

# Lusine Yurik Sahakyan

Scientific and Educational Center for Control and Monitoring of the Quality of Medicines

Expert

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## Education

<b>Institution</b>	Yerevan State University
<b>Faculty</b>	Institute of Pharmacy
<b>Date</b>	2017 - 2018
<b>Degree name</b>	Applicant

<b>Institution</b>	S. Avdalbekyan National Institute of Health
<b>Faculty</b>	postgraduate qualification
<b>Date</b>	2004 - 2005
<b>Degree name</b>	Qualified specialist

<b>Institution</b>	Yerevan State University
<b>Faculty</b>	Chemical faculty
<b>Date</b>	1996 - 2001
<b>Degree name</b>	Qualified specialist

## Scientific Rank/degree

<b>Institution</b>	Yerevan State University
<b>Date</b>	2021
<b>Degree name</b>	Candidate
<b>Specialty</b>	Pharmaceutical sciences
<b>Scientific Supervisor</b>	President of the National Academy of Sciences of the Republic of Armenia, Professor Ashot S. Saghyan
<b>Research Topic</b>	BIOMIMETIC SYNTHESIS OF HETEROCYCLIC NON-PROTEIN ANALOGUES OF $\alpha$ -AMINOBUTYRIC ACID, STUDY OF ANTIOXIDANT AND MEMBRANE PROTECTIVE PROPERTIES

## Language skills

Հայերեն English Русский

## Work experience

<b>Institution</b>	YSU, Institute of Pharmacy, Scientific-educational center for drug quality control and monitoring
<b>Period of time</b>	2021 till now
<b>Rank/degree</b>	Expert
<b>Institution</b>	YSU, Institute of Pharmacy, Chair of Biomedicine
<b>Period of time</b>	2017 till now
<b>Rank/degree</b>	Assistant Professor
<b>Institution</b>	Scientific and Production Center "Armbiotechnology" of NAS, RA
<b>Period of time</b>	2016 - 2019
<b>Rank/degree</b>	Rresearcher
<b>Institution</b>	"Arpimed" LLC
<b>Period of time</b>	2014 - 2014
<b>Rank/degree</b>	Specialist of Quality Assurance Department
<b>Institution</b>	YSU, Chair of "Pharmaceutical Chemistry"
<b>Period of time</b>	2014 - 2017
<b>Rank/degree</b>	Laboratory assistant
<b>Institution</b>	"Arpimed" LLC
<b>Period of time</b>	2010 - 2014
<b>Rank/degree</b>	Head of Liquid Pharmaceuticals Department
<b>Institution</b>	YSU, "Synthesis of Heterocyclic Amino Acids" Research Laboratory
<b>Period of time</b>	2009 - 2019
<b>Rank/degree</b>	Senior Laboratory Assistant
<b>Institution</b>	YSU, Basic Laboratory of "Synthesis of Heterocyclic Compounds Containing Nitrogen, Oxygen, Sulfur"
<b>Period of time</b>	2005 - 2009
<b>Rank/degree</b>	Senior Laboratory Assistant
<b>Institution</b>	"Modern Cosmetic Laboratory" LLC, Abovyan
<b>Period of time</b>	2003 - 2008
<b>Rank/degree</b>	Consultant specialist
<b>Institution</b>	"Arpimed" LLC, Quality Control Laboratory
<b>Period of time</b>	2001 - 2004
<b>Rank/degree</b>	Chemist-analyst

## Scientific interests

- Development of optimal methods for asymmetric synthesis of non-protein  $\alpha$ -amino acids, study of bioactivity
- Development and validation of qualitative and quantitative instrumental analysis methods for bioactive compounds (HPLC, GC, MS, IR)

## Participation in international conferences and seminars

**06/07/2024 - 16/07/2024** scientific travel  
University of Naples Federico II, National Research Council (CNR)  
Italy

**28/07/2022 - 08/08/2022** scientific travel  
University of Naples Federico II, National Research Council (CNR)  
Italy

## Membership

**Institution** Scientific Council of the Institute of Pharmacy  
**Period of time** 2021 till now

**Institution** Member of the Ethics Committee for Clinical Drug Research, Ministry of Health, RA  
**Period of time** 2018 - 2024

## Publications

*Article*

**Improvement of biomass and biohydrogen generation in *Parachlorella kessleri* using ethanol and brewery production wastes as cultivation media**

