

CURRICULUM VITAE

Фамилия Имя Отчество Габриелян Лилит Сергеевна

Служебный адрес Ереванский государственный университет, биологический факультет, А. Манукяна 1, 0025, Ереван, Армения

Эл.-почта lgabrielyan@ysu.am

Занимаемая должность: Доцент кафедры биохимии, микробиологии и биотехнологии биологического факультета Ереванского государственного университета (ЕГУ).
Председатель конкурсной комиссии, ученого совета биологического факультета ЕГУ.

Доцент кафедры медицинской биохимии и биотехнологии Института биомедицины и фармации Российско-Армянского университета (РАУ).

Индексы цитирования (15.01.2026): *Scopus h-index – 23; Scopus citations – 1088;*
Google scholar h-index – 24; i10-index – 33; Google scholar citations – 1443.

ORCID profile: <https://orcid.org/0000-0002-1863-0698>
<https://scholar.google.com/citations?user=s0aFt0oAAAAJ&hl=en>
<https://www.scopus.com/authid/detail.uri?authorId=26027488200>
<https://www.researchgate.net/profile/Lilit-Gabrielyan>

Образование (учебное заведение, научные степени):

2000–2003 – ЕГУ, аспирантура на кафедре биофизики биологического факультета ЕГУ
1994–1999 – ЕГУ, студентка отделения биофизики биологического факультета ЕГУ

Научная степень, звания: кандидат биологических наук (2006 г.); доцент (2012 г.).

Преподавательская деятельность:

На биологическом факультете ЕГУ с 2006 по сей день

Бакалавриат: Биохимия биомембран, Биофизическая химия, Микробиология;

Магистратура: Биомембраны в норме и патологии, Структура и функции прокариотических мембран, Биотехнология микроорганизмов.

Руководство дипломными работами, магистерскими и аспирантскими диссертациями.

В Институте Биомедицины и Фармации РАУ с 2007 по сей день

Дисциплины: Микробиология.

Область научных интересов:

- ✓ Биоэнергетика, биохимия и биотехнология фототрофных микроорганизмов (производство биоводорода; фотоферментация; регуляция роста микроорганизмов; окислительно-восстановительная регуляция; пурпурные бактерии; зеленые водоросли; цианобактерии);
- ✓ Биофизика и биоэнергетика биологических мембран (трансмембранный перенос ионов, мембранный потенциал, протонодвижущая сила, протонная АТФаза);
- ✓ Нанотехнология (зеленый синтез наночастиц, физико-химические характеристики, биологические свойства).

Профессиональная деятельность:

На кафедре микробиологии и биотехнологии растений биологического факультета ЕГУ

2015-2016 – доцент кафедры микробиологии и биотехнологии растений;

на кафедре биофизики биологического факультета ЕГУ:

2012-2015 – доцент кафедры биофизики,

2006 – 2012 – ассистент кафедры биофизики,

2006 – 2018 – старший научный сотрудник кафедры биофизики,

2003 – 2006 – младший научный и научный сотрудник кафедры биофизики,

2001 – 2003 – старший лаборант кафедры биофизики.

Членство в профессиональных организациях:

Член Международной Ассоциации Водородной Энергии (IAHE)

Член Американского Общества Микробиологов (ASM)

Член Федерации Европейского Микробиологического Общества (FEMS)

Член Ассоциации Биофизиков Армении (IUPAB)

Член Федерации Биохимического Общества (FEBS)

Гранты:

2025 to data	Grant from Ministry of Education, Science, Culture and Sports RA, Higher Education and Science Committee, PI
2024 to data	Grant from Ministry of Education, Science, Culture and Sports RA, Higher Education and Science Committee, PI
2021-2024	Grant from Ministry of Education, Science, Culture and Sports RA Committee of Science, PI
2021-2023	Grant from Ministry of Education, Science, Culture and Sports RA Committee of Science and the State Committee for Science and Technology of the Republic of Belarus, PI
2021	Grant for Productive Scientists from the Science Committee of Ministry of Education, Science, Culture and Sport of Armenia.

