Vakhtang Barbakadze

Personal information

Contact Details

Email address: v.barbakadze@tsmu.edu

Full name: Vakhtang Barbakadze

Gender: Male

Country: საქართველო (Georgia)

Date of birth: 28.03.1945

City: Tbilisi

Citizenship: საქართველო (Georgia)

Languages

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

Education

Academic degree

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

Year obtained: 03.12.1999

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 Georgian Academy of Sciences		03.00.04 Doctor of Biological Sciences	1999	
Professional/MD, JD or other equivalent	Iv.Djavakhishvili Tbilisi State University		The English Language	1988	1991
Doctoral/PhD, Ed.D or other equivalent	N.D.Zelinsky Institute of Organic Chemistry Academy of USSR	Russian Federation	02.00.10 - Bioorganic Chemistry and Chemistry of Natural and Physiologically active compounds (candidate of chemical sciences)	1974	1978
Professional/MD, JD or other equivalent	Polytechnical Institute of Georgia		Technology of Fermentative Production	1962	1968

Trainings / Seminars / Training courses

Training / Seminar / The theme of the course	Organization name	Start year	End year
STEP Technology Enterpreneurship Workshop; Certificate	U.S. Civilian Research & Development foundation (CRDF), Shota Rustaveli National Science Foundation, Georgian Research and Development Foundation (GRDF)	2011	
Technology Transfer and Technology Licensing Workshop	Tbilisi; U.S. Embassy Georgia, U.S. Department of Commerce Commercial Law Development Program (CLDP), Georgian Research and Development Foundation (GRDF) and Technical University of Georgia	2010	

Training / Seminar / The theme of the course	Organization name	Start year	End year
Technology Transfer and Technology Licensing: Workshop on Structuring Sponsored Research Agreements between Life Sciences Companies and Georgian Academic Laboratories	Tbilisi; U.S. Embassy Georgia, U.S. Commercial Law Development Program (CLDP), U.S. Civilian Research & Development foundation (CRDF), Georgian Research and Development Foundation (GRDF)	2010	
From idea to Market Workshop: Intellectual Property Protection	Tbilisi; Georgian Research and Development Foundation (GRDF)	2009	
From idea to Market Workshop	Tbilisi; U.S. Civilian Research & Development foundation (CRDF), Georgia National Science Foundation (GNSF), Georgian Research and Development Foundation (GRDF)	2008	

Projects

Completed projects

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. AR/109/8-403/11; Grant agreement N 10/21; 02.04.2012	Research-Scientist	Prof. Aliosha Bakuridze	02.04.2012	02.04.2014	Shota Rustaveli National Science Foundation
Biopolymer from Symphytum asperum and S.caucasicum and its synthetic analogs: prospective wound-healing agents. GNSF/ST08/6-469. Grant agreement 07.04.2009.	Project Director	Vakhtang Barbakadze	07.04.2009	07.04.2011	Shota Rustaveli National Science 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. Grant N GEB2-3344-TB-06; 01.06.2007.	Georgian Principal Investigator	American Principal Investigator Prof.Rajesh Agarwal	01.06.2007	31.12.2008	Georgian Research & Development Foundation (GRDF) – The U.S. Civilian Research and Development Foundation (CRDF), Georgia - U.S Bilateral Grant Program (BGP).
Immunomodulatory properties of plant polymers.	Visiting Research-Scientist	Albert J.J. van den Berg	01.02.2002	01.09.2002	The Netherlands organization for scientific research (NWO). Utrecht University, The Netherlands.
Biomacromolecules of Immunomodulating Medicinal Plants.	Visiting Research Scholar	Prof. Rudi P.Labadie	01.03.1996	31.12.1996	Scholarship of Utrecht University, Utrecht, The Netherlands

Scientific Fields

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: 1.6 Biological sciences

Subject area: 1.6.3 Biochemistry and molecular biology

Employment History

Current place(s) of employment

Workplace	Name of the work department	Position	Main responsibilities	Start Date
LEPL Tbilisi State Medical University I.Kutateladze Institute of Pharmacochemistry	Department of Plant Biopolymers and Chemical Modification of Natural Compounds	Head, Principal Research Scientist	Planning of the short-term and long-term scientific-research work of the department, management of its implementation and performed work report.	01.08.2018

