

Curriculum Vitae

Personal information Dusan Palic

Work experience

2012.06.-present. **University Professor and Chair (W3/Lehrstuhlinhaber) of Fish Diseases and Fisheries Biology** (*primo loco*), Faculty of Veterinary Medicine, Ludwig-Maximilians-Universität München, Germany. **Director**, LMU Center of Excellence for Aquatic Animal Veterinary Medicine, Biosecurity and Education; **Executive Director**, International Aquatic Veterinary Biosecurity Consortium

2007.12-2012.05. **Assistant Professor**, Department of Biomedical Sciences, The College of Veterinary Medicine, Iowa State University, Ames, Iowa, U.S.A.

2005.05-2012.05. **Adjunct Assistant Professor and Veterinary Specialist, Aquatic Animal Medicine**. Center for Food Security and Public Health, Departments of Veterinary Microbiology and Preventive Medicine, and Natural Resource Ecology and Management, Iowa State University, Ames, Iowa, U.S.A.

2001.08-2005.05. **Instructor**, Lecturer, Teaching and Research Assistant, Iowa State University, Ames, Iowa, U.S.A.

1997.12-2001.08. **Head of Biology Laboratory**, Petnica Science Center. Petnica, Valjevo, Serbia.

1992.10-1997.12. **Junior Research Associate and Leader of Ichthyology group**, Petnica Science Center. Petnica, Valjevo, Serbia

Education and training

2015.04. EBVS European Veterinary Specialist in Aquatic Animal Health, Dipl. ECAAH.

2005.05. Ph. D. (Doctor of Philosophy, with honors). Iowa State University, Ames, Iowa, U.S.A. Co-major in Immunobiology and Fisheries Biology.

2002.05. MVSc. (Masters of Veterinary Sciences, University of Belgrade, Faculty of Veterinary Medicine, Belgrade, Serbia. Veterinary Microbiology and Preventive Medicine (Immunology focus).

1997.10. D.V.M. (Doctor of Veterinary Medicine). University of Belgrade, Faculty of Veterinary Medicine, Belgrade, Serbia.

Additional information

Publications

Recent (<5 years) peer reviewed publications:

1. **Palić, D.** (2023) Common Clinical Signs of Fish Diseases – Quick Reference Tool for Laboratory Animal Research Veterinarians. *International Journal of Veterinary Research* 2(2) 39-52.
2. **Palić, D.**, and Aksentijević, K. (2022). Autogenous vaccines in aquaculture: tool to combat resistance of bacteria to antibiotics? *Veterinarski Glasnik*, 76(2), 91-102. <https://doi.org/10.2298/VETGL220926016P>
3. Niemcharoen, S., Haetrakul, T., **Palić, D.** and Chansue, N. (2022) Microplastic-Contaminated Feed Interferes with Antioxidant Enzyme and Lysozyme Gene Expression of Pacific White Shrimp (*Litopenaeus vannamei*) Leading to Hepatopancreas Damage and Increased Mortality. *Animals* 2022, 12, 3308. <https://doi.org/10.3390/ani12233308>
4. Thammatorn, W. and **Palić, D.** (2022) Potential Risks of Microplastic Fomites to Aquatic Organisms with Special Emphasis on Polyethylene-Microplastic-Glyphosate Exposure Case in Aquacultured Shrimp. *Applied Sciences* 12: 5135. <https://doi.org/10.3390/app12105135>
5. Wojnarowski K., Cholewińska P., **Palić D.**, Bednarska M., Jarosz M., and Wiśniewska I. (2022) Estrogen Receptors Mediated Negative Effects of Estrogens and Xenoestrogens in Teleost Fishes—Review. *International Journal of Molecular Sciences* 23(5):2605. <https://doi.org/10.3390/ijms23052605>
6. Rahmati-Holasoo H., Ahmadvand S., Marandi A. S. Shokrpour, **Palić D.** and Jahangard A. (2022) Identification and characterization of lymphocystis disease virus (LCDV) from Indian glassy fish (*Parambassis ranga* Hamilton, 1822) in Iran. *Aquaculture International*. <https://doi.org/10.1007/s10499-022-00922-7>
7. Kaya, D., Genc, E., **Palić, D.**, Genc, M. A., Todorović, N., Sevgili, H., Vasiljević, M., Kanyılmaz, M., and Guroy, D. (2021). Effect of dietary modified zeolite (clinoptilolite) on growth performance of gilthead sea bream (*Sparus aurata*) in the recirculating aquaculture system. *Aquaculture Research*, 00, 1– 9. <https://doi.org/10.1111/are.15662>
8. Topić Popović, N., Gajdoš Kljusurić, J., Strunjak-Perović, I., Barišić, J., **Palić, D.**, Beer Ljubić, B., Babić, S. and Rozelindra Čož-Rakovac, R. (2021) Association of wastewater determinants with fish hematological and plasma biochemical responses: Multivariate analysis approach. *Aquaculture Reports* 21, doi:10.1016/j.aqrep.2021.100877
9. Ahmadvand, S., **Palić, D.** and Weidmann M. (2021). Molecular Epidemiology of Novirhabdoviruses Emerging in Iranian Trout Farms. *Viruses* 2021, 13 (3), 448. doi:10.3390/v13030448
10. Sattang, S., Amornlerdpison, D., Tongsir, S., **Palić, D.** and Mengumphan, K. (2021). Effect of freshwater fish oil feed supplementation on the reproductive condition and production parameters of hybrid catfish (*Pangasius larnaudii* x *Pangasianodon hypophthalmus*, Sauvage, 1878) broodstock. *Aquaculture Reports* 20, doi: 10.1016/j.aqrep.2021.100598
11. Hu, M., and **Palić, D.** (2020). Micro- and Nano-Plastics Activation of Oxidative and Inflammatory Adverse Outcome Pathways. *Redox Biology* 2020, doi: 10.1016/j.redox.2020.101620.

