

# Levonas Manusadžianas

## CONTACT INFORMATION

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<https://www.researchgate.net/profile/Levonas-Manusadzianas>  
<https://scholar.google.com/citations?user=kQ0XQH8AAAAJ&hl=en&oi=ao>

## EDUCATION AND ACADEMIC DEGREE

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- 1979 – 1982 Post-graduation studies at the Department of Biophysics, Faculty of Biology, Moscow State University, PhD (biophysics) from Moscow State University “Ionic and hormonal control of electrogenic activity of the cells of *Nitellopsis obtusa*“ (1985). Supervisor: Dr Lev N. Vorobiev. A degree of the Doctor of Natural Sciences nostrified in 1993.
- 1971 – 1976 Studies at the Faculty of Physics, Vilnius University, Lithuania; Diploma (solid state physics) from Vilnius University (1976)

## PROFESSIONAL EXPERIENCE

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- 2010 – to date Chief Researcher,  
Nature Research Centre, Vilnius
- 2014 – 2020 Head of the Laboratory of Aquatic Ecotoxicology,  
Institute of Botany, Nature Research Centre, Vilnius
- 2007 – 2014 Head of the Laboratory of Hydrobotany,  
Institute of Botany, Nature Research Centre (since 01-01-2010)
- 2008 03-05/  
/2008 09 Invited Scientist/ Visiting Professor at Paule Verlaine University,  
Metz, France
- 2004 04-09 Visiting Professor at Okayama University,  
Kurashiki, Japan
- 2000 – 2007 Head of Aquatic Toxicology Unit,  
Institute of Botany; Vilnius, Lithuania
- 1990 – 2010 Senior Research Scientist,  
Institute of Botany; Vilnius, Lithuania
- 1985 – 1989 Junior Research Scientist,  
Institute of Botany at Lithuanian Academy of Sciences
- 1979; 1983 – 1984 Technician,  
Institute of Botany at Lithuanian Academy of Sciences
- 1976 – 1979 Engineer,  
Institute of Xerography; Vilnius, Lithuania

## RESEARCH INTERESTS

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Plant cell (electro)physiology; responses of charophyte cell, cellular membrane transport and antioxidative stress system to adverse effects of the environment; (nano)ecotoxicology; ecotoxicity assessment, indices and evaluation schemes; environmental risk assessment of hazardous chemicals; rear earth elements; whole effluent assessment (WEA) approach; effluent ecotoxicity control systems in environmental legislation.

