Georgian National Academy of Sciences

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# Personal Data (CV)

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| Surname | Prangishvili | First Name | David |
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| Address (work) | Javakhishvili Tbilisi State University, Ilya Chavchavadze avenue 1, Tbilisi, 0179 | Date and place of birth | 24.11.1948<br>Tbilisi |
| | | | |
| Citizenship | Georgia | Contact phone number | +995-232-25 04 84 |
| -mail | david.prangishvili@tsu.ge | | |

## 1. Education

| Institution | Learning Time |
|---|---|
| Javakhishvili Tbilisi State University, Department of Physics | 1966-1971 |

## 2. Scientific or Academic Degree and Rank

| | Institution | Date of conferment |
|---|---|---|
| Ph.D. thesis | Higher Attestation Commission, USSR | 1977 |
| Doctoral thesis | Higher Attestation Commission, USSR | 1989 |

## 3. Election as a member of the Academy, Research Follow of the Academy

| | Election date |
|---|---|
| Member of the Academy | 2025 |
| Foreign Member of the Academy | 2012-2025 |

## 4. Work Experience (Including permanent positions abroad)

| Date | Institution | Position |
|---|---|---|
| 1971-1984 | Beritashvili Institute of Physiology, Georgian Academy of Sciences, Tbilisi | Junior Researcher |
| 1984-1986 | Beritashvili Institute of Physiology, Georgian Academy of Sciences, Tbilisi | Senior Researcher |

| | | |
|---|---|---|
| 1986-1992 | Institute of Molecular Biology and Biophysics, Georgian Academy of Sciences, Tbilisi | Head of Laboratory |
| 1992-1999 | Max-Planck Institute for Biochemistry, Munich | Research Associate |
| 1999-2004 | University of Regensburg, Regensburg | Leading Researcher |
| 2004-2017 | Pasteur Institute, Paris | Head of Laboratory |
| 2017-2020 | Pasteur Institute, Paris | Professor |
| 2020-present | Javakhishvili Tbilisi State University, Tbilisi | Invited Professor |

## 4.1. Teaching Activities

- Teaching in Master's and Doctoral Programs at: Sorbonne University and Pasteur Institute in Paris, University of Regensburg and Javakhishvili Tbilisi State University, Tbilisi.
- Lectures and Seminars at different universities and scientific institutions of Europe, Asia and North America. Lectures in microbiology for schoolchildren in different regions of Georgia.
- Director of doctoral theses of 12 students, who were awarded prizes for outstanding doctoral thesis in Germany (VAAM Promotionspreis), France (Prix de Chancelleries des Universites de Paris), and USA (Emmy Noether Prize).

## 5. Scientific Interests

Environmental Microbiology, Molecular Microbiology, Life in Extreme Conditions, Hyperthermophilic Archaea and their Viruses – Diversity, Molecular Organization, Biotechnological Potential; Evolution of Viruses and Virus-Host Interactions

## 6. Publications

*12.08.2025*

Total number of scientific publications 216

*Google Scholar*- Total number of citations: 12912; h-index 65; i10-index:142

75 Selected Publications **- corresponding author*


**Prangishvili D.,***and R. Beabealashvili. **1975**. Two-component ribonucleotidyl transferase from *E. coli*. ***Molecular Biology Reports,*** 2: 129-134.

**Prangishvili D.***, R. Vashakidze, M. Chelidze, and I. Gabriadze. **1985**. A restriction endonuclease *SuaI* from the thermoacidophilic archaebacterium *Sulfolobus acidocaldarius.* ***FEBS Letters,*** 192: 57-60.

**Prangishvili D.* 1986**. DNA-dependent DNA polymerases from the thermoacidophilic archaebacterium *Sulfolobus acidocaldarius.* ***Molecular Biology (USSR),*** 20: 477-488.

