CURRICULUM VITAE

Luděk Bláha, Prof. RNDr. PhD.

Masaryk University, Faculty of Science, RECETOX

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www.recetox.muni.cz

Year of birth 1972 | Nationality Czech

Education

1996-1999	**PhD – Ecology / Environmental Chemistry** (Faculty of Science, Masaryk University, Brno); dissertation topic: Instrumental analysis and ecotoxicology of cyanobacterial toxins (cyanotoxins)
1991-1996	**Mgr. – Biology: Microbiology** (Faculty of Science, Masaryk University, Brno) – thesis: Toxicity of organic aliphatic hydrocarbons for Vibrio fisheri and development of predictive QSAR model

Employment

Since 1999	**Masaryk University, Faculty of Science** Professor since 2013 (earlier assistant professor; associate professor); Vice-Dean (since 2018) Head of the Environmental Toxicology Program at RECETOX (40 researchers and doctoral students)
2008-2010	**Masaryk Oncology Institute**, Brno - researcher (part-time): methods of analysis and assessment of occupational risks of exposure to cytostatic drugs
2004-2006	**Michigan State University**, East Lansing, MI, USA – postdoc fellowship, researcher: mechanisms of carcinogenicity of organic compounds, development of in vitro models
2000-2010	**Institute of Botany of the Academy of Sciences of the Czech Republic** – researcher (part-time) – aquatic cyanobacterial blooms and their ecotoxicology, levels and effects of cyanotoxins
1999-2002	**Veterinary Research Institute (VRI)** - junior researcher (part-time) - mechanistic in vitro toxicology

Expertise and experience

Science interest	**Biochemical and cellular mechanisms of toxicity -** research of nuclear receptors (AhR , ER, RAR/RXR, etc.), carcinogenesis promotion processes (GJIC), in vitro methods in toxicology **Health risks of** hazardous substances (carcinogens, cytostatics) in the working environment, research on exposure and biomarkers of effects (genotoxic damage, oxidative stress) **Effects of pollutants in the aquatic environment** – toxicity of cyanobacterial blooms and cyanotoxins, endocrine disruption, effects of micropollutants (drugs and pesticides) **Ecotoxicology and recycling of contaminated waters** – biological tests for water quality assessment, innovative technologies for drinking water treatment, wastewater treatment for recycling
Publications and presentations	▪ Publications on Web of Science: 180 (number of citations 5700 excluding self-citations; h-index 42) ▪ Chapters in international monographs: 19; invited lectures at international conferences: 15 ▪ Application outputs – methodologies applied by the State Institute of Health, SZÚ Prague (3x)
Pedagogical activities, supervision	▪ Semestral courses at MU (offered in English): Ecotoxicology, Biomarkers and mechanisms of toxicity, Advances in Environmental Health Sciences. ▪ Regular lectures at universities: Fundamentals of Toxicology (MU), Ecotoxicology (FCH UPCE), Environmental Risk Analysis (FROV JU). ▪ 22 PhD graduates (currently 3 students), 30 bachelor's and master's theses, 7 postdoctoral fellows