12. Šarić, T., Župan, I., Aceto, S., Villari, G., **Palić, D.**, De Vico, G., and Carella F. (2020). Epidemiology of Noble Pen Shell (*Pinna nobilis* L. 1758) Mass Mortality Events in Adriatic Sea is characterized with Rapid Spreading and Acute Disease Progression. *Pathogens* 2020, 9, 776; doi:10.3390/pathogens9100776
13. Hu, M., and **Palić, D.** (2020). Role of MicroRNAs in Regulation of DNA damage in Monocytes Exposed to Polystyrene and TiO₂ nanoparticles. *Toxicology Reports* 7, 743-751. doi: 10.1016/j.toxrep.2020.05.007
14. Zahran, E., Risha, E., Hamed, M., Ibrahim, T. and **Palić, D.** (2020). Dietary Mycotoxicosis Prevention with Modified Zeolite (Clinoptilolite) Feed Additive in Nile tilapia (*Oreochromis niloticus*). *Aquaculture* 515, 734562. doi: 10.1016/j.aquaculture.2019.734562.
15. Hu, M., Jovanović, B. and **Palić, D.** (2019). *In silico* prediction of MicroRNA role in regulation of Zebrafish (*Danio rerio*) responses to nanoparticle exposure. *Toxicology in Vitro* 60, 187-202.

