

Maia Merlani

Personal information

Contact Details

ID Number:

Email address: m.merlani@tsmu.edu

Full name: Maia Merlani

Call number: 599761117

Gender: Female

Country: საქართველო (Georgia)

Date of birth: 13.06.1963

City: Tbilisi

Citizenship: საქართველო (Georgia)

Address: .

Languages

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

Education

Academic degree

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

Year obtained: 05.12.1990

Education

| Academic Degree | Name of the Institution | Country | Major discipline | Start year | End year |
|---|--|----------------------|--|------------|----------|
| Doctoral/PhD, Ed.D or other equivalent | Javackishvili Tbilisi State University | საქართველო (Georgia) | Organic chemistry | 1985 | 1988 |
| Professional/MD, JD or other equivalent | Georgian Polytechnic Institute | | Basic Organic and Petroleum Chemistry - Technology and Synthesis | 1980 | 1985 |

Projects

Completed projects

| Project title | Position | Project head | Start Date | End Date | Donor |
|---|------------|---------------|------------|------------|---|
| Development of functional macromolecular materials | Researcher | Tamaki Nakano | 15.11.2018 | 30.04.2019 | Hokkaido University's Research Promotion Fund |
| Synthesis of Comfrey Biopolymer: chemical and enzymatic approach | Researcher | Maia Merlani | 20.01.2018 | 20.07.2018 | Fulbright foundation (USA...) |
| Synthesis of poly[oxy-1-carboxy-2-(3,4-dihydroxyphenyl)ethylene]-synthetic analogue of wound-healing and anticancer natural biopolymer from comfrey | Researcher | Maia Merlani | 01.04.2013 | 01.10.2013 | Matsumae International Foundation (Japan) |

| Project title | Position | Project head | Start Date | End Date | Donor |
|---|------------|---------------------|------------|------------|---|
| Development of modern II stage wound healing preparations on the basis of novel plant biopolymer. | Researcher | Aliosha Bakuridze | 02.04.2012 | 02.04.2014 | Shota Rustaveli Georgian National Scientific Foundation |
| Investigation of novel prospective wound healing polymeric agents from Caucasian species of Comfrey and related synthetic compounds | Researcher | Vakhtang Barbakadze | 07.04.2009 | 07.04.2011 | Georgian National scientific Foundation |
| A new polymer poly[3-(3,4-dihydroxyphenyl)glyceric acid] from Symphytum asperum and S.caucasicum and its synthetic monomer: prospective cancer preventive and anti-cancer compounds | Researcher | Vakhtang Barbakadze | 01.06.2007 | 01.12.2008 | Georgian-U.S. Bilateral Grants Program III Science with Societal Impact |
| Synthesis of some new biologically active compounds on the basis of steroidal sapogenin-tigogenin | Researcher | E.Kemertelidze | 02.01.2004 | 30.12.2006 | NATO reintegration grant |

Scientific Fields (2018-2020)

Main Field

Field: 1. Natural sciences

Sub-Field: 1.4 Chemical sciences

Subject area: 1.4.1 Organic chemistry

Additional Field (1)

Field: 1. Natural sciences

Sub-Field: 1.4 Chemical sciences

Subject area: 1.4.3 Physical chemistry, Polymer science, Electrochemistry (dry cells, batteries, fuel cells, corrosion metals, electrolysis)

Additional Field (2)

Field: 3. Medical and health sciences

Sub-Field: 3.4 Health biotechnology

Scientific Fields (2021-2024)

Main Field

Field: 1. Physical Sciences and Engineering

Sub-Field: 1.5 Synthetic Chemistry and Materials

Subject area: 1.5.17 Organic chemistry

Additional Field (1)

Field: 1. Physical Sciences and Engineering

Sub-Field: 1.5 Synthetic Chemistry and Materials

Subject area: 1.5.15 Polymer chemistry

Additional Field (2)

Field: 1. Physical Sciences and Engineering

Sub-Field: 1.5 Synthetic Chemistry and Materials

Subject area: 1.5.18 Medicinal chemistry

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

| Workplace | Name of the work department | Position | Main responsibilities | Start Date |
|---|--|------------------------------|--|------------|
| TSMU Kutateladze Institute of Pharmacochimistry | Department of plant biopolymers and chemical modification of natural compounds | Principal research scientist | Isolation of plant bio polymers and synthesis of their analogues | 11.09.2023 |

