

CURRICULUM VITAE

Name: **Jonita Stankevičiūtė**

Date of birth: 19.06.1984

Office address: Department of Molecular Microbiology and Biotechnology
Vilnius University Institute of Biochemistry, Life Sciences Center,
Sauletekio av. 7, LT-10257 Vilnius, Lithuania

Phone: +37052234397
+37068202229

E-mail: jonita.stankeviciute@bchi.vu.lt

Education: 2009 – 2013 PhD of Biochemistry, Vilnius University Institute of Biochemistry, Lithuania
Defended PhD thesis "Synthesis of polyhydroxylic compounds by biocatalytic methods".
Scientific supervisor - Dr. Rolandas Meškys.
2007 – 2009 Master of biochemistry, Vilnius University, Lithuania
Defended master thesis "Synthesis of 2-amino-1,3-propanediol and its derivatives through biocatalytical methods".
2003 – 2007 Bachelor of biochemistry, Vilnius University, Lithuania
Defended bachelor thesis "Study of cinnamyl alcohol and *o*-coumaric acid degrading bacteria".

Work experience: 2020–present Senior Research associate, Institute of Biochemistry, LSC, Vilnius University
2015–2020 Research associate, Institute of Biochemistry, LSC, Vilnius University
20.06.2016–26.08.2018 On maternity and parental leave
2013–2015 Junior research associate, Institute of Biochemistry, LSC, Vilnius University
2010–2013 Researcher, Institute of Biochemistry, Vilnius University
2009–2010 Technician, Institute of Biochemistry, Vilnius University

Research experience: Microbiology: isolation, maintenance, and cultivation of microorganisms.
Gene engineering: DNA isolation, purification, gene cloning, mutagenesis, deletional analysis, construction of metagenomic libraries, screening assays for oxidoreductases and monooxygenases.
Biochemistry and biocatalysis: purification of proteins and enzymes, measurement of activity, expression of recombinant proteins in *Escherichia coli*, biodegradation and biocatalytic synthesis of *N*-heterocyclic compounds.
Analytical methods: electrophoretic analysis of DNA and proteins, HPLC-MS of small molecules, UV-Vis and fluorescence spectroscopy.
Bioinformatics: 3D protein modeling, multiple sequence alignment, experience in gene detection.

Academic experience: Scientific supervisor of 2 PhD students. Scientific supervisor of 6 Bachelor and 2 Master Thesis (Students of Vilnius University).
2020–present Scientific consultant at the School of Young Biochemists.
2013–2018 Supervisor of Enzymology course, Institute of Biosciences, LSC, Vilnius University.

