

Bella G. Babayan

Research Institute of Biology

Ecological Monitoring Group

Researcher

✉ bella.babayan@ysu.am



Education

Institution	Yerevan Culture University
Faculty	Arts
Date	2019 - 2021
Degree name	Bachelor

Institution	SPC "Armbiotechnology" NAS RA
Faculty	Microbiology, Blotechnology
Date	2017 - 2024
Degree name	Applicant

Institution	Russian-Armenian University
Faculty	Medical Blochemistry
Date	2008 - 2011
Degree name	PhD student

Institution	Yerevan State University
Faculty	Biology/ Biochemistry
Date	2006 - 2008
Degree name	Masters

Institution	Yerevan State University
Faculty	Biology/ Biochemistry
Date	2002 - 2006
Degree name	Bachelor

Scientific Rank/degree

Institution	SPC "Armbiotechnology" NAS RA
Date	2024
Degree name	Postgraduate
Scientific Supervisor	N.A. Hovhannisyan
Research Topic	The study of Multi-Drug Resistance in Bacteria of Pseudomonas, Stenotrophomonas, Xanthomonas Genera Several Species and The Overcoming of It by L-tartaric Acid Synthetic Derivatives.

Language skills

Русский English Հայերեն

Work experience

Institution	Yerevan State University
Period of time	2023 till now
Rank/degree	researcher

Scientific interests

- Biochemistry, Biotechnology, Ecology, Molecular Biology, Genetics, Toxicology, Pharmacology, Cave Microbiome, arts, music
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Membership

Institution	SPELEOLOGICAL CENTER OF ARMENIA, Secretary, member of council,
Period of time	2019 - 2023

Institution	BAA
Period of time	2017 - 2024

Institution	BAA Secretary
Period of time	2017 - 2019

Institution	FEMS
Period of time	2018 - 2024

Institution	FEBS
Period of time	2023 - 2024

State awards and honorary titles

2025 Honorary member of the jury of "Constelația Talentelor" International Festival-Competiton, UNESCO

2010 "Synopsys" foundation I prize in IT TEchnologies

2010 The Presidential Award "The Best PhD Student"

Other information

<https://blog.eif.am/2021/08/02/phd-support-program-fellow-bella-babayan...>

<https://www.youtube.com/watch?v=xx43jI8dyQQ> <https://www.youtube.com/watch?v=dXEAYIZ7SLM>

https://www.youtube.com/watch?v=D_y9sRjerR4 <https://www.youtube.com/watch?v=pSNFKpiPRd8>

Publications

Article

Genetic Changes In Common Dandelion (*Taraxacum officinale*) Induced by High Concentrations of Heavy Metals in Soil

Bella Babayan, Alexander Yesayan, Garegin Sevoyan, Tigran Yesayan

Functional Foods in Health and Disease 2025 625-633

Article

***Pseudomonas fluorescens*: Prospective green antimicrobial for crops cultivation**

Marina Melkumyan, Bella Babayan, Alexander Yesayan, Tigran Yesayan, Sevoyan Garegin,

Armen Grigoryan, Anna Grigoryan

Bioactive Compounds in Health and Disease 2025 269 - 278

Article

Artificial fragrances and semisynthetic perfumes: The hidden health risks

Bella Babayan, Tigran Yesayan, Marina Melkumyan, Gagik Mikaelyan, Samvel Bagdasaryan,

Silviana Elbakyan, Anzhelika Avanesyan, Alexander Yesayan, Garegin Sevoyan

Functional Food Science 2025 621-632

Article

Therapeutic utilization of tetrodotoxin for treating carcinomas: a comparative molecular docking and dosage adjustment study

Anna Grigoryan, Hamlet Karayan, Samvel Bagdasaryan, Tatevik Evadzhyan, Peri Ghukasyan,

Marina Melkumyan, Bella Babayan

Bioactive Compounds in Health and Disease 2025 422-431

Article

Tartaric acid new derivatives as prospective and safe alternative to antimicrobials for food products packing

Mikaelyan A.R., Babayan B.G., Grigoryan A.L., Grigoryan A.M., Asatryan N.L., Melkumyan M.A.

Functional Foods in Health and Disease 2024 33-50.

Article

Carnivorous fungi application for pesticide-free vegetable cultivation

Alexander Yesayan, Tigran Yesayan, Bella Babayan, Syuzanna Esoyan, Ani Hayrapetyan,

Garegin Sevoyan, Armine Chakhmakhchyan, Siranush Nanagulyan, Marina Melkumyan

Functional Food Science 2024 325-336

Article

Strategic food reserves storage, safety and risk minimization: Problems and perspectives

Samvel M. Shahinyan, Ani Yu. Badasyan, Bella G. Babayan, Marina A. Melkumyan, Tigran A. Yesayan,

Alexandr H. Yesayan

Functional Foods in Health and Disease 2024 615-629

Article

Crops biological protection: Phytopathogens growth inhibition by the entomopathogens