Work experience

| Company/Institution | Name of the department | Position | Main responsibilities | Start Date | End Date |
|---|---|---------------------------|--|------------|------------|
| Hokkaido University | Center of Catalysis | PostDoc | მკვლევარი | 15.11.2018 | 30.04.2019 |
| TSMU Kutateladze Institute of Pharmacochimistry | Department of plant biopolymers and modification of natural compounds | Senior research scientist | Isolation of plant biopolymers and synthesis of their analogues | 01.08.2018 | 10.09.2023 |
| New York State University, College of Environmental Science and Forestry | Chemistry | PostDoc | Joint research project- Natural biopolymer from Comfrey Chemical and Enzymatic Approaches_ | 20.01.2018 | 20.07.2018 |
| TSMU I.Kutateladze Institute of Pharmacochimistry | Laboratory of plant biopolymers | Senior Research Scientist | Researcher | 08.09.2014 | 31.07.2018 |
| Institute for Catalysis, Hokkaido University | Division of Macromolecular science: Nakano Lab | PostDoc Fellow | Sythesis of analogues of biopolymer from Comfrey | 01.04.2013 | 01.10.2013 |
| Kutateladze Institute of Pharmacochimistry | Laboratory of plant biopolymers | Senior research scientist | Synthesis of plant biopolymers analogues | 31.10.2006 | 08.09.2014 |
| I.Kutateladze Institute of Pharmacochimistry Georgian Academy of Sciences | Department of synthesis of hormonal compounds | Research scientist | Synthesis of biologically active steroidal compounds | 01.12.1990 | 31.10.2006 |

Scientific Productivity**Patents**

| Patent name | Issuing organization | Registration number | Year of Issue |
|---|----------------------|---------------------|---------------|
| Medicinal applications of benzoic acid hydrazones synthesized on the basis of steroidal tigenin | USA patenet | 8,623,849 | 2014 |
| Sum of high-molecular compounds of comfrey roots and its use for treatment. | Geo patent | 2012 5391 B | 2006 |

Article / Monograph / Manual

| Type | Authors | Publication title | Source title | Year |
|---------|---|---|--------------|------|
| Article | M. Merlani, N. Nadaraia, L. Amiranashvili, A. Petrou, A.Geronikaki, A. Ćirić, J. Glamočlija, T.Carevic, M. Soković. | Antimicrobial Activity of Some Steroidal Hydrazones | Molecules | 2023 |
| Article | V. Barbakadze, M. Merlani, L. Gogilashvili, L. Amiranashvili, A. Petrou, A.Geronikaki, A. Ćirić, J. Glamočlija, M. Soković. | Antimicrobial Activity of Catechol-Containing Biopolymer Poly[3-(3,4-dihydroxyphenyl)glyceric Acid] from Different Medicinal Plants of Boraginaceae Family. | Antibiotics | 2023 |

