

# Lali Shanshiashvili

## personal information

## Contact Details

Full name: Lali Shanshiashvili

Email address:

Gender: Female

lali\_shanshiashvili@iliauni.edu.ge

Citizenship: საქართველო

Country: საქართველო (Georgia)

(Georgia)

City: Tbilisi

## Languages

Language	Writing	Reading	Speaking
English	C1	C1	C1
Russian	C2	C2	C2
ქართული (Georgian)	C2	C2	C2

## Education

### Academic degree

Academic Degree: Doctoral/PhD, Ed.D or other equivalent

Year obtained: 02.04.2004

### Education

Academic Degree	Name of the Institution	Country	Major discipline	Start year	End year
Doctoral/PhD, Ed.D or other equivalent	Iv. Beritashvili Institute of Physiology, Georgian Academy of Sciences		Neurochemistry, Biochemistry	1995	2004
Doctoral/PhD, Ed.D or other equivalent	Iv. Beritashvili Institute of Physiology, Georgian Academy of Sciences		Biochemistry, Physiology	1987	1990
Professional/MD, JD or other equivalent	Tbilisi State University		The teacher of biology and chemistry	1982	1987

### Trainings / Seminars / Training courses

Training / Seminar / The theme of the course	Organization name	Start year	End year
FEBS 4 th education ambassadors meeting. April 5-6, Ilia State University, Tbilisi, Georgia	FEBS	2019	2019
International Conference "Women in Science"	Shota Rustaveli Science Foundation of Georgia	2019	
FEBS 3rd ambassadors on education meeting. April 6-7, University of Zagreb, Croatia	FEBS	2018	2018
Workshop on molecular life sciences education	FEBS and AGB	2013	
Independent Expertise and Sustainable Development in Georgia - Competitive Application Preparation Seminar	GRDF	2012	
Independent Expertise and Sustainable Development in Georgia - Professional Skills Development Seminar	GRDF	2012	

## Projects

**Completed projects**

Project title	Position	Project head	Start Date	End Date	Donor
Advances in Neuroscience - a Multidisciplinary Event	Principal investigator	Lali Shanshiashvili	02.02.2020	24.07.2022	Shota Rustaveli National Science Foundation of Georgia
Depression, gut microbiome and sigma 1 receptor FR19-1134	Main staff	Elene Zhuravliova	01.11.2019	01.11.2022	SHOTA RUSTAVELI NATIONAL SCIENCE FOUNDATION OF GEORGIA
The role of citrullinated proteins in the activity of methyl cycle and neuroinflammatory diseases	Principal investigator	Lali Shanshiashvili	20.12.2017	25.03.2022	GNSF
Multiplex detection of biotechnology-derived plant products using nanotechnology	Co-investigator	Neli DatukiSvili	01.04.2015	01.04.2017	GNSF, STCU
Analysis of chloride ion-channel associated macromolecular complexes in genetic disorders	Co-investigator	David Mikeladze	01.10.2009	01.10.2010	USTC, GNSF
Non-genomic action of thyroid hormone	Co-investigator	David Mikeladze	05.01.2009	05.06.2012	GNSF
Ras participation in neurological diseases	Co-investigator	Jeremy Ramsden	06.02.2002	07.02.2005	INTAS
The prevention of amebiasis in Georgia	Co-investigator	Nino Trapaidze	04.02.2002	04.02.2004	ISTC
Ecological monitoring of military land of Georgia	Co-investigator	Nino Zakariadze	01.02.2002	02.02.2004	ISTC
Properties and kinetics of adhesion of myelin basic protein.	Coinvestigator	Jeremy Ramsden	01.10.1999	01.10.2002	INTAS