Professional associations	<p>A member of Lithuanian Biochemical Society.</p> <p>A member of Lithuanian Microbiological Society.</p> <p>A member of European Federation of Biotechnology.</p>
Participation in projects:	<p>“Deaminase Promiscuity: Characterization of Novel Functionalities” (2022-2025). The research is supported by Research Council of Lithuania (RCL). The leader of the project.</p> <p>“Enzyme Toolkit for the Synthesis of Fucosylated Oligosaccharides” (2020-2023). The project is funded by European Regional Development Fund (ERDF) under Measure „Research projects implemented by world-class researcher groups“. Contact no. 01.2.2-LMT-K-718-03-0045. The leader of the project.</p> <p>“Transaminases for the Synthesis of Chiral Amines” (09.2021–03.2022) granted by RCL. Contact no. 09.3.3.-LMT-K-712-25-0136. The leader of the project.</p> <p>“Transaminases for the Synthesis of Amino Group Containing Monosaccharides” (07.2021–08.2021) granted by RCL. Contact no. 09.3.3.-LMT-K-712-24-0083. The leader of the project.</p> <p>“Center for engineering of the next-generation enzymes” (2020-2023), no. 01.2.2-CPVA-K-703-03-0023 funded by Central Project Management Agency. Primary implementer.</p> <p>“Identification of the Amino Acids Responsible for the Substrate Specificity of Aminotransferases Type IV” (10.2020–04.2021) granted by RCL. Contact no. 09.3.3.-LMT-K-712-22-0229. The leader of the project.</p> <p>“Synthesis of aromatic <i>N</i>-oxides by biocatalytic methods” (2019–2020). The Project was supported by the Science Promotion Fund of Vilnius university. The leader of the project.</p> <p>“Investigation of mutant and hybrid variants of soluble diiron PML monooxygenase” (10.2019–04.2020) granted by RCL. Contact no. 09.3.3.-LMTK-712-16-0085. The leader of the project.</p> <p>“Application of laccases for the production of composite materials” (07.2019–11.2019). Industrial grant. Project leader.</p> <p>“Isolation and study of 7-cyano-7-deazaguanine-degrading bacteria” (07.2019–08.2019). Student summer practice granted by RCL. Contact no. 09.3.3.-LMT-K-712-15-0188. Project leader.</p> <p>“Screening of isolates for antifungal activity” (05.2019–10.2019). The Project is funded by industry. Project leader.</p> <p>“Study of the production of structural composites using urease producing microorganisms” (2018–2019). The Project is funded by industry. Primary implementer.</p> <p>RCL global grant project “Redox chemistry, biochemistry, and cytotoxicity of aromatic nitro compounds and <i>N</i>-oxides: new aspects” (2018–2022). Contact no. 09.3.3-LMT-K-712-01-0058. Primary implementer.</p> <p>“Biocatalytic systems for conversion of non-starch poli- and oligosaccharides” (2018–2020). Contact no. 01.2.2-LMT-K-718. Primary implementer.</p> <p>„Innovative screening and expression platforms to discover and use the functional protein diversity from the sea“ (2016–2019). The project is funded by the measure INMARE, HORIZON 2020. Implementer.</p> <p>“Stereoselective conversion of glycerol by PQQ-dependent alcohol dehydrogenase“ (2015–2016). The Project was supported by Dr. Bronislovas Lubys charity and support foundation. The leader of the project.</p> <p>RCL global grant project “Change or die: reconstructing of oxidoreductases (CHORD)” (2013–2015). Contact no. VP1-3.1-ŠMM-07-K-030-15. Primary implementer.</p>

„Screening of oxidoreductases from metagenomic libraries“(2012–2014). The project was funded by Bayer Material Sciences GmbH. Primary implementer.

“Biotechnology and biopharmacy: fundamental and applied research”. This research was funded by a national grant (2012–2014). Contact no. VP1-3.1-ŠMM-08-K. Implementer.

“Development of the methods for screening and biosynthesis of Baeyer-Villiger monooxygenases“ (2012–2014). The research was supported by RCL. Primary implementer.

“Paradox of the metabolism of ribonucleotides” (2012–2013). The research was supported by RCL. Primary implementer.

“Biodegradation and biocatalytic synthesis of pyridines and pyrazines“ (2011–2012). The research was supported by RCL. Implementer.

Publications

Twenty two articles in scientific journals included in the Clarivate Analytics Web of Science database.