| Type | Authors | Publication title | Source title | Year |
|-----------|--|--|---|------|
| Article | Maia Merlani, Dieter M. Scheibel, Vakhtang Barbakadze , Lali Gogilashvili , Lela Amiranashvili , Athina Geronikaki , Valentina Catania , Domenico Schillaci , Giuseppe Gallo and Ivan Gitsov | Enzymatic Synthesis and Antimicrobial Activity of Oligomer Analogues of Medicinal Biopolymers from Comfrey and Other Species of the Boraginaceae Family | Pharmaceutics | 2022 |
| Article | M. Merlani, V. Barbakadze, L. Amiranashvili, L. Gogilashvili, A. Petrou, A. Geronikaki, A. Ćirić, J. Glamočlija & M. Soković. | Caffeic and 3-(3,4-dihydroxyphenyl)glyceric acid derivatives as antimicrobial agent: biological evaluation and molecular docking studies | SAR AND QSAR IN ENVIRONMENTAL RESEARCH | 2022 |
| Article | V. Barbakadze, L. Gogilashvili, L. Amiranashvili, M. Merlani, M. Getia, A. Gogolashvili, A. Salgado, B. Chankvetadze. | Biologically active sugar-based poly[3-(3,4-Dihydroxyphenyl)Glyceric Acid] from stems and roots of Paracynoglossum imeretinum (Kusn) M. pop. | BULLETIN OF THE GEORGIAN NATIONAL ACADEMY OF SCIENCES | 2022 |
| Article | Vakhtang Barbakadze , Lali Gogilashvili , Lela Amiranashvili , Maia Merlani* , Shao-Ping Li, Bezhan Chankvetadze | Fractionation of Biologically Active Poly[3-(3,4-Dihydroxyphe-nyl)Glyceric Acid] Preparation from Symphytum asperum, Simultaneous Determination of Molecular Weights and Contents of its Fractions Using HPSEC-MALLS-RID | BULLETIN OF THE GEORGIAN NATIONAL ACADEMY OF SCIENCES | 2021 |
| Article | Vakhtang Barbakadze , Lali Gogilashvili , Lela Amiranashvili , Maia Merlani* , Shao-Ping Li, Bezhan Chankvetadze | Fractionation of Biologically Active Poly[3-(3,4-Dihydroxyphenyl)Glyceric Acid] Preparation from Symphytum asperum Using HPSEC-MALLS-RID and Membrane Ultrafiltration Methods | BULLETIN OF THE GEORGIAN NATIONAL ACADEMY OF SCIENCES | 2021 |
| Article | V. Barbakadze, L. Gogilashvili, L. Amiranashvili, M. Merlani, Sh.P.Li, B. Chankvetadze. M. Churadze, A. Gogolashvili, A. Salgado, B. Chankvetadze | Carbohydrate-Based Biopolymers: Biologically Active Poly[3-(3,4-Dihydroxyphenyl)Glyceric Acid] from Borago officinalis | BULLETIN OF THE GEORGIAN NATIONAL ACADEMY OF SCIENCES | 2021 |
| Article | L. Gogilashvili, L. Amiranashvili, M. Merlani, A. Salgado, B. Chankvetadze, V. Barbakadze | Poly[3-(3,4-Dihydroxyphenyl)Glyceric Acid] from Cynoglossum officinale L. (Boraginaceae) | BULLETIN OF THE GEORGIAN NATIONAL ACADEMY OF SCIENCES | 2020 |
| Article | L. Amiranashvili, N. Nadaraia, M. Merlani, C. Kamoutsis, A. Petrou, A. Geronikaki, P. Pogodin, D. Druzhilovskiy, V. Poroikov, A. Ćirić, J. Glamočlija, M. Soković | Antimicrobial Activity of Nitrogen-Containing 5- α -Androstane Derivatives: In Silico and Experimental Studies. | Antibiotics | 2020 |
| Article | M. Merlani, V. Barbakadze, L. Amiranashvili, L. Gogilashvili, V. Poroikov, A. Petrou, A. Geronikaki, A. Ćirić, J. Glamoclija, M. Soković | New caffeic acid derivatives as antimicrobial agents | Current Topics in Medicinal Chemistry | 2019 |
| Article | Nanuli Sh. Nadaraia, Lela Sh. Amiranashvili, Maia Merlani , Meri L. Kakhabrishvili, Nana N. Barbakadze, Athina Geronikaki, Anthi Petrou, Vladimir Poroikov, Ana Ćirić Jarmila Glamoclija, Marina Soković | Novel antimicrobial agents' discovery among the steroid derivatives | Steroids | 2019 |
| Article | Maia Merlani, Zhiyi Song, Yuting Wang, Yuehui Yuan, Jiyue Luo, Vakhtang Barbakadze, Bezhan Chankvetadze, and Tamaki Nakano | Polymerization of Bulky Oxirane Monomers Leading to Polyethers Exhibiting Intramolecular Charge Transfer Interactions | Macromolecular Chemistry and Physics, | 2019 |
| Monograph | E. Kemertelidze, M. Benidze, A. Skhirtladze, N. Nadaraia, M. Merlani, L. Amiranashvili | Synthesis of steroidal hormonal preparations from the Yucca gloriosa introduced in Georgia and investigation of chemical compositions of plant | Publications of National Academy of Georgia | 2018 |
| Article | Maia Merlani, Vakhtang Barbakadze, Lela Amiranashvili, Lali Gogilashvili | Synthesis of New dihydroxylated derivatives of ferulic and isoferulic acids | Bulletin of the Georgian National Academy of Sciences | 2018 |
| Article | S. Gokadze, L. Gogilashvili, L. Amiranashvili, V. Barbakadze, M. Merlani, A. Bakuridze, A. Salgado, B. Chankvetadze. | Investigation of Water-Soluble High Molecular Preparation of Symphytum grandiflorum DC (Boraginaceae) | Bull. Georg. Natl. Acad. Sci | 2017 |
| Article | M. Merlani, V. Barbakadze, L. Gogilashvili, L. Amiranashvili. | Antioxidant Activity of Caffeic Acid-Derived Polymer from Anchusa italica | Bull. Georg. Natl. Acad. Sci. | 2017 |