Jemma Manoyan, Diana Hakobyan, Lilit Gabrielyan, Iren Shahazizyan, Lusine Sahakyan, Ela Minasyan,

Liana Gabrielyan

International Journal of Hydrogen Energy 2025 400-410

*Article*

**Binding of G-quadruplex DNA and serum albumins by synthetic non-proteinogenic amino acids: Implications for c-Myc-related anticancer activity and drug delivery**

Hayarpi Simonyan, Satenik Petrosyan, Lusine Sahakyan, Gagik Melikyan, Ashot Sagyan,

Rosanna Palumbo, Caterina Vicidomini, Pasqualina Liana Scognamiglio, Giovanni N. Roviello

Molecular Therapy Nucleic Acids 2025 102478

*Article*

**Sequential Michael addition, cross-coupling and [3 + 2] cycloaddition reactions within the coordination sphere of chiral Ni(ii) Schiff base complexes derived from dehydroamino acids: pathways to the asymmetric synthesis of structurally diverse O-substituted**

Emma A. Khachatryan, Lusine Yu. Sahakyan, Anna S. Tovmasyan, Gagik S. Melikyan,  
Henrik A. Panosyan, Anna F. Mkrtchyan, Norio Shibata, Andrei V. Malkov, Ashot S. Saghyan  
RSC Advances 2025 10558-10564

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*Article*

**The Synthesis, Characterization, and Biological Evaluation of a Fluorenyl-Methoxycarbonyl-Containing Thioxo-Triazole-Bearing Dipeptide: Antioxidant, Antimicrobial, and BSA/DNA Binding Studies for Potential Therapeutic Applications in ROS Scavenging and Dr**

Lala Stepanyan, Tatevik Sargsjan, Valentina Mittova, Zurab Tsetskhladze, Nino Motsonelidze,  
Ekaterina Gorgoshidze, Niccolo Nova, Monika Israyelyan, Hayarpi Simonyan, Franco Bisceglie,  
Lusine Sahakyan, Karapet Ghazaryan, Giovanni Roviello  
Biomolecules 2025 933

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*Article*

**COMPARATIVE ANALYSIS OF METHODS FOR THE DETECTION AND QUANTITATIVE DETERMINATION OF ETHYL ALCOHOL IN THE BODY**

Satenik Gh. Petrosyan, Lusine Yu. Sahakyan, Nelly A. Kirakosyan  
Proceedings of the YSU B: Chemical and Biological Sciences 2024 1-8

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*Article*

**Ion-chromatographic determination of common anions in drinking water in some regions of the Republic of Armenia**

Avetis Tsaturyan, Lusine Sahakyan, Lusine Hayrapetyan, Ela Minasyan, Ani Chakhoyan,  
Sergey Hayrapetyan, Ashot Saghyan  
Pharmacia 2024 e135658

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*Article*

**Detection and development of a quantitation method for undeclared compounds in antidiabetic biologically active additives and its validation by high performance liquid chromatography**

Virab Gurgen Kirakosyan, Avetis Hovhannes Tsaturyan, Lilit Eduard Poghosyan, Ella Vardan Minasyan,  
Hayk Razmik Petrosyan, Lusine Yurik Sahakyan, Tatevik Hovhannes Sargsyan  
Pharmacia 2022 45-50

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*Article*

**Asymmetric Synthesis of Derivatives of Alanine via Michael Addition Reaction and their Biological Study**

Mkrtchyan Anna, Tovmasyan Anna, Paloyan Ani, Sargsyan Armen, Simonyan Hayarpi, Sahakyan Lusine,  
Petrosyan Satenik, Hayriyan Liana, Sargsyan Tatevik  
Synlett 2022 2013-2018

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*Article*

**ISOLATION, IDENTIFICATION AND QUANTITATIVE DETERMINATION OF NIFEDIPINE FROM BIOLOGICAL MATERIAL**

S.Gh. Petrosyan, L.Yu. Sahakyan, V.G. Kirakosyan, E.V. Minasyan, S. E. Sardaryan  
Proceedings of the YSU B: Chemical and Biological Sciences 2021 204-211

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*Article*

**Asymmetric synthesis, biological activity and molecular docking studies of some unsaturated**

**$\alpha$ -amino acids, derivatives of glycine, allylglycine and propargylglycine**

A. F. Mkrtchyan, A. S. Saghyan, L. A. Hayriyan, A. S. Sargsyan, A. J. Karapetyan, A. S. Tovmasyan, A. H. Tsaturyan, E. V. Minasyan, A. S. Poghosyan, A. M. Paloyan, H. A. Panosyan, Lu. Yu. Sahakyan  
Journal of Molecular Structure 2020 127850

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Article

**Исследование асимметрического нуклеофильного бис-присоединения дегидроаланиновых комплексов Ni(II)**

Петросян С. Г., Симонян А. М., Мкртчян А. Ф., Саакян Л. Ю., Цатурян А. О., Сагян А. С.