**Prangishvili D.* 1989. Molecular Biology of Archaebacteria**. (176 pages, *in Russian*)**,** Metsniereba Publishers, Tbilisi

Bukhrashvili I., D. Chinchaladze, G. Nevinsky, O. Lavrik, and **D. Prangishvili***. **1989**. Different primers for DNA polymerases from hyperthermophilic archaebacteria. ***Biochimica et Biophysica Acta,*** 1008: 102-107.

Chinchaladze D., **D. Prangishvili***, A. Scamrov, R. Beabealashvili, and A. Krayevsky. **1989**. Nucleoside 5'-triphosphates modified at sugar residues as substrates for DNA polymerase from thermoacidophilic archaebacterium *Sulfolobus acodocaldarius*. ***Biochimica et Biophysica Acta,*** 1008: 113-115.

**Prangishvili D.***, and G. Muskhelishvili. **1991**. Eukaryotic features of thermoacidophilic Archaebacteria. In: ***Soviet Scientific Reviews***, section D, vol. 10, pp.1-43, Harwood Academic Publishers, London.

**Prangishvili D.*,** and H. P. Klenk. **1993**. Nucleotide sequence of the gene for 74 kDa DNA polymerase from the archaeon *Sulfolobus solfataricus*. ***Nucleic Acids Research,*** 21: 2768.

Datukishvili N., D. Poklok, F. Lottspeich, **D. Prangishvili**, and V. Rechinsky. **1996**. The DNA polymerase encoding gene from a thermoacidophilic archaeon *Sulfolobus acidocaldarius*. ***Gene,*** 177: 271-273.

**Prangishvili D.***, S.-V. Albers, I. Holz, H. P. Arnold, K. Stedman, T. Klein, H. Singh, J. Hiort, A. Schweier, J.K. Kristjansson, and W. Zillig. **1998**. Conjugation in Archaea. ***Plasmid,*** 40: 190-202.

**Prangishvili D.***, H.-P. Klenk, G. Jakobs, C. Hanselman, I. Holz, and W. Zillig. **1998.** Biochemical and Physiological characterization of the dUTPase from the archaeal virus SIRV. ***Journal of Biological Chemistry,*** 273: 6024-6029.

**Prangishvili D.***, S.-V. Albers, I. Holz, H. P. Arnold, K. Stedman, T. Klein, H. Singh, J. Hiort, A. Schweier, J.K. Kristjansson, and W. Zillig. **1998**. Conjugation in Archaea. ***Plasmid,*** 40: 190-202.

**Prangishvili D.***, H.-P. Klenk, G. Jakobs, C. Hanselman, I. Holz, and W. Zillig. **1998.** Biochemical and Physiological characterization of the dUTPase from the archaeal virus SIRV. ***Journal of Biological Chemistry,*** 273: 6024-6029.

**Prangishvili D.***, H. P. Arnold, U. Ziese, D. Goetz, I. Holz, and W. Zillig. **1999**. A novel virus family, the *Rudiviridae*: structure, virus-host interactions and genome variability of *Sulfolobus* viruses SIRV1 and SIRV2. ***Genetics,*** 153: 1387-1396.

**Prangishvili D.***, I. Holz, E. Stieger, S. Nickell, J. K. Kristjansson, and W. Zillig. **2000**. Sulfolobicins, specific proteinaceous toxins produced by strains of the extremely thermophilic archaeal genus *Sulfolobus*. ***Journal of Bacteriology,*** 182: 2985-2988.

**Prangishvili D.*,** K. Stedman, and W. Zillig. **2001**. Viruses of the extremely thermophilic archaeon *Sulfolobus.* ***Trends in Microbiology,*** 9: 39-42.

Blum H., W. Zillig, S. Mallock, H. Domdey, and **D. Prangishvili***. **2001**. The genome of the archaeal virus SIRV1 has features in common with genomes of eukaryal viruses*.* ***Virology,*** 281*:* 6-9.

Peng X., H. Blum, Q. She, S. Mallock, K. Brügger, R. A. Garrett, W. Zillig, and **D. Prangishvili***. **2001**. Sequences and replication of genomes of archaeal viruses SIRV1 and SIRV2. ***Virology,*** 291: 226-234.

