# Elene Zhuravliova

## Personal iformation

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Full name: Elene Zhuravliova

Gender: Female

D Citizenship: საქართველო

(Georgia)

## Contact Details

Email address:

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Country: საქართველო (Georgia)

City: Tbilisi

Address: 3/5 Cholokashvili av

## Languages

| Language | Writing | Reading | Speaking |
|---|---|---|---|
| Spanish | A2 | A2 | A1 |
| Russian | C2 | C2 | C2 |
| English | C1 | C1 | B2 |

## Education

### Academic degree

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

Year obtained: 08.04.2005

### Education

| Academic Degree | Name of the Institution | Country | Major discipline | Start year | End year |
|---|---|---|---|---|---|
| Doctoral/PhD, Ed.D or other equivalent | S.Durmishidze Institute of Biochemistry and Biotechnology | | Biochemistry | 2002 | 2005 |
| Master/MS, MA, MR, MBA, m.Ed or other equivalent | Ivane Javakhishvili Tbilisi State University, | | Cellular and Molecular Biology | 1999 | 2001 |
| Bachelor/BS, BA, BE or other equivalent | Tbilisi State University | | Biology | 1995 | 1999 |

### Trainings / Seminars / Training courses

| Training / Seminar / The theme of the course | Organization name | Start year | End year |
|---|---|---|---|
| Learning Optimization and Academic Inclusion Via Equitative Distance Teaching and Learning | Erasmus+ Project | 2021 | |
| Evaluating the Teacher - International | AMEE | 2020 | |
| Essential Skills in Action | AMEE | 2020 | |
| “Training of trainers Barcelona 2020” Love Distance | Erasmus | 2020 | |
| Active Learning and ICT-enhanced teaching and Gamification | Ilia State University | 2019 | 2019 |
| Essential Skills in Medical Education | AMEE International Networking Center in Tbilisi | 2019 | 2019 |
| Essential Skills in Medical Education Assessment | AMEE | 2019 | |
| Development of Open Educational Resources | KU Luven | 2019 | |
| Fundamentals of Program Assessment | ABET | 2018 | 2018 |
| TRAINING OF THE TRAINERS COURSES ON HYBRID/BLENDED TEACHING AND LEARNING, | FH JOANNEUM University of Applied Sciences, Graz, AUstri | 2018 | 2018 |

| Training / Seminar / The theme of the course | Organization name | Start year | End year |
|---|---|---|---|
| Innovation management and modern technological tendencies | Ilia State University Technology Commercialization Office | 2016 | 2016 |
| Peer Review and Sustainable Science for Georgia | GRDF | 2012 | 2012 |

## Projects

### Ongoing projects

| Project title | Position | Project head | Start Date | Donor |
|---|---|---|---|---|
| Depression, gut microbiota and sigma 1 receptor | Head of project | Elene Zhuravliova | 28.02.2020 | Shota Rustaveli Georgian National Research Foundation |

### Completed projects

| Project title | Position | Project head | Start Date | End Date | Donor |
|---|---|---|---|---|---|
| The role of citrulinated proteins in the activity of methyl cycle and neuroinflammatory diseases | Key personal | Lali Shanshiashvili | 20.12.2017 | 25.03.2022 | Shota Rustaveli Georgian National Scientific Foundation |
| Analysis of chloride ion-channel associated macromolecular complexes in genetic disorders | Key personel | Davit Mikeladze | 08.01.2010 | 03.01.2011 | STCU |
| Non-genomic actions of thyroid hormones | Key personel | Davit Mikeladze | 02.02.2009 | 04.02.2011 | Shota Rustaveli National Science Foundation of Georgia |
| Ras-protein interaction in neurological diseases | Key personel | Davit Mikeladze | 03.06.2002 | 31.05.2006 | INTAS |
| Neuroprotective effects of creatine | Support personel | Nodar Kekelidze | 05.03.2001 | 01.03.2002 | CRDF |

