

Gayane Yervand Avetisova

Institute of Pharmacy

Ֆարմաքիմիայի և ֆարմակագնոզիայի ամբիոն
Assistant

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Education

Institution	Yerevan State University
Faculty	Faculty of Biology, Department of Biochemistry
Date	1979 - 1984
Degree name	Qualified specialist

Scientific Rank/degree

Institution	«Scientific Research Institute of Biotechnology» CJSC
Date	2004
Degree name	Candidate
Specialty	Biological sciences
Scientific Supervisor	Kocharyan Shavarsh
Research Topic	OBTAINING OF HIGHLY ACTIVE STRAINS PRODUCERS OF L-VALINE AT BREVIBACTERIUM FLAVUM. TECHNOLOGY OF BIOSYNTHESIS L-VALINE IN INDUSTRIAL CONDITIONS

Language skills

English

Work experience

Institution	Chair of Pharmchemistry and Pharmacognosy of Institute of Pharmacy of Yerevan State University
Period of time	2006 till now
Rank/degree	assistant

Institution	Scientific and Production Center “Armbiotechnology” SNPO NAS RA
Period of time	1984 till now
Rank/degree	Leading researcher

Scientific interests

- Biotechnology, Microbiology, Genetics

Membership

Institution	Scientific and Production Center “Armbiotechnology” SNPO NAS RA, Member in scientific council
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Period of time	2022 till now
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Institution	secretary of scientists’ Board of Specialized Council 018 Biotechnology,
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Period of time	2008 till now
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Institution	“Scientific Research Institute of Biotechnology” CJSC., scientific secretary of scientific council
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Period of time	2005 - 2009
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State awards and honorary titles

2013 Certificate of Merit of NAS RA (For irreproachable work in the system of the National Academy of Sciences of RA)

2006 Certificate of Honour of Ministry of Trade and Industry of RA (In connection with the 35th anniversary of the “Scientific Research Institute of Biotechnology” CJSC)

Publications

Article

Reducing nutrient requirement using nitrogen-fixing bacteria for microalgae cultivation

L. Melkonyan, A. Ferreira, C.R.V. Bastos, D. Figueiredo, T. Lopes da Silva, G. Avetisova, Zh. Karapetyan, A. Toplaghalsyan, L. Gouveia

Bioresource Technology Reports 2025 102180

Article

Consortium of microalgae/nitrogen-fixing bacteria as a next-generation biofertilizer, biostimulant and biopesticide

Luisa Gouveia, Alice Ferreira, Carolina Vela Bastos, Gayane Avetisova, Zhaneta Karapetyan, Anna Toplaghalsyan, Lusine Melkonyan

Journal of Applied Phycology 2025 -

Article

Obtaining of osmoresistant mutants in L-histidine-producing coryneform bacterium to improve efficiency of target amino acid biosynthesis

Susanna Keleshyan, Zhaneta Karapetyan, Anna Toplaghalsyan, Lusine Melkonyan, Vahe Ghochikyan, Luiza Manukyan, Gevorg Tsarukyan, Sofya Martirosyan, Tamara Davidyan, Nelli Avetisyan,

Gayane Avetisova

Functional Food Science 2025 462–472

Article

Characterization of important new industrial enzymes CGTase and their application in the transglycosylation of stevia glycosides

Vahe Ghochikyan, Gayane Avetisova, Tigran Soghomonyan, Luiza Manukyan, Susanna Keleshyan,

Lusine Melkonyan

Functional Food Science 2025 717 - 732

Article

Biofertilizer based on Agrobacterium as a key to food security

Gayane Avetisova, Lusine Melkonyan, Vahe Ghochikyan, Gevorg Tsarukyan, Anna Toplaghaltsyan,

Zhaneta Karapetyan, Susanna Keleshyan

Bioactive Compounds in Health and Disease 2024 558-569

Article

Antibiotic-resistant mutants of lactic acid bacteria: potential food control agents

Keleshyan Susanna, Karapetyan Zhaneta, Toplaghaltsyan Anna, Khachaturyan Nune, Chitchyan Karine,

Gevorgyan Sona, Melkonyan Lusine, Ghochikyan Vahe, Tsarukyan Gevorg, Avetisova Gayane

Bioactive Compounds in Health and Disease 2024 430-443

Article

Obtaining Osmo resistant Mutants in Nitrogen Fixing Bacteria Isolated from Saline Soils

Keleshyan S. K, Karapetyan Z. V., Toplaghaltsyan A. G., Avetisova G. Y., Melkonyan L. H.,

Vardanyan A. A., Ghochikyan V. T.