**Prangishvili D.*,** and W. Zillig. **2001**. Viruses of the Archaea. In ***Encyclopedia of Genetics*** (*J. Miller, and S. Brenner, eds*.), vol. 4, pp. 2114-2116, Academic Press, San Diego.

Rachel R., M. Bettstetter, B. Hedlund, M. Häring, A. Kessler, K.O. Stetter, and **D. Prangishvili*. 2002**. Remarkable diversity of viruses in hot terrestrial environments. ***Archives of Virology,*** 147: 2419-2429.

**Prangishvili D.* 2003**. Evolutionary insights from studies on viruses of hyperthermophilic archaea. ***Research in Microbiology,*** 154: 289-294.

Kessler A., B. Brinkman, J. van der Oost, and **D. Prangishvili***. **2004.** Transcription of the rod-shaped viruses SIRV1 and SIRV2 of the hyperthermophilic archaeon *Sulfolobus.* ***Journal of. Bacteriology,*** 186: 7745-7753.

Peng X., A. Kessler, H. Phan, R. A. Garrett, and **D. Prangishvili***. **2004**. Multiple variants of the archaeal DNA rudivirus SIRV1 in a single host and a novel mechanism of genomic variation. ***Molecular Microbiology,*** 54: 366-375.

Häring M., X. Peng, K. Brügger, R. Rachel, K. O. Stetter, R. A. Garrett, and **D. Prangishvili*. 2004**. Morphology and genome organisation of the virus PSV of the hyperthermophilic archaeal genera *Pyrobaculum* and *Thermoproteus*: a novel virus family, the *Globuloviridae.* ***Virology,*** 323: 232-242.

Vestergaard G., M. Häring, X. Peng, R. Rachel, R. A. Garrett, and **D. Prangishvili*. 2005**. A novel rudivirus, ARV1, of the hyperthermophilic archaeal genus *Acidianus*. ***Virology,*** 336: 83-92.

**Prangishvili D. ***, and R. A. Garrett. **2005**. Viruses of hyperthermophilic crenarchaea. ***Trends in Microbiology,*** 13, 535-542. PMID: 16154357.

Häring M., G. Vestergaard, K. Brügger, R. Rachel, R. A. Garrett, and **D. Prangishvili*. 2005**. Independent virus development outside a host. ***Nature,*** 436: 1101-1102. PMID: 16121167.

Häring M., R. Rachel, X. Peng, R. A. Garrett, and **D. Prangishvili*. 2005**. Diverse viruses in hot springs of Pozzuoli, Italy, including a unique bottle-shaped archaeal virus ABV from a new family, the *Ampullaviridae*. ***Journal of Virology,*** 147: 2419-2429. PMID: 16014951.

**Prangishvili D.*,** P. Forterre, and R. A. Garrett. **2006**. Viruses of the Archaea: a unifying view. ***Nature Reviews Microbiology,*** 4: 837-848**.** PMID: 17041631.

Kessler A., G. Sezonov, J. I. Guijarro, M. Delepierre, S. Bell, and **D. Prangishvili*. 2006.** A novel archaeal regulatory protein, Sta1, activates transcription from viral promoters. ***Nucleic Acids Research,*** 34: 4837-4845. PMID: 16973899.

**Prangishvili D.***, G. Vestergaard, M. Häring, R. Aramayo, T. Basta, R. Rachel, and R. A. Garrett, R. A. **2006.** Structural and genomic properties of the hyperthermophilic archaeal virus ATV with an extracellular stage of the reproductive cycle. ***Journal of Molecular Biology,*** 359: 1203-1216. PMID: 16677670.

Peng X., T. Basta, M. Haring, R. A. Garrett, and **D. Prangishvili*. 2007**. Genome of *Acidianus* bottle-shaped virus and insights into the replication and packaging mechanisms. ***Virology,*** 364: 237-243. PMID: 17412384.