Projects

- **Palić D (Principal Investigator)**, Steinbauer P, and Wedekind H. "Minimizing Antibiotic Resistance in Bavarian Aquaculture with use of Autogenous Vaccines (MABVAC)". "Minimierung des Antibiotika-Einsatzes in der bayerischen Aquakultur durch den Einsatz von autogener Vakzine (MABVAC)". EUR 562,498. Research Program, Bavarian Ministry for Food Agriculture and Forestry (StMELF). 01.11.2020 to 31.10.2024.
- **Palić D (PI)** "Effects of Activated Minazel+ on Fish Health". EUR 67,830. Ongoing Service project.
- **Palić D (PI)**, Exchange program LMU-Chulalongkorn University. EUR 15,000 (total for 5 exchange visits to date). Aquatic Veterinary Medicine and Biosecurity in ASEAN countries. Erasmus+ Staff Mobility Agreement for Training and Teaching KA103 + KA107 2016-2023
- **Selected Completed Research Support:**
 - Scarfe AD (PI), **Palić D (co-PI)**, Miller-Morgan TJ and Wong HK. "Evaluating core (Day-1) knowledge, skills and experience required to practice aquatic veterinary medicine, and determining what educational opportunities exist in veterinary curricular, in the Americas, Europe, Africa and Asia-Pacific." USD 5,000. The Council on International Veterinary Medicine Education, Association of American Veterinary Medical Colleges. 05-2017 to 05-2020.
 - Miller-Morgan TJ (PI), **Palić D (co-PI)**, Scarfe AD and Wong HK. "Evaluation of Essential Knowledge, Skills and Experience Required for Veterinarians Practicing Aquatic Medicine". USD 20,000. Oregon Sea Grant. 08-2017 to 12-2019.
 - **Palić D (PI, German side)**, Preetham EP. Toxicity Mechanisms of Metal-oxide Nanoparticles in Fish. EUR 9,650. DFG Collaboration Initiation Grant PA 2787 3-1. 2018.
 - **Palić D (PI, German side)**, El-Naggar EZ. Toxicity of Chlorpyrifos in Fish. EUR 5,060. DAAD PPP Egypt Projekt-ID 57189816 2015-2017
 - **Palić D (PI)** "Role of Nano-Titanium Dioxide Immunotoxicity in Infectious Disease Pathogenesis". Marie Curie Career Integration Grant Program, EUR 100,000. 09-2013 to 08-2017.
 - **Palić D (PI)** Start-up funds, Ludwig-Maximilian-University Munich (2012-2017).
 - Kimura K (PI), Roth JA, **Palić D (co-PI)**., "Investigation of G-CSF (INAD#: 11-714) Effect on Neutrophil Function in Periparturient Dairy Cows". Elanco Animal Health, (05/2012 to 05/2013), \$133,416.
 - **Palić D (PI)**, Roth JA, Kimura K., "Immunomodulatory screening of yeast compounds produced by KitoZyme (Phase II: rapid in vivo screening of the selected compounds using effects of dietary application on neutrophil function in stressed and non-stressed fish)", 05/2011 to 04/2012, KitoZyme, \$95,448.
 - **Palić D (PI)**, Rowe EW, Kimura K, Roth JA, Noxon J, May E, Madson D., "Effects of VetMune101 on immune response, safety, and welfare of dogs". VetRx Direct and Institute for Physical Research and Technology Company Assistance Program of Iowa State University, 02/2011 to 04/2012, \$106,382.
 - Lamont SJ (PI), **Palić D (co-PI)**, et al. "Support of unique genetic resources of specialized lines of chickens at ISU". Center for Integrated Animal Genomics, 01/2012 to 12/2012, \$6,000.
 - 2011 **Palić D (PI)**, Roth JA, Kimura K., "Immunomodulatory effects of glucan compounds produced by KitoZyme (Phase I: screening of provided compounds in vitro)", 01/2011 to 12/2011, KitoZyme, \$52,383.
 - 2011 **Palić D (PI)**, Roth JA, Kimura K., "Investigation of G-CSF (INAD#: 11-714) Effect on Neutrophil Function in Calves". Elanco Animal Health, (01/2011 to 12/2011), \$50,646.
 - 2009-2010 Kimura K (PI), **Palić D (Co-Principal Investigator)**, Roth JA. "Effects of Green Tea Extract on the Bovine Neutrophils and Potential for Supplement Treatment of Mastitis". Healthy Livestock Initiative Competitive Grants Program, The College of Veterinary Medicine, Iowa State University, \$15,000.
 - 2009-2010 **Palić D (Principal Investigator)**, Rowe EW. "Effects of Nanoparticles on the Interface of the Nervous and Immune System". Iowa Center for Advanced Neurotoxicology, \$15,000.
 - 2007-2010 Lamont SJ (PI), **Palić D (Co-PI)**, Andreasen CB. "Functional Genomics and Cellular Immunity to Salmonella", United States Department of Agriculture, National Research Initiative, Animal Genome 43.0, \$472,346 (Responsible for studies of cellular immunity).
 - 2008-2010 Dvorak G. (PI), **Palić D. (Co-PI)** et al. "Viral Hemorrhagic Septicemia". North Central Region Aquaculture Center, U.S. Department of Agriculture, Cooperative State Research, Education and Extension Service, \$197,960. (Overseeing development of VHS response package and biosecurity presentations).
 - 2009-2010 Lamont SJ (PI), **Palić D. (Co-PI)**. "Support of unique genetic resources of specialized lines of chickens at ISU". Center for Integrated Animal Genomics, \$7,680.
 - 2007-2009 Bickett-Weddle D (PI), **Palić D. (Co-PI)**, Roth JA. "The National Veterinary Accreditation Program: Internet Modules", USDA Animal and Plant Health Inspection Service, \$290,000 (Overseeing development of three aquaculture modules, out of seven modules total).
 - 2007-2008 Beck LS (PI), **Palić D. (Co-PI)**, et al. "Fishing for Cytokines and Immune Molecules to Better Understand Pallid Sturgeon Scaphirhynchus albus Health", Western Area Power Administration, \$28,250 (Responsible for study of immune molecules).
 - 2006-2008 Roth JA (PI), **Palić D. (Co-PI)**, Andreasen CB. "Tulathromycin Loading and Localization in Bovine Neutrophils and Influence on Neutrophil Function", Pfizer Animal Health, \$238,825 (Responsible for developing and writing proposal text /70%/, managing funds /75%/, conducting research /80%).
 - 2006-2007 Beck LS (PI), **Palić D. (Co-PI)**, et al. "Preliminary study of Immunological and Hematological Factors for Assessment of Stress and Iridovirus Impacts on Pallid Sturgeon Health", Western Area Power Administration, \$23,896 (Responsible for study of immunological factors).
 - 2005-2007 Roth JA (PI), Andreasen CB, **Palić D. (Co-PI)**. "Immunomodulatory screening of yeast compounds produced by Diamond V, Diamond V Mills, Inc., Cedar Rapids, IA, and Institute for Physical Research and Technology Company Assistance, The Center for Advanced Technology Development, Iowa State University, \$85,792 (Responsible for developing and writing proposal text /85%/, managing funds /100%/, conducting research /100%/).
 - 2006 **Palić D. (PI)**. "Methodology Transfer and Optimization of Neutrophil Functional Assays for Use in Fish Species Important to Norwegian Aquaculture", American-Scandinavian Foundation, \$4,000.
 - 2006 **Palić D. (PI)**. "Enhancing Collaboration and Transfer of Research Methodology with Norwegian National Veterinary Institute and Norwegian School of Veterinary Science", Council on