| Type | Authors | Publication title | Source title | Year |
|---------|---|---|-------------------------------|------|
| Article | L.Amiranashvili, L. Gogilashvili, S. Gokadze, M. Merlani, V. Barbakadze, B. Chankvetadze. | UHPLC-Q-TOF/MS Characterization of Several Compounds from the Roots and Stems Extracts of <i>Symphytum Asperum</i> | Bull. Georg. Natl. Acad. Sci. | 2016 |
| Article | N.Sh. Nadaraia, L.Sh.Amiranashvili, M.I.Merlani | Structure-activity relationship of epimeric 3,17-substituted 5 α -androstane aminoalcohols | Chem. Nat. Compds | 2016 |
| Article | M. Merlani, Y. Koyama, H. Sato, L. Geng, V. Barbakadze, B. Chankvetadze, T. Nakano | Ring-opening polymerization of a 2,3-disubstituted oxirane leading to a polyether having a carbonyl-aromatic π -stacked structure. | Polym. Chem. | 2015 |
| Article | A.Chikovani, Z.Pachulia, M.Merlani, V.Barbakadze | The Quantum-Chemical Modeling of Synthesis of some Phenylglycidates | Bull. Georg. Natl. Acad. Sci. | 2015 |
| Article | D.Tedesco, E.Fabini, V.Barbakadze, M.Merlani, R.Zanasi, B.Chankvetadze, C.Bertucci | Stopped-Flow Enantioselective HPLC-CD Analysis and TD-DFT Stereochemical Characterization of Methyl Trans-3-(3,4-Dimethoxyphenyl)Glycidate. | Chirality. | 2015 |
| Article | M. I. Merlani, L. Sh. Amiranashvili, E. P. Kemertelidze | Synthesis of several 5 α -D-homosteroid derivatives on basis of tigogenin. | Chem. Nat. Compds | 2014 |
| Article | V. Barbakadze, L. Gogilashvili, L. Amiranashvili, M. Merlani, K. Mulkijanyan. | Novel Biologically Active Phenolic Polymers from Different Species of Genera <i>Symphytum</i> and <i>Anchusa</i> (Boraginaceae) | J. Chem. Eng. Chem. Res | 2014 |
| Article | M. I. Merlani, L. Sh. Amiranashvili, E. P. Kemertelidze | Synthesis of several 5 α -D-homosteroid derivatives on basis of tigogenin | Chem. Nat. Compds | 2014 |
| Article | V.Barbakadze, L.Gogilashvili, L. Amiranashvili, M. Merlani, K. Mulkijanyan, S.Gokadze, Y.Wang, J.Hoang, I.Rustamov | HPLC analysis of poly[3-(3,4-dihydroxyphenyl)glyceric acid] preparations from <i>Symphytum asperum</i> and <i>Anchusa italica</i> (Boraginaceae) using different gel-filtration columns | Bull. Georg. Natl. Acad. Sci. | 2013 |
| Article | V.Barbakadze, L.Gogilashvili, L.Amiranashvili, M.Merlani, K. Mulkijanyan, A.Salgado, B.Chankvetadze. | Novel biologically active dihydroxycinnamate-derived polyether from different species of family Boraginaceae. | Bull. Georg. Natl. Acad. Sci. | 2013 |
| Article | K.Lomsadze, M. Merlani, V.Barbakadze, T. Farkas, B. Chankvetadze. | Enantioseparation of Chiral Epoxides with Polysaccharide-Based Chiral Columns in HPLC. | Chromatographia | 2012 |