**Prangishvili D.* 2007.** Families of viruses infecting crenarchaeota**.** In ***Archae: Evolution, Physiology and Molecular Biology*** (R. A. Garrett and H.-P. Klenk, eds.), pp. 59-74. Blackwell Publishing, Oxford.

Vestergaard G., S. A. Shah, A. Bize, W. Reitberger, M. Reuter, H. Phan, A. Briegel, R. Rachel, R. A. Garrett and **D. Prangishvili*. 2008.** *Stygiolobus* rod-shaped virus and the interplay of crenarchaeal rudiviruses with the anti-viral CRISPR system. ***Journal of Bacteriology,*** 190: 6837-6845. PMID: 18723627.

**Prangishvili D.***, T. Basta, and R. A. Garrett. **2008**. Crenarchaeal viruses: Morphotypes and Genomes. In ***Encyclopedia of Virology*** (B. W. J. Mahy and M. van Regenmortel, eds.), pp. 587-595, Oxford: Elsevier.

Steinmetz N. F., A. Bize, R. C. Findlay, G. P. Lomonossoff, M. Manchester, D. J. Evans, and **D. Prangishvili**. **2008**. Site-specific and spatially controlled addressability of a new viral nanobuilding block: Sulfolobus islandicus rod-shaped virus 2. ***Advances in Functional Materials*****,** 18: 3478-3486.

Comeau A. M., G. F. Hatfull, H. M. Krisch, D. Lindell, N. H. Mann, and **D. Prangishvili*. 2008.** Exploring the prokaryotic virosphere. ***Research in Microbiology,*** 159: 306-313. PMID: 18639443.

Bize A., X., Peng, M. Prokofeva, K. MacLellan, S. Lucas, P. Forterre, R. A. Garrett, E. A. Bonch-Osmolovskaya, and **D. Prangishvili*. 2008**. Viruses in acidic geothermal environments of the Kamchatka Peninsula. ***Research in Microbiology,*** 159: 358-366. PMID: 18565736.

Vestergaard G., R. Aramayo, T. Basta, M. Häring, X. Peng, K. Brügger, L. Chen, R. Rachel, N. Biosset, R. A. Garrett, and **D. Prangishvili*. 2008**. Structure of the *Acidianus* Filamentous Virus 3 and comparative genomics of related archaeal lipothrixviruses. ***Journal of Virology,*** 82: 371-381. PMID: 17942536.

Forterre P., and **D. Prangishvili**. **2009.** The great billion-year war between ribosome- and capsid-encoding organisms (cells and viruses) as the major source of evolutionary novelties. ***Annals of the New York Academy of Sciences,*** 1178: 65-77. PMID: 19845628.

Bize A, E. A. Karlsson, K. Ekefjärd, T. E. Quax, M. Pina, M. C. Prevost, P. Forterre, O. Tenaillon, R. Bernander, and **D. Prangishvili*. 2009**. A unique virus release mechanism in the Archaea. ***Proceeding of the National Academy of Sciences USA,*** 106: 11306-11311. PMID: 19549825.

Redder P., X. Peng, K. Brügger, S. A. Shah, F. Roesch, B. Greve, Q. She, C. Schleper, P. Forterre, R. A. Garrett, and **D. Prangishvili. 2009.** Four newly isolated fuselloviruses from extreme geothermal environments reveal unusual morphologies and a possible inter-viral recombination mechanism. ***Environmental Microbiology,*** 11: 2849–2862. PMID: 19638177.

Forterre P., and **D. Prangishvili**. **2009.** The origin of Viruses. ***Research in Microbiology,*** 160: 466-472**.** PMID: 19647075.

Quax T. E. F., S. Lucas, J. Reimann, G. Pehau-Arnaudet, M.-C. Prevost, P. Forterre, S.-V. Albers, and **D. Prangishvili*. 2011**. Simple and elegant design of a virion egress structure in Archaea. ***Proceeding of the National Academy of Sciences USA,*** 108: 3354-3359. PMID: 21282609.