Management experience	▪ Development and management of the Environmental Toxicology program (40 researchers) ▪ Coordination roles in international projects – CYANOCOST (vice- chair), HBM4EU (WP leader – 37 partners), H2020 PRORISK (coordinator – 15 partners), HEU PARC (task leader – 25 partners) ▪ Project researcher – international (FP7, H2020, Concert Japan), national (GAČR, AZV, TAČR, etc.) ▪ Coordination of the national program for monitoring of cytostatics - https://www.cytostatika.cz ▪ Organization of international conferences and workshops (approx. 15x) ▪ Management of the doctoral program Environmental Health Sciences (50-60 doctoral students) ▪ Vice-Dean for Research and Doctoral Studies (1000+ employees, 500+ doctoral students) ▪ Implementing PhD reform at MU –advisor to the Vice-Rector since 2023
Scientific grants and projects	**Selected examples – principal investigator of 14 grants (PI), co-investigator of 9 grants (co-PI)** ▪ (PI) H2020 MSCA ITN (15 foreign partners), 2020-2024: New generation ERA (PRORISK) ▪ (co-PI) TAČR (3 projects), 2024-2026: Advanced technologies for wastewater recycling ▪ (co-PI) CONCERT Japan, 2020-2024: Innovative UV-LED for water treatment (InLEDApp) ▪ (PI) AZV, 2018-2022: Cytostatics in the workplace: exposure and risks ▪ (PI) GA ČR, 2015-2017: Liver stem cells and mechanisms of cyanotoxin toxicity ▪ (co-PI) COST, 2012-2016: Risks of Cyanobacterial Blooms in Europe (CYANOCOST)
Application and use of research results	▪ **Social relevance, legislation** (examples) – SZÚ methodologies (drinking water: MC-LR indicator 2005; carcinogens in the workplace 2023); WHO Guide to public health consequences of toxic cyanobacteria (2021); EU OSHA Guidance on Hazardous Medicinal Products (2023). ▪ **Cooperation with industry** – (examples) ASIO Tech, Ltd. (ecotoxicology, water treatment); Polymateria Ltd, UK (biodegradable materials); BioDetection Systems BV, NL (in vitro testing).
Other professional activities	▪ **Work in grant agencies** – GA ČR (2015-2018; 2021-2024- chairman of the P503 and OK5 panels); Estonian Research Council (2023-2024 - chairman of the Earth/Environmental panel), Norwegian Research Council (member of the NORKLIMA panel - 2009; 2011) ▪ **Editor of scientific journals –** Environmental Sciences Europe (Springer Nature, since 2014), Environmental Science and Pollution Research (Springer Nature, since 2022), Chemosphere (Elsevier; 2004-2008); Environmental Toxicology and Chemistry (Wiley; 2003-2005) ▪ **Professional societies and panels: OECD** (AOPs, Toxicogenomics, since 2016), **EMA EU** (Environmental Risk Assessment; 2010-2023); **SETAC** (Society of Environmental Toxicology and Chemistry, certification panel 2010-2022) ; **WHO** (Guidance on cyanotoxins, 2019-2021), ▪ **Councils:** Several positions in the Czech Republic (MU, JU, MENDELU, VETUNI, FCH BUT, VRI)

International cooperation and experience

2022	**EAWAG, ETH,** Zurich, Switzerland – short term sabbatical (2 months)
2004-2006	**Michigan State University** , East Lansing, MI, USA – postdoctoral fellow fellowship (2 years)
1997	**National Water Research Institute,** Burlington, ON, Canada – doctoral internship (3 months)
Short-term internships, joint publications	John P. Giesy (**U of Saskatchewan, Canada**); Brad Upham (**Michigan State U, USA**), Kristin Schirmer (**ETH / EAWAG, Switzerland**), Rita Triebskorn (**U of Tuebingen , Germany**), Karine Audouze and Robert Barouki (**U Paris/INSERM, France**), Juergen Kolb (**INP Greifswald, Germany**), Benedict Morin (**U Bordeaux, France**), Kumiko Oguma (**U Tokyo , Japan**), etc.

Recognition and awards

2020	MUNI Scientist Award (Masaryk University) for long-term outstanding research results
2007	Award of the Academy of Sciences of the Czech Republic for young scientists for excellent results (Aquatic cyanobacteria blooms and cyanotoxins in the Czech Republic)
Other awards	Dean's Award, Faculty of Science, MU (1996), award for supervised students (24x)

Publication activity

Results	Number	Comment
Original works on Web of Science (1999-2024)	180	5700 citations on WoS (excluding self-citations)
Other articles for the professionals	35	-
Chapters in foreign monographs	19	-
Conference presentations – international	55 / 15	Total / Invited lectures
Contributions at conferences national	42 / 20	Total / Invited lectures
Application outputs – certified methodologies	3	Applied by SZÚ (2005; 2x 2023)