Work experience

Company/Institution	Name of the department	Position	Main responsibilities	Start Date	End Date
LEPL Tbilisi State Medical University I.Kutateladze Institute of Pharmacochemistry	Department of Plant Biopolymers and Chemical Modification of Natural Compounds	Head, Principal Research Scientist Department	Planning of the short-term and long-term scientific-research work of the management of its implementation and performed work report	11.01.2017	01.08.2018
LEPL Tbilis State Medical University I.Kutateladze Institute of Pharmacochemistry	Laboratory of plant Biopolymers	Head, Principal Research Scientist	Planning of the short-term and long-term scientific-research work of the laboratory, management of its implementation and performed work report.	08.09.2014	11.01.2017
NNLE Tbilis State Medical University I.Kutateladze Institute of Pharmacochemistry	Laboratory of plant Biopolymers	Head	Planning of scientific research activities and leadership of their implementation	25.01.2013	31.12.2013
NNLE Tbilis State Medical University I.Kutateladze Institute of Pharmacochemistry	Laboratory of plant Biopolymers	Head	Planning of the short-term and long-term scientific-research work of the department (laboratory), management of its implementation and performed work report.	08.02.2012	25.01.2013
LEPL Tbilis State Medical University I.Kutateladze Institute of Pharmacochemistry	Laboratory of plant Biopolymers	Head	Planning of the short-term and long-term scientific-research work of the department (laboratory), management of its implementation and performed work report.	03.08.2009	08.02.2012
I.Kutateladze Institute of Pharmacochemistry	Laboratory of plant Biopolymers	Head	Planning of the short-term and long-term scientific-research work of the laboratory, management of its implementation and performed work report.	30.08.2006	03.08.2009
I.Kutateladze Institute of Pharmacochemistry Georgian Academy of Sciences	Laboratory of Phytochemistry	Principal Research Scientist	Search and Investigation of biologically active plant biopolymers	28.03.2003	30.08.2006
I.Kutateladze Institute of Pharmacochemistry Georgian of Academy of Sciences	Laboratory of Phytochemistry	Principal Research Scientist	Search and Investigation of biologically active plant Biopolimers	03.04.2000	28.03.2003
I.Kutateladze institute of pharmacochemistry Georgian Academy of Sciences	Laboratory of Phytochemistry	Principal Research Scientist	Search of biologically active biopolymers in medicinal plants of widespread in Georgia	03.04.2000	30.08.2006
I.Kutateladze institute of Pharmacochemistry Georgian Academy of Sciences	Laboratory of Phytochemistry	Senior Research Scientist	Search and Investigation of Biologically active polysaccharides from medicinal plants widespread in Georgia	10.07.1990	01.04.2000
I.Kutatelade Institue of Pharmacochemistry Georgian Academy of sciences	Laboratory of triterpeoid compounds	Research Scientist	Investigation of polysaccharide widespread in Georgia	02.01.1989	10.07.1990
Tbilisi State University	Field Laboratory N7	Senior Research Scientist	Investigation of polysaccharides of medicinal plants widespread in Georgia	24.10.1985	03.01.1988
State Committee of Science and Technology of the Georgian SSR	Industry Division	Chief specialist	Scientific-technical information and feasibility study in Industry	04.10.1984	24.10.1985
Scientific Technical Information and technical-economic research of Scientific-research Institute of Georgia	Industry Department	Senior Research scientist	Scientific-technical information and feasibility study in Industry	16.12.1982	24.09.1984

Company/Institution	Name of the department	Position	Main responsibilities	Start Date	End Date
Institute of Plant Biochemistry Georgian Academy of Sciences	Laboratory of Xenibiochemistry	Senior Research Scientist	Transformation of foreign compounds in plants	01.03.1980	16.12.1982
Institute of plant Biochemistry Georgian Academy of Sciences	Laboratory of Xenibiochemistry	Junior Research Scientist	Transformation of foreign compounds in plants	25.01.1978	01.03.1980
Institute of Plant Biochemistry Georgian Academy of Sciences	Laboratory of phenolic compounds	Junior Research Scientist	Investigation of flavonoids of Georgian flora	08.04.1970	06.05.1974