Sime-Ngando T., S. Lucas, A. Robin, K. P. Tucker, J. Colombet, Y. Bettarel, E. Desmond, S. Gribaldo, P. Forterre, M. Breitbart, and **D. Prangishvili*. 2011**. Diversity of virus-host systems in hypersaline Lake Retba, Senegal. ***Environmental Microbiology***,13: 1956–1972. PMID: 20738373

Mochizuki T, Y. Sako, and **D. Prangishvili*. 2011**. Provirus Induction in hyperthermophilic Archaea: Characterization of *Aeropyrum pernix* Spindle-Shaped Virus 1 and *Aeropyrum pernix* Ovoid Virus 1. ***Journal of Bacteriology,*** 193: 5412-5419. PMID: 21784945.

**Prangishvili D.* 2011**. Viruses of the Archaea: a view on the viral world from the perspective of hyperthermophilic viruses. ***Bulletin of the Georgian National Academy of Sciences.*** 5: 118-126.

Pina M., A. Bize, P. Forterre, and **D. Prangishvili*. 2011**. The Archeoviruses. ***FEMS Microbiology Reviews,*** 35: 1035-1054. PMID: 21569059.

**Prangishvili D.*** and T. Quax**. 2011.** Exceptional virion release mechanism: one more surprise from archaeal viruses. ***Current Opinion in Microbiology,*** 14: 315-320. PMID: 21531608.

**Prangishvili D. * 2011**. Archaeal viruses *In*: ***Fundamentals of Molecular Virology*****,** 2nd edition (N. H. Acheson, ed.), John Wiley & Sons, pp. 97-110.

Mochizuki T., M. Krupovic, G. Pehau-Arnaudet, Y. Sako, P. Forterre, and **D. Prangishvili*. 2012**. Archaeal virus with exceptional virion architecture and the largest single-stranded DNA genome. ***Proceeding of the National Academy of Sciences USA*** 109: 13386-13391. PMID: 22826255

Ackermann H. W., and **D. Prangishvili**. **2012**. Prokaryote viruses studied by electron microscopy. ***Archives of Virology,*** 157: 1843-1849. PMID: 22752841.

Krupovic M., M. F. White, P. Forterre, and **D. Prangishvili**. **2012**. Postcards from the edge: Structural genomics of Archaeal viruses. ***Advances in Virus Research,*** 2: 51-81. PMID: 22420850.

**Prangishvili D.* 2013**. The wonderful world of archaeal viruses. ***Annual Review of Microbiology,*** 67: 565-585. PMID: 24024638.

Forterre P., and **D. Prangishvili**. **2013**. The major role of viruses in cellular evolution: facts and hypotheses. ***Current Opinion in Virology,*** 3: 558-365. PMID: 23870799.

**Prangishvili D.*. 2013.** Viruses of the Archaea. *In*: **Brenner's Encyclopedia of Genetics**. 2nd edition (S. Maloy and K. Hughes, eds.) Academic Press, San Diego, pp. 295-298.

Quax T. E., M. Voet, O. Sismeiro, J. Y. Coppée, G. Sezonov, P. Forterre, J. van der Oost, R. Lavigne, and **D. Prangishvili*. 2013**. Massive activation of archaeal defense genes during viral infection. ***Journal of Virology,*** 87: 8419-8428. PMID: 23698312.

Daum B., T. E. Quax, M. Sachse, D. J. Mills, J. Reimann, S. Häder, C. Saveanu, P. Forterre, S. V. Albers, W. Kühlbrandt, and **D. Prangishvili*. 2014**. Self-assembly of the general membrane-remodelling protein PVAP into sevenfold virus-associated pyramids. ***Proceeding of the National Academy of Sciences USA*** 111: 3829-3834.