## 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: 1. Natural sciences

Sub-Field: 1.6 Biological sciences

Subject area: 1.6.14 Other biological topics

### Additional Field (2)

Field: 4. Agricultural sciences

Sub-Field: 4.4 Agricultural biotechnology

Subject area: 4.4.1 Agricultural biotechnology and food biotechnology

## Scientific Fields (2021-2024)

### Main Field

Field: 2. Life Sciences

Sub-Field: 2.1 Molecular Biology, Biochemistry, Biophysics, Structural Biology

Subject area: 2.1.2 Biochemistry

### Additional Field (1)

Field: 2. Life Sciences

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

Subject area: 2.5.11 Neurological and neurodegenerative disorders

### Additional Field (2)

Field: 2. Life Sciences

Sub-Field: 2.1 Molecular Biology, Biochemistry, Biophysics, Structural Biology

Subject area: 2.1.9 Molecular mechanisms of signalling processes

## Employment History

### Current place(s) of employment

| Workplace | Name of the work department | Position | Main responsibilities | Start Date |
|---|---|---|---|---|
| Ilia State University | Faculty of Natural Sciences and Medicine | Dean | Coordination of faculty activities, strategic development planning, evaluation and improvement of the effectiveness of the teaching and research process | 01.10.2022 |
| National Center For Educational Quality Enhancement | Council of HEI Authorization | member | Review and decision on the authorization of HEI | 17.02.2021 |
| Ilia State University | Teaching Staff Development Center | Coach | Training of teaching staff in new teaching methods | 20.10.2019 |
| Ilia State University | Faculty of Natural Sciences and Medicine | Associate Professor | Preparation and conduct of study courses; supervision of master and doctoral thesises | 05.04.2013 |
| I,Beritashvili Center of Experimental Biomedicine | Department of Biochemistry | senior researcher | To conduct research experiments, analysis obtained data, project monitoring | 10.05.2005 |

### Work experience

| Company/Institution | Name of the department | Position | Main responsibilities | Start Date | End Date |
|---|---|---|---|---|---|
| National Center For Educational Quality Enhancement | Accreditation Council | member | Review and decision on the accreditation issue of programs | 18.02.2021 | 17.02.2022 |
| Ilia State University | Faculty of Natural Sciences and Medicine | Head of Quality Assurance Office | Coordination and monitoring of education programs' design, improvement, and development | 09.03.2015 | 27.09.2022 |
| Ilia State University | Faculty of Master and Doctoral Studies | assistant-professor | Preparation of and caring out lecture courses; supervision of master thesis, scientific research, analysis of obtained data and findings | 05.11.2008 | 05.04.2013 |
| I.Beritashvili Institute of Physiology | Laboratory of Neurochemistry | Junior researcher | Scientific research | 04.10.2004 | 05.05.2005 |