## SELECTED PUBLICATIONS

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

1. Vorobiov LN, **Manusadžianas L.** (1983) Bioelectrical reactions of *Nitellopsis obtusa* cells induced by indole-3-acetic acid. *Physiologia Plantarum* 59(4):651–658.  
<https://doi.org/10.1111/j.1399-3054.1983.tb06295.x>
2. **Manusadžianas L.**, Vitkus R., Sakalauskas V. (1995) Wastewater toxicity assessment using electrophysiological response of charophyte *Nitellopsis obtusa*. *Environmental Toxicology and Water Quality*, 10(1):49–56. <https://doi.org/10.1002/tox.2530100108>
3. **Manusadžianas L.**, Vitkus R., Pörtner R., Märkl H. (1999) Phytotoxicities of selected chemicals and industrial effluents to *Nitellopsis obtusa* cells assessed by a rapid electrophysiological charophyte test. – ATLA (*Alternatives to Laboratory Animals*), 27(3):379–386. <https://doi.org/10.1177/026119299902700311>
4. **Manusadžianas L.**, Maksimov G., Darginavičienė J., Jurkonienė S., Sadauskas K., Vitkus R. (2002) Response of charophyte *Nitellopsis obtusa* to heavy metals at the cellular, cell membrane and enzyme levels. *Environmental Toxicology* 17:275–283.  
<https://doi.org/10.1002/tox.10058>
5. **Manusadžianas L.**, Balkelytė L., Sadauskas K., Pöllumaa L., Blinova I., Kahru A. (2003) Ecotoxicological study of Lithuanian and Estonian wastewaters: selection of the biotests, and correspondence between toxicity and chemical-based indices. *Aquatic Toxicology* 63:27–41. [https://doi.org/10.1016/S0166-445X\(02\)00132-7](https://doi.org/10.1016/S0166-445X(02)00132-7)
6. Persoone G., Marsalek B., Blinova I., Törökne A., Zarina D., **Manusadžianas L.**, Nalecz-Jawecki G., Tofan L., Stepanova N., Tothova L., Kolar B. (2003) A practical and user-friendly toxicity classification system with microbiotests for natural waters and wastewaters. *Environmental Toxicology* 18(6):395–402. <https://doi.org/10.1002/tox.10141>
7. Jurkonienė S., Maksimov G., Darginavičienė J., Sadauskas K., Vitkus R., **Manusadžianas L.** (2004) Leachate toxicity assessment by responses of algae *Nitellopsis obtusa* membrane ATPase and cell resting potential, and with Daphtoxkit F™ magna test. *Environmental Toxicology* 19(4):403–408. <https://doi.org/10.1002/tox.20049>
8. Pöllumaa L., Kahru A., **Manusadžianas L.** (2004) Biotest- and chemistry-based hazard assessment of soils, sediments and solid wastes. *Journal of Soils and Sediments* 4(4):267–275. <https://doi.org/10.1065/jss2004.10.115>
9. Vengris T., Binkienė R., Butkienė R., Nivinskienė O., Melvydas V., **Manusadžianas L.** (2004) Microbiological degradation of a spent offset-printing developer. *Journal of Hazardous Materials* 113:181–187. <https://doi.org/10.1016/j.jhazmat.2004.06.024>
10. Steinberg C.E.W., Kamara S., Prokhotskaya V.Y., **Manusadžianas L.**, Karasyova T.A., Timofeyev M.A., Jie Z., Paul A., Meinelt T., Farjalla V.F., Matsuo A.Y.O., Burnison K., Menzel R. (2006) Dissolved humic substances – ecological driving forces from the individual to the ecosystem level? *Freshwater Biology* 51:1189–1210.  
<https://doi.org/10.1111/j.1365-2427.2006.01571.x>

