

**Vasileios Bakopoulos, Laboratory of Ichthyology Aquaculture and Aquatic Animal Health,  
Department of Marine Sciences, University of The Aegean.**

## **CURRICULUM VITAE**

### **Current Status**

Professor  
Diseases of Aquatic Organisms & Aquaculture  
Department of Marine Sciences  
School of The Environment  
University of The Aegean  
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### **Education**

- 09/1985-07/1991: B.Sc. Department of Veterinary Medicine, School of Geotechnical Sciences, Aristotelian University of Thessalonica, Greece.
- 09/1991-07/1992: M.Sc. Aquaculture, Institute of Aquaculture, University of Stirling, Scotland, U.K. Thesis title: The effect of temperature on the efficacy of organophosphate treatment of the sea louse, *Lepeophtheirus salmonis*, Kroyer 1838.
- 03/1993-11/1996: PhD Fish Immunology-Diagnostics, Institute of Aquaculture, University of Stirling, Scotland, U.K. Thesis title: Studies on fish Pasteurellosis with particular reference to diagnosis.
- 05/1998-02/2002: Post-Doctoral Studies, Fish Immunology-Vaccinology, Department of Biology, University of Patras, Greece. Research title: Fish Pasteurellosis. Applied Research on Vaccine Development.

### **Professional Experience**

- 10/1992-03/1993: Voluntary work at the Laboratory of Fish Pathology, National Center of Marine Research, Ag. Kosmas, Athens, Greece.
- 03/1993-08/1996: Research Fellow, at Fish Diseases Diagnosis Laboratory, Institute of Aquaculture, University of Stirling, Scotland, UK. Fellowship funded by the Human Capital Training & Mobility program of EU.
- 12/1996-06/1997: Research associate at the Laboratory of Molecular Biology and Biotechnology, Sector of Genetics, Cell Biology and Growth, Department of Biology, University of Patras, Greece.
- 