Current Microbiology 2022 251

Article

Brevibacterium flavum մանրէի հիման վրա L-տրիպտոֆանի շտամ-արտադրիչի ստացման գենետիկասելեկցիոն մոտեցումները

Ավետիսովա Գ., Մելքոնյան Լ., Ծառուկյան Գ., Ղոչիկյան Վ., Զելեչյան Ս., Կարապետյան Ժ.,

Թովլաղալցյան Ա.

ՀԻՄՆԱՐԱՐ ԵՎ ԿԻՐԱՌԱԿԱՆ ԳԻՏԱԿԱՆ ՀԵՏԱԶՈՏՈՒԹՅՈՒՆՆԵՐ. ԱՐԴԻԱԿԱՆ ԽՆԴԻՐՆԵՐ ԵՎ

ՋԵՌՔԵՐՈՒՄՆԵՐ

2022 173-187

Article

Microbial approaches for amino acids production

A. Paloyan, L. Melkonyan, G. Avetisova

Microbial Syntrophy-Mediated Eco-enterprising 2022 177-209

Article

Enzymatic activity of nitrogen-fixing bacteria isolated from armenian saline soils

Toplaghaltsyan A., Karapetyan Zh., Keleshyan S., Avetisova G., Melkonyan L., Tsarukyan G.,

Ghochikyan V.

International Scientific Conference on Microbial Biotechnology, 5th edition 2022 55-60

Article

Biostimulant and biopesticide potential of microalgae growing in piggery wastewater

Alice Ferreira, Lusine Melkonyan, Sofia Carapinha, Belina Ribeiro, Daniel Figueiredo, Gayane Avetisova,

Luisa Gouveia

Article

Co-cultivation of L-tryptophan-producing strain *Brevibacterium flavum* and *Azotobacter vinelandii* as an alternative method for indole-3-acetic acid production

Avetisova G., Melkonyan L., Toplaghalsyan A., Tsarukyan G., Keleshyan S., Karapetyan Z.,

Ghochikyan V.

BIOTECHNOLOGY: SCIENCE AND PRACTICE, INNOVATION AND BUSINESS 2021 6-10

Article

Influence of Vitamins on L-Tryptophan Production by *Brevibacterium flavum*

Melkonyan L., Avetisova G., Tsarukyan G., Keleshyan S., Karapetyan Z., Toplaghalsyan A.,

Ghochikyan V.

BIOTECHNOLOGY: SCIENCE AND PRACTICE, INNOVATION AND BUSINESS 2021 82-86

Article

***Scenedesmus obliquus* microalga-based biorefinery - from brewery effluent to bioactive compounds, biofuels and biofertilizers - aiming a circular bioeconomy**

A. Ferreira, B. Ribeiro, M.L.A. Tavares, J. Vladoic, S. Vidovic, D. Cvetkovic, L. Melkonyan, G. Avetisova,

V. Goginyan, L. Gouveia

Biofuels, Bioproducts and Biorefining 2019 1169-1186

Article

Характеристика микрофлоры засоленных почв Армении

С.К. Келешян, Ж. В. Карапетян, А.Г. Топлакалцян, Г.Е. Аветисова, Л.О. Мелконян, В.Т. Кочикян

Хранение и переработка сельхозсырья 2019 76-85

Book

Combining Microalgae-Based Wastewater Treatment with Biofuel and Bio-Based Production in the Frame of a Biorefinery. In: Hallmann A., Rampelotto P. (eds) Grand Challenges in Algae Biotechnology. Grand Challenges in Biology and Biotechnology

Alice Ferreira, Alberto Reis, Senka Vidovic, Jelena Vladoic, Spyros Gkelis, Lusine Melkonyan,

Gayane Avetisova, Roberta Congestri, Gabriel Ación, Raul Muñoz, Pierre Collet, Luisa Gouveia

2019 591

Article

Новое биоудобрение «Азоцеовит-1» для органического овощеводства и его испытание на посадках перца и баклажана в Армении

К.М. Сарикян, Г.Ж. Саргсян, Г.Е. Аветисова, Л.О. Мелконян

Неделя науки в Крутах -2017 2017 264-271

Article

НОВЫЙ БИОПРЕПАРАТ «ЭКОБИОФИД+» ДЛЯ ОРГАНИЧЕСКОГО ЗЕМЛЕДЕЛИЯ И ЕГО ИСПЫТАНИЕ НА ПОСАДКАХ ТОМАТОВ В АРМЕНИИ

Мелконян Л.О., Степанян С.Х., Аветисова Г.Е., Сарикян К. М.

