

Eglė Malachovskienė

CONTACT INFORMATION

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EDUCATION AND ACADEMIC DEGREE

- 2015 – Present Biomedical Sciences, Ecology and Environmental Research (03B) PhD student (Vilnius University and Nature Research Centre).
Research theme: “Fungal destructive action and its dependence on environmental factors”, Scientific supervisor – dr. D. Bridžiuvienė, Scientific consultant – Prof. dr. J. Ostrauskaitė.
Research interests: environmental ecology and microbiology; the search for microscopic fungi that deteriorate natural and synthetic polymeric materials; the identification of microscopic fungi according to macro- and micromorphology features and molecular identification techniques; the assessment of the impact of environmental factors on biodegradation processes.
- 2011 – 2013 Vilnius University, Medical biology / Master’s degree.
Research theme: “Prevalence of fungi associated with dermatomycosis and search for biological control agents”.
The research was conducted at Nature Research Centre, Laboratory of Biodeterioration Research and Vilnius University hospital Santaros klinikos, Center of Laboratory Medicine.
Research interests: medical microbiology; the determination of species composition of dermatophytes and the assessment of their prevalence in pathological material; the search for biological control agents.
- 2007 – 2011 Vilnius University, Biology / Bachelor’s degree.
Research theme: “ The pyrenomycetes and loculoascomycetes of mixed forest in the Norkaičiai botanical reserve (Šilutė dist.)”. Scientific supervisor – dr. J. Rukšėnienė.
The research was conducted at Vilnius University, Department of Botany and Genetics.
Research interests: mycology; the systematics and biology of pyrenomycetes and loculoascomycetes; the identification of microscopic fungi according to macro- and micromorphology features.

PROFESSIONAL EXPERIENCE

- 2017 02 – present **Biologist**
Nature Research Centre, Laboratory of Biodeterioration Research
- 2013 02 – 2017 01 **Senior Technician**
Nature Research Centre, Laboratory of Biodeterioration Research

RESEARCH INTERESTS

Search for active fungal strains capable of degrading polymeric materials of natural and synthetic origin and their identification by applying morphological and molecular analysis. Studies of bioresistance and biodegradability of polymeric materials in soil. Studies on the effect of environmental factors and the introduction of microscopic fungi on the biodegradability of polymeric materials.

PUBLICATIONS

Scientific articles published in journals (books), indexed in „Clarivate Analytics Web of Science“ database (with citation index):

1. Repečkienė, J., Švedienė, J., Paškevičius, A., Tekorienė, R., Raudonienė, V., **Gudeliūnaitė, E.**, Baltrėnas, P., Misevičius, A. (2015) Succession of microorganisms in a plate-type air treatment biofilter during filtration of various volatile compounds. *Environmental Technology*. 36 (7): 881-889.
2. Raudonienė, V., Bridžiuvienė, D., **Malachovskienė, E.**, Levinskaitė, L. (2019) Biodegradation of Wood Treated with Copper Based Preservative by Two Dematiaceous Fungi: *Alternaria tenuissima* and *Ulocladium Consortiale*. *Materials Science-Medziagotyra*. 25 (3): 309-315.
3. **Malachovskienė, E.**, Bridžiuvienė, D., Ostrauskaitė, J., Vaičekauskaitė, J., Žalūdienė, G. (2022) Degradative impact of *Alternaria multiformis* on novel polymeric biocomposites with the fillers of industrial waste materials under different pH and temperature conditions. *Bioremediation Journal*. <https://doi.org/10.1080/10889868.2022.2086527>
4. **Malachovskienė, E.**, Bridžiuvienė D., Ostrauskaitė J., Vaičekauskaitė J., Žalūdienė G. (2023) A comparative investigation of the biodegradation behaviour of linseed oil-based cross-linked composites filled with industrial waste materials in two different soils. *Journal of renewable materials*. 11 (3): 1255-1269.

