

CURRICULUM VITAE

2022-02-14

Name(-s), Surname (-s)	RENATA GUDIUKAITĖ	
Date of birth	1987-03-04	
Languages	German, English, Spanish, Russian	
E-mail	renata.gudiukaite@gf.vu.lt	
Education Background		
Institution	Academic and Science Degree	Year
Vilnius University	PhD Biomedical Sciences (Biology)	2016
Vilnius University	MSc Microbiology	2012
Vilnius University	BSc Biology (Molecular Biology)	2010
Work experience		
Workplace	Position	Period
Vilnius University	Associate Professor Lectures of Microbiology; Lectures of Industrial Biotechnology/Microbiology Lectures and seminars of System Biology Lectures of Microbiology and Biotechnology Lectures of Microorganisms in Industrial Processes Lectures of Microbiology and Microorganisms in Industrial Processes Lectures of Microorganism's World	From 2021 09
Vilnius University	Research Fellow	From 2019 08
Vilnius University	Assistant Professor Laboratory works and lectures of Microbiology; Lectures and seminars of Industrial Biotechnology; Lectures and seminars of System Biology Lectures of Microbiology and Biotechnology Lectures of Microorganisms in Industrial Processes Lectures of Microbiology and Microorganisms in Industrial Processes	2017 09 – 2021 09
Vilnius University	Junior Research Associate	2016 09 -2017 09
National Centre of Physical and Technological Sciences	Research Fellow	2017 03- 2017 04
Vilnius University	Lecturer Laboratory works of Microbiology; Laboratory works of Biotechnology; Lectures of Industrial Microbiology; Lectures of Industrial Biotechnology	2014 09 – 2017 09
Vilnius University	Specialist	2014-2015
Vilnius University	Junior Research Associate	2014-2015
Vilnius University	Specialist	2011-2013
Vilnius University	Specialist	2010
Publications		
Study field	List of publications	Year
	After PhD thesis defense	

Biology, N010	Gudiukaite R , Kumar Nadda A, Gricajeva A, Shanmugam S, Duc Nguyen D, Lam SS. Bioprocesses for the recovery of bioenergy and value-added products from wastewater: A review. <i>J Environ Manage.</i> 2021, 300, 113831. https://doi.org/10.1016/j.jenvman.2021.113831	2021
Biology, N010	Gricajeva A, Kumar Nadda A, Gudiukaite R . Insights into polyester plastic biodegradation by carboxyl ester hydrolases. <i>J Chem Technol Biotechnol.</i> 2021. DOI: 10.1002/JCTB.6745	2021
Biology, N010	Savickaite A, Sadauskas M, Gudiukaite R . Immobilized GDEst-95, GDEst-lip and GD-95RM lipolytic enzymes for continuous flow hydrolysis and transesterification reactions. <i>Int J Biol Macromol.</i> 2021, 173(15), 421-434. https://doi.org/10.1016/j.ijbiomac.2021.01.133	2021
Biology, N010	Savickaite A, Druteika G, Sadauskas M, Malunavicius V, Lastauskiene E, Gudiukaite R . Study of individual domains' functionality in fused lipolytic biocatalysts based on <i>Geobacillus</i> lipases and esterases. <i>Int J Biol Macromol.</i> 2021, 168, 261-271. https://doi.org/10.1016/j.ijbiomac.2020.12.026	2021
Biology, N010	Druteika G, Sadauskas M, Malunavicius V, Lastauskiene E, Statkeviciute R, Savickaite A, Gudiukaite R . New engineered <i>Geobacillus</i> lipase GD-95RM for industry focusing on the cleaner production of fatty esters and household washing product formulations. <i>World Journal of Microbiology and Biotechnology.</i> 2020, 36, 41. DOI: 10.1007/s11274-020-02816-3	2020
Biology, N010	Kumar A, Gudiukaite R , Gricajeva A, Sadauskas M, Malunavicius V, Kamyab H, Sharma S, Sharma T, Pant D. Microbial lipolytic enzymes – promising energy-efficient biocatalysts in bioremediation. <i>Energy.</i> 2020, 192, 116674. https://doi.org/10.1016/j.energy.2019.116674	2020