INNOVATIVE APPROACHES AND PERSPECTIVE IDEAS OF YOUNG SCIENTISTS IN AGRARIAN SCIENCES. The proceedings of the international scientific-practical conference of young scientist 2017 384-387

Article

Influence of Glutamate Dehydrogenase Activity on L-Proline Synthesis

S.K. Keleshyan, Zh.V. Karapetyan, A.Kh. Chakhalyan, N.A. Hovhannisyan, G.Ye. Avetisova,
M.B. Chitchyan, G.G. Oganezova, M.A. Melkumyan, N.S. Avetisyan, L.H. Melkonyan
Applied Biochemistry and Microbiology 2017 470-476

Article

Изучение ингибирующих свойств новых небелковых аминокислот и отбор эффективных аналогов L-аминокислот для селекции высокоактивных штаммов-продуцентов

А.Х. Чахалян, С.К. Келешян, Ж.В. Карапетян, А.Г. Давтян, Г.Е. Аветисова, Л.О. Мелконян,
А.С. Дадаян, А.С. Сагиян

Прикладная биохимия и микробиология (Applied Biochemistry and Microbiology) 2016 62-67
http://elibrary.ru/title_about.asp?id=7955

Article

The nitrogen-fixing strain for biopreparation

L.H. Melkonyan, G.H. Tepanosyan, G.Ye. Avetisova, A.Kh. Chakhalyan, S.Gh. Keleshyan,

Zh.V. Karapetyan

Biological Journal of Armenia 2016 65-68

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

Conference

BIOTECHNOLOGICAL APPROACHES FOR OBTAINING OF NEW COMPLEX BIOPREPARATION FOR ORGANIC AGRICULTURE

L. Melkonyan, G. Avetisova, A. Chakhalyan, S. Keleshyan, Zh. Karapetyan, S. Stepanyan,

A. Toplaghalsyan, A. Saghyan

Conference

Effect of " Ecobiofeed+ " Biopreparation on Eggplant (Solanum Melongena S.)

G. Avetisova, L. Melkonyan, S. Stepanyan, K. Sarikyan, V. Ghochikyan, S. Keleshyan, Zh. Karapetyan,

A. Toplaghalsyan

Conference

Screening of lactic acid bacteria with a wide spectrum of antifungal activity

A. Toplaghalsyan, S. Keleshyan, Zh. Karapetyan, N. Khachaturian, G. Avetisova, L. Melkonyan,

S. Stepanyan

Conference

Optimization of fermentation condition for α -amylase production

A. Paloyan, L. Melkonyan, A. Sargsyan, T. Arakelyan, M. Izmailyan, G. Avetisova, A. Hambardzumyan,

A. Saghyan

Conference

Study of some metals effect on α -amylase activity of *Bacillus amyloliquefaciens* MDC 1974 strain

L. Melkonyan, A. Paloyan, A. Hambardzumyan, G. Avetisova, A. Mkhitarian, A. Sargsyan, S. Stepanyan,

S. Arabachyan, A. Saghyan

Conference

Study of synthesis of amino acids by Azotobacter vinilandii AV1 strain

G. Avetisova, L. Melkonyan, A. Paloyan, V. Ghochikyan, A. Tsaturyan, S. Keleshyan, Z. Karapetyan,

A. Toplaghalsyan

Conference

Optimization of fermentation conditions for histidine producers resistant to non-protein amino acids

A. Toplaghalsyan, S. Keleshyan, Z. Karapetyan, G. Avetisova, L. Melkonyan, A. Vardanyan

Conference

New α - amylase from Bacillus sp. MDC 3500 strain

A. Paloyan, L. Melkonyan, A. Hambardzumyan, A. Mkhitarian, G. Avetisova

Conference

Industrial wastewater-grown Scenedesmus obliquus biomass-to-fuels and biofertilizers production: an integrative approach

A. Ferreira, B. Ribeiro, J. Vlastic, S. Vidovic, D. Cvetkovic, L. Melkonyan, G. Avetisova, A.F. Ferreira, A. Reis, L. Gouveia