11. Hamdi H., **Manusadžianas L.**, Aoyama I., Jedidi N. (2006) Effects of anthracene, pyrene and benzo[a]pyrene spiking and sewage sludge compost amendment on soil ecotoxicity during a bioremediation process. *Chemosphere* 65(7): 1153–1162.  
<https://doi.org/10.1016/j.chemosphere.2006.03.065>
12. Hamdi H., Benzarti S., **Manusadžianas L.**, Aoyama I., Jedididi N. (2007) Bioaugmentation and biostimulation effects on PAH dissipation and soil ecotoxicity under controlled conditions. *Soil Biology & Biochemistry* 39(8): 1926–1935. <https://doi.org/10.1016/j.soilbio.2007.02.008>
13. Hamdi H., Benzarti S., **Manusadžianas L.**, Aoyama I., Jedidi N. (2007) Solid-phase bioassays and soil microbial activities to evaluate PAH-spiked soil ecotoxicity after a long-term bioremediation process simulating landfarming. *Chemosphere* 70(1): 135–143.  
<https://doi.org/10.1016/j.chemosphere.2007.06.043>
14. **Manusadžianas L.**, Sadauskas K., Vitkus R. (2010) Comparative study of indices used in toxicity evaluation of effluents. *Desalination* 250(1):383–389.  
<https://doi.org/10.1016/j.desal.2009.09.061>
15. **Manusadžianas L.**, Caillet C. Fachetti L., Gylytė B., Grigutytė R., Jurkonienė S., Karitonas R., Sadauskas K., Thomas F., Vitkus R., Férand J.-F. (2012) Toxicity of copper oxide nanoparticle suspensions to aquatic biota. *Environmental Toxicology and Chemistry* 31(1):108–114. <https://doi.org/10.1002/etc.715>
16. Krevš A., Darginavičienė J., Gylytė B., Grigutytė R., Jurkonienė S., Karitonas R., Kučinskienė A., Pakalnis R., Sadauskas K., Vitkus R., **Manusadžianas L.** (2013). Ecotoxicological effects evoked in hydrophytes by leachates of invasive *Acer negundo* and autochthonous *Alnus glutinosa* fallen off leaves during their microbial decomposition. *Environmental Pollution* 173:75–84. <https://doi.org/10.1016/j.envpol.2012.09.016>
17. **Manusadžianas L.**, Darginavičienė J., Gylytė B., Jurkonienė S., Krevš A., Kučinskienė A., Mačkinaitė R., Pakalnis R., Sadauskas K., Sendžikaitė J., Vitkus R. (2014) Ecotoxicity effects triggered in aquatic organisms by invasive *Acer negundo* and native *Alnus glutinosa* leaf leachates obtained in the process of aerobic decomposition. *Science of the Total Environment* 496:35–44. <https://doi.org/10.1016/j.scitotenv.2014.07.005>
18. Krevš A., Kučinskienė A., Mačkinaitė R., **Manusadžianas L.** (2017) Microbial colonization and decomposition of invasive and native leaf litter in the littoral zone of lakes of different trophic state. *Limnologica* 67:54–63. <https://doi.org/10.1016/j.limno.2017.08.002>
19. **Manusadžianas L.**, Gylytė B., Grigutytė R., Karitonas R., Sadauskas K., Vitkus R., Šiliauskas L., Vaičiūnienė J. (2017) Accumulation of copper in the cell compartments of charophyte *Nitellopsis obtusa* after its exposure to copper oxide nanoparticle suspension. *Environmental Science and Pollution Research* 24(36):27653–27661.  
<https://doi.org/10.1007/s11356-016-8023-0>
20. Krevš A., Kučinskienė A., **Manusadžianas L.** (2019) Long-term changes of water physicochemical conditions and benthic microbial processes in a small lake associated with land use in the catchment. *Knowledge & Management of Aquatic Ecosystems*, 420:47. <https://doi.org/10.1051/kmae/2019039>
21. Karitonas R., Jurkonienė S., Sadauskas K., Vaičiūnienė J., **Manusadžianas L.** (2020) Modifying effects of leaf litter extracts from invasive versus native tree species on copper-induced responses in *Lemna minor*. *PeerJ*, 8:e9444. <https://doi.org/10.7717/peerj.9444>
22. **Manusadžianas L.**, Vitkus R., Gylytė B., Cimperman R., Džiugelis M., Karitonas R., Sadauskas K. (2020) Ecotoxicity responses of the macrophyte algae *Nitellopsis obtusa* and freshwater crustacean *Thamnocephalus platyurus* to 12 rare earth elements. *Sustainability*, 12:7130. <https://doi.org/10.3390/su12177130>
23. Khoma V., Gnatyshyna L., Martinyuk V., Mackiv T., Mishchenko L., **Manusadžianas L.**, Stolar O. (2021). Common and particular biochemical responses of *Unio tumidus* to herbicide, pharmaceuticals and their combined exposure with heating. *Ecotoxicology and Environmental Safety* 208:111695. <https://doi.org/10.1016/j.ecoenv.2020.111695>