Biology, N010	Druteika G, Sadauskas M, Malunavicius V, Lastauskiene E, Taujenis L., Gegeckas A, Gudiukaite R . Development of a new <i>Geobacillus</i> lipase variant GDlip43 via directed evolution leading to identification of new activity-regulating amino acids. <i>Int J Biol Macromol.</i> 2020, 151, 1194-1204. https://doi.org/10.1016/j.ijbiomac.2019.10.163	2020
Biology, 01B	Novickij V, Staigvila G, Gudiukaite R , Zinkeviciene A, Girkontaitė I, Paškevičius A, Švedienė J, Markovskaja S, Novickij J, Lastauskiene E. Nanosecond duration pulsed electric field together with formic acid triggers caspase-dependent apoptosis in pathogenic yeasts. <i>Bioelectrochemistry</i> , 2019, 128:148-154.	2019
Biology, 01B	Stumbriene K., Gudiukaite R ., Semaskiene R., Svegzda P., Jonaviciene A., Suproniene S. Screening of new bacterial isolates with antifungal activity and application of selected <i>Bacillus</i> sp. cultures for biocontrol of <i>Fusarium graminearum</i> under field conditions. <i>Crop protection</i> , 2018, 113, 22-28.	2018
Biology, 01B	Malunavicius V., Druteika G., Sadauskas M., Veteikyte A., Matijosyte I., Lastauskiene E., Gegeckas A., Gudiukaite R . Usage of GD-95 and GD-66 lipases as fusion partners leading to improved chimeric enzyme LipGD95-GD66. <i>International Journal of Biological Macromolecules</i> , 2018, 118, 1594-1603.	2018
Biology, 01B	Gegeckas A., Šimkutė A., Gudiukaite R ., Čitavičius D. Characterization and application of keratinolytic peptidases from <i>Bacillus</i> spp. <i>International Journal of Biological Macromolecules</i> , 2018, 113, 1206-1213	2018

Biology, 01B	Gudiukaitė R. , Gricajeva A. Microbial lipolytic fusion enzymes: current state and future perspectives. <i>World J Microbiol Biotechnol</i> , 2017, 33:216, 1-8	2017
Biology, 01B	Gudiukaitė R. , Sadauskas M., Gegeckas A., Malunavicius V., Citavicius D. Construction of a novel lipolytic fusion biocatalyst GDEst-lip for industrial application. <i>J Ind Microbiol Biotechnol</i> , 2017, 44(6), 799-815.	2017
Before PhD thesis defense		
Biology, 01B	Gudiukaitė R. , Gegeckas A., Sadauskas M., Citavicius D. Detection of Asp371, Phe375 and Tyr376 influence on GD-95-10 lipase using alanine scanning mutagenesis. <i>Appl Biochem Biotechnol</i> , 2016, 178(4), 654-69.	2016
Biology, 01B	Gegeckas A., Gudiukaitė R. , Debski J., Citavicius D. Keratinous waste decomposition and peptide production by keratinase from <i>Geobacillus stearothermophilus</i> AD-11. <i>International journal of biological macromolecules</i> , 2015, 75, 158-165.	2015
Biology, 01B	Gegeckas A., Gudiukaitė R. , Citavicius D. Keratinolytic proteinase from <i>Bacillus thuringiensis</i> AD-12. <i>International journal of biological macromolecules</i> , 2014, 69, 46-51.	2014
Biology, 01B	Gudiukaitė R. , Gegeckas A., Kazlauskas D., Citavicius D. Influence of N- and/or C-terminal regions on activity, expression, characteristics and structure of lipase from <i>Geobacillus</i> sp. 95. <i>Extremophiles</i> , 2014, 18, 131-145	2014
Presentations at conferences		
Date	Most important last presentations at conferences (full list includes 51 presentations)	
2020	Malūnavičius V., Gudiukaitė R. Protein engineering of <i>Geobacillus</i> lipolytic enzymes – from enzyme fusions to directed evolution. The COINS International conference of Life sciences 2020, 25 February – 27 February. Vilnius, Lithuania. Oral presentation. Best oral presentation award.	