Forterre P., M. Krupovic, and **D. Prangishvili**. **2014**. Cellular domains and viral lineages. ***Trends in Microbiology,*** 22: 554-558. PMID: 25129822.

Pina M., T. Basta, T. Quax, S. Baconnais, S. Lambert, E. Le Cam, S. D. Bell, P. Forterre, and **D. Prangishvili*. 2014**. Unique genome replication strategy of the archaeal virus AFV1. ***Molecular Microbiology,*** 92: 1313-1325. PMID: 24779456.

DiMaio F., X. Yu, E. Rensen, M. Krupovic, **D. Prangishvili*,** and E. H. Egelman*. **2015**. A virus that infects a hyperthermophile encapsidates A-form DNA. ***Science,*** 348: 914-917. PMID: 25999507.

**Prangishvili D. *.2015**. Archaeal viruses - living fossils of the ancient virosphere? ***Annals of New York Academy of Sciences,*** 1341: 35-40. PMID: 25716458.

Rensen E., T. Mochizuki, E. Quemin, S. Schouten, M. Krupovic, and **D. Prangishvili***. **2016**. Novel virus of hyperthermophilic archaea with a unique architecture. ***Proceeding of the National Academy of Sciences USA*** 113: 2478-2483. PMID: 26884161

**Prangishvili D.*,** T. Basta, R. A. Garrett, and M. Krupovic. **2016.** Viruses of the Archaea. *In*: ***Encyclopedia of Life Sciences***, John Wiley & Sons, Ltd: Chichester, DOI: 10.1002/9780470015902.a0000774.pub3

Danovaro R., A. Dell'Anno, C. Corinaldesi, E. Rastelli, R. Cavicchioli, M. Krupovic, R. Noble, T. Nanoura, and **D. Prangishvili**. **2016.** Virus-mediated archaeal hecatomb in the deep seafloor. ***Science Advances,*** 2(10):e1600492. PMID: 27757416.

Kasson P., F. DiMaio, X. Yu, S. Lucas, M. Krupovic, S. Schouten, **D. Prangishvili***, and E. Egelman*. **2017**. An envelope of a filamentous virus carries lipids in a horseshoe conformation. ***Elife***, 6: e26268. PMID: 28639939.

**Prangishvili D.***, D. H. Bamford, P. Forterre, J. Iranzo, E.V. Koonin, and M. Krupovic. **2017**.The enigmatic archaeal virosphere*.* ***Nature Reviews Microbiol*ogy, 15**: 724–739. PMID: 29123227.

Ptchelkine D. S. Gillum, T. Mochizuki, S. Lucas-Staat, Y. Liu, M. Krupovic, S. E. V. Phillips, **D. Prangishvili***, and J. T. Huiskonen*. **2017**. Unique architecture of thermophilic archaeal virus APBV1 and its genome packaging. ***Nature Communications,*** 8: 1436. PMID: 29127347.

Liu Y, S. Ishino, Y. Ishino, G. Pehau-Arnaudet, M. Krupovic, and **D. Prangishvili***. **2017**. A Novel type of polyhedral viruses Infecting hyperthermophilic Archaea. ***Journal of Virology,*** 91: e00589-17. PMID: 28424284.

**Prangishvili D. * 2018**. The Original Parasites? ***Cell,*** 172:1153.

Liu Y., T. Osinski, F. Wang, M. Krupovic, S. Schouten, P. Kasson, **D. Prangishvili***, and E. H. Egelman*. **2018**. Structural conservation in a membrane-enveloped filamentous virus infecting a hyperthermophilic acidophile. ***Nature Communications***, 9:3360. PMID: 30135568.

Wang F., Y. Liu, Z. Su, T. Osinski, G. A. P. de Oliveira, J. F. Conway, S. Schouten, M. Krupovic, **D. Prangishvili*,** and E. H. Egelman*. **2019**. A packing for A-form DNA in an icosahedral virus. ***Proceeding of the National Academy of Sciences of the USA,*** 116: 22591-22597. PMID: 31636205.