| Article | S.Shrotriya, G.Deep, K.Ramasamy, K.Raina, V. Barbakadze, M. Merlani, L. Gogilashvili, L. Amiranashvili, K. Mulkijanyan, K. Papadopoulos, Ch. Agarwal, R. Agarwal. | Poly[3-(3, 4-dihydroxyphenyl) glyceric acid] from <i>Comfrey</i> exerts anti-cancer efficacy against human prostate cancer via targeting androgen receptor, cell cycle arrest and apoptosis. | Carcinogenesis. | 2012 |
| Article | V.Barbakadze, M.Merlani, L.Amiranashvili, L.Gogilashvili, K.Mulkijanyan | Study of Poly[Oxy-1-Carboxy-2-(3,4-Dihydroxyphenyl)Ethylene] From <i>Symphytum asperum</i> , <i>S.caucasicum</i> , <i>S.officinale</i> , <i>Anchusa italica</i> by Circular Dichroism | Bull. Georg. Natl. Acad. Sci | 2012 |
| Article | V.Barbakadze, M.Merlani, L.Gogilashvili, L.Amiranashvili, E. Shaburishvili | Anticomplementary and antioxidative activity of high- molecular fractions from the leaves of <i>Symphytum asperum</i> and <i>S.caucasicum</i> . | Pharmaceutical Chemistry J. | 2011 |
| Article | M.Merlani, V.Barbakadze, L. Amiranashvili, L.Gogilashvili, K.Mulkijanyan. | Synthesis of some caffeic and 2,3-dihydroxy-3-(3,4-dihydroxyphenyl)-propanoic acids amides | Bull. Georg. Natl. Acad. Sci. | 2011 |
| Article | S. Sirakanyan, A. Hovakimyan, A.Noravyan, G.Panosyan, M.Merlani. | New heterocyclic systems on the basis of condensed furo[3,2-d]pyrimidines | Georgia Chemical Journal. | 2011 |
| Article | M.Merlani, V.Barbakadze, L.Amiranashvili, L.Gogilashvili, E.Yannakopoulou, K.Papadopoulos, B.Chankvetadze | Enantioselective synthesis and antioxidant activity of 3-(3,4-dihydroxyphenyl)-glyceric acid - Basic monomeric moiety of a biologically active polyether from <i>Symphytum asperum</i> and <i>S. caucasicum</i> . | Chirality | 2010 |
| Article | V.Barbakadze, L.Gogilashvili, L.Amiranashvili, M.Merlani, K.Mulkijanyan, M.Churadze, A.Salgado, B.Chankvetadze. | Poly[3-(3,4-dihydroxyphenyl)glyceric acid] from <i>Anchusa italica</i> roots | Nat.Prod.Comm | 2010 |
| Article | V.Barbakadze, K.Mulkijanyan, L.Gogilashvili, L.Amiranashvili, M.Merlani, Zh. Novikova, M.Sulakvelidze | Allantoin- and pyrrolizidine alkaloids-free wound healing compositions from <i>Symphytum asperum</i> . | Bull. Georg. Natl. Acad. Sci. | 2009 |
| Article | K.Mulkijanyan, V.Barbakadze, Zh.Novikova, M. Sulakvelidze, L. Gogilashvili, L.Amiranashvili, M. Merlani. | Burn healing compositions from Caucasian species of <i>comfrey</i> (<i>Symphytum L.</i>). | Bull. Georg. Natl. Acad. Sci | 2009 |
| Article | M. I. Merlani, L. Sh. Amiranashvili, E. P. Kemertelidze, K. G. Mulkidzhanyan. | Synthesis and antimicrobial activity of some steroidal derivatives of tigogenin | Chem. Nat. Compds | 2009 |
| Article | M. I. Merlani, L. Sh. Amiranashvili, K. G. Mulkidzhanyan, A. R. Shelar, F. V. Manvi. | Synthesis and antituberculosis activity of certain steroidal derivatives of the 5 α -series. | Chem. Nat. Compds. | 2008 |