Scientific Productivity

Patents

Patent name	Issuing organization	Registration number	Year of Issue
SUM OF HIGH-MOLECULAR COMPOUNDS OF COMFREY ROOTS AND ITS USE FOR TREATMENT	NATIONAL INTELLECTUAL PROPERTY CENTER OF GEORGIA "SAKPATENTI"	პატენტი 5391 P გამოგონება	2012

Article / Monograph / Manual

Type	Authors	Publication title	Source title	Year
Article	Maia Merlani, Vakhtang Barbakadze, Lela Amiranashvili, Lali Gogilashvili, Vladimir Poroikov, Anthi Petrou, Athina Geronikaki*, Ana Ciric, Jasmina Glamoclija, Marina Sokovic	New caffeic acid derivatives as antimicrobial agents: design, synthesis, evaluation and docking	Current Topics in Medicinal Chemistry	2019
Article	Maia Merlani, Zhiyi Song, Yuting, Wang, Yuehui Yuan, Jiyue Luo, Vakhtang Barbakadze, Bezhan Chankvetadze, Tamaki Nakano	Polymerization of Bulky of Oxirane Monomers Leading to Polyethers Exhibiting Intramolecular Charge Transfer Interactions	Macromolecular Chemistry and Physics	2019
Article	V.Barbakadze	Caffeic Acid-Derived Bio-Polyether from Medicinal Plants – Prospective Therapeutic Agent (Editorial)	Evolution Poly. Tech. J.	2019
Article	M. Merlani, V. Barbakadze, L.Amiranashvili, L. Gogilashvili	Synthesis of New Dihydroxylated Derivatives of Ferulic and Isoferulic Acids	Bull. Georg. Natl. Acad. Sci.	2018
Article	Gokadze S., Barbakadze V., Mulkijanyan K., Bakuridze A., Bakuridze L.	Formulation and Technology Development of Herbal Phenolic Biopolymer-Containing Films for Burn Treatment	Georgian Med. News.	2017
Article	Gokadze S, Barbakadze V, Mulkijanyan K, Bakuridze L, Bakuridze A.	DEVELOPMENT OF FORMULATION AND TECHNOLOGY FOR THE POLY[3-(3,4-DIHYDROXYPHENYL)GLYCERIC ACID] GEL.	Georgian Med News	2017
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
	Lela Amiranashvili, Lali Gogilashvili, Sopio Gokadze, Maia Merlani, Vakhtang Barbakadze, Bezhan Chankvetadze	UHPLC-Q-TOF/MS Characterization of Several Compounds from the Roots and Stems Extracts of Symphytum Asperum	Bull. Georg. Natl. Acad. Sci.	2016
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. 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	V. Barbakadze, L. Gogilashvili, L. Amiranashvili, M. Merlani, K. Mulkijanyan	Novel Biologically Active Phenolic Polymers from Different Species of Genera Symphytum and Anchusa (Boraginaceae)	J. Chem. Eng. Chem. Res.	2014