2020	Savickaitė A., Malūnavičius V., Druteika G., Gudiukaitė R. Physicochemical characterization of immobilized lipolytic GD-95RM, GDEst-95 and GDEst-lip enzymes. The COINS International conference of Life sciences 2020, 25 February – 27 February. Vilnius, Lithuania. Poster presentation. Best Poster Award.	
2020	Malūnavičius V., Savickaitė A., Peleckas R., Gudiukaitė R. Functionality analysis of organic solvents tolerant carboxylesterase from <i>Geobacillus</i> sp. 95. Vita Scientia 2020, 03 January 2020, Vilnius, Lithuania. Poster presentation. Best Poster Award.	
2019	Gudiukaitė R. , Druteika G., Malunavicius V., Lastauskiene E. New lipolytic biocatalysts designed via protein engineering strategies: characterization of GD-95RM and GDEst-lip lipases. 14th International symposium on Biocatalysis and Biotransformations BioTrans 2019, 2019 07 7-11, Groningen, The Netherlands. Poster presentation.	
2019	Malūnavičius V., Maneikis A., Gegeckas A., Lastauskienė E., Gudiukaitė R. Analysis into the possible biomineralisation using <i>Staphylococcus</i> sp. H6 and <i>Arthrobacter</i> sp. G7 strains. The COINS International conference of Life sciences 2019, 26 February – 28 February. Vilnius, Lithuania. Poster presentation. 1 st place in poster presentation session of The COINS 2019.	

2018	Gudiukaite R. , Malunavicius V., Szczesniak A., Sadauskas M., Druteika G., Blekaitis K., Gegeckas A., Lastauskiene E. <i>Geobacillus sp.</i> 95 as a source of enzymes with special characteristics: characterization of thermostable lipases, esterases, ureases and nitrate reductases. 18th European Congress of Biotechnology ECB2018, 1-4 July, 2018, Geneva, Switzerland. R. Gudiukaite et al./ <i>New Biotechnology</i> , https://doi.org/10.1016/j.nbt.2018.05.1161
2017	Gudiukaite R. , Sadauskas M., Malunavicius V., Gegeckas A., Citavicius D. Directed evolution of <i>Geobacillus</i> lipases leading to production of new biocatalyst with improved properties. 13th International symposium on Biocatalysis and Biotransformations BioTrans 2017, 2017 07 9-13, Budapest, Hungary. Poster presentation
Experience in projects	
Period	Project title, position
2021 11 17 – 2022 02 17	“Study of robots efficiency in disinfection process“, Research contract with UAB „R and R Technology“, No. (1.57) 15600-INS-180; responsible researcher
2021 10 13 – 2021 11 13	“Evaluation of microbial cleanliness of parcel machines“, Research contract with UAB “Berta And”, No. (1.57) 15600-INS-152; responsible researcher
2021 09 01 – 2022 03 31	The European Social Fund under the No 09.3.3-LMT-K-712 “Development of Competences of Scientists, other Researchers and Students through Practical Research Activities” measure, Grant No. 09.3.3-LMT-K-712-25-0030, Project “Research of fused biocatalysts containing GDEst-95, GD-95 and Kut-SP domains”, project leader.
2021 06 22 – 2021 07 20	"Survey of microbiological cleanliness of surfaces"; Research contract with UAB Gravitas Partners, no. (1.57) 15600-INS-121; responsible researcher
2021 07 01 - 2021 08 31	The European Social Fund under the No 09.3.3-LMT-K-712 “Development of Competences of Scientists, other Researchers and Students through Practical Research Activities” measure, Grant No. 09.3.3.-LMT-K-712-24-0002, Project “Activity analysis of recombinant bacterial cutinases and application for polyesters degradation”, project leader.