Scientific articles published in conference proceedings, indexed in „Clarivate Analytics Web of Science“ database:

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Scientific articles published in journals (books), indexed in „Clarivate Analytics Web of Science“ database (without citation index):

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Other reviewed scientific publications (books, books' chapters, collections of articles, articles, textbooks and etc.):

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Reviewed scientific articles, published in Lithuania:

1. **Gudeliūnaitė, E.**, Paškevičius, A. (2014) Eterinių aliejų poveikis dermatomikozijų sukėlėjams. *Laboratorinė medicina*. 16 (3): 111-115.

PARTICIPATION IN INTERNATIONAL AND NATIONAL SCIENTIFIC PROGRAMMES

AND PROJECTS

- 2013 – 2015 **Specialist**
Project “Selection and creation of the bioaccelerants for biogas generation and their use for the control of biomass conversion processes”, VP1-3.1-ŠMM-10-V-02-018.
- 2013 – 2014 **Senior Technician**
Project “Applied research and technological development of plated biofilter equipped with a capillary media irrigation system”, VP1-3.1-ŠMM-10-V-02-015.

INTERNSHIP AND TRAINING

- 2014 m. Training “Web of Science database and international publishers' requirements for authors”, Lithuania.
- 2014 m. Training “Ecological communication. Popularization of science”, Lithuania.

PARTICIPATION IN SCIENTIFIC CONFERENCES

International scientific conferences:

1. **Gudeliūnaitė E.**, Rukšėnienė J. Preliminary notes on pyrenomycetous fungi of mixed forest in the Norkaičiai Botanical Reserve (Lithuania). XVIII Symposium of the Baltic Mycologists and Lichenologists Nordic Lichen Society Meeting, September 19-23, 2011, Dubingiai, Lithuania.
2. Repečkienė J., Švedienė J., Paškevičius A., Tekorienė R., Raudonienė V., **Gudeliūnaitė E.**, Baltrėnas P., Zagorskis A., Misevičius A. Fungi, yeasts and bacteria in plate-type air treatment biofilter during filtration of volatile compounds. XIX Symposium of the Baltic Mycologists and Lichenologists, September 22-26, 2014, Talsi, Latvia.
3. Švedienė J., Raudonienė V., Repečkienė J., Paškevičius A., Tekorienė R., **Gudeliūnaitė E.**, Baltrėnaitė E. The change of microorganisms quantity in the biofilter with pine biocarbon. XIX Symposium of the Baltic Mycologists and Lichenologists, September 22-26, 2014, Talsi, Latvia.
4. Vicent Claramunt A., Paskevicius A., Svediene J., **Gudeliūnaitė E.**, Kiveryte S., Petrauskaite R., Griskevicius L., Zolumskis A., Naujalis E. Thermal Desorption Methodology for Volatile Organic Compounds (VOCs) Identification: Possible Application in Invasive Fungal Infections. Summer school for Metrology: Metrology for Quality of Life. Italy (2016).
5. **Malachovskienė E.**, Bridžiuvienė D., Kašėtaitė S., Ostrauskaitė J. 2017. „Degradative Impact of Fungi on Newly Synthesized Copolymers of Glycerol Diglycidyl Ether and Different Diols” The Coins’17 – 12th international conference of natural and life sciences, 28 February – 2 March 2017, Vilnius, Lithuania, Poster.
6. Vaičekauskaitė J., Ostrauskaitė J., Kublickas R., Gražulevičienė V., **Malachovskienė E.**, Bridžiuvienė D. 2017. „Biodegradable polymeric composites filled with industrial waste materials for mulching coatings“ International conference Chemistry and Chemical Technology’17, 28 April 2017, Kaunas, Lithuania, Poster
7. **Malachovskienė E.**, Bridžiuvienė D., Ostrauskaitė J., Vaičekauskaitė J., 2018. „Degradative impact of Talaromyces pinophilus on newly synthesized polymeric composites filled with industrial waste materials and its dependence on environmental factors”. „Smart Bio” – 2nd international conference, May 03-05 2018, Kaunas, Lithuania. Poster.

National scientific conferences:

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PARTICIPATION IN THE STUDY PROCESS

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OTHERS

1. National Science festival "Spaceship Earth" 2022. Microorganisms in the human environment (Nr. 87). (2022-09-16)