**Scientific Fields (2018-2020)****Main Field**

Field: 1. Natural sciences

Sub-Field: 1.6 Biological sciences

Subject area: 1.6.3 Biochemistry and molecular biology

**Additional Field (1)**

Field: 3. Medical and health sciences

**Scientific Fields (2021-2024)****Main Field**

Field: 2. Life Sciences

Sub-Field: 2.5 Neuroscience and Disorders of the Nervous System

Subject area: 2.5.2 Glial cells and neuronal-glial communication

**Additional Field (1)**

Field: 2. Life Sciences

**Employment History****Current place(s) of employment**

Workplace	Name of the work department	Position	Main responsibilities	Start Date
Ilia State university	Institute of chemical biology	Professor	Participation in scientific researches, processing of experimental data, writing/preparation of articles for publication. Writing/preparation of scientific projects. Management of PhD students and Masters, preparation of lecture courses for bachelors, masters and doctoral students.	27.04.2021
Iv.Beritashvili Center of Experimental Biomedicine	Division of Biochemistry	Main scientific fellow	Participation in scientific researches, processing experimental data, writing/preparation of articles for publication. Writing of scientific projects	17.12.2010
Ilia State University	Institute of chemical biology	Associated profesor	Participation in scientific researches, processing of experimental data, writing/preparation of articles for publication. Writing/preparation of scientific projects. Management of PhD students and Masters, preparation of lecture courses for bachelors, masters and doctoral students.	07.07.2006

### Work experience

Company/Institution	Name of the department	Position	Main responsibilities	Start Date	End Date
I.Beritashvili Institute of Physiology	Department of Neurochemistry	Leading scientific fellow	Participation in scientific experiments, evaluation of experimental data, preparation of manuscripts for publishing	11.01.2005	17.12.2010
I.Beritashvili Institute of Physiology	Department of Neurochemistry	– Senior Scientific fellow	Participation in scientific experiments, evaluation of experimental data, preparation manuscripts for publication.	03.01.1995	11.01.2005
I.Beritashvili Institute of Physiology	Department of Neurochemistry	Junior Scientific Fellow	Participation in scientific experiments	03.01.1991	03.01.1995

### Scientific Productivity

#### Article / Monograph / Manual

Type	Authors	Publication title	Source title	Year
Article	Marika Chikviladze , Nino Mamulashvili , Maia Sepashvili , Nana Narmania , Jeremy Ramsden , Lali Shanshiashvili , David Mikeladze	Citrullinated isomer of myelin basic protein can induce inflammatory responses in astrocytes	IBRO Neuroscience Reports, Volume 16, Pages 127-134	2024
Article	Nino Mamulashvili , Marika Chikviladze , Lali Shanshiashvili and David Mikeladze	Myelin basic proteins charge isomers interact differently with the peptidyl arginine deiminase-2	NeuroReport, Volume 35	2024
Article	Gigi Tevzadze Natalia Kiknadze Elene Zhuravliova Tamar Barbakadze Lali Shanshiashvili Nana Narmania David Mikeladze	Reducing the amount of Clostridium difficile in the gut microbiome reduces the behavioral projection of cognitive activity in rats	WORLD ACADEMY OF SCIENCES JOURNAL 5: 30	2023
Article	M. Chikviladze, N. Mamulashvili, L. Shanshiashvili and D. Mikeladze	Influence of myelin basic protein charge isomers on IL-33 and galectin-3 expression in astrocytes	The Journal of Biological Physics and Chemistry, Volume 22, Number 3/4	2022
Article	N. Natsvlishvili, L. Shanshiashvili and D. Mikeladze	Sigma-1 receptor could participate in Rac-dependent oncogenesis through modulation of macrophage activity	The Journal of Biological Physics and Chemistry, Volume 22, Number 3/4	2022
Article	N. Mamulashvili, M. Chikviladze, L. Shanshiashvili and D. Mikeladze	Inflammation in astrocytes	The Journal of Biological Physics and Chemistry, Volume 22, Number 3/4	2022
Article	Gigi Tevzadze, Tamar Barbakadze, Elisabed Kvergelidze, Elene Zhuravliova, LaliShanshiashvili and David Mikeladze	Gut neurotoxin p-cresol induces brain-derived neurotrophic factor secretion and increases the expression of neurofilament subunits in PC-12 cells	AIMS Neuroscience 9(1):12	2022
Article	Marika Chikviladze , Nino Mamulashvili , Maia Sepashvili , Nana Narmania, Lali Shanshiashvili , David Mikeladze	High Mobility Group B1 Protein Secretion in Polarized Macrophages	BULLETIN OF THE GEORGIAN NATIONAL ACADEMY OF SCIENCES, vol. 15, no. 3, 2021	2021