Marina Melkumyan, Bella Babayan, Anna Grigoryan, Alexander Yesayan

Bioactive Compounds in Health and Disease 2024 361-374

Article

Traditional vegetarian food products in villages of Syunik, Armenia: Technogenic contamination risks assessment

Garegin G. Sevoyan, Karen A. Ghazaryan, Tigran A. Yesayan, Ani K. Hayrapetyan, Seyran H. Minasyan, Bella G. Babayan, Ivan G. Gabrielyan, Syuzanna S. Esoyan, Armine D. Chakhmakhchyan, Anna M. Grigoryan, Marina A. Melkumyan, Alexander H. Yesayan

Functional Food Science 2024 380-389

Article

Impact of ceramic packaging on the quality and safety of Armenian fermented dairy product Matsoun

Syuzanna S. Esoyan, Ani K. Hayrapetyan, Tigran A. Yesayan, Armine E. Sargsyan,

Armine D. Chakhmakhchyan, Bella G. Babayan, Garegin G. Sevoyan, Aleksandr H. Yesayan

Functional Food Science 2024 370-379

Article

The safety of animal-derived food products in areas of technogenic pollution

Garegin G. Sevoyan, Seyran H. Minasyan, Tigran A. Yesayan, Bella G. Babayan, Syuzanna S. Avetisyan,

Alexander H. Yesayan

Functional Foods in Health and Disease 2024 704-712

Article

The preliminary study of antifungal and antibacterial properties of wine by-products

Ani K. Hayrapetyan, Tigran A. Yesayan, Armine D. Chakhmakhchyan, Bella G. Babayan,

Garegin G. Sevoyan, Alexander H. Yesayan, Syuzanna S. Esoyan

Bioactive Compounds in Health and Disease 2024 570-580

Article

Colamine and tartaric acid based innovative antioxidant and anti-spoilage food additive for fish product industry

Aram R. Mikaelyan, Tigran Soghomonyan, Bella G. Babayan, Samvel A. Bagdasaryan, Nona L. Asatryan,

Anna M. Grigoryan, Marina A. Melkumyan

Bioactive Compounds in Health and Disease 2024 489-499

Article

New functionally substitutes cyclopropanecarboxylic acids as ethylene biosynthesis innovative regulators

Aram Mikaelyan, Samvel Bagdasaryan, Bella Babayan, Nona Asatryan, Marina Melkumyan,

Anna Grigoryan

Bioactive Compounds in Health and Disease 2024 500-510

Article

The epigenetic impact of daily diet food choices on human health and chronic diseases

Yesayan A. H., Chetta M., Babayan B. G., Yesayan T. A., Esoyan S. S., Sevoyan G. G.

Article

Sustainable methods for producing food-derived bioactive compounds

Aram R. Mikaelyan, Samvel A. Bagdasaryan, Alexander H. Yesayan, Tigran A. Yesayan,
Ani K. Hayrapetyan, Bella G. Babayan, Marina A. Melkumyan, Vardan Sargsyan

Bioactive Compounds in Health and Disease 2024 525-535

Article

**THE STUDY OF PROTEOLYTIC ACTIVITY OF PHYTOPATHOGENIC RHODOCOCCUS,
PSEUDOMONAS AND XANTHOMONAS SOME STRAINS**

Melkumyan M., Babayan B.

EUROPEAN SCIENCE REVIEW 2023 3-7

Article

Assessment of 'Complex-co' preparation efficiency for some cereal crops growth stimulation

H.S. Martirosyan, A.R. Mikaelyan, N.L. Asatryan, B.G. Babayan

Agronomy Research 2023 1213-1220

Article

Tartaric acid synthetic derivatives effect on phytopathogenic bacteria

A.R. Mikaelyan, B.G. Babayan, A.A. Vartanyan, H.V. Tokmajyan

Agronomy Research 2022 644-659

Article

**Analysis of genome sequence and trehalose lipid production peculiarities of the
thermotolerant Gordonia strain**

Yanina Delean, Armen Sargsyan, Nelli Hovhannisyan, Bella Babayan, Kirill Petrikov, Mikhail Vainstein

Journal of Basic Microbiology 2020 14-21

Article

**Исследования стабильности плазмид антибиотикорезистентности у почвенных условно-
патогенных штаммов Stenotrophomonas и Pseudomonas**

Бабаян Б.Г., Саргсян А.С., Багдасарян С.А, Мелкумян М.А., Давидян Т.С, Оганесян Н.А,

Оганесян А.М.

Авиценна 2019 13-17

Article

**RESISTANCE TO β -LACTAM ANTIBIOTICS IN SOME SOIL STENOTROPHOMONAS AND
PSEUDOMONAS.**

Hovhannisyan A.M., Hovhannisyan N. A., Babayan B.G., Sargsyan A.S., Davidyan T.S.