International Programs, Iowa State University, \$4,708.

- 2006 **Palić D. (PI)**. "Leukocytes of Coral Reef Fish at the Island of Roatan", Center for Food Security and Public Health, Tuition Reimbursement Grant, Honors Faculty Development Grant, Iowa State University \$2,886.
- 2002-2006 Roth JA (PI), Bruce MW, Clay LP, **Palić D (Co-PI)**. "An Integrated Immunological-GIS Approach for Bio-monitoring of Ecological Impacts of Swine Manure Pollutants in Streams", National Institute for Water Resources research grant program 104b. Project # 2002IA25G. \$135,326

Memberships

- European College of Aquatic Animal Health, Founding Diplomate, Vice President (2014-20), Treasurer (2020-td)
- World Aquatic Veterinary Medical Association, Founding member, President (2012), Treasurer ('07-'10)
- American Veterinary Medical Association (2007-present)
- American Fisheries Society (also Fish Health Section, 2002-present)
- European Association of Fish Pathologists (also German Chapter, 2012-present)
- International Society for Developmental and Comparative Immunology (2004-2011)
- Fish Veterinary Society, U.K. (full member, 2005-2011)
- International Alliance for Biological Standardization (2002-present)
- Iowa Academy of Science (2002-2012)
- Phi Zeta, Gamma Chapter (The Honor Society of Veterinary Medicine, elected member 2004)
- Gamma Sigma Delta, Beta chapter (The Honor Society of Agriculture, elected member 2004)

Other Relevant Information

Service to University, State, Federal, and International Institutions:

- 2023-present Expert member of the World Organization for Animal Health (WOAH) Electronic Expert Group for developing Guidelines for Monitoring Antimicrobial Use in Aquaculture at Field Level.
- 2021-present Expert Member of the Partnership for Animal Health and Welfare Working Group 3 Farm Management
- 2021-present Member of Specific Working Group on Aquaculture, World Veterinary Association Project for the development of essential medicines lists for food-producing animals
- 2021 Co-Organizer, Workshop on Aquatic Animal Health Education, 20th Int. Conf. on Diseases of Fish and Shellfish
- 2021 Co-Moderator, Fish Immunology Session, 7th European Veterinary Immunology Workshop.
- 2021 External Committee Member for Position of Associate Professor in Ichthyopathology, Agricultural University of Athens.
- 2020 Director at large (Europe), World Aquatic Veterinary Medicine Association Executive Board member
- 2020-21 Organizing/Scientific committee member for international conference IABS-EMAV Autogenous Vaccines: Quality of production and movement in a common market. September 2021 Munich, Germany
- 2019-present. Member of Antimicrobial Resistance Work Group (ARE-VET) of the Bavarian Health and Food Safety Authority (LGL)
- 2019 Committee member for W2 Professorship search, LMU Munich Faculty of Veterinary Medicine
- 2018 External Committee Member for Promotion and Tenure, University of Thessaly, Faculty of Veterinary Medicine, Karditsa, Greece.
- 2017-2019 FAO Senior Aquatic Animal Health Expert, FAOSA Riyadh, Kingdom of Saudi Arabia.
- 2015-2019 Member of FishMedPlus Coalition of Federation of Veterinarians of Europe and European Medicine Agency
- 2015 Chair of Communication Working Group of World Veterinary Association (WVA)
- 2014-present Member of Veterinary Biologicals Committee, International Alliance for Biologicals Standardization
- 2014-present Executive Board Member (Vice-President 2014-2020, Treasurer, 2020-present) and Representative to EBVS Board for European College of Aquatic Animal Health (ECAAH)
- 2011-2013 President, President Elect and Past President, World Aquatic Veterinary Medicine Association
- 2011 Co-chair of the Executive board, 2nd International Veterinary Aquaculture Biosecurity Conference and Workshop, August 14-17, 2011, Trondheim, Norway
- 2010-2012 Member of the Immunobiology Interdepartmental Graduate Program Supervisory Committee, Iowa state University, Ames, Iowa
- 2010-2018 Member of John L. Pitts Veterinary Student/Recent Graduate Scholarship Committee
- 2010 Member of search committee for U.S. Department of Agriculture position 24VS-2010-0156
- 2009-2010 Member of the American Fisheries Society Fish Health Section Committee for selection of the best paper in the Journal of Aquatic Animal Health
- 2008/09 Member of the Executive board and Technical organization committee for International Aquaculture Biosecurity Conference, Trondheim, Norway 17-18 August 2009.
- 2007-2010 Treasurer and Member of the World Aquatic Veterinary Medicine Association Executive board
- 2007-present Member of the Center for Food Security and Public Health Supervisory Committee, Iowa State University College of Veterinary Medicine, Ames, Iowa
- 2007-2009 Member of the Water Quality Criteria Review Technical Advisory Committee, Iowa Department of Natural Resources, Des Moines, IA
- 2006-present Expert assistance in Fish Immunology and Ecosystem Health for U.S. Fish and Wildlife Service, Bozeman Fish Technology Center, Bozeman, MT.
- 2006 Session Chair: "Cod diseases". 5th International Symposium on Aquatic Animal Health, September 2-5, San Francisco, CA.
- 2004-2005 Member of search committee for Chair of the Department of Natural Resource Ecology & Management, Iowa State University
- 2004 Member of search committee for faculty position of Fish Environmental Physiologist, Department of Natural Resource Ecology & Management, Iowa State University
- 2004 Member of Working Group on Healthy Fish Habitats: Creating Benchmarks for Success, 134th American Fisheries Society Meeting, Madison, WI.
- 2003 Member of Iowa State University – Immunobiology program seminar series organization committee (Comparative Immunology), Iowa State University