Type	Authors	Publication title	Source title	Year
Article	Tevzadze Gigi, Zhuravliova Elene, Barbakadze Tamar, Shanshiashvili Lali, Dzneladze Davit, Nanobashvili Zaqaria, Lordkipanidze Tamar and Mikeladze David.	Gut neurotoxin p-cresol induces differential expression of GLUN2B and GLUN2A subunits of the NMDA receptor in the hippocampus and nucleus accumbens in healthy and audiogenic seizure-prone rats	AIMS Neuroscience, 7(1): 30–42. DOI: 10.3934/Neuroscience.2020003	2020
Article	G. Tevzadze, Z. Nanobashvili, E. Zhuravliova, I. Bilanishvili, L. Shanshiashvili, Z. Kikvidze, and D. Mikeladze	Effects of a Gut Microbiome Toxin, p-Cresol, on the Susceptibility to Seizures in Rats	Neurophysiology 50(30) DOI: 10.1007/s11062-019-09774-z	2019
Article	G. Tevzadze, E. Zhuravliova, M. Meparishvili, T. Lortkipanidze, L. Shanshiashvili, Z. Kikvidze and D. Mikeladze	Effects of a Gut Microbiome Toxin, p-Cresol, on the Contents of the NMDA2B Receptor Subunit in the Nucl. Accumbens of Rats	Neurophysiology, Vol. 51, No. 2 DOI:10.1007/s11062-019-09795-8	2019
Article	Tsitsilashvili E, Sepashvili M, Chikviladze M, Shanshiashvili L, Mikeladze D.	Myelin basic protein charge isomers change macrophage polarization.	Journal of inflammation research12: 25–33.	2019
Article	G.Tevzadze, L.Shanshiashvili, D.mikeladze	Children with epilepsy and autistic spectrum disorders show similarly high levels of urinary p-cresol.	The Journal of Biological Physics and Chemistry	2017
Article	Shanshiashvili L., Tsitsilashvili E, Dabrundashvili N, Kalandadze I, Mikeladze D.	Metabotropic glutamate receptor 5 may be involved in macrophage plasticity.	Biol Res. Feb 14;50(1):4. doi: 10.1186/s40659-017-0110-2.	2017
Article	E.O. Tsitsilashvili, L.V. Shanshiashvili and D.G. Mikeladze	Macrophages—cells with broad potential.	The Journal of Biological Physics and Chemistry	2016
Article	L.Shanshiashvili, I.Kalandadze, J.Ramsden, D.Mikeladze.	Different isoforms of deiminated myelin basic protein have different adsorption capacities to the myelin lipids	Journal of Biological Physics and Chemistry	2014
Article	L.V.Shanshiashvili, Kalandadze IV, Ramsden JJ, Mikeladze DG.	Adhesive Properties and Inflammatory Potential of Citrullinated Myelin Basic Protein Peptide 45-89	Neurochem Res.	2012
Article	Zhuravliova E, Barbakadze T, Jojua N, Zaalishvili E, Shanshiashvili L, Natsvlishvili N, Kalandadze I, Narmania N, Chogovadze I, Mikeladze D.	Synaptic and Non-Synaptic Mitochondria in Hippocampus of Adult Rats Differ in Their Sensitivity to Hypothyroidism.	Cell Mol Neurobiol	2012
Article	L.V. Shanshiashvili, N. Dabrundashvili, N. Natsvlishvili, E. Kvaratskhelia, E. Zhuravliova, T. Barbakadze, S. Koriauli, E. Maisuradze, T. Topuria, D.G. Mikeladze.	mGluR1 interacts with cystic fibrosis transmembrane conductance regulator and modulates the secretion of IL-10 in cystic fibrosis peripheral lymphocytes	Mol Immunol.	2012
Article	Shanshiashvili L, Narmania N, Barbakadze T, Zhuravliova E, Natsvlishvili N, Ramsden J, Mikeladze DG.	S-Nitrosylation Decreases the Adsorption of H-Ras in Lipid Bilayer and Changes Intrinsic Catalytic Activity	Cell Biochem Biophys	2011
Article	Beradze GG., Shanshiashvili L.V., Chogovadze I.S., Kalandadze I.V., Oniani N.T., Ramsden J.J., Mikeladze D.G.	Toluene induced changes in excitatory amino acids metabolism during sleep-wakefulness.	Journal of Biological Physics and chemistry	2010
Article	Shanshiashvili L., Shatirishvili M., Kalandadze I. And Mikeladze D	HMGB1 – protein with dual functions	Journal Biological Physics and Chemistry	2008
Article	Shanshiashvili L., Sakoyan E. and Mikeladze D	Manumycin restores the levels of cortical homocysteine, methionine and cysteine changed in ischemia-evoked animals	Journal of Biological Physics and chemistry	2004
Article	Zedgenidze A., Gvimradze Kh., Antelava M., Shanshiashvili L., Dzneladze D., Zakariadze N., Mikeladze D.	Correlation between acrocentric chromosome association and the level of p53 in people exposed to low doses of radioactivity	Journal of Biological Physics and Chemistry	2003
Article	Shanshiashvili L., Suknidze N., Machaidze G., Mikeladze D., Ramsden J.	Adhesion and clustering of charge isomers of myelin basic protein at model myelin membranes	Archives of Biochemistry and Biophysics	2003
Article	L.Shanshiashvili, D.Mikeladze.	“Some aspects of myelin basic protein”.	Journal of Biological Physics and chemistry	2003
Article	Beradze G., Shanshiashvili L., Mikeladze D.	The alteration of sleep-wakefulness phases can be induced by quantitative changes in excitatory amino acids	Neurobiology of Sleep-Wakefulness Cycle	2001