Medvedeva, S. Y. Liu, E. V. Koonin, K. Severinov, **D. Prangishvili**, and M. Krupovic. **2019**. Virus-borne mini-CRISPR arrays are involved in interviral conflicts. ***Nature Communications***, 10: 5204. PMID: 3172939.

Jaiani E., I. Kusradze, T. Kokashvili, N. Geliashvili, N. Janelidze, A. Kotorashvili, N. Kotaria, A. Guchmanidze, M. Tediashvili, and **D. Prangishvili*. 2020.** Microbial Diversity and phage-host interactions in the Georgian coastal area of the Black Sea revealed by metagenomic sequencing. ***Marine Drugs***, 18(11): E558. PMID: 33202695.

Baquero D. P., J. Liu, and **D. Prangishvili D.* 2021**. Egress of archaeal viruses. ***Cellular Microbiology,*** 23(12):e13394. PMID: 34515400.

Baquero D. P., A. D Gazi, M. Sachse, J. Liu, C. Schmitt, M. Moya-Nilges, S. Schouten, **D. Prangishvili,** and M. Krupovic. **2021**. A filamentous archaeal virus is enveloped inside the cell and released through pyramidal portals. ***Proceeding of the National Academy of Sciences USA,*** 118(32):e2105540118.PMID: 34341107.

**Prangishvili D.***, M. Krupovic, and D. P. Baquero. **2021**. Diversity of hyperthermophilic Archaeal viruses. In: ***Encyclopedia of Virolog***y (D. H. Bamford, and M. Zuckerman, eds.) vol. 4, pp. 359-367. Oxford: Academic Press.

## 7. Professional Activities

| Years | Name |
|---|---|
| 2006-2011 | Editor-in Chief of the journal *Research in Microbiology* |
| 2008-2015 | Member of the Executive Committee of the International Committee on Taxonomy of Viruses (ICTV) |
| 2019-2023 | Academic Director of the Tbilisi Knowledge Hub of *Academia Europaea* |
| 2018-present | President of the Georgian Association of General and Applied Microbiology |
| Over the years | -Member of the editorial boards of numerous scientific journals, including the *Proceedings of the Georgian National Academy of Sciences*; editor of scientific publications, including editor of Volume IV of the five-volume *Encyclopedia of Virology* (2021, Academic Press).<br>-Organizer and co-organizer of international conferences, including: the bilateral Soviet–West German conference "Archaebacteria" (Tbilisi, 1990); "100th Anniversary of Bacteriophage Research" (Paris – Tbilisi, 2017); "Molecular Biology of Archaea" (Paris, 2015); "Viruses of Microbes" (Paris, 2010; Tbilisi, 2023); and "100th Anniversary of Georgian Microbiology: Microbes and Their Viruses" (Tbilisi, 2019).<br>-Participant in over 100 scientific conferences as a keynote speaker and/or member of the scientific committee. |

## 8. Participation in scientific programs

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| Principal investigator (coordinator) of 6 different projects funded by Deutscheforschungsgemainschaft (Germany) and Agence nationale de la recherché (France). Participant of diverse projects in the framework of EU funding programs and programs funded by Shota Rustaveli National Science Foundation of Georgia. |

## 9. Awards and Prizes

| Date | Name of Awards, Prizes |
|---|---|
| 1979 | USSR Lenin Komsomol Prize in Science and Technology |
| 1992,<br>1999-2001 | Alexander-von Humboldt and Max-Planck Fellowships, Germany |
| 2023 | Gold Medal of Javakhishvili Tbilisi State University |

## 10. Honorary Titles

| | Honorary Title |
|---|---|
| 2015 | Member of the European Academy of Microbiology |
| 2015 | Visiting Professor at Chinese Academy of Sciences |
| 2015 | Distinguished Professor at Agricultural University of Georgia |
| 2019 | Member of *Academia Europaea* |
| 2020 | Honorary Professor at the Pasteur Institute of Paris |