2020	Grant for Productive Scientists from the Science Committee of Ministry of Education, Science, Culture and Sport of Armenia.
2019	ANSEF 2019 Grant Consultant (NS-Biotechnology-5351)
2019	Grant for Productive Scientists (Top-100) from the Science Committee of Ministry of Education, Science, Culture and Sport of Armenia.
2018-2020	Grant of Ministry of Education and Science RA State Committee of Science, Researcher.
2018	Travel grant of Ministry of Education and Science of Armenia Science Committee.
2018	Grant for Productive Scientists (Top-100) from the Science Committee of Ministry of Education and Science of Armenia.
2016	Travel grant of Ministry of Education and Science RA State Committee of Science.
2015-2017	Grant of Ministry of Education and Science RA State Committee of Science, Researcher.
2015	Calouste Gulbenkian Foundation grant.
2015	ANSEF 2015 Grant Principal Investigator (NS-Biotechnology-3777).
2015	ANSEF 2015 Grant Consultant (NS-Biotechnology-3921).
2013-2015	Grant of Ministry of Education and Science RA State Committee of Science, Researcher (13-1F002).
2013	Grant for Productive Scientists (Top-100) from the Science Committee of Ministry of Education and Science of Armenia.
2013	Calouste Gulbenkian Foundation grant.
2012	ANSEF 2012 Grant Principal Investigator (NS-Biotechnology-2704).
2012	Grant of International Association of Hydrogen Energy (IAHE) to attend in the NATO Advanced Research Workshop “The Black Sea: Strategy for Addressing its Energy Resource Development and Hydrogen Energy Problems”, Batumi, Georgia.
2011–2013	Grant of Ministry of Education and Science RA State Committee of Science, Researcher.
2009	ANSEF 2009 Grant Principal Investigator (NS-Biotechnology-1668).

Награды

2025	YSU silver medal for impeccable work at Yerevan State University and significant contribution to the training of young specialist.
2022	“Award for Excellence in Teaching at Yerevan State University” in the category of Natural Sciences.
2018-2021	“Productive Scientist” award from the Science Committee of Ministry of Education, Science, Culture and Sport of Armenia.
2015	Cleantech Armenia National Business Ideas Competition award (UNIDO GEF Global Cleantech Innovation Programme for SMEs in Armenia award).
2013	“Productive Scientist” award (Top-100) from the Science Committee of Ministry

- of Education and Science of Armenia.
- 2012 "We Demand Increase in Science Financing" initiative and "Tashir" charitable organization award.
- 2011 The “Best scientific work” award of World Armenian Congress, The Union of Armenians in Russia and The National Academy of Sciences of Armenia.

Количество публикаций: Около 60 статей в международных журналах, таких как “*International Journal of Hydrogen Energy*”, “*Scientific Reports*”, “*Microbial Cell Factories*”, “*Biomass & Bioenergy*”, “*Applied Energy*”, “*Journal of Photochemistry and Photobiology*” и др., и более 100 тезисов научных конференций.

Участие в международных конференциях (за последние 5 лет):

- The first “Biological Sciences and Environmental Solutions for the Achievement of Sustainable Development Goals (SDGs)” conference, Yerevan, Armenia, September 24-26, 2025.
- FEMS Micro 2025, Milan, Italy, July 14-17, 2025.
- M3-S conference “Applied polymers, nanomaterials, membranes, and composites”, Torun, Poland, May 27-30, 2025.
- IX International Congress “Low and super low fields and radiations in biology and medicine”, Saint-Petersburg, Russia, October 2-4, 2024.
- 48th FEBS Congress, Milan, Italy, June 29 - July 3, 2024
- Int. conference «New Emerging Trends in Chemistry» (NewTrendsChem-2023), Yerevan, Armenia, September 24-28, 2023
- 47th FEBS Congress, Tours, France, July 8-13, 2023
- The Biochemistry Global Summit (25th IUBMB Congress, 46th FEBS Congress, 15th PABMB Congress), Portugal, Lisbon, July 9-14, 2022.
- FEMS Conference on Microbiology, Belgrade, Serbia, June 30–July 2, 2022.
- International scientific conference “Molecular, membrane and cellular fundamentals of biosystems operation”, Minsk, Belarus, June 15-17, 2022.
- XII International Scientific Conference “Microbial biotechnologies: fundamental and applied aspects”, Minsk, Belarus, June 7-11, 2021.