Հայաստանի քիմիական հանդես 2020 213-222

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Article

**СРАВНИТЕЛЬНОЕ ИЗУЧЕНИЕ АНТИОКСИДАНТНОЙ АКТИВНОСТИ  $\beta$ -ГЕТЕРОЦИКЛИЧЕСКИ ЗАМЕЩЕННЫХ АНАЛОГОВ  $\alpha$ -АМИНОМАСЛЯНОЙ КИСЛОТЫ И НЕКОТОРЫХ ЭНДОГЕННЫХ АНТИОКСИДАНТОВ**

Саакян Л.Ю., Симонян Г.М., Симонян Р.М., Симонян М.А., Секоян Э.С., Сагян А.С.

Տեսական և կիրառական բժշկություն հարցեր 2018 3-6

<http://pananarm.info/>

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Article

**Асимметрический синтез (2S,3S)-3-(2-тиоксо-2,3-дигидробензимидазол-1-ил)-2-аминомасляной кислоты**

Л.Ю. Саакян

Химический Журнал Армении 2018 117-125

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Article

**Сравнительное ингибирующее действие  $\beta$ -гетероциклически замещенного аналога  $\alpha$ -аминомасляной кислоты и мексидола на процесс рилизинга изоформ NADPH-оксидаз нейрональных мембран**

Л.Ю. Саакян

Медицинская наука Армении 2018 50-58

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Article

**Механизмы мембранопротекторного действия нового  $\beta$ -гетероциклически замещенного синтетического аналога  $\alpha$ -аминомасляной кислоты при оксидативно-нитрозативном стрессе**

Л.Ю. Саакян, Р.М. Симонян, Г.М. Симонян, М.А. Симонян, Э.С. Секоян, А.С. Сагян

Տեսական և կիրառական բժշկություն հարցեր 2018 26-31

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Article

**АНТИОКСИДАНТНАЯ АКТИВНОСТЬ И МЕХАНИЗМЫ МЕМБРАНОСТАБИЛИЗИРУЮЩЕГО ДЕЙСТВИЯ НОВОГО  $\beta$ -ГЕТЕРОЦИКЛИЧЕСКИ ЗАМЕЩЕННОГО АНАЛОГА  $\alpha$ -АМИНОМАСЛЯНОЙ КИСЛОТЫ**

Л. Ю. Саакян, Г. М. Симонян, Р. М. Симонян, Э. С. Секоян, А. С. Сагян

Տեսական և կիրառական բժշկություն հարցեր 2017 64-67

<http://www.pananarm.info/>

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Article

**Асимметрический синтез новых гетероциклически замещенных аналогов  $\alpha$ -аминомасляной кислоты, содержащих замещенные триазольные группы в боковом**

**радикале**

А.С.Сагиян, Л.Ю.Саакян, А.М.Симонян, С.Г.Петросян, А.Ф.Мкртчян, М.А.Самвелян, Т.В.Кочикян,

П.Лангер

Химический Журнал Армении 2017 71-81

<http://www.flib.sci.am/eng/Qimia/Frame.html>

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*Article*

**Асимметрический синтез новых гетероциклически замещенных аналогов (S)- $\alpha$ -аланина, содержащих 3,4-дизамещенные 5-тиоксо-1,2,4-триазолы в боковом радикале**

А.М.Симонян, А.С.Сагиян, Л.Ю.Саакян, Н.Н.Багян, А.О.Восканян, Ж.Н.Сарибекян, М.А.Самвелян,

Т.В.Кочикян

Химический Журнал Армении 2017 82-91

<http://www.flib.sci.am/eng/Qimia/Frame.html>

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*Article*

**Механизмы протекторного действия  $\beta$ -гетероциклически замещенного аналога  $\alpha$ -аминомасляной кислоты на клеточные и субклеточные мембраны**