Type	Authors	Publication title	Source title	Year
Article	Vakhtang Barbakadze, Lali Gogilashvili, Lela Amiranashvili, Maia Merlani, Karen Mulkijanyan, Antonio Salgado, Bezhan Chankvetadze	Novel Biologically Active Dihydroxycinnamate-Derived Polyether from Different Species of Family Boraginaceae .	Bull. Georg. Natl. Acad. Sci.	2013
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 Symphytum asperum and Anchusa italica (Boraginaceae) Using Different Gel-Filtration Columns .	Bull. Georg. Natl. Acad. Sci.	2013
Article	Gokadze SI, Barbakadze VV, Gogilashvili LM, Amiranashvili LSh, Bakuridze AD.	Development of technology for the substance of poly[3-(3,4-dihydroxyphenyl) glyceric acid] from Symphytum asperum].	Georgian Med News	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	Vakhtang Barbakadze, Maia Merlani, Lela Amiranashvili, Lali Gogilashvili, Karen Mulkijanyan	Study of Poly[Oxy-1-Carboxy-2-(3,4-Dihydroxyphenyl) Ethylene] From Symphytum asperum, S.caucasicum, S.officinale, Anchusa italica by Circular Dichroism	Bull. Georg. Natl. Acad. Sci.	2012
Article	S.Shrotriya, G.Deep, K.Ramasamy, K.Raina, V.Barbakadze, M.Merlani, L. Gogilashvili, L.Amiranashvili, K.Mulkijanyan, K.Papadopoulos, C.Agarwal, R.Agarwal	Poly[3-(3, 4-dihydroxyphenyl) glyceric] acid from comfrey exerts anti-cancer efficacy against human prostate cancer via targeting androgen receptor, cell cycle arrest and apoptosis	Carcinogenesis	2012
Article	V.Barbakadze, K.Mulkijanyan, M.Merlani, L.Gogilashvili, L.Amiranashvili, E. Shaburishvili	Isolation, composition, antioxidative and anticomplementary activity of high-molecular fractions from the leaves of Symphytum asperum and S. caucasicum	Pharm. Chem. J.	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 Symphytum asperum and S. caucasicum	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 Anchusa italica roots	Nat. Prod. Commun.	2010
Article	V. Barbakadze, A. J. J. van den Berg, C. J. Beukelman, J. Kemmink, H. C. Quarles van Ufford	POLY[3-(3,4-DIHYDROXYPHENYL)GLYCERIC ACID] FROM Symphytum officinale ROOTS AND ITS BIOLOGICAL ACTIVITY	Chem. Nat. Compounds	2009
Article	K.Mulkijanyan,V.Barbakadze, Zh.Novikova, M. Sulakvelidze, L. Gogilashvili, L.Amiranashvili, M. Merlani	Burn healing compositions from Caucasian species of comfrey (Symphytum L.)	Bull. Georg. Natl. Acad. Sci.	2009
Article	V.Barbakadze, K.Mulkijanyan, L.Gogilashvili, L.Amiranashvili, M.Merlani, Zh. Novikova, M.Sulakvelidze	Allantoin- and pyrrolizidine alkaloids-free wound healing compositions from Symphytum asperum	Bull. Georg. Natl. Acad. Sci.	2009
Article	Vakhtang Barbakadze, Karen Mulkijanyan, Maia Merlani, Lali Gogilashvili, Lela Amiranashvili, Fernando 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	V.V.Barbakadze, E.P.Kemertelidze, K.G.Mulkijanyan, A.J.J.van den Berg, C.J.Beukelman, E.van den Worm, H.C.Quarles van Ufford, A.I.Usov	Antioxidant and anticomplementary activity of poly[3-(3,4-dihydroxyphenyl)glyceric acid] from Symphytum asperum and S. caucasicum	Pharm. Chem. J.	2007
Article	V. V. Barbakadze, E. P. Kemertelidze, I. Targamadze, K. Mulkijanyan, J. Kemmink, A. J. J. van den Berg, K. J. Beukelman, A. I. Usov	POLY[3-(3,4-DIHYDROXYPHENYL)GLYCERIC ACID] FROM STEMS OF Symphytum asperum AND S. caucasicum	Chem. Nat. Compounds	2005
Article	Vakhtang Barbakadze, Etheri Kemertelidze, Iraida Targamadze, Karen Mulkijanyan, Alexander S. Shashkov, Anatolii I.Usov	Poly[3-(3,4-dihydroxyphenyl)glyceric Acid], A New Biologically Active Polymer from Symphytum Asperum Lepech. and S. Caucasicum Bieb. (Boraginaceae)	Molecules	2005
Article	V. V. Barbakadze, E. P. KemertelidzeI. L. Targamadze, A. S. Shashkov, A. I. Usov	Poly[3-(3,4-dihydroxyphenyl)glyceric acid]: A new biologically active polymer from two comfrey species Symphytum asperum and S. caucasicum (Boraginaceae)	Russ. J. Bioorg. Chem.	2002
Article	C.M.Barthomeuf, E.Debiton, V.V.Barbakadze, E.P.Kemertelidze	Evaluation of the dietetic and therapeutic potential of a high molecular weight hydroxicinnamate-derived polymer from Symphytum asperum Lepech. Regarding its antioxidant, antilipoperoxidant, antiinflammatory, and cytotoxic properties	J. Agric. Food Chem.	2001
Article	V.V.Barbakadze, E.P.Kemertelidze, A.S.Shashkov, A.I.Usov	Structure of a new anticomplementary dihydroxycinnamate – derived polymer from Symphytum asperum (Boraginaceae)	Mendeleev Commun.	2000

