

# Anush Aramays Aghajanyan

## Faculty of Biology

Chair of Biochemistry, Microbiology, and Biotechnology

Associate professor

☎ 37491630292

✉ a.aghajianian@ysu.am



## Education

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| <b>Institution</b> | Yerevan State University                       |
| <b>Faculty</b>     | Faculty of Biology/ Department of Biochemistry |
| <b>Date</b>        | 1989 - 1994                                    |
| <b>Degree name</b> | Qualified specialist                           |

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## Scientific Rank/degree

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| <b>Institution</b> | Yerevan State University |
| <b>Date</b>        | 2021                     |
| <b>Degree name</b> | Associate professor      |
| <b>Specialty</b>   | Biological sciences      |

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| <b>Institution</b>           | Yerevan State University   |
| <b>Date</b>                  | 2002   |
| <b>Degree name</b>           | Postgraduate   |
| <b>Scientific Supervisor</b> | Davtyan M.A.   |
| <b>Research Topic</b>        | Influence of extracts of some herbal on the exchange of arginine and proline and on accumulation biomass of yeast <i>Candida guilliermondii</i> NP-4 |

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## Language skills

Русский English

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## Work experience

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| <b>Institution</b>    | Yerevan State University |
| <b>Period of time</b> | 2021 till now            |
| <b>Rank/degree</b>    | Associate Professor      |

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| <b>Institution</b>    | Yerevan State University |
| <b>Period of time</b> | 2013 - 2021              |
| <b>Rank/degree</b>    | Assistant                |

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| <b>Institution</b>    | Yerevan State University |
| <b>Period of time</b> | 2005 - 2013              |
| <b>Rank/degree</b>    | Scientific Researcher    |

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| <b>Institution</b>    | Yerevan State University     |
| <b>Period of time</b> | 1994 - 2005                  |
| <b>Rank/degree</b>    | Junior Scientific Researcher |

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## Scientific interests

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- Plant Biochemistry
  - Green synthesis of metallic nanoparticles synthesized by using plants
  - Hypoglycemic properties of plants
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## Participation in international conferences and seminars

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| <b>04/06/2018 -<br/>05/06/2018</b> | Biochemical properties of Stevia rebaudiana extract in the stress conditions<br>Germany |
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| <b>02/10/2019 -<br/>04/10/2019</b> | Synthesis of silver nanoparticles by Artemisia annua extract and evaluation of their antibacterial activity<br>Portugal |
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| <b>24/10/2019 -<br/>25/10/2019</b> | Hydroponic Stevia rebaudiana as an alternative path of cultivation: Novel antibacterial properties<br>Netherlands (the) |
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| <b>18/06/2020 -<br/>22/06/2020</b> | Silver Nanoparticles by Plant Stevia rebaudiana: Green Synthesis, Characterization and Antibacterial Activity<br>United States of America (the) |
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| <b>09/07/2022 -<br/>14/07/2022</b> | Antibacterial activity of silver nanoparticles biosynthesized from Stevia rebaudiana extract<br>Portugal |
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|-------------------|---|
| <b>08/07/2023</b> | Green synthesis of silver nanoparticles and their effect on the energy-dependent H <sup>+</sup> -fluxes across the bacterial membrane<br>France |
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|------------------------------------|---|
| <b>08/07/2023 -<br/>12/07/2023</b> | The effect of silver nanoparticles synthesized using Spirulina biomass on the hydrogen yield and FoF1-ATPase activity in Escherichia coli<br>France |
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**08/07/2023 - 12/07/2023** The antibacterial potential of *Spirulina platensis*-mediated green synthesized silver nanoparticles  
France

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**14/10/2012 - 16/10/2012** International Symposia dedicated to the 125th anniversary of academician I.A. Orbeli  
Armenia

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## Membership

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**Institution** Federation of European Microbiological Societies (FEMS)  
**Period of time** 2017 till now

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**Institution** Federation of European Biochemical Societies (FEBS)  
**Period of time** 2005 till now

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## State awards and honorary titles

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2019 Certificate for conscientious and productive work on the occasion of the 100th anniversary of the founding of Yerevan State University

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## Publications

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*Article*

**Comparative Study of Physicochemical Properties and Antibacterial Potential of Cyanobacteria *Spirulina platensis*-Derived and Chemically Synthesized Silver Nanoparticles**