1. Tetianec, Lidija; Bratkovskaja, Irina; Časaitė, Vida; Gurevičienė, Vidutė; Razumienė, Julija; **Stankevičiūtė, Jonita**; Meškys, Rolandas; Dagys, Marius; Laurynėnas, Audrius. Efficient Bi-enzymatic synthesis of aldonic acids // Green chemistry. Cambridge : Royal Society Chemistry. ISSN 1463-9262. eISSN 1463-9270. 2022, vol. 24, no. 12, art. no. 4902, p. [1-7]. DOI: 10.1039/D2GC00823H.
2. Šakinytė I., Butkevičius M., Gurevičienė V., **Stankevičiūtė J.**, Meškys R., Razumienė J. 2021. Reagentless D-tagatose biosensors based on the oriented immobilization of fructose dehydrogenase onto coated gold nanoparticles- or reduced graphene oxide-modified surfaces: application in a prototype bioreactor. *Biosensors-Basel* 11(11): 466. doi: 10.3390/bios11110466
3. Lastauskienė, E., Valskys, V., **Stankevičiūtė, J.**, Kalcienė, V., Gėgžna, V., Kavoliūnas, J., Ružauskas, M. and Armalytė, J., 2021. The Impact of Intensive Fish Farming on Pond Sediment Microbiome and Antibiotic Resistance Gene Composition. *Frontiers in veterinary science*, 8. doi: 10.3389/fvets.2021.673756
4. Voitechovič, E., **Stankevičiūtė, J.**, Vektarienė, A., Vektaris, G., Jančienė, R., Kuisienė, N., Razumienė, J. and Meškys, R., 2021. Bioamperometric Systems with Fructose Dehydrogenase From *Gluconobacter japonicus* for D-Tagatose Monitoring. *Electroanalysis*, 33(6), pp.1393-1397. doi.org/10.1002/elan.202060573
5. Vaitekūnas J., Gasparavičiūtė R., **Stankevičiūtė J.**, Urbelis G., Meškys R. (2020) Biochemical and Genetic Analysis of 4-Hydroxypyridine Catabolism in *Arthrobacter* sp. Strain IN13. *Microorganisms*. 8(6):888. doi: 10.3390/microorganisms8060888.
6. Petkevičius V., Vaitekūnas J., Tauraitė D., **Stankevičiūtė J.**, Vaitkus D., Šarlauskas J., Čėnas N., Meškys R., 2020. Whole-Cell Biocatalysis Using PmlABCDEF Monooxygenase and Its Mutants: A Versatile Toolkit for Selective Synthesis of Aromatic N-Oxides. *Applied Biocatalysis: The Chemist's Enzyme Toolkit*. Book chapter. John Wiley & Sons, 528-534. ISBN: 978-1-119-48701-2.
7. Petkevičius V., Vaitekūnas J., Tauraitė D., **Stankevičiūtė J.**, Šarlauskas J., Čėnas N., Meškys R. (2019) A Biocatalytic Synthesis of Heteroaromatic N-Oxides by Whole Cells of *Escherichia coli* Expressing the Multicomponent, Soluble Di-Iron Monooxygenase (SDIMO) PmlABCDEF. *Adv. Synth. Catal.* **361**: 2456–2465. doi.org/10.1002/adsc.201801491
8. Vaitkutė G., Bratkovskaja I., Časaitė V., **Stankevičiūtė J.**, Meškys R., Tetianec L. Electron transfer mediators for PQQ dependent soluble glucose dehydrogenase catalyzed lactose oxidation reaction. *Chemija* 30(3). doi.org/10.6001/chemija.v30i3.4054
9. Petkevičius V., Vaitekūnas J., **Stankevičiūtė J.**, Gasparavičiūtė R., Meškys R. (2018) Catabolism of 2-hydroxypyridine by *Burkholderia* sp. MAK1: a five-gene cluster encoded 2-hydroxypyridine 5-monooxygenase HpdABCDEcatalyses the first step of