Current publications according to WoS - 5 examples (selection from total of 37 articles published 2020-2024)

Negi, CK, D. Gadara, J. Kohoutek, L. Bajard, Z. Spáčil and **L. BLÁHA** (2023). Replacement Flame -Retardant 2-Ethylhexyldiphenyl Phosphate (EHDPP) Disrupts Hepatic Lipidome : Evidence from Human 3D Hepatospheroid Cell Culture . *Environmental Science & Technology.* 57, 2006-2018: https://doi.org/10.1021/acs.est.2c03998

Bajard, L., O. Adamovsky, K. Audouze, K. Baken, R. Barouki - - et al. - - and **L. BLÁHA** (2023). Application of AOPs to assist regulators assessment of chemical risks . *Environmental Research* 217, 114650: https://doi.org/10.1016/j.envres.2022.114650 .

Schneider, M., R. Rataj, **L. BLÁHA** and J.F. Kolb (2023). Experimental review of different plasma technology for the degradation of cylindrospermopsin as model water pollutant . *Chemical Engineering Journal* 451, Part 4: 138984; https://doi.org/10.1016/j.cej.2022.138984

Bláhová, L., J. Kuta, L. Doležalová, Š. Kozáková, T. Hojdarová and **L. BLÁHA** (2021). Levels and risks of antineoplastic drugs in households of oncology patients , hospices and retirement homes . *Environmental Sciences Europe* 33:104: https://doi.org/10.1186/s12302-021-00544-5

Rozmankova , E., M. Pipal , L. Blahova, NN Chandran, B. Morin, P. Gonzales and L. **L. BLÁHA** (2020). Environmentally relevant mixture of S- metolachlor and its two metabolites affects thyroid metabolism in zebrafish embryos . *Aquatic Toxicology* 221: 105444: https://doi.org/10.1016/j.aquatox.2020.105444

Examples of highly cited publications on WoS (three selected publications with a significant contribution)

Loos , R., R. Carvalho , DC António , S. Comero , G. Locoro , S. Tavazzi , B. Paracchini , M. Ghiani , T. Lettieri, **L. BLÁHA,** B. Jarosova - - et al. - - and BM Gawlik (2013). EU- wide monitoring survey on emerging polar organic contaminants in wastewater treatment plant effluents . *Water Research* 47: 6475-6487; http://dx.doi.org/10.1016/j.watres.2013.08.024 .

Babica, P., **L. BLÁHA** and B. Maršálek (2006). Exploring the natural role of microcystins - and review of effects on photoautotrophs organisms . *Journal of Phycology* 42(1): 9-20. https://doi.org/10.1111/j.1529-8817.2006.00176.x

Zounková , R., P. Odráška , L. Doležalová, K. Hilscherová, B. Maršálek and **L. BLÁHA** (2007). Ecotoxicity and genotoxicity assessment of cytostatic pharmaceuticals . *Environmental Toxicology and Chemistry* 26(10): 2208-2214 ; https://doi.org/10.1897/07-137R.1

Examples of other significant results – selected chapters in monographs

Lawton , LA, JS Metcalf, B. Žegura, R. Junek, M. Welker, A. Törökné and **L. BLÁHA** (2021). Laboratory analysis of cyanobacterial toxins and bioassays (Chapter 14; pp 744-800). In: *Toxic Cyanobacteria in Water A Guide to Their Public Health Consequences , Monitoring and Management. Second Edition* (Chorus, I, Welker M; eds .) - CRC Press , Boca Raton (FL), on behalf of the WHO (ebook) https://doi.org/10.1201/9781003081449 .

BLÁHA, L. and I. Holoubek (2013). Emerging Issues in Ecotoxicology : POPs . In: J.-F. Ferard , C. Blaise (eds .), *Encyclopedia of Aquatic Ecotoxicology* , pp . 429-436, SPRINGER. https://doi.org/10.1007/978-94-007-5704-2

Luděk Bláha

In Brno, September 12, 2025