Ani Harutyunyan, Liana Gabrielyan, Anush Aghajanyan, Susanna Gevorgyan, Robin Schubert,

Christian Betzel, Wojciech Kujawski, Lilit Gabrielyan

ACS Omega 2024 29410–29421

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*Article*

**Biosynthesis of silver nanoparticles using extracts of *Stevia rebaudiana* and evaluation of antibacterial activity**

Marina Timotina, Anush Aghajanyan, Robin Schubert, Karen Trchounian, Lilit Gabrielyan

World Journal of Microbiology and Biotechnology 2022 1-10

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*Article*

**HYPOGLYCEMIC ACTIVITY OF *ORIGANUM VULGARE L.* AQUEOUS EXTRACT IN HYPERGLYCEMIA INDUCED BY IMMOBILIZATION STRESS IN RABBITS**

A. A. AGHAJANYAN, A. H. TADEVOSYAN

Proceedings of the YSU B: Chemical and Biological Sciences 2022 141–150

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*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

*Article*

**Silver ion bioreduction in nanoparticles using Artemisia annua L. extract: characterization and application as antibacterial agents**

Anush Aghajanyan, Lilit Gabrielyan, Robin Shubert, Armen Trchounian

AMB Express 2020 1-9

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*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

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*Article*

**Biochemical Activity and Hypoglycemic Effects of Rumex obtusifolius L. Seeds Used in Armenian Traditional Medicine**

Anush Aghajanyan, Armine Nikoyan, Armen Trchounian

BioMed Research International 2018 ID4326352 (1-9)

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*Article*

**ANTIHYPERGLYCEMIC PROPERTIES OF THE HERBAL MIXTURE COMPOSED OF EXTRACTS FROM SALVIA OFFICINALIS L., CALENDULA OFFICINALIS LINN., GLYCYRRHIZAE RADIX L. AND ECHINACEA PURPUREA L. ON HYPERGLYCEMIA INDUCED BY IMMOBILIZATION STRESS IN RABBITS.**

A.A. Aghajanyan, A.H. Trchounian

Proceedings of the YSU B: Chemical and Biological Sciences 2018 180-186

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*Article*

**Antihyperglycemic and Antihyperlipidemic Activity of Hydroponic Stevia rebaudiana Aqueous Extract in Hyperglycemia Induced by Immobilization Stress in Rabbits**

Anush Aghajanyan, Zaruhi Movsisyan, Armen Trchounian

BioMed Research International 2017 1-6

<https://www.hindawi.com/journals/bmri/>

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*Article*

**ВЛИЯНИЕ ИММОБИЛИЗАЦИОННОГО СТРЕССА НА НЕКОТОРЫЕ БИОХИМИЧЕСКИЕ ПОКАЗАТЕЛИ УГЛЕВОДНОГО ОБМЕНА В СЫВОРОТКЕ КРОВИ КРОЛИКОВ**

Н. АЙРАПЕТЯН, А. АГАДЖАНЫАН, М. ХАЧАТРЯН, А. ТРЧУНЯН

Биологический журнал Армении 2017 13-18

<http://biology.asj-oa.am/view/year/2017.html>

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*Manual*

**ԲՈՒՅՍԵՐԻ ԿԵՆՍԱԲԵՄԻՎ**

Ա.Ա.Աղաջանյան, Ա.Հ. Թռչունյան

2017 152

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*Article*

**ГИПОГЛИКЕМИЧЕСКАЯ И ГИПОЛИПИДЕМИЧЕСКАЯ АКТИВНОСТЬ ЛИСТЬЕВ SALVIA**

**OFFICINALIS L.**

Агаджанян Ануш Арамаисовна

Евразийский Союз Учёных 2015 5-8

[http://elibrary.ru/title\\_about.asp?id=52740](http://elibrary.ru/title_about.asp?id=52740)