24. Gylytė B., Jurkonienė S., Cimperman R., Šveikauskas V., **Manusadžianas L.** (2021) Biomarker identification of isolated compartments of the cell wall, cytoplasm and vacuole from the internodal cell of characean *Nitellopsis obtusa*. *PeerJ* 9:e10930. <https://doi.org/10.7717/peerj.10930>
25. Khoma V., Martinyuk V., Gnatyshyna L., Mackiv T.R., Gnatyshyna L., Baranovsky V.S., Gladiuk M., Gylytė B., **Manusadžianas L.**, Stolar O. (2022) Environmental concentrations of Roundup in combination with chlorpromazine or heating causes biochemical disturbances in the bivalve mollusc *Unio tumidus*. *Environmental Science and Pollution Research*, 29(4):14131–14142. <https://doi.org/10.1007/s11356-021-16775-1>
26. Martinyuk V., Khoma, V., Mackiv T., Baranovsky V., Orlova-Hudim K., Gylytė B., Symchak R., Gnatyshyna L., Matciuk O., **Manusadžianas L.**, Stolar O. (2022) Indication of the impact of environmental stress on the responses of the bivalve mollusk *Unio tumidus* to ibuprofen and microplastics based on biomarkers of reductive stress and apoptosis, *Comparative Biochemistry and Physiology, Part C: Toxicology & Pharmacology*, 261 (109425). <https://doi.org/10.1016/j.cbpc.2022.109425>
27. Martinyuk V., Gylytė B., Mackiv T., Khoma V., Tulaidan H., Gnatyshyna L., Orlova-Hudim K., **Manusadžianas L.**, Stolar O. (2022) Stress responses of bivalve mollusc *Unio tumidus* from two areas to ibuprofen, microplastic and their mixture. *Ecotoxicology* 31:1369–1381. <https://doi.org/10.1007/s10646-022-02594-8>

**Straipsniai konferencijų medžiagoje, referuojamoje „Clarivate Analytics Web of Science“ duomenų bazėje**

Steinberg C.E.W., **Manusadžianas L.**, Grigutytė R., Karitonas R., Jurkonienė S., Pflugmacher S. (2004) Membrane depolarization and elevation of ROS-defensive mechanisms due to the impact of dissolved natural organic matter (NOM) in the charophyte *Nitellopsis obtusa*. In Humic Substances and Soil and Water Environment (L. Martin-Neto, D.M.B. Milori, W.T. Lopes da Silva, Eds). Proc., XII Intern. Meeting of IHSS, p.135-137. Embrapa Instrumentação Agropecuária, São Pedro, São Paulo. ISBN 85-86463-12-4.

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

1. Vitkus R., Balkelytė L., Sadauskas K., **Manusadžianas L.** (1998) Use of different Characean species in a rapid electrophysiological testing. *Proceedings of Latvian Academy of Sciences, section B* 52(2):144–149. ISSN 1407-009X
2. Bartusevičienė B., **Manusadžianas L.** (2003) Identification of toxicant classes in the effluent sample and assessment of their toxicity using electrophysiological algal (Charatox) test. *Environmental Research, Engineering and Management* 2(24):20–27.
3. Jurkonienė S., Maksimov G., **Manusadžianas L.**, Darginavičienė J. (2007) Suppression of plasmalemma K<sup>+</sup>, Mg<sup>2+</sup>-ATPase activity as a biomarker of phytotoxicity. *Botanica Lithuanica* 13(2):109–114.
4. Grigutytė R., Nimptsch J., **Manusadžianas L.**, Pflugmacher S. (2009) Response of oxidative stress enzymes in charophyte *Nitellopsis obtusa* exposed to allochthonous leaf extracts from beech *Fagus sylvatica*. *Biologija*, 55(3–4):142–149.
5. Gylytė B., **Manusadžianas L.**, Sadauskas K., Vitkus R., Jurkonienė S., Karitonas R., Petrošius R., Skridlaitė G., Vaičiūnienė J. (2015) Latent cell mortality after short-term exposure of *Nitellopsis obtusa* cells to copper oxide nanoparticles. *Botanica Lithuanica* 21(2):89–98.