| Type | Authors | Publication title | Source title | Year |
|---------|---|--|-----------------------------------|------|
| Article | M. I. Merlani, L. Sh. Amiranashvili, K. G. Mulkidzhanyan, A. R. Shelar | Synthesis and antitumor activity of some 5 α -steroid derivatives | Chem. Nat. Compds | 2008 |
| Article | V.Barbakadze, K. Mulkiyanyan, M.Merlani, L.Gogilashvili, L.Amiranashvili, F.Vidal-Vanaclocha. | Effects of poly[3-(3,4-dihydroxyphenyl)glyceric acid] on the inflammatory response of tumor-activated hepatic sinusoidal endothelium. | Bull. Georg. Natl. Acad. Sci. | 2008 |
| Article | L.Gogilashvili, L.Amiranashvili, V.Barbakadze, M.Merlani, K. Mulkiyanyan, E.Shaburishvili | Obtaining of toxic pyrrolizidine alkaloid-free biologically active high molecular preparations of <i>Symphytum asperum</i> and <i>S.caucasicum</i> | Bull. Georg. Natl. Acad. Sci | 2008 |
| Article | M. I. Merlani, L. Sh. Amiranashvili, N. I. Men'shova and E. P. Kemertelidze | Synthesis of 5 α -androstan-3 β ,17 β -diol from tigogenin | Chem.Nat.Compds | 2007 |
| Article | V.Barbakadze, K.Mulkiyanyan, M.Merlani, L.Gogilashvili, L.Amiranashvili. | Structure of Glucofructan from Bulbs of <i>Galanthus platyphyllus</i> Traub et Moldenke (Amaryllidaceae) | Bull. Georg. Natl. Acad. Sci. | 2007 |
| Article | M.I. Merlani, L.Sh.Amiranashvili, K.G. Mulkidzhanyan, E.P.Kemertelidze | Synthesis and biological activity of certain amino-derivatives of 5 α -steroids | Chemistry of Natural Compounds | 2006 |
| Article | M.Merlani, L.Amiranashvili, E.Kemertelidze, K.Papadopoulos, E.Yannakopoulou | Synthesis of 17 α -amino-5 α -androst-2-ene from epiandrosterone. | Chemistry of Natural Compounds | 2006 |
| Article | Merlani M.I., Amiranashvili L.Sh., Davitishvili M.G., Kemertelidze E.P., Papadopoulos K., Yannakopoulou E | Synthesis of novel steroidal isonicotinylhydrazones and thiosemicarbazones from tigogenin | Chemistry of Natural Compounds | 2006 |
| Article | Merlani M.I., Kemertelidze E.P., Papadopoulos K., and Men'shova N. I. | Some Derivatives of 5 α -Ketosteroid Hydrazones:Synthesis from Tigogenin and Antituberculosis Activity | Russian J. Bioorg. Chem | 2004 |
| Article | Merlani M.I., Davitishvili M.G., Nadaraia N.Sh., Sikharulidze M. I., K. Papadopoulos | Conversion of epiandrosterone into 17 β -amino-5 α -androstane | Chem. Nat. Compds | 2004 |
| Article | Sikharulidze M.I., Merlani M.I., Amiranashvili L.Sh. | Synthesis of 2 α -methyl dihydrotestosterone on the basis of tigogenin | Chem. Nat. Compds | 2001 |
| Article | Merlani M.I., Sladkov V.I., Mens'hova N.I., Kemertelidze E.P., Suvorov N.N | Synthesis of 5 α -ketosteroids derivatives on the basis of tigogenin and their biological activity | Bull. Georgian Acad. Sci. | 1995 |
| Article | Merlani M.I., Sladkov V.I., Men'shova N.I., Philitis.L.N., Kemertelidze E.P, Suvorov N.N. | Synthesis of isonicotinoylhydrazones of 5 α -ketosteroids on the basis of tigogenin | Bull. Georgian Acad. Sci | 1995 |
| Article | Merlani M.I., Sladkov V.I., Parshin V.A., Men'shova N.I., Levina I.I., Suvorov N.N. | Synthesis and pharmacology of 17-amino-5 α -androstane-3-ol derivatives. | Pharmaceutical Chemistry Journal. | 1989 |
| Article | Merlani M.I., Sladkov V.I., Men'shova N.I., Kemertelidze E.P., Suvorov N.N. | 5 α - Androstanolon derivatives synthesis on the basis of tigogenin | Bull. Acad. Scie. Georgian SSR | 1989 |