## Scientific Productivity

### Article / Monograph / Manual

| Type | Authors | Publication title | Source title | Year |
|---|---|---|---|---|
| Article | Tevzadze G, Kiknadze N, Zhuravliova E, Barbakadze T, Shanshiashvili L, Narmania N and Mikeladze D | Reducing the amount of Clostridium difficile in the gut microbiome reduces the behavioral projection of cognitive activity in rats. | World Academy of Sciences Journal | 2023 |
| Article | Gigi Tevzadze, Tamar Barbakadze, Elisabed Kvergelidze, Elene Zhuravliova, Lali Shanshiashvili, 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 | 2022 |
| Article | Tevzadze, G. , Zhuravliova, E. , Okriashvili, N. , ... Barbakadze, T. , Mikeladze, D. | Different Arrangement of Dopamine Receptors/NMDA Receptors Heterocomplexes in the Brain Regions of a Healthy Male, Female and Audiogenic Seizure-Prone Male Rats | American Journal of Biochemistry and Biotechnology, | 2022 |
| Article | Gigi Tevzadze, Elene Zhuravliova, David Mikeladze | The Link Between Covid-19-Induced Mental Health Complications And Microbiota Can Exist | Journal of Mental Health & Clinical Psychology | 2021 |
| Article | Gigi Tevzadze, Elene Zhuravliova, Tamar Barbakadze, Lali Shanshiashvili, Davit Dzneladze, Zaqaria Nanobashvili, Tamar Lordkipanidze,and David Mikeladze | 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 | 2020 |
| Article | Goguadze N, Zhuravliova E, Morin D, Mikeladze D, Maurice T. | Sigma-1 Receptor Agonists Induce Oxidative Stress in Mitochondria and Enhance Complex I Activity in Physiological Condition but Protect Against Pathological Oxidative Stress. | Neurotoxicity Research | 2019 |
| Article | G Tevzadze, E Zhuravliova, M Meparishvili, T Lortkipanidze, L Shanshiashvili, Z Kikvidze, 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 | 2019 |
| Article | G Tevzadze, N Oniani, E Zhuravliova, N Darchia, M Eliozishvili, M Gogichadze, N Lortkipanidze, T Oniani, A Kakabadze, Z Kakabadze, L Karalashvili, Z Kikvidze, D Mikeladze | Effects of a Gut Microbiome Toxin, p-Cresol, on the Indices of Social Behavior in Rats | Neurophysiology | 2018 |
| Article | Tevzadze, G., Nanobashvili, Z., Zhuravliova, E., Bilanishvili, I., Shanshiashvili, L., Kikvidze, Z., & Mikeladze, D. | Effects of a Gut Microbiome Toxin, p-Cresol, on the Susceptibility to Seizures in Rats. Neurophysiology | Neurophysiology | 2018 |
| Article | Barbakadze T, Goloshvili G, Narmania N, Zhuravliova E, Mikeladze D. | Subcellular Distribution of S-Nitrosylated H-Ras in Differentiated and Undifferentiated PC12 Cells during Hypoxia. | Cell Journal (Yakhteh). | 2017 |
| Article | Nino Sharikadze, Natia Jojua, Maia Sepashvili, Elene Zhuravliova and David G Mikeladze. | Mitochondrial Target of Nobiletin's Action | Natural Products Communications | 2016 |
| Article | Jojua N., Sharikadze N., Zhuravliova E., Zaalishvili E., Mikeladze D.G. | Nobiletin restores impaired hippocampal mitochondrial bioenergetics in hypothyroidism through activation of matrix substrate-level phosphorylation. | Nutritional Neuroscience | 2015 |
| Article | Natsvlishvili N., Goguadze N., Zhuravliova E., Mikeladze D.G. | Sigma-1 receptor directly interacts with Rac1-GTPase in the brain mitochondria | BMC Biochemistry | 2015 |
| Article | E. Zhuravliova, T. Barbakadze, N. Jojua, E. Zaalishvili, L. Shanshiashvili, N. Natsvlishvili, I. Kalandadze, N. Narmania, I. Chogovadze, D. Mikeladze | Synaptic and Non-Synaptic Mitochondria in Hippocampus of Adult Rats Differ in Their Sensitivity to Hypothyroidism. | Cellular and Molecular Neurobiology | 2012 |
| Article | Shanshiashvili LV, Dabrundashvili N, Natsvlishvili N, Kvaratskhelia E, Zhuravliova E, Barbakadze T, Koriauli S, Maisuradze E, Topuria T, Mikeladze DG. | mGluR1 interacts with cystic fibrosis transmembrane conductance regulator and modulates the secretion of IL-10 in cystic fibrosis peripheral lymphocytes. | Molecular Immunology | 2012 |
| Article | L. Shanshiashvili, N. Narmania, T. Barbakadze, E. Zhuravliova, N. Natsvlishvili, J. Ramsden, D. G. Mikeladze | S-Nitrosylation Decreases the Adsorption of H-Ras in Lipid Bilayer and Changes Intrinsic Catalytic Activity. | Cell Biochemistry and Biophysics | 2011 |
| Article | Dabrundashvili N.G., Kvaratskhelia E., Gagua M., Maisuradze E., Chkhikvishvili I., Zhuravliova E., Mikeladze D.G. | Nobiletin Transiently Increases The Production Of Nitric Oxide And Changes The Activity Of Succinate Dehydrogenase In Human Blood Lymphocytes | Journal of Food Biochemistry | 2011 |