Л.Ю.Саакян, Р.М.Симонян, Г.М.Симонян, М.А.Симонян, Э.С.Секоян, А.С.Сагиян

Տեսական և կիրառական բժշկության հարցեր 2017 16-19

<http://www.pananarm.info/>

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*Article*

**ПРОТЕКТОРНЫЙ ЭФФЕКТ ДИМЕТИЛСУЛЬФОКСИДА НА ИЗОФОРМЫ НАДРН-ОКСИДАЗЫ БИОМЕМБРАН**

Р. М. Симонян, Л. Ю. Саакян, Г. М. Симонян, М. А. Симонян, Э. С. Секоян, А. С. Сагиян

Տեսական և կիրառական բժշկության հարցեր 2016 61-64

<http://www.pananarm.info/>

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*Conference*

**Asymmetric synthesis of potential biologically active new heterocyclic analogs of (s)- $\alpha$ -alanine containing 3,4-substituted 5-thioxo-1,2,4- triazoles in the side-chain radical**

H.M. Simonyan, L.Yu. Sahakyan, S.Gh. Petrosyan, A.F. Mkrтчyan, N.N. Baghyan,, J.N. Saribekyan,

A.S. Saghyan

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*Conference*

**Asymmetric synthesis of new heterocyclic analogs of alpha-aminopropionic acid and alpha-aminobutyric acid via Michael nucleophilic addition reactions**

Hayarpi Simonyan, Lusine Sahakyan, Anna Mkrтчyan, Satenik Petrosyan, Ashot Saghyan

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*Conference*

**Asymmetric synthesis of enantiomerically enriched analog of  $\alpha$ -aminobutyric acid containing heterocycle in the side chain radical .**

L.Yu.Sahakyan, A.S. Saghyan, H.M. Simonyan, S.Gh.Petrosyan, A.F.Mkrтчyan

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*Conference*

**Asymmetric synthesis and biological activity of novel heterocycle substituted analogues of  $\alpha$ -aminobutyric acid**

Sahakyan L.Yu., Simonyan H. M, Petrosyan S. Gh., Mkrтчyan A. F., Simonyan M. A., Saghyan A. S.,

Sekoyan E. S.

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Conference

**Asymmetric synthesis of potential biologically active new analogs of (S)-alanine containing nitrogenous bases in the side-chain radical**

H.M.Simonyan, L.Yu. Sahakjan, A.F.Mkrtchyan, S.Gh.Petrosyan, N.N.Baghyan, A.O.Voskanyan, J.N.Saribekyan, A.S.Saghyan

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Conference

**Асимметрический синтез новых производных (S)- $\alpha$ -аланина, содержащих 3-замещенные 4-изобутил-5-тиоксо-1,2,4-триазолы в боковом радикале**

А.М.Симонян, Н.Н.Багян, А.О.Восканян, Ж.Н.Сарибекян, Л.Ю.Саакян, А.Ф.Мкртчян, С.Г.Петросян, А.С.Сагиян

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Conference

**Asymmetric synthesis of enantiomerically enriched analogs of Nill complexes of (S)-allylglycine**

L.A.Hayriyan, A.F.Mrtchyan, Z.Z.Mardiyanyan, A.J.Karapetyan, H.V. Adonc, H.M. Simonyan, S.Gh. Petrosyan, L.Yu.Sahakyan, A.S. Saghyan

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Conference

**Synthesis of optically pure (S)-2-amino-5-(3-fluorophenyl)-2-(prop-2-yn-1-yl)pent-4-ynoic acid by using Sonogashira reaction**

Z.Z. Mardiyanyan, L.A. Hayriyan, A.F.Mkrtchyan, A.X.Tsaturyan, A.J. Karapetyan, H.V. Adonc, H.M. Simonyan, S.Gh.Petrosyan, L.Yu.Sahakyan, A.S. Saghyan

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Conference

**Asymmetric synthesis of optically active derivatives of  $\alpha$ -aminobutyric acid containing triazole groups in the side chain radical**

L.Sahakyan, H.Simonyan, S. Petrosyan, A. Mkrtchyan, A. Saghyan, E. Sekoyan

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Conference

**SYNTHESIS OF A NOVEL HETEROCYCLIC AMINO ACID AND ITS USE FOR THE SYNTHESIS OF SUGAR-AMINO ACID CONJUGATES**

Hayarpi Simonyan, Giovanni Roviello, Anna Mkrtchyan, Lusine Sahakyan, Satenik Petrosyan, Ashot Saghyan

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