Scholarships and awards

| Scholarships/awards name | Issuer | Year of Issue |
|--|-----------------------------|---------------|
| Fulbright foundation fellowship | USA | 2017 |
| Matsumae foundation fellowship | Matsumae foundation (Japan) | 2013 |
| NATO Reintegration grant | NATO | 2003 |
| NATO Fellowship | NATO | 2002 |
| Georgian President Fellowship for young scientists | President of Georgia | 1997 |

Participation in scientific events

| Scientific event name | Title of the presentation | Event venue | Year |
|--|--|------------------|------|
| International scientific-practical conference “Georgian Scientific Pharmacy: Past and Present” dedicated to TSMU Pharmacochemistry Institute 90th and Academician Iovel Kutateladze 135th anniversary. | Oligomer analogues of biopolymers from comfrey and other species of the boraginaceae family: synthesis and biological activity. | Tbilisi, georgia | 2022 |
| POLYCHAR 28, world forum on advanced materials | Oligomer analogues of medicinal biopolymers from comfrey and other species of the boraginaceae family. | Erevan, Armenia | 2022 |
| 7th International Caucasian Symposium on Polymers & Advanced Materials | SUGAR-BASED BIOPOLYMERS: POLY(SUGAR ACID ETHERS) –BIOLOGICALLY ACTIVE POLY[3-(3,4-DIHYDROXYPHENYL)GLYCERIC ACID]FROM MEDICINAL PLANTS OF BORAGINACEAE FAMILY | Tbilisi, Georgia | 2021 |

| Scientific event name | Title of the presentation | Event venue | Year |
|---|--|-----------------------------------|------|
| International scientific and practical symposium '100 YEARS OF SUCCESS AND QUALITY', dedicated to the 100th anniversary of pharmaceutical chemistry department of National University of Pharmacy | Carbohydrate-based biopolyethers: Anticancer poly[3-(3,4-dihydroxyphenyl)glyceric acid] from medicinal plants (Boraginaceae) | Kharkiv, Ukraine | 2021 |
| IRCCS the 2nd International Symposium - New future by chemical synthesis and energy materials | Studies on Synthetic Analogues of Comfrey-Based Natural Biopolymer | Kyoto, Japan | 2019 |
| 10-th Eurasian Meeting on Heterocyclic Chemistry (EAMHC-2019) | Synthetic analogues of natural biopolymer from Boraginaceae family | Milano Marittima (Ravenna), Italy | 2019 |
| 10-th Eurasian Meeting on Heterocyclic Chemistry (EAMHC-2019) | Chemical content of different species of Boraginaceae family. | Milano Marittima (Ravenna), Italy | 2019 |
| 10-th Eurasian Meeting on Heterocyclic Chemistry (EAMHC-2019) | N-containing 5 α -steroids as antimicrobials. | Milano Marittima (Ravenna), Italy | 2019 |
| International scientific conference "Green medications by green technologies-for healthy life. | Caffeic acid derivatives: synthesis and antimicrobial activity | Tbilisi, Georgia | 2019 |
| International scientific conference "Green medications by green technologies-for healthy life. | Isolation and analysis of low molecular compounds from Symphytum (Boraginaceae). | Tbilisi, Georgia | 2019 |
| 10-th Eurasian Meeting on Heterocyclic Chemistry (EAMHC-2019) | Synthetic analogues of natural biopolymer from Boraginaceae family | Milano Marittima (Ravenna), Italy | 2019 |
| 6th World Congress on Biopolymers, | New biopolymer from Comfrey: Chemistry and biological activity. | Paris, France | 2017 |
| 6th World Congress on Medicinal Chemistry and Drug Design | 5-alpha Steroidal hydrazones: synthesis and biological activity | Milan, Italy. | 2017 |
| 6th World Congress on Medicinal Chemistry and Drug Design. | Bioactive natural products from Symphytum (Boraginaceae). | Milan, Italy. | 2017 |
| European Chemistry Congress | Synthesis of natural biologically active poly[3-(3,4-dihydroxyphenyl)-glyceric acid analogues | Rome, Italy | 2016 |
| World congress on Pharmacology | Plant biopolymers from Boraginaceae family and their synthetic derivatives: prospective pharmacological agents. | Brisbane, Australia | 2016 |
| 26th International Symposium on Pharmaceutical and Biomedical Analysis. | Synthetic analogues of poly[3-(3,4-dihydroxyphenyl)glyceric acid] isolated from comfrey. | Tbilisi, Georgia, | 2015 |
| 3-rd International Conference on Pharmaceutical Sciences. | Synthesis of some 2,3-dihydroxy-3-(3,4-dihydroxyphenyl)-propionic acid derivatives. | Tbilisi, Georgia, | 2015 |
| The 3-rd International Conference of Organic Chemistry (ICOC-2014). | Synthesis of a monomeric moiety of natural polyether from comfrey and their comparative biological activity | Tbilisi, Georgia | 2014 |
| 8-th Eurasian Meeting on Heterocyclic Chemistry (EAMHC-2014). | Synthesis of some D-homoandrostanes on the basis of tigogenin. | Tbilisi, Georgia, | 2014 |
| 12th International conference-Polymers for Advanced Technologies (PAT) Conference, | Novel phenolic polymer as potential therapeutic agent. | Berlin, Germany | 2013 |
| XXV European Colloquium on Heterocyclic chemistry. | The synthesis of novel D-homosteroids on the basis of steroidal sapogenin-Tigogenin. | Reading, GB | 2012 |
| 1st International Symposium on Secondary Metabolites. Chemical, Biological and Biotechnological Properties. | Wound-healing agent from Symphytum asperum and S.caucasicum | Denizli, Turkey | 2011 |
| 2-nd International Conference on organic chemistry "Advances in Heterocyclic Chemistry" | Synthesis of some caffeic acid derived amides with supposed antioxidant activity. | Tbilisi, Georgia, | 2011 |
| ITP 2011 18th International Symposium on Electro- and Liquid Phase-separation Techniques. | Enantioseparation of chiral epoxides with two centers of chirality on polysaccharide-based chiral columns. | Tbilisi, Georgia | 2011 |
| Twelfth Tetrahedron Symposium Challenges in Organic and Bio-organic Chemistry | Enantioselective synthesis of 3-(3,4-dihydroxyphenyl)-glyceric acid via Sharpless dihydroxylation of caffeic acid – basic monomeric moiety of a biologically active polyether isolated from Symphytum asperum and S. caucasicum. | Sitges, Spain | 2011 |
| Actual problems of the Chemistry of Natural Compounds. | Poly[3-(3,4-dihydroxyphenyl)glyceric acid] from Anchusa italica retz. Roots and antioxidant activity | Tashkent, Uzbekistan | 2010 |
| Oxidants and Antioxidants in Biology. Oxygen Club of California. World Congress. | Enantioselective synthesis and antioxidative activity of 3-(3,4-dihydroxyphenyl)-glyceric acid – basic monomeric moiety of a biologically active polyether from Symphytum asperum and S. caucasicum | Santa Barbara, California, USA | 2010 |

