Treatment and Prevention of Experimental Metabolic Disorders: Synergistic Hypoglycemic Activity of Ethanol Extracts of *Hypericum alpestre* and *Rumex obtusifolius*

Anush Aghajanyan, Mikayel Ginovyan, Armen Trchounian

Proceedings MDPI 2019 1-3

Article

Novel approach to combat antibiotic resistance: evaluation of some Armenian herb crude extracts for their antibiotic modulatory and antiviral properties

M. Ginovyan, A. Trchounian

JOURNAL OF APPLIED MICROBIOLOGY 2019 472-480

Article

Novel approach to combat antibiotic resistance: Evaluation of some Armenian herb crude extracts for their antibiotic modulatory and antiviral properties

M. Ginovyan, A. Trchounian

JOURNAL OF APPLIED MICROBIOLOGY 2019 472-480

Article

Antimicrobial activity of some plant materials used in Armenian traditional medicine

Mikayel Ginovyan, Margarit Petrosyan, Armen Trchounian

BMC Complementary and Alternative Medicine 2017 1-9

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

Article

SCREENING OF SOME PLANT MATERIALS USED IN ARMENIAN TRADITIONAL MEDICINE FOR THEIR ANTIMICROBIAL ACTIVITY

M. Ginovyan, A. Trchounian

Proceedings of the YSU B: Chemical and Biological Sciences 2017 44-53

<http://www.y-su.am/science/hy/journals>

Article

Effect of heat treatment on antimicrobial activity of crude extracts of some Armenian herbs

Ginovyan M.M.

Proceedings of the YSU B: Chemical and Biological Sciences 2017 113-117

<http://www.y-su.am/science/hy/journals>

Article

Antibiotic resistance of Pseudomonas species isolated from Armenian fish farms

M. Ginovyan, V. Hovsepyan, M. Sargsyan, K. Grigoryan, A. Trchounian

Труды ВНИРО 2017 163-173

<http://www.vniro.ru/ru/periodicheskie-izdaniya/trudy-vniro/trudy-vniro-nauchnyj...>

Article

Возбудители бактериальных инфекций форели в рыбоводческих хозяйствах Беларуси и Армении.

К.М. Григорян, Г.В. Слободницкая, Е.И. Гребнева, Н.А. Бенецкая, А.В. Беспалый, Е.В. Максимьюк, С.М. Дегтярик, В.В.Овсепян, М.П.Саргсян, М. Гиновян, Р.Л. Асадчая

ВОПРОСЫ РЫБНОГО ХОЗЯЙСТВА БЕЛАРУСИ 2016 262-274

Article

The large scale antibacterial, antifungal anti-phage efficiency of Petamcin-A: new multicomponent preparation for skin diseases treatment

Mikayel Ginovyan, Andranik Keryan, Inga Bazukyan, Petros Ghazaryan, Armen Trchounian

Annals of Clinical Microbiology and Antimicrobials 2012 2-7

<https://ann-clinmicrob.biomedcentral.com/>

Conference

Antibacterial, Antifungal and Anti-Phage Activity of Di

M. Ginovyan, M. Petrosyan, A. Trchounian

Conference

Antimicrobial activity of some plant materials used in Armenian folk medicine

M. Ginovyan, M. Petrosyan, A. Trchounian

Conference

A Novel Anti-bacterial, Anti-fungal, and Anti-phage Preparation for the Treatment of Skin Infections

M. Ginovyan, S. Daghbashyan, P. Ghazaryan, A. Trchounian

Conference

The large scale antimicrobial efficiency of a new multicomponent preparation for skin diseases treatment

M. Ginovyan, P. Ghazaryan, I. Bazukyan, A. Trchounian

Conference

Antibiotic modulatory effect of the methanolic extracts from Armenian herbs against several gram-negative and gram-positive bacteria

Ginovyan M., Petrosyan M., Trchounian A.

Conference

Gc-MsA analysis of Bio-Active Compounds from Methanol Extracts of R. Obtusifolius and A. Eupatorid L. Possessing Antimicrobial Activity

M. Ginovyan, M. Petrosyan, N. Sahakyan, A. Trchounian

Conference

Antibacterial and Anti-phage Activity of Raw Material Plantago major L., a Medicinal plant Grown in Armenia

A. Trchounian, N. Sahakyan, M. Ginovyan, M. Petrosyan

Conference

THE NATURE OF COMPOUNDS RESPONSIBLE FOR ANTIRADICAL ACTIVITY OF METHANOL AND ACETONE EXTRACTS OF SOME ARMENIAN HERBS

A.AYVAZYAN, M.GINOVYAN, A.NIKOYAN, A.TRCHOUNIAN

Conference

RUMEX OBTUSIFOLIUS AND HIPERICUM ALPESTRE HERBS AS SOURCES FOR NEW ANTIOXIDANT COMPOUNDS

Sahakyan N, Ginovyan M., Andreoletti P., Cherkaoui-Malki M., Petrosyan M., Trchounian A.