Scholarships and awards

Scholarships/awards name	Issuer	Year of Issue
For the participation in the project of Tbilisi City Hall 2011 of "Promotion Science, Inventiveness, Talented and Creative People"	Tbilisi City Hall	2011
State Prize laureate of Georgian Science and Technologies	Committee of State Bonuses of the Georgian Science and Technologies Department at the President of Georgia	2004

Participation in scientific events

Scientific event name	Title of the presentation	Event venue	Year
10-th Eurasian Meeting on Heterocyclic Chemistry (EAMNC-2019)	Synthetic analogues of natural biopolymer from Boraginaceae family	Milano Marittima (Ravenna) - Italy	2019
10-th Eurasian Meeting on Heterocyclic Chemistry (EAMNC-2019)	Chemical content of different species of Boraginaceae family	Milano Marittima (Ravenna) - Italy	2019
IRCCS The 2nd International Symposium New Future by Chemical Synthesis and Energy Materials	Studies on Synthetic Analogues of Comfrey-based, Wound-healing Natural Biopolymer	Kihada Hall, Uji Campus, Kyoto University, Uji, Japan	2019
International Scientific Conference Green Medications by Green Technologies-for Healthy Life	Isolation and analysis of Low Molecular Compounds from Symphytum (Boraginaceae)	2019-Tbilisi, Georgia	2019
International Scientific Conference Green Medications by Green Technologies-for Healthy Life	Caffeic Acid Derivateves Synthesis and Antimicrobial Activity	2019-Tbilisi, Georgia	2019
4th International Congress&Expo on Biotechbology and Genetic Engineering	Caffeic acid-derived biopolymer from medicinal plants, synthesis of its monomer and methylated dervative and their comparative anticancer efficacy	Madrid, Spain	2018
International Conference on Analytical Chemistry	3-Phenylglyceric acid-derived polyether from medicinal plants, its basic monomeric moiety as prospective anticancer agents	Madrid, Spain	2018
2nd International Conference & Expo on Green Chemistry and Engineering	Bioactive polymer of plant origin – prospective therapeutic agent	Barcelona, Spain	2018
4th Edition of International Conference on Polymer Science and Technology	A new class of caffeic acid-derived biopolyether from medicinal plants its synthetic basic monomeric moiety and their anticancer efficacy	London, UK	2018
JOINT EVENT 14th International Conference on Generic Drugs and Biosimilars 9th Global Experts Meeting on Neuropharmacology	Novel biopolymer with anticancer activity	Berlin, Germany	2018
18th Biotechnology Congress	Biopolyether of medicinal plants with anticancer efficacy	New York, USA	2017
6th World Congress on Biopolymers	New biopolymer from Comfrey: Chemistry and biological activity	Paris, France	2017
9th Annual European Pharma Congress	3-arylglyceric acid-derived plant polyether: Prospective therapeutic agent	Madrid, Spain	2017
European Chemistry Congress	Biomacromolecule poly[3-(3,4-dihydroxyphenyl)glyceric acid] with potential therapeutic effect	Rome, Italy	2016
9th Biotechnology Congress Bio-America 2015	Biomacromolecule from Medicinal Plants, its Basic Monomeric Moiety and their Anti-cancer Activity	Orlando, Florida, USA	2015
5th World Congress on Biotechnology	Novel biologically active caffeic acid-derived biopolymer from different species of Boraginaceae family with potential therapeutic effect	Valencia, Spain	2014
European Polymer Federation Congress (EPF2013)	Novel biologically active phenolic polymers from different species of genera Symphytum and Anchusa (Boraginaceae)	Pisa, Italy	2013
XXVIth International Conference on Polyphenols	Novel biologically active dihydroxycinnamate-derived polyether from different species of Boraginaceae family	Florence, Italy	2012
2nd International Conference on Analytical&Bioanalitical Techniques	Anti-cancer efficacy of novel phenolic polymer from Symphytum asperum and S.caucasicum (Boraginaceae) against androgen-dependent and -independent human prostate cancer cells	San-Francisco, USA	2011
2nd International Symposium Frontiers in polymer science	Poly[3-(3,4-dihydroxyphenyl)glyceric acid] from Anchusa italica Retz.	Lyon, France	2011

Productivity index

#	Citation index	h-index
Google scholar	471.00	15.00