Conference

Tiny Microalgae For Huge Applications. Biorefinery Approach

Alice Ferreira, Sofia Carapinha, Jelena Vlastic, Senka Vidovic, Dragoljub Cvetkovic, Lusine Melkonyan, Gayane Avetisova, Luisa Gouveia

Conference

Agrobacterium sp. as nitrogen-fixing bacteria: effect of osmo-resistant strains on the growth of plants in saline soils of Armenia

S. Keleshyan, Zh. Karapetyan, A. Toplaghalsyan, G. Avetisova, L. Melkonyan, G. Tsarukyan, V. Ghochikyan

Conference

ASSESSMENT OF BIOSTIMULANT AND BIOPESTICIDE POTENTIAL OF MICROALGAE FOLLOWING PIGGERY WASTEWATER TREATMENT

A. Ferreira, L. Melkonyan, S. Carapinha, B. Ribeiro, D. Figueiredo, G. Avetisova, L. Gouveia

Conference

Determination of Enzymatic Activity of Nitrogen-Fixing Bacteria Isolated from Saline Soils of Armenia

Toplaghalsyan A., Keleshyan S., Karapetyan Z., Avetisova G., Melkonyan L., Tsarukyan G.

Conference

ISOLATION AND CHARACTERIZATION OF NITROGEN-FIXING BACTERIA TO CREATE A NEW MULTIFUNCTIONAL BIOTECHNOLOGICAL MEAN FOR ORGANIC AGRICULTURE

Lusine Melkonyan, Zhaneta Karapetyan, Anna Toplaghalsyan, Luisa Gouveia, Gayane Avetisova

Conference

CREATING A CONSORTIUM OF NITROGEN-FIXING BACTERIUM AND MICROALGA FOR HEALTHIER ORGANIC FOOD

Lusine Melkonyan, Alice Ferreira, Carolina Vela Bastos, Daniel Figueiredo, Gayane Avetisova,

Zhaneta Karapetyan, Anna Toplaghaltsyan, Luisa Gouveia

Conference

MICROBIAL PRODUCTION OF THE ESSENTIAL AMINO ACID L-TRYPTOPHAN FOR FOOD AND NUTRITION

Gayane Avetisova, Vahe Ghochikyan, Gevorg Tsarukyan, Susanna Keleshyan, Zhaneta Karapetyan, Anna Toplaghaltsyan, Lusine Melkonyan

Conference

GROWTH DYNAMICS OF NITROGEN-FIXING BACTERIA AT INCREASED SALINITY

Toplaghaltsyan A., Karapetyan Zh., Keleshyan S., Avetisova G., Melkonyan L., Tsarukyan G., Ghochikyan V.

Conference

ENZYMATIC ACTIVITY OF NITROGEN-FIXING SOIL BACTERIA

Toplaghaltsyan A., Karapetyan Zh., Keleshyan S., Avetisova G., Melkonyan L., Tsarukyan G., Ghochikyan V.

Conference

ԱՉՈՏ ՖԻԶՍՈՂ ՄԱՆՐԵՆԵՐԻ ԵՎ ՄԻԿՐՈԶՐԻՄՈՒՄԻ ԿՈՆՍՈՐՑԻՈՒՄՆԵՐԸ՝ ՈՐՊԵՍ

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Մելքոնյան Լ., Ավետիսովա Գ., Կարապետյան Վ., Թովլաղալցյան Ա., Գուվեյա Լ. (Gouveia L.)

Conference

BIOFERTILIZER BASED ON AGROBACTERIUM AS A KEY TO FOOD SECURITY

Gayane Avetisova, Lusine Melkonyan, Vahe Ghochikyan, Gevorg Tsarukyan, Anna Toplaghaltsyan, Zhaneta Karapetyan, Susanna Keleshyan

Conference

ANTIBIOTIC-RESISTANT MUTANTS OF LACTIC ACID BACTERIA: POTENTIAL FOOD CONTROL AGENTS

Susanna Keleshyan, Zhaneta Karapetyan, Anna Toplaghaltsyan, Nune Khachaturyan, Karine Chitchyan, Sona Gevorgyan, Lusine Melkonyan, Vahe Ghochikyan, Gevorg Tsarukyan, Gayane Avetisova

Conference

Some Features of Nitrogen-Fixing Bacterium and Microalga to Develop a Multifunctional Biobased Product for Sustainable Agriculture

Lusine Melkonyan, Anna Toplaghaltsyan, Zhaneta Karapetyan, Luisa Gouveia, Gayane Avetisova