The scientific heritage 2019 32-38

Article

**Inactivation of *Macrovipera lebetina obtusa* snake venom by enzymes of multidrug resistant
*Pseudomonas***

Bella G. Babayan, N.A. Hovhannisyan, M.A. Melkumyan, A. Sargsyan

Toxicon 2019 S20

Article

СОВРЕМЕННЫЕ ТЕНДЕНЦИИ В РАЗРАБОТКЕ ЭФФЕКТИВНЫХ КОМБИКОРМОВ ДЛЯ РЫБ

В. Ю. Агеец, А. Р. Микаелян, Ж. В. Кошак, Б. Г. Бабаян, С. М. Дегтярик

Весті Нацыянальнай акадэміі навук Беларусі. Серыя аграрных навук 2019 323–333

Conference

The Research of Aminoglycoside Resistance Spread in Non-Pathogenic Strains of Pseudomonas Isolated From Soil

A.Hovhannisyanyan, N. Hovhannisyanyan, A.Sargsyanyan, B. Babayanyan, M. Kinosityanyan, T.Davidyanyan, S. Bagdasaryanyan, M.Melkumyanyan, G.Oganezovaya

Conference

“Study on stability of soil Pseudomonas and Xanthomonas plasmids possessing antibiotic resistance genes”

Hovhannisyanyan N.A., Babayanyan B.G., Sargsyanyan A.S., Bagdasaryanyan S.A, Hovhannisyanyan A.M.

Conference

Antimicrobial Activity of Newly Synthesized Derivatives of Tartaric Acid Against the Multidrug Resistant Soil Strains of Pseudomonas and Stenotrophomonas

Aram R. Mikaelyanyan, Nona L. Asatryanyan, Samvel A. Bagdasaryanyan, Bella G. Babayanyan

Patent

Համակցված ադեցուրթյան հակաբորբոքային քսուլ

Քազիկ Ներսիսյան, Արամ Միքաելյան, Բելլա Բաբայան

Conference

The Effect of Tartaric Acid New Derivatives Against the Multidrug Resistant Opportunistic Pathogenic Soil Strains of Pseudomonas Fluorescens

Bella G. Babayanyan, Aram R. Mikaelyanyan, Nona L. Asatryanyan, Samvel A. Bagdasaryanyan, Marina A. Melkumyanyan

Conference

Tartaric Acid New Synthetic Derivatives Antibacterial Activity against the Phytopathogenic Pseudomonas syringae

Bella G. Babayanyan, Aram R. Mikaelyanyan, Nona L. Asatryanyan, Marina A. Melkumyanyan, Samvel A. Bagdasaryanyan,

Anna M. Grigoryanyan

Conference

Carnivorous Fungi: Innovative Safe Alternative Against The Agricultural Worm Pests

A. H. Yesayanyan, T. A. Yesayanyan, B. G. Babayanyan, G. G. Sevoyanyan, S. S. Esoyanyan, A. K. Hayrapetyanyan,

A. D. Chakhmakhchyan

Conference

“Complex-Co” Innovative Ecologically Safe Agropreparation

A.R. Mikaelyanyan, B.G. Babayanyan, M.A. Melkumyanyan, T.M. Soghomonyanyan, N.L. Asatryanyan, A.M. Grigoryanyan,

S.A. Bagdasaryanyan, H.S. Martirosyanyan, A.S. Melikanyan

Conference

The Preliminary Research of Magellan’s Cave Microbiome

Samvel M. Shahinyanyan, Bella G. Babayanyan, Smbat Davtyanyan, Tigran A. Yesayanyan, Alexander H. Yesayanyan,

Marina A. Melkumyanyan

Conference

CARNIVOROUS FUNGI APPLICATION PERSPECTIVES FOR PESTICIDE- FREE VEGETABLES CULTIVATION

Alexander Yesayan, Tigran Yesayan, Bella Babayan, Syuzanna Esoyan, Ani Hayrapetyan, Garegin Sevoyan, Armine Chakhmakhchyan, Siranush Nanagulyan, Marina Melkumyan

Conference

The prospectives of crops biological protection based on *Pseudomonas fluorescens* non-pathogenic bacteria

Marina A. Melkumyan, Bella G. Babayan, Marina H. Kinosyan, Tamara S. Davidyan

Conference

Innovative Green Agents Against the Pathogens of Crops Based On *Brevibacillus Laterosporus*

Bella G. Babayan, Marina A. Melkumyan, Gagik S. Mikaelyan

Conference

Carnivorous Fungi: Innovative Green Alternative Against the Worm-pests of Crops

Tigran A. Yesayan, Alexander H. Yesayan, Bella G. Babayan

Conference

Antimicrobial Resistance of Native Bacteria and The Spread of It out of Clinics

Bella G. Babayan, Marina A. Melkumyan, Marina H. Kinosyan, Tamra S. Davidyan, Alexander H. Yesayan, Garegin G. Sevoyan, Tigran A. Yesayan

Conference

Crops Biological Protection Based on *Pseudomonas fluorescens*: Prospectives for Green Agriculture

Marina Melkumyan, Bella Babayan, Alexander Yesayan, Tigran Yesayan