2021 03 22 – 2021 04 12	“Assessment of bacteriocidal effects“; Research contract with UAB BOD GROUP, Nr. (1.57) 15600-INS-44; responsible researcher
2020 11 03 – 2021 04 30	The European Social Fund under the No 09.3.3-LMT-K-712 “Development of Competences of Scientists, other Researchers and Students through Practical Research Activities” measure, Grant No. 09.3.3-LMT-K-712-22-0074, Project “Functionality research of microbial cutinases”, project leader.
2020 05 12-present	The European Social Fund under Investment Operational Program for 2014–2020 “Promotion of Competence Centers and Innovation and Technology Transfer Centers”, Priority 1 “Promotion of Research, Experimental Development and Innovation” project “New Generation Industrial Enzyme Engineering Center”, Grant No. 01.2.2-CPVA-K-703-03-0023, research fellow.
2019 10 11 – 2020 04 30	The European Social Fund under the No 09.3.3-LMT-K-712 “Development of Competences of Scientists, other Researchers and Students through Practical Research Activities” measure, Grant No. 09.3.3-LMT-K-712-16-0020, Project “The Development of a continuous system based on thermostable lipolytic enzymes for the synthesis and / or hydrolysis of fatty acid esters”, project leader.
2019 07 01 – 2020 06 31	By Science Promotion Fund of Vilnius University funded project “Design of new for industrial application attractive biocatalysts and more effective protein engineering methods development”. Grant No. MSF-JM-1, project leader/ research fellow.

2019 07 01 – 2019 08 31	Project: The European Social Fund under the No 09.3.3-LMT-K-712 “Development of Competences of Scientists, other Researchers and Students through Practical Research Activities” measure, Grant No. 09.3.3.-LMT-K-712-15-0028, Project “The research of activity and stability of bifunctional biocatalyst, fused through different peptidic linkers”, project leader.
2018 10 01 – 2019 04 30	Project: The European Social Fund under the No 09.3.3-LMT-K-712 “Development of Competences of Scientists, other Researchers and Students through Practical Research Activities” measure, Grant No. 09.3.3.-LMT-K-712-10-0028, Project “The research of fused lipolytic enzymes: structural and functional analysis”, project leader.
2018 07 01 – 2018 08 31	Project: The European Social Fund under the No 09.3.3-LMT-K-712 “Development of Competences of Scientists, other Researchers and Students through Practical Research Activities” measure, Grant No. 09.3.3.-LMT-K-712-09-0005, Project “The research of characteristics important for industrial application of new active and thermostable lipolytic biocatalyst GD-95RM”, project leader.
2017 10 01 - 2018 05 01	The European Social Fund under the No 09.3.3-LMT-K-712 “Development of Competences of Scientists, other Researchers and Students through Practical Research Activities” measure, Grant No. 09.3.3.-LMT-K-712-03-0002, Project “The research of ureases produced by <i>Geobacillus</i> bacteria”, project leader.
2014-2015	High-level international research promotion, no. VPI-3.1-MES-10-V, “BIOKONVERSA” Selection and development of the biocatalysts for biogas production and utilization of biomass conversion process control”. Junior research associate.
2014-2015	National science programme “Healthy and safe food” project: “Chemotype composition, pathogenicity & control of trichothecene producing <i>Fusarium spp.</i> in cereals”. No. SVE-14023. Specialist.
2011-2013	Program “Development of industrial biotechnology in Lithuania 2011-2013”, project “Innovative tools for cosmetic industry (COSMETIZYM)”, Grant No. MITA 31V-18. Specialist.
Experience as supervisor or consultant of bachelor, master and PhD thesis	
Year	Title of thesis, study program. Full list includes 15 thesis.