Conference

ANTIMICROBIAL, ANTIOXIDANT AND ANTI-HYPERGLYCEMIC ACTIVITY OF SOME PLANTS FROM ARMENIAN FLORA AND GROWING IN HYDROPONIC CONDITIONS: MODERN STUDIES AND FURTHER APPLICATIONS

Sahakyan N., Ginovyan M., Aghajanyan A., Petrosyan M., Trchounian A.

Conference

Nature of active phytochemicals of crude extracts of some herbs from Armenian flora responsible for their antimicrobial activity

Ginovyan M., Ayvazyan A., Nikoyan A., Trchounian A.

Conference

Antioxidant properties of some herbal extracts from Armenian flora, evaluation of their cytotoxicity and genotoxicity on HT29 cell line

Mikayel Ginovyan, Zuzanna Koziara, Monika Baranowska, Klaudia Suliborska, Patrycja Jakubek, Barbara Kusznierevicz, Nikolay Avtandilyan, Naira Sahakyan, Agnieszka Bartoszek

Conference

High antioxidant and cytotoxic activity of Rumex obtusifolius seed extract and metabolomic characterization of its bioactive phytochemicals.

M. Ginovyan, Z. Koziara, M. Baranowska, I. Koss-Mikolajczyk, K. Suliborska, P. Jakubek, B. Kusznierevicz, N. Avtandilyan, N. Sahakyan, A. Bartoszek

Conference

Antimicrobial and antioxidant potential of some plant crude extract

Margarit Petrosyan, Alvard Minasyan, Anahit Shirvanyan, Anush Babayan, Mikayel Ginovyan,

Naira Sahakyan

Conference

Hypericum alpestre combined with arginase and NOS inhibitors shows antiproliferative activity in the rat breast cancer model

H.Javrushyan, N.Avtandilyan, S.Hovhannsiyan, M.Qocharyan, M.Ginovyan, A.Maloyan

Conference

Anti-inflammatory and immunostimulatory effect of Hypericum alpestre combined with arginase and NOS inhibitors in the rat breast cancer model

H.Javrushyan, E.Nadiryan, G.Petrosyan, M.Ginovyan, A.Maloyan, N.Avtandilyan

Conference

New therapeutic approach in breast anti-cancer treatment using a combination of Rumex obtusifolius extract and L-arginine pathway inhibitors

N. Avtandilyan, H. Javrushyan, A. Karapetyan, M. Ginovyan

Conference

Evaluation of immunostimulatory effect of combination of herbal extracts and chemotherapeutic drugs by quantitative alteration of interleukin-2

H. Javrushyan, G. Sevoyan, M. Ginovyan, Z. Karabekian, N. Avtandilyan

Conference

Occurrence of potential pathogenic Pseudomonas spp. in trout farms of Armenia

Grigoryan K., Sargsyan M., Hovsepyan V., Badalyan G., Ginovyan M.

Conference

The combination of herbs and chemotherapeutic agents inhibits tumor progression via down-regulation of the TNF α -VEGF α /PI3K/Akt/NOS/COX-2-MMP-2 pathway in DMBA-induced breast cancer in rats

N. Avtandilyan, M. Kocharyan, S. Hovhannisiyan, S. Gevorgyan, H. Javrushyan, M. Ginovyan, A. Maloyan

Conference

From metabolomics to medicine: exploiting the functional potential of plant extracts in human health, with emphasis on Ribes nigrum, Ficus carica and Vitis vinifera

S. Tadevosyan, M. Ginovyan, N. Avtandilyan, A. Shirvanyan, A. Bartoszek, N. Sahakyan

Conference

From agro-bio-waste to application: the power of bilberry aerial part extract as anti-cancer and antibiotic-modulating agent

N. Sahakyan, M. Ginovyan, A. Babayan, A. Shirvanyan, A. Minasyan, B. Kusznierevicz,

I. Koss-Mikolajczyk, N. Avtandilyan, A. Bartoszek

Conference

Harnessing plant extracts to overcome antibiotic resistance: leaf extracts of *Ribes nigrum*, *Ficus carica*, and *Vitis vinifera* as resistance modifiers of *E. coli* strains

M. Ginovyan, A. Shirvanyan, S. Tadevosyan, A. Babayan, B. Kusznierevich, N. Avtandilyan, A. Bartoszek,
N. Sahakyan

Conference

The cytotoxicity and antibacterial activity of *Moringa oleifera*-mediated silver nanoparticles

M. Timotina, T. Manutsyan, M. Ginovyan, K. Trchounian, L. Gabrielyan, A. Aghajanyan

Conference

ANTI-CANCER PROPERTIES AND POTENTIAL MOLECULAR MECHANISMS OF COMBINATIONS OF HERBAL EXTRACTS AND CHEMOTHERAPEUTIC AGENTS

N. Avtandilyan, H. Javrushyan, H. Karapetyan, A. Grigoryan, E. Nadiryan, G. Sevoyan, M. Ginovyan,
A. Maloyan

Conference

Investigating the anticancer advantages of pairing *Rumex obtusifolius* herb extract with 5-fluorouracil against breast cancer in vivo

S. Hovhannisyan, M. Ginovyan, N. Avtandilyan