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

1. **Manusadžianas L.** Ekotoksikologinė ekspertizė – kas tai? (1990) SOS-Žalioji Lietuva, 2:3.
2. **Manusadžianas L.**, Sadauskas K., Vitkus R. (1995) Ekotoksikologija: vakar, šiandien, rytoj. Mokslas ir gyvenimas, 8–9:45–46.
3. Kennedy S.W., Godzik S., Dmowski K., Handy R., Kiedzierski I., Kramarz P., **Manusadžianas L.**, Murk A. (1999) Report of the working group on the Katowice administrative district, Poland: A review of research done to date, and recommendations for future research. – In Biomarkers: a pragmatic basis for recommendation of severe pollution in Eastern Europe (D.B. Peakall, C.H. Walker and P. Migula, Eds.), NATO Science Series, 54: 191-210. Kluwer Academic Publishers, Dordrecht, Boston, London. ISBN 0-7923-5643-8.
4. **Manusadžianas L.**, Balkelytė L., Sadauskas K., Stoškus L. (2000) Microbiotests for toxicity assessment of various types of water samples. – In New microbiotests for routine toxicity screening and biomonitoring (G. Persoone, C. Janssen, and W. De Coen, Eds.), p. 391-399. Kluwer Academic/Plenum Publishers, New York, Boston, Dordrecht, London, Moscow. ISBN 0-306-46406-3.
5. **Manusadžianas L.** (2004) 11<sup>th</sup> International Symposium on Toxicity Assessment – Guest Editorial. – Environmental Toxicology, 19(4):265–266. J. Wiley & Sons, NY. ISSN: 1520-4081.
6. **Manusadžianas L.**, Sadauskas K., Vitkus R. (2005) Modified isobogram method as appraised to predict mixture toxicity to algal cell. In Proceedings of 12<sup>th</sup> International Symposium on Toxicity Assessment (A. Kungolos, Ed.), p.120. Grafima publishers, Thessaloniki. ISBN 960-99067-6-3.
7. **Manusadžianas L.**, Nekrašaitė G., Pockevičiūtė D., Sadauskas K. (2011) WP3 Innovative approaches to chemical controls of hazardous substances. [http://www.cohiba-project.net/publications/en\\_GB/publications/files/87105800188200474/default/COHIBA-WP3\\_National%20Report%20Lithuania.pdf](http://www.cohiba-project.net/publications/en_GB/publications/files/87105800188200474/default/COHIBA-WP3_National%20Report%20Lithuania.pdf)
8. Krevš A., Kučinskienė A., Gylytė B., Karitonas R., **Manusadžianas L.** (2020) Petraičių tvenkinys: kaip jis atsigauja po gaisro Radviliškyje (2020-07-17). BNS. <https://sc.bns.lt/publish/preview/350453>

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**PARTICIPATION IN INTERNATIONAL AND NATIONAL SCIENTIFIC PROGRAMMES AND PROJECTS**

***Leadership of the projects:***

- 2022 – 2025 “Occurrence and ecotoxicity of veterinary antibiotics as emerging pollutants” (TOXVET), Research Council of Lithuania (grant No S-MIP-22-70, Partner’s project supervisor).
- 2020 – 2021 “Development of bioassay-biomarker battery for the evaluation of pharmaceutical-impacted aqueous environment (PHARMBIOB)”, Lithuanian-Ukrainian Cooperation Programme in the Fields of Research and Technologies (grant No S-LU-20-10, Leader of Lithuanian part).
- 2012 – 2014 “Ecotoxicological impact of the boxelder maple invasion on the waterside ecotones” (ACERTODUE), Research Council of Lithuania (grant No LEK-12/2012).
- 2010 – 2011 “Fallen-off leaves induced oxidative stress changes in hydrophytes due to invasion of *Acer negundo*” (ACERTOX), Research Council of Lithuania (grant No LEK-20/2010).
- 2011 – 2014 “Development of ecotoxicity testing and assessment system for effluent control”, EU Cohesion Promotion Action Programme "Local and Urban Development, Preservation of Cultural Heritage and Nature and Adaptation to Tourism Development" Project, EPA at Environmental Ministry of Lithuania and European Regional Development Funds (grant No 4F11-54).