2018	Microbial ureases: screening and activity analysis. Vilnius University, supervisor, Master thesis
2019	Analysis of Structure-Function Relationship in <i>Geobacillus</i> Lipases and Design of Lipolytic Enzymes with Improved Characteristics via Different Mutagenesis Strategies. Vilnius University, Supervisor. Bachelor thesis
2019	Gram-positive bacteria application in biomineralisation: studies of recombinant and native systems. Vilnius University, Supervisor. Master thesis
2019	A Study of Antibacterial Compounds Produced by <i>Bacillus</i> and <i>Streptomyces</i> Bacteria. Vilnius University, Supervisor. Bachelor thesis
2020	Application of GD-95RM, GDEst-lip and GDEst-95 Lipolytic Enzymes for Hydrolysis of Lipid Substrates and Transesterification Reaction. Vilnius University, Supervisor. Bachelor thesis
2020	Screening of New Biological Control Agents Against <i>Fusarium sp.</i> Vilnius University, Supervisor. Bachelor thesis
2021	Synthesis Optimization of Recombinant Lipolytic Enzymes. Vilnius University, Supervisor. Bachelor thesis

2021	A Study of Nitrate Reductase Produced by <i>Geobacillus</i> Bacteria. Vilnius University, Supervisor. Master thesis
Present	Supervisor of two master and one bachelor thesis
Present	Supervisor of PhD thesis „Investigation of genotype-phenotype spaces of lipolytic enzymes produced by <i>Geobacillus</i> bacteria via protein engineering strategies”, Biology (N010).
Educational activity	
Industrial biotechnology	Virtual course „Pramoninė biotechnologija” (GMC47367_11864_1); https://emokymai.vu.lt
System biology	Virtual course „Sistemų biologija” (GMC42964_12782_1); https://emokymai.vu.lt
Microbiology and Biotechnology	Virtual course “Mikrobiologija ir biotechnologija” (GMC54594); https://emokymai.vu.lt
Microbiology and Microorganisms in Industrial Processes	Virtual course “Mikrobiologija ir mikroorganizmai pramoniniuose procesuose” (GMC57334; https://emokymai.vu.lt
Microbiology	Virtual course “Mikrobiologija” (GMC703_14298_1_20192); https://emokymai.vu.lt
Society education and Science dissemination activity	
Year	Social activities
From 2013	Membership in Lithuanian Biochemical Society
From 2015	Membership in Microbiologists Society of Lithuania
2016-2021	Lectures and practical works for “School of Young Biochemists”
2016	Membership in Organizing committee of CBM2016 - 3 rd Congress of Baltic Microbiologists
2017	Human practices of project SynORI (iGEM, Vilnius, 2017)
From 2017	Member of the Microbiology and biotechnology bachelor and master study program committees
2017 - 2018	Participation in science promotion activities in TV3 News reports, activities in Health day of VU Life Sciences Center
2018 09 17	Membership in Organizing committee of International Day of Microorganisms 2018
2018 -2021	Contributing to the activity „The student for one day“ in Vilnius University.
2019 - 2020	Participation in the International Study and Career Planning Exhibition “STUDIES 2019”, “STUDIES 2020” by representing Vilnius University https://www.youtube.com/watch?v=rjTH_6SpCQE ; https://www.youtube.com/watch?v=ERJSE6DOOCY
2019 - 2021	Contributed to the international conference The COINS 2019; The COINS 2020; The COINS 2021. Workshop for high school students.
2019 09 17	Membership in Organizing committee of International Day of Microorganisms 2019. Interactive presentations „Amazing world of microorganisms“ and Lecture „Bacteria – infectious agents or bioelement producers?“
2019 09	Interviews in LRT show 10–12. The Spaceship Earth Festival tells the story of how disease-causing bacteria can be useful in creating bioelement. Interview in LRT Plus show "Curiosity Gene", Topic - Microorganism Training or Genetic Modification - a method used in industries that can solve the plastic problem.
2019 09	Workshop for high school students and lecture “Microorganisms in production of organic acids” at BiotechWeek 2019 event.