| Scientific event name | Title of the presentation | Event venue | Year |
|--|--|-----------------------------------|------|
| Frontiers in polymer science, International Symposium Celebrating the 50th Anniversary of the Journal Polymer. | Novel anti-cancer polymer poly[3-(3,4-dihydroxyphenyl)glyceric acid] from <i>Symphytum asperum</i> and <i>S. caucasicum</i> | Mainz, Germany | 2009 |
| 4th International Conference on oxidative stress in skin Medicine and Biology | Effects of polymer poly[3-(3,4-dihydroxyphenyl)glyceric acid] on the inflammatory response of tumor-activated hepatic sinusoidal endothelium | Andros, Greece | 2008 |
| Petra International Chemistry conference and TRAMECH-5 | Synthesis of a new 3-(3,4-dihydroxyphenyl)glyceric acid-monomer of Biologically active poly[3-(3,4-dihydroxyphenyl)glyceric acid] from <i>Symphytum Asperum</i> and <i>S. caucasicum</i> (Boraginaceae). | Tafila, Jordan | 2007 |
| 10th Ibn Sina international conference on pure and applied heterocyclic chemistry | Synthesis of D-homoandrostane derivatives on the basis of tigogenin | Luxor, Egypt, | 2007 |
| 4th Eurasian meeting on heterocyclic chemistry | Some 5 α -ketosteroid derivatives: synthesis and antituberculous activity. | Thessaloniki, Greece | 2006 |
| International conference -Advanced Biotechnologies: perspectives of development in Armenia | Wound healing agent from caucasian species of comfrey (<i>Symphytum</i>). | Republic of Armenia, Tsakhkadzor, | 2006 |
| International Conference: New polymer systems for biotechnological and biomedical applications. | A new plant macromolecule to be used in burn wound management. | Yerevan, Armenia | 2005 |
| International conference on Pharmaceutical chemistry. | Synthesis of 2 α -methyl dihydrotestosterone on the basis of tigogenin | Kharkov, Ukraine | 1999 |
| International Congress on Pharmaceutical chemistry. | Synthesis of isonicotinoylhydrazones of some 5 α -ketosteroids | Kharkov, Ukraine, | 1996 |
| International conferences on chemistry | Synthesis and biological activity of some hydrazones of 5 α -ketosteroids. | Tbilisi, Georgia, | 1994 |

Productivity index

| # | Citation index | h-index |
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