Список избранных публикаций

1. Главы в книгах

- Hakobyan L., **Gabrielyan L. (2024)** Phototrophic Microorganisms as the Future of Green Biotechnology. / In *Microbial essentialism: An industrial perspective*. Raghvendra Pratap Singh, Geetanjali Manchanda, Sreedevi Sarsan, Ajay Kumar, Hovik Panosyan (eds.). Elsevier: Academic Press, pp. 181-205, ISBN: 978-0-443-13932-1. <https://doi.org/10.1016/B978-0-443-13932-1.00013-1>
- Trchounian A., **Gabrielyan L.**, Mnatsakanyan N. **(2018)** Nanoparticles of various transition metals and their applications as antimicrobial agents. / In *Metal Nanoparticles: Properties, synthesis and*

applications. Y. Saylor, V. Irby (eds.). Nova Sci. Publ. Inc., New York, pp. 161–210, ISBN: 978-1-53614-115-3.

Hakobyan L., **Gabrielyan L.**, Trchounian A. (2013) The effect of various metal ions on bio-hydrogen production and the F_0F_1 -ATPase activity of *Rhodobacter sphaeroides*. / In *Black Sea Energy Resource Development and Hydrogen Energy Problems*, NATO Science for Peace and Security Series C: Environmental Security, A. Veziroglu, M. Tsitskishvili (Eds.), Springer (Netherlands), pp. 165–177, Print ISBN: 978-94-007-6151-3; Online ISBN: 978-94-007-6152-0, doi: 10.1007/978-94-007-6152-0_15.

Gabrielyan L.S., Hakobyan L.Y., Trchounian A.A. (2010) Yeast extract as nitrogen source during the growth and hydrogen production by purple bacterium *Rhodobacter sphaeroides*. / In IV Sissakian readings “Problems of biochemistry, radiation and space biology” (ISBN 978-5-9530-0260-8), Alusta, September 5-9, p. 61-64 (in Russian).

Gabrielyan L., Trchounian A. (2009) Purple bacteria and cyanobacteria as potential producers of molecular hydrogen: An electrochemical and bioenergetic approach. / In *Bacterial Membranes: Ultrastructure, Bioelectrochemistry, Bioenergetics and Biophysics*. A. Trchounian (ed.). Research Signpost: Kerala (India), pp. 233–273, ISBN: 978-81-308-0374-6.

2. Лабораторный практикум для студентов

Trchounian A., Bagramyan K., Poladyan A., **Gabrielyan L.** (2012) Biophysics, Biochemistry and Bioenergetics of Biological Membranes. A student laboratory book. Yerevan, 130 p, ISBN: 978-5-8084-1552-2 (in Armenian).

3. Статьи (избранные, за последние 5 лет)

Aghajanyan Anush, Timotina Marina, Manutsyan Tatevik, Harutyunyan Ani, Ginovyan Mikayel, Schubert Robin, Aydinyan Sofiya, Trchounian Karen, **Gabrielyan Lilit**, Gabrielyan Liana (2025) A novel approach for synthesizing silver nanoparticles with antibacterial and cytotoxic activities using the leaf extract of hydroponically grown *Moringa oleifera*. *Scientific Reports* 15: 16637. <https://doi.org/10.1038/s41598-025-01023-0>