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*Article*

**ԿԵՆՍԱՐՔԻՄԻԱՅԻ ԴԱՍԱԿԱՆԴՄԱՆ ԺԱՄԱՆԱԿԱԿԻՑ ՄԵԹՈԴՆԵՐ**

Ն.Կ.Հայրապետյան, Մ.Հ.Խաչատրյան, Ա.Ա.Աղաջանյան

Կրթությունը և գիտությունը Արցախում 2015 62-65

<http://www.y-su.am/kgartsakh>

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*Article*

**ВЛИЯНИЕ НЕКОТОРЫХ ЛЕКАРСТВЕННЫХ РАСТЕНИЙ НА УРОВЕНЬ ОБЩЕГО ХОЛЕСТЕРИНА В СЫВОРОТКЕ КРОВИ ЧЕЛОВЕКА**

А.А.Агаджанян

Հայաստանի կենսաբանական հանդես 2014 38-41

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

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*Article*

**АНТИОКСИДАНТНЫЕ СВОЙСТВА НЕКОТОРЫХ ЛЕКАРСТВЕННЫХ РАСТЕНИЙ**

А.А.Агаджанян, А.Х.Агаджанян

Հայաստանի կենսաբանական հանդես 2012 76-79

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

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*Article*

**Аминокислотный состав некоторых лекарственных растений**

А.Х.Агаджанян, Г.А.Семерджян, А.А.Агаджанян, Г.Г.Семерджян, М.С.Мартиросян

Биологический журнал Армении 2007 103-107

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

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*Article*

**АРГИНАЗА И РЕГУЛЯЦИЯ ЕЕ АКТИВНОСТИ В РАЗЛИЧНЫХ ОРГАНАХ РАДУЖНОЙ ФОРЕЛИ  
PARASALMO MIKISS**

А.А.ЗАХАРЯН, А.А. Агаджанян

Հայաստանի կենսաբանական հանդես 2006 152-154

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

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*Article*

**ОСОБЕННОСТИ ФЕРМЕНТОВ БИОСИНТЕЗА ПРОЛИНА В РАЗЛИЧНЫХ ОРГАНАХ ФОРЕЛИ  
PARASALMO MIKISS**

А.А.ЗАХАРЯН, А.А.Агаджанян

Հայաստանի կենսաբանական հանդես 2005 123-126

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

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*Article*

**ОБМЕН ПРОЛИНА СРАВНИТЕЛЬНО-ЭВОЛЮЦИОННОМ АСПЕКТЕ**

А. А. ЗАХАРЯН, Л. Р. ТУМАНЯН, А. А. АГАДЖАНИЯН, А.Х. АГАДЖАНИЯН, С.В. ЧУБАРЯН,

Э.А. МАНТАШЯН, Дж. Г. ГУКАСЯН, А.П. ГРИГОРЯН, М.С. МАРТИРОСЯН, З.С. МИНАСЯН,

А.М. КАРАПЕТЯН, Л.Г. АНАНЯН, Л.М. АРУТЮНЯН

Сисакяновские чтения 2005 208-218

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Article

**ՊՐՈՒԼԻՆԻ ԿԱՏԱԲՈԼԻԶՄԻ ՖԵՐՄԵՆՏՆԵՐԸ ԵՎ ՆՐԱՆՑ ԱԿՏԻՎՈՒԹՅԱՆ ԿԱՐԳԱՎՈՐՈՒՄԸ ԻՇԽԱՆ ԶԿԱՆ(SALMO ISCHCHAN) ՏԱՐԲԵՐ ՕՐԳԱՆՆԵՐՈՒՄ**  
Ա.Ա.ԶԱԽԱՐՅԱՆ, Ա.Ա.ԱՂԱԶԱՆՅԱՆ

ԵՊՀ Գիտական տեղեկագիր, Բնական գիտություններ 2004 95-99

<http://ysu.am/science/hy/1355990920>

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Conference

**АНТИДИАБЕТИЧЕСКИЕ И АНТИОКСИДАНТНЫЕ СВОЙСТВА INULA HELENIUM L.(ДЕВЯСИЛ ВЫСОКИЙ)**

Агаджанян А.А.

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Conference

**Antidiabetic and antioxidant properties of herbal composition aqueous extract in a diabetic rabbit models**

Aghajanyan A., Tadevosyan A., Trchounian A.

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Conference

**ԿԵՆՍԱԹԻՄԻԱՅԻ ԴԱՍԱՎԱՆԴՄԱՆ ԳՈՐԾԸՆԹԱՑՈՒՄ ԼԱԲՈՐԱՏՈՐ ԱՇԽԱՏԱՆՔՆԵՐԻ ԱՐԴՅՈՒՆԱՎԵՏՈՒԹՅԱՆ ԲԱՐՁՐԱՑՄԱՆ ԺԱՄԱՆԱԿԱԿԻՑ ՄՈՏԵՑՈՒՄՆԵՐԸ**

Աղաջանյան Ա.Ա., Սեմերջյան Գ.Հ., Նիկոյան Ա.Ա., Թռչունյան Ա.Հ.