- 2009 – 2013      “Control of hazardous substances in the Baltic Sea region” (COHIBA), 2007-2013 Baltic Sea Region Programme, HELCOM (Leader of Lithuanian part).
- 2009 – 2010      “Etude des effets ecotoxiques de nanocomposés métalliques sur différentes algues d'eau douce”, Programme of bilateral collaboration between France and Lithuania in the area of scientific research and experimental development (GILBERT), (Leader of Lithuanian part).
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## PARTICIPATION IN SCIENTIFIC CONFERENCES

### *International scientific conferences:*

- .... .
1. **Manusadžianas L.**, R. Grigutytė, R. Karitonas, K. Sadauskas, R. Vitkus. COHIBA – a promising effort towards sustainable ecotoxicological control of wastewater flows into the Baltic Sea. 3<sup>rd</sup> International Conference on Small and Decentralized Water and Wastewater Treatment Plants. Skiathos, Greece, May 14-16, 2010.
  2. **Manusadžianas L.**, R. Grigutytė, R. Karitonas, K. Rubekin, R. Vitkus, K. Sadauskas. Toxicity of copper oxide nanoparticle suspensions to aquatic biota. Nanotechnology Conference, Clemson University. Clemson, USA, August 21-27, 2010.
  3. **Manusadžianas L.** (invited lecture). Bioassay: is still a driving force in ecotoxicological studies? 3<sup>rd</sup> International Conference on Environmental Management, Engineering, Planning and Economics. Skiathos, Greece, June 06-19, 2011.
  4. **Manusadžianas L.**, Karitonas R., Vitkus R., Sadauskas K., Juknys R., Žaltauskaitė J. Implementation of the test-battery approach into routine effluent control in Lithuania. SETAC Europe 24<sup>th</sup> Annual Meeting, Basel, Switzerland, 11-15 May, 2014.
  5. **Manusadžianas L.**, Gylytė B., Jurkonienė S., Sadauskas K., Vitkus R. Remote effects in charophyte cell of *Nitellopsis obtusa* after short-term exposure to CuO nanosuspensions. SETAC Europe 24<sup>th</sup> Annual Meeting, Basel, Switzerland, 11-15 May, 2014.
  6. **Manusadžianas L.**, Darginavičienė J., Jurkonienė S., Sadauskas K., Vitkus R. The use of charophyte cell responses for assessing aquatic toxicity: twenty years of experience. 19<sup>th</sup> Meeting of the Group of European Charophytologists (GEC 19<sup>th</sup>), Vilnius, Lithuania, 11-14 September, 2014.
  7. Gylytė B., Grigutytė R., Jurkonienė S., Sadauskas K., Vaičiūnienė J., Vitkus R., **Manusadžianas L.** The dynamics of Cu accumulation in charophyte cell and its delayed response after short-term exposure to nCuO. 17<sup>th</sup> International Symposium on Toxicity Assessment. Bellingham, WA, USA, August 2-7, 2015.
  8. Gylytė B., Jurkonienė S., Sadauskas K., Vitkus R., **Manusadžianas L.** Cu accumulation in charophyte cell compartments after its exposure to nCuO and CuSO<sub>4</sub>: Reevaluation following improved isolation procedure. Proceedings of the Sixth International Conference on Environmental Management, Engineering, Planning and Economics, Thessaloniki, Greece, June 25-30, 2017, p. 31. ISBN: 978-618-5271-15-2.
  9. **Manusadžianas L.**, Gylytė B., Karitonas R., Sadauskas K., Vitkus R., Vaičiūnienė J. Charophyte cell toxicity response to nCuO and CuSO<sub>4</sub>: Does it depend on ambient calcium? 18<sup>th</sup> International Symposium on Toxicity Assessment. Limeira, Brazil, July 16-21, 2017. Conference Proceedings, vol.2/Suppl.1., p. 13. ISBN: 2359-4721.
  10. **Manusadžianas L.**, Džiugelis M., Garnytė G., Gylytė B., R. Grigutytė R., Jurkonienė S., Šveikauskas V. Responses of charophyte *Nitellopsis obtusa* to lanthanides. 19<sup>th</sup> International Symposium on Toxicity Assessment, Thessaloniki, Greece, August 25-30, 2019. Abstracts, p. 111.
  11. Gylytė B., Baronaitė G., **Manusadžianas L.** Pharmaceutical and lanthanide mixture toxicity effects over three generations of *Ceriodaphnia dubia*. Proceedings of the Ninth International Conference on Environmental Management, Engineering, Planning and Economics, Mykonos Island, Greece, June 5-9, 2022, p. 7. ISBN: 978-628-5494-97-1