2021 01 28	Interview: https://naujienos.vu.lt/mikrobiologu-tyrimu-lauke-plika-akimi-nematomi-pasauliai/
2021 04-07	Project: Hygiene of smartphone. https://www.lrt.lt/naujienos/mokslas-ir-it/11/1442197/pirmasis-lietuvoje-ismaniju-higienos-tyrimas-nustebino-ant-telefono-daugiau-bakteriju-nei-ant-viesojo-tualetu-klozeto-dangcio https://www.lrt.lt/mediateka/irasas/2000157898/ismaniju-higienos-tyrimas-pri-verte-susirupinti-ant-telefono-gali-buti-daugiau-bakteriju-nei-ant-viesojo-tualetu-klozeto-dangcio https://www.bite.lt/profai/ismaniju-higienos-tyrimas https://www.lrytas.lt/it/laboratorija/2021/06/30/news/pirmasis-lietuvoje-ismaniju-higienos-tyrimas-nustebino-bakteriju-ant-telefono-daugiau-nei-lifte-19926317/ https://www.youtube.com/watch?v=phBnbV3ZLDk https://www.sirvinta.net/tai-idomu/pirmasis-lietuvoje-ismaniju-higienos-tyrimas-nustebino-ant-telefono-daugiau-bakteriju-nei-lifte-ar-automobilio-dureliu-rankenos/ https://telefonai.eu/telefonai/naujienos/telefonu-higienos-testas-atskleide-stulbinancius-rezultatus-nes-varumu-kiekis-lenkia-net-siuksliu-konteinerius-287526 https://www.delfi.lt/mokslas/mokslas/laboratorijoje-istryre-kokie-parazitai-gyvena-ant-ismaniojo-telefono-vaizdas-baisesnis-nei-ant-siuksliu-konteinerio-ar-klozeto-dangcio.d?id=87596983
2021 09 17	Lecture „The little extrophiles and their daily life“ International Day of Microorganisms 2021. https://www.mokslofestivalis.eu/renginys/2021/mazieji-ekstremalai-ir-ju-kasdienybe/
2021 11 19	Presentation “Microbiology today: from enzyme engineering to bacteria found on the screen of smartphones” at VU Innovation Day 2021. https://www.vu.lt/verslui/inovacijos-ir-moksliniai-tyrimai/inovaciju-klubas https://www.youtube.com/watch?v=e9QPsQtIc5A https://naujienos.vu.lt/vilniaus-universiteto-inovaciju-dienoje-innoday-2021-demesys-verslo-ir-mokslo-bendradarbiavimui/
2021 11 24	“Evaluation of microbial cleanliness of parcel machines” https://www.15min.lt/verslas/naujiena/mokslas-it/mokslininke-istryre-pastomatu-pavirsiaus-perspeja-kad-didzioji-ju-dalis-perpildyta-mikrobais-1290-1601424
2021-2022	Lectures and practical works for “National Student's Academy”
Other academic activities	
From 2021	Chair of the Committee of Bachelor's and Master's Degree Programs in Microbiology (VU, LSC)
Scholarships, other grants, deposit strains in the culture collections (in the last five years)	
Year	Activity

2021	Rector's Award for a young scientist (2021)
2021	The best lecturer of the LSC (2021)
2019	Grant for the participation in BioTrans 2019. Supported by the European Social Fund under No 01.2.2-LMT-K-718/09.3.3-LMT-K-712. Grant No. 09.3.3.-LMT-K-712-13-0003.
2018	Grant for the participation in ECB2018. Supported by the European Social Fund under No 01.2.2-LMT-K-718/09.3.3-LMT-K-712. Grant No. 09.3.3.-LMT-K-712-06-0026
2017	Grant for the participation in BioTrans 2017. Supported by Research Council of Lithuania.
2017	Deposition of bacterial strains to the culture collections: DSM 104629 <i>Geobacillus</i> sp. 95