| Type | Authors | Publication title | Source title | Year |
|---|---|---|---|---|
| Article | Zhuravliova E, Barbakadze T, Zaalishvili E, Chipashvili M, Koshoridze N, Mikeladze D. | Social isolation in rats inhibits oxidative metabolism, decreases the content of mitochondrial K-Ras and activates mitochondrial hexokinase | Behavioural Brain Research | 2009 |
| Article | Zhuravliova E, Barbakadze T, Narmania N, Sepashvili M, Mikeladze DG. | Hypoinsulinemia Alleviates the Grf1/Ras/Akt Anti-Apoptotic Pathway and Induces Alterations of Mitochondrial Ras Trafficking in Neuronal Cells | Neurochemical Research | 2009 |
| Article | Kvaratskhelia E, Maisuradze E, Dabrundashvili NG, Natsvlishvili N, Zhuravliova E, Mikeladze DG. | N-Methyl-D-Aspartate and σ-Ligands Change the Production of Interleukins 8 and 10 in Lymphocytes through Modulation of the NMDA Glutamate Receptor | Neuroimmunomodulation | 2009 |
| Article | Chipashvili M., Zaalishvili E., Juravleva E., Koshoridze N. and Mikeladze D.G. | Dynamic trend of energy exchange intensity in the brain under chronic stress. | Journal of Biological Physics and Chemistry | 2009 |
| Article | Mikeladze D, Zhuravliova E, Barbakadze T. | Ras proteins, nitrosylation and homocysteine metabolism. | Georgian Medical News | 2008 |
| Article | Chipashvili M., Menabde K., Zaalishvili N., Juravliova E and Koshoridze N. | Rat brain creatine kinase and succinate dehydrogenase activity changes during chronic stress | Journal of Biological Physics and Chemistry | 2008 |
| Article | Zhuravliova E., Barbakadze T., Natsvlishvili N. & Mikeladze D.G. | Haloperidol induces neurotoxicity by the NMDA receptor downstream signaling pathway, alternative from glutamate excitotoxicity | Neurochemistry International | 2007 |
| Article | Zhuravliova E., Narmania N., Barbakadze T., Ramsden J., Mikeladze D | Inhibition of nitric oxide synthase and farnesyltransferase change the activities of several transcription factors | Journal of Molecular Neuroscience | 2007 |
| Article | Sephashvili M., Zhuravliova E., Barbakadze T., Khundadze M., Narmania N. & Mikeladze D.G. | l-NAME has Opposite Effects on the Productions of S-adenosylhomocysteine and S-adenosylmethionine in V12-H-Ras and M-CR3B-Ras Pheochromocytoma Cells | Neurochemical Research | 2006 |
| Article | Narmania N., Zhuravliova E., Barbakadze T., Khundadze M., Mikeladze D. | Double modifications of Ras protein change the DNA-binding activities of transcription factors. | Proceedings of Georgian Acadamy of Sciences, Biological Series_A | 2006 |
| Article | Sepashvili M., Zhuravliova E., Barbakadze T., Khundadze M. and .Mikeladze | Oncogenic H-Ras enhances production of S-adenosylhomocysteine and reduces the level of S-adenosylmethionine in PC12 cells. | Proceedings of Georgian Acadamy of Sciences, Biological Series_A | 2006 |
| Article | Narmania N., Zhuravliova E., Barbakadze T. and Mikeladze D. | Farnesylation and nitrosylation of p21Ras change its intrinsic GTPase activity | Journal of Biological Physics and Chemistry | 2005 |
| Article | Barbakadze T., E. Zhuravliova, M. Sepashvili, E. Zaalishvili, J.J. Ramsden, J. Bátor, J. Szeberényi and D. Mikeladze. | Production of homocysteine in serum-starved apoptotic PC12 cells depends on the activation and modification of Ras. | Neuroscience Letters | 2005 |
| Article | Sepashvili M., Zaalishvili E., Zhuravliova E., Barbakadze T., Mikeladze D. | Modifications of Ras alter content of secreted homocysteine by PC-12 cells. | Proceedings of Georgian Acadamy of Sciences, Biological Series_A | 2005 |
| Article | Juravleva E., Barbakadze T., Mikeladze D. and Kekelidze T. | Creatine enhances survival of glutamate-treated neuronal/glial cells by modulation of Ras/NF-κB signalling and reactive oxygen species | Journal of Neuroscience Research | 2004 |
| Article | Barbakadze T., Zhuravliova E., Narmania N., Sanikidze T., Kekelidze T., Mikeladze D. | Effects of guanidine analogs of creatine on the formation of reactive oxygen species and viability of primary neuronal/glial cells. | Journal of Biological Physics and Chemistry | 2004 |
| Article | Barbakadze T., Zhuravliova E., Kharebava G., Chatirishvili N., Dabrundashvili N., Mikeladze D. | Placental peptide p6 reduce glutamate-dependent neurotoxicity | Proceedings of Georgian Acadamy of Sciences, Biological Series_A | 2004 |
| Article | Juravleva E, Barbakadze T, Natsvlishvili N, Kekelidze T, Mikeladze D. | Creatine prevent the cytotoxicity of haloperidol by alteration of NO/Ras/NF-kB system. | Creatine kinase and brain energy metabolism: function and disease. NATO science series: life and behavioral science | 2003 |
| Article | Natsvlishvili N., Juravleva E., Dzneladze D., Mikeladze D | Haloperidol regulates the binding of guanine nucleotides to synaptic membranes through the NMDA receptor. | Journal of Biological Physics and Chemistry | 2001 |