12. **Manusadžianas L.**, Gylytė B., Jurkonienė S., Martinyuk V., Stoliar O. Lanthanide and pharmaceutical single and joint toxicity effects on charophyte alga, and *Ceriodaphnia dubia* over three generations. 20<sup>th</sup> International Symposium on Toxicity Assessment, Saskatoon, Canada, August 15-18, 2022.

## PARTICIPATION IN THE STUDY PROCESS

### *Supervision of PhD students:*

Reda Grigutytė, 2005–2009, thesis „*Nitellopsis obtusa* (Desv.) J. Groves cell response to allochthonous stressors of *Fagus sylvatica* L. and *Quercus robur* L.”, defended in 2010.

Brigita Gylytė, 2010–2014, thesis „Biological effects induced by the suspensions of copper oxide nanoparticles in the cells of *Nitellopsis obtusa*“, defended in 2015.

### *Member of Doctoral Committee:*

Birutė Bartusevičienė, 1999–2002, thesis „Assessment of aquatic toxicity using the electro-physiological test with charophyte *Nitellopsis obtusa* (Desv. in Lois)“, defended in 2003.

**Member of dissertation defence council/opponent:** 12 events (biophysics, biology, ecology and environmental sciences).

**Supervision of bachelor and master students:** 15 students from Vilnius University, Vytautas Magnus University etc.

**Teaching activities:** Lecturing (*Biophysics of cell membrane processes*) at Faculty of Physics and Faculty of Natural Sciences, Vilnius University (1994–1997).

## OTHERS

### *Organizing of Scientific Meetings*

- 2003 Chair of Organizing/Scientific Committee of the 11<sup>th</sup> International Symposium on Toxicity Assessment (ISTA 11), Institute of Botany, Vilnius, June 1-6  
 2004 Co-Editor of a Special Edition of *Environmental Toxicology* (Wiley), vol. 19(4).

### *Membership*

- 2001 – to date Scientific Committee of International Symposium on Toxicity Assessment (ISTA);  
 2007 – to date International Scientific Committee of SECOTOX (Society of European Ecotoxicologists)  
 2009 – to date Lithuanian Society of Plant Physiology.  
 2022 – to date Council of PhD programme *Ecology and Environmental Science* (N 012) at Nature Research Centre.

### *Expertise*

- 2013; 2023 Evaluation of National Scientific Programmes (Research Council of Lithuania);  
 2013 – to date Evaluation of the projects in the programmes of the Agency for Science, Innovation and Technology, Lithuania;  
 2012 – to date Expert of the Lithuanian Young Researchers Training Programme;  
 2011 – 2012 Evaluation of the projects in the 7BP ERA-NET „BIODIVERSA“ programme;  
 2010 – to date Expert of the Technical Committee (LST TK 36, Environmental protection) at Lithuanian Standards Board.

### *Reviewing*

Reviewer of more than 60 manuscripts submitted to journals having an impact factor in the Clarivate Analytics Web of Science database.