Type	Authors	Publication title	Source title	Year
Article	Shanshiashvili L., Kalandadze I., Chogovadze I., Todua N., and Mikeladze D.	The content of membrane-bound calmodulin-dependent protein kinase II in the different brain regions in correlated with the concentration of ammonia after treatment of rats with toluene and ketamine.	Georgian Journal of Neurosciences	2001
Article	Kharebava G., Todadze Kh., Shanshiashvili L., Zaalishvili E., Sanikidze T., Bakhutashvili A., Lezhava G., Mikeladze D.	Influences of plaferon-LB, P6 and matadoxyl on the amino acid content, nitrogen oxide biosynthesis and intensity of the EPR signals in the brain of alcoholised rats.	Proceedings of the Georgian Academy of Sciences, Biological Series.	1999
Article	Beradze G., Shanshiashvili L., Mikeladze D., Oniani T.	Importance of the excitatory amino acids in induction of the sleep-waking cycle phases	Proc. Georgian Acad. Sci., Biol. ser	1999
Article	Shanshiashvili L., Mikeladze D.	Peptide from myelin basic protein is an inhibitor of the [3H]-diltiazem binding sites in brain	Bulletin of the Georgian Academy of Sciences	1998
Article	Mchedlishvili Z., Kalandadze I., Kiguradze T., Shanshiashvili L., Kotetishvili M., Solomonina R., Mikeladze D.	Aminobutyric acid content and subunit of Ca <sup>2+</sup> /calmodulin dependent protein kinase II in different brain regions of Kroushinski-Molodkina rats	Bull. Georgian Acad. Sci.	1998

### Scholarships and awards

Scholarships/awards name	Issuer	Year of Issue
Georgian Republic President's Postdoctoral scholarship	Georgian Academy of Sciences	1999