- biodegradation. *Appl Environ Microbiol* 84, pii: e00387-18. doi: 10.1128/AEM.00387-18.
10. Tetianec L., Chaleckaja A., Kulys J., Janciene R., Marcinkeviciene L., Meskiene R., **Stankeviciute J.**, Meskys R. (2017) Characterization of methylated azopyridine as a potential electron transfer mediator for electroenzymatic systems. *Process Biochem*, 54, 41-48. (doi: 10.1016/j.procbio.2017.01.006)
 11. **Stankeviciute J.**; Vaitekunas, J.; Petkevicius, V.; Gasparaviciute, R.; Tauraitė, D.; Meškys, R. (2016) Oxyfunctionalization of pyridine derivatives using whole cells of *Burkholderia* sp. MAK1. *Sci Rep*, 6, 39129. (PMID: 27982075)
 12. Urbonavicius J.; Rutkienė, R.; Lopato, A.; Tauraitė, D.; **Stankeviciute, J.**; Aučynaitė, A.; Kalinienė, L.; Van Tilbeurgh, H.; Meškys, R. (2016) Evolution of tRNA^{Phe}:imG2 methyltransferases involved in the biosynthesis of wyosine derivatives in Archaea. *RNA*, 22, 1871-1883. (PMID: 27852927)
 13. Kutanovas S.; Karvelis, L.; Vaitekunas, J.; **Stankeviciute, J.**; Gasparaviciute, R.; Meškys, R. (2016) Isolation and characterization of novel pyridine dicarboxylic acid-degrading microorganisms. *Chemija*, 27, 74-83. (ISSN 0235-7216)
 14. **Stankeviciute, J.**; Kutanovas, S.; Rutkienė, R.; Tauraitė, D.; Striela, R.; Meškys, R. (2015) Ketoreductase TpdE from *Rhodococcus jostii* TMP1: characterization and application in the synthesis of chiral alcohols. *PeerJ*, 3, e1387. (PMID: 26587349)
 15. Tauraitė, D.; Dabužinskaitė, J.; Ražanas, R.; Urbonavicius, J.; **Stankeviciute, J.**; Serva, S.; Meškys, R. (2015) Synthesis of novel derivatives of 5-carboxyuracil. *Chemija*, 26, 120-125. (ISSN 0235-7216)
 16. Karvelis, L.; Gasparaviciute, R.; Klimavicius, A.; Jančienė, R.; **Stankeviciute, J.**; Meškys, R. (2014) *Pusillimonas* sp. 5HP degrading 5-hydroxypicolinic acid. *Biodegradation*, 25, 11-19. (PMID: 23543363)
 17. Šarlauskas, J.; Misevičienė, L.; Marozienė, A.; Karvelis, L.; **Stankeviciute, J.**; Krikštopaitis, K.; Čėnas, N.; Yantsevich, A.; Laurynėnas, A.; Anusevicius, A. (2014) The Study of NADPH-Dependent Flavoenzyme-Catalyzed Reduction of Benzo[1,2-c]1,2,5-oxadiazole N-Oxides (Benzofuroxans). *Int J Mol Sci*, 15, 23307-23331. (PMID: 25517035)
 18. Marcinkeviciene, L.; Vaitekunas, J.; Bachmatova, I.; **Stankeviciute, J.**; Meškys, R. (2014) Biocatalytic process for synthesis of oxidized xylooligosaccharides from xylan. *Chemija*, 25, 56-61. (ISSN 0235-7216)
 19. **Stankeviciute, J.**; Kurtinaitienė, B.; Stankeviciute, R.; Meškienė, R.; Gasparaviciute, R.; Marcinkeviciene, L.; Laurinavicius, V.; Meškys, R. (2014) Prussian Blue as an alternative to catalase: a bioelectrocatalytic system for production of dihydroxyacetone phosphate. *Chemija*, 25, 115-118. (ISSN 0235-7216)
 20. Kutanovas, S.; **Stankeviciute, J.**; Urbelis, G.; Tauraitė, D.; Rutkienė, R.; Meškys, R. (2013) Identification and characterization of tetramethylpyrazine catabolic pathway in *Rhodococcus jostii* TMP1. *Appl Environ Microbiol*, 79, 3649-3657. (PMID: 23563941)
 21. Kutanovas, S.; Rutkienė, R.; Urbelis, G.; Tauraitė, D.; **Stankeviciute, J.**; Meškys, R. (2013) Bioconversion of methylpyrazines and pyridines using novel pyrazines-degrading microorganisms. *Chemija*, 24, 67-73. (ISSN 0235-7216)
 22. Marcinkeviciene, L.; **Stankeviciute, J.**; Bachmatova, I.; Vidžiūnaitė, R.; Chaleckaja, A.; Meškys, R. (2012) Biocatalytic properties of quinohemoprotein alcohol dehydrogenase IIG from *Pseudomonas putida* HK5. *Chemija*, 23, 223-232 (ISSN 0235-7216)

Patent applications

Laurynėnas, Audrius; Tetianec, Lidija; Bratkovskaja, Irina; Časaitė, Vida; Stankeviciute, Jonita; Meškys, Rolandas; Dagys, Marius. Process for producing aldonic acids. EP22154819.1. 2022-02-02.