Manoyan Jemma, Hakobyan Diana, **Gabrielyan Lilit**, Shahazizyan Iren, Sahakyan Lusine, Minasyan Ela, Gabrielyan Liana (2025) Improvement of biomass and biohydrogen generation in *Parachlorella kessleri* using ethanol and brewery production wastes as cultivation media. *International Journal of Hydrogen Energy* 102: 400-410. <https://doi.org/10.1016/j.ijhydene.2025.01.075>

Мыслейко МА., Вечерек МС., Маноян Дж.Г., **Габриелян Л.С.**, Самович Т.В., Козел Н.В., Муравицкая А.О., Демидчик В.В. (2024) Синтез биоводорода клетками зеленых микроводорослей и способы его стимуляции. *Экспериментальная биология и биотехнология*. 2:36–45. EDN: NCZWSI.

Harutyunyan Ani, Gabrielyan Liana, Aghajanyan Anush, Gevorgyan Susanna, Schubert Robin, Betzel Christian, Kujawski Wojciech, **Gabrielyan Lilit** (2024) Comparative Study of Physicochemical Properties and Antibacterial Potential of Cyanobacteria *Spirulina platensis*-Derived and Chemically Synthesized Silver Nanoparticles. *ACS Omega* 9 (27): 29410–29421, <https://doi.org/10.1021/acsomega.4c01604>

- Manoyan J., Hakobyan L., Samovich T., Kozel N., Sahakyan N., Muravitskaya H., Demidchik V., **Gabrielyan L. (2024)** Comparison of sulfur and nitrogen deprivation effects on photosynthetic pigments, polyphenols, photosystems activity and H₂ generation in *Chlorella vulgaris* and *Parachlorella kessleri*. *International Journal of Hydrogen Energy* 59: 408-418, <https://doi.org/10.1016/j.ijhydene.2024.02.035>.
- Manutsyan T, Blbulyan S, Vassilian A, Semashko T, Kirakosyan G, **Gabrielyan L**, Trchounian K, Poladyan A. **(2024)** Gold nanoparticles activate hydrogenase synthesis and improve heterotrophic growth of *Ralstonia eutropha* H16. *FEMS Microbiol Lett.* 371: fnad138. doi: [10.1093/femsle/fnad138](https://doi.org/10.1093/femsle/fnad138).
- Hovhannisyan Z., Timotina M., Manoyan J., **Gabrielyan L.**, Petrosyan M., Kusznierevich B, Bartoszek A, Jacob C., Ginovyan M., Trchounian K., Sahakyan N., Nasim M.J. **(2022)** *Ribes nigrum* L. extract-mediated green synthesis of silver nanoparticles and their antibacterial action mechanisms. *Antibiotics*, 11, 1415. <https://doi.org/10.3390/antibiotics11101415>
- Timotina M., Aghajanyan A., Schubert R., Trchounian K., **Gabrielyan L. (2022)** Biosynthesis of silver nanoparticles using extracts of *Stevia rebaudiana* and evaluation of antibacterial activity. *World J Microbiol Biotechnol* 38, 196. <https://doi.org/10.1007/s11274-022-03393-3>.
- Manoyan J., Samovich T., Kozel N., Demidchik V., **Gabrielyan L. (2022)** Growth characteristics, biohydrogen production and photochemical activity of photosystems in green microalgae *Parachlorella kessleri* exposed to nitrogen deprivation. *International Journal of Hydrogen Energy*, 47 (38), 16815-16823, <https://doi.org/10.1016/j.ijhydene.2022.03.194>.
- Hakobyan L., **Gabrielyan L.**, Blbulyan S., Trchounian A. **(2021)** The prospects of brewery waste application in biohydrogen production by photofermentation of *Rhodobacter sphaeroides*. *Int J Hydrogen Energy*, 46: 289-296.
- Gevorgyan S., Schubert R., Yerasosyan M., **Gabrielyan L.**, Trchounian A., Lorenzen K., Trchounian K. **(2021)** Antibacterial Activity of Royal Jelly-mediated Green Synthesized Silver Nanoparticles. *AMB Express*, 11, 51, <https://doi.org/10.1186/s13568-021-01213-9>