### Participation in scientific events

Scientific event name	Title of the presentation	Event venue	Year
5 th Biennial international Symposium. Brain and neuroplasticity. Structural and molecular aspects.	CITRULLINATION – THE IMPORTANT POST TRANSLATIONAL MODIFICATION OF THE MYELIN BASIC PROTEIN	Tbilisi, Georgia	2023
ICBMSB2021:15.International Conference on Biochemistry, Molecular and Structural Biology	Citrullinated Myelin Basic Protein Mediated Inflammation in Astrocytes.	Barselona	2021
4th international symposium and school of young scientists "Brain & neuroplasticity: structural and molecular aspects"	The Effects of Myelin Basic Protein Isomers on Macrophage Polarization	Ilia State University, Tbilisi, Georgia	2019
Ivane Beritashvili Center of Experimental Biomedicine	Citrullination changes the properties of myelin basic protein charge isomers	Tbilisi, Georgia	2019
Functions of Neuroglia, International Conference	Myelin basic protein charge isomers and glutamate affect macrophage polarization	Tbilisi, Georgia	2019
The XIV European Meeting on Glial Cells in Health and Disease	The Adhesive Properties of Myelin Basic Protein C1/C8 Charge Isomers and Their Role in Microglia Plasticity."	Porto, Portugal	2019
The 1st "Beritashvili Talks", Neurophysiological Functions and their Disorders - Interdisciplinary Studies	Adhesive properties of myelin basic protein charge isomers and their participation in macrophage polarization	Tbilisi, Georgia	2018
The 43 rd FEBS congress	Myelin basic protein- induced RAGE expression in M1/M2 macrophages	Prague, Czech Republic	2018
The 41st FEBS congress	Structural and functional properties of myelin basic protein charge isomers	Ephesus/Kusadasi. Turkey	2016
FERS-EMBO 2014 conference	Production of IL-33 and Galectin-3 by primary glial cells in response to myelin basic protein charge isomers	Paris, France	2014
Sleep training Summer School. Advancing the Understanding of the Basics of Sleep Science and Sleep Medicine	Glial regulation of sleep	Chakvi, Georgia	2014
ISTC III International Symposium "Neuroplasticity: Nervous Substrate for Health and Disease	The expression of pro- and anti-inflammatory cytokines in different cell types	Tbilisi, Georgia	2014
The 5th EMBO meeting, advancing the life sciences	The role of citrullinated myelin proteins and peptides in the CNS inflammatory diseases	Amsterdam, Netherlands	2013
The 8th FENS Forum of Neuroscience	Primary microglia release high mobility group-B1 proteins in response to myelin basic protein charge isomers	Barcelona, Spain	2012

Scientific event name	Title of the presentation	Event venue	Year
9th Gagra talks	MITOCHONDRIAL IMPAIREMENTS AND TRANSLOCATION OF Ras PROTEIN IN VARIOUS NEUROPHYSIOLOGICAL CONDITIONS	Tbilisi, Georgia	2010
ISTC International Scientific Workshop. Neuroplasticity: nervous substrate for health and disease.	Some molecular aspects of multiple sclerosis	Tbilisi, Georgia	2010
9th European Meeting on Glial Cells in Health and Disease	Inflammatory action and adhesive properties of Myelin basic protein peptide 45-89	Paris, France	2009
The FENS Forum meeting	MYELIN BASIC PROTEIN PEPTIDES 45-89 INDUCE THE ACTIVATION OF MICROGLIAL CELLS	Paris, France	2002
The ESN Conference on “Advances in Molecular Mechanisms of Neurological Disorders”,	“Human T-cell response to myelin basic protein C8 isoform and its tryptic peptide fragments	Perugia, Italy	2001
3rd International Workshop on Molecular Recognition at Surfaces	Molecular determinants of the interaction of myelin basic protein with synaptic membranes	Basel, Switzerland	1999

### Productivity index

#	Citation index	h-index
Google scholar	135.00	7.00