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Conference

**BIOCHEMICAL PROPERTIES OF STEVIA REBAUDIANA EXTRACT IN THE STRESS CONDITIONS**

AGHAJANYAN Anush, TRCHOUNIAN Armen

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Conference

**HYDROPONIC STEVIA REBAUDIANA AS AN ALTERNATIVE PATH OF CULTIVATION: NOVEL ANTIBACTERIAL PROPERTIES**

AGHAJANYAN Anush, GABRIELIAN Lilit, BABAKHANYAN Mikayel, HOVHANNISYAN Lusya,

TRCHOUNIAN Armen

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Conference

**SYNTHESIS OF SILVER NANOPARTICLES BY ARTEMISIA ANNUA EXTRACT AND EVALUATION OF THEIR ANTIBACTERIAL ACTIVITY**

Aghajanyan A, Trchounian A

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Conference

**ЗЕЛЕНЬЙ СИНТЕЗ НАНОЧАСТИЦ СЕРЕБРА С ИСПОЛЬЗОВАНИЕМ ЭКСТРАКТА ARTEMISIA ANNUA L.**

А.А. Агаджанян, Л.С. Габриелян, А.А. Трчунян

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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.

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Conference

**Silver Nanoparticles by Plant Stevia rebaudiana: Green Synthesis, Characterization and**

## **Antibacterial Activity**

A. Aghajanyan, A. Trchounian

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### *Conference*

#### **Antibacterial activity of silver nanoparticles biosynthesized from Stevia rebaudiana extract**

M. Timotina, A. Aghajanyan, L. Gabrielyan, K. Trchounian

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### *Patent*

#### **Հակաշաքարախտային պատրաստուկ <<Արմադ-2 >>**

Արամայիս Աղաջանյան, Անուշ Աղաջանյան

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### *Conference*

#### **Green synthesis of silver nanoparticles and their effect on the energy-dependent H<sup>+</sup> -fluxes across the bacterial membrane**

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

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### *Conference*

#### **THE PHYSICOCHEMICAL AND ANTIMICROBIAL PROPERTIES OF SILVER NANOPARTICLES SYNTHESIZED BY Spirulina BIOMASS**

Harutyunyan A., Manoyan J., Gevorgyan S., Gabrielyan L., Aghajanyan A., Gabrielyan L.

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### *Conference*

#### **The antibacterial potential of Spirulina platensis-mediated green synthesized silver nanoparticles**

L. Gabrielyan, A. Harutyunyan, A. Aghajanyan, L. Gabrielyan

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### *Conference*

#### **The effect of silver nanoparticles synthesized using Spirulina biomass on the hydrogen yield and FoF1-ATPase activity in Escherichia coli.**

A. Harutyunyan, D. Hakobyan, A. Aghajanyan, L. Gabrielyan

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### *Conference*

#### **SPIRULINA-Ի ԿԵՆՍԱԶԱՆԳՎԱԾԻՑ ԱՐԾԱԹԻ ՆԱՆՈՍԱՄԱՆԻԿՆԵՐԻ ՍԻՆԹԵԶԸ ԵՎ ԴՐԱՆՑ ՀԱԿԱԲԱԿՏԵՐԻԱԿԱՆ ԱԿՏԻՎՈՒԹՅՈՒՆԸ**

Հարությունյան Ա.Ա., Մանույան Ջ.Գ., Աղաջանյան Ա.Ա., Գաբրիելյան Լ.Ս., Գաբրիելյան Լ.Ս.

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### *Conference*

#### **Membranous mechanisms of antibacterial action of Spirulina-derived silver nanoparticles on kanamycin-resistant Escherichia coli**

A. Harutyunyan, D. Hakobyan, A. Aghajanyan, L. Gabrielyan

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### *Conference*

#### **Antibacterial, hemolytic and anticancer activities of silver nanoparticles biosynthesized by phycocyanin extracted from Spirulina**

L. Gabrielyan, A. Harutyunyan, A. Hambardzumyan, A. Aghajanyan, N. Avtandilyan, L. Gabrielyan

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### *Conference*

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

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

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