## Scholarships and awards

| Scholarships/awards name | Issuer | Year of Issue |
|---|---|---|
| Award for achievement of scientific group | Shota Rustaveli National Science Foundation of Georgia | 2017 |
| Travel Award | EMBO | 2013 |
| CAEN Travel Award | International Society of Neurochemistry | 2013 |
| Travel Award | EBEC (European Bioenegetics Conference) | 2012 |
| Travel Award | IBRO (International Brain Research Organisation) | 2010 |
| Travel Award | ICBEM (International Conference of Brain Energy Metabolism) | 2010 |
| one-year scholarship | World Federation of Scientists | 2009 |
| Fellowship Award | ECNP (European College of Neuropsychopharmacology) | 2008 |
| I,Beritashvili Named Stipend | The Ministry of Science and Education | 2008 |
| Travel Award | European Society for Neurochemistry | 2007 |
| Travel Award | Shota Rustaveli National Science Foundation of Georgia | 2007 |
| one-year scholarship | World Federation of Scientists | 2007 |
| Travel Award | FENS (Federation of European Neuroscience Societies) | 2006 |
| Travel Award | European Society for Neurochemistry | 2005 |
| CIG Award | INTAS | 2005 |
| The stipend of President of Georgia | Administration of President of Georgia | 2004 |
| Travel Award | IBRO (International Brain Research Organisation) | 2003 |
| I place Diploma and Grant at students' Conference | ISSEP (International Soros Society Education Program) | 2003 |
| I place Diploma and Grant at students' Conference | ISSEP (International Soros Society Education Program) | 2002 |
| I place Diploma and Grant at students' Conference | ISSEP (International Soros Society Education Program) | 2001 |
| I place Diploma and Grant at students' Conference | ISSEP (International Soros Society Education Program) | 2000 |
| Stipend for students | ISSEP (International Soros Society Education Program) | 1995 |

## Participation in scientific events

| Scientific event name | Title of the presentation | Event venue | Year |
|---|---|---|---|
| 3rd European Symposium on Physiopathology of Sigma-1 Receptors | Protective effect of sigma ligands in p-cresol induced depression-like behavior | Bari, Italy | 2021 |
| 2nd European Symposium on Physiopathology of sigma-1 receptors | The role of sigma-1 receptor in regulation NMDA receptor's supramolecular complex composition during hypothyroidism | Riga, Latvia | 2019 |
| The 1st “Beritashvili Talks”, Neurophysiological Functions and their Disorders – Interdisciplinary Studies | The effect of hypothyroidism on mitochondrial bioenergetics and signaling of neural cells | Tbilisi, Georgia | 2018 |
| 9th World Congress "Targeting Mitochondria" | The effect of hypothyroidism and citrus flavonoid nobiletin on mitochondrial bioenergetics and signaling of neural cells. | Berlin, Germany | 2018 |
| FEBS / EMBO Course, Mitochondria in life, death and disease. | Mitochondrial Target of Nobiletin’s Action | Crete, Greece | 2015 |
| The 18th European Bioenergetics Conference. | Possible improvement of neuronal mitochondrial bioenergetics by nobiletin involves activation of matrix substrate-level phosphorylation | Lisbon, Portugal | 2014 |
| EMBO Workshop, MITOCHONDRIA, APOPTOSIS and CANCER, | The neuroprotective effect of nobiletin in hypothyroid rats involves enhancement of mitochondrial substrate-level phosphorylation | Stockholm, Sweden | 2013 |
| The 17th European Bioenergetics Conference | Synaptic and nonsynaptic mitochondria in hypothyroid conditions. | Freiburg, Germany | 2012 |
| 9th International Conference on Brain Energy Metabolism. Mitochondrial-Cytosolic Interactions: From Energetics to Pathogenesis , | Nonsynaptic mitochondria are more susceptible to thyroid hormone status than synaptic mitochondria | Budapest, Hungary | 2010 |
| 31st ECNP Congress | Some molecular aspects of haloperidol's neurotoxicity | Barcelona, Spain | 2008 |
| 17th ESN Meeting | The mechanism of haloperidol neurotoxicity involves Ras protein inhibition through NMDA receptor and Grf-factor | Salamanca, Spain | 2007 |
| 5th Forum of European Neuroscience | The neuroprotective effect of insulin involves activation of membrane-bound Ras and downstream antiapoptotic pathway through the association of GRF-SOS adaptor protein. | Vienna, Austria | 2006 |
| 20-th Biennial Meeting of ISN and ESN | Production of homocysteine in the withdrawal conditions depends on the activation and modification of Ras in apoptotic PC12 cells. | Innsbruck, Austria | 2005 |

| Scientific event name | Title of the presentation | Event venue | Year |
|---|---|---|---|
| Sixth IBRO World Congress of Neuroscience | Nitric oxide mediates the Akt-dependent antiapoptotic action of insulin of primary neuronal/glial cells. | Prague, Czech Republic | 2003 |

**Productivity index**

| # | Citation index | h-index |
|---|---|---|
| Google scholar | 346.00 | 9.00 |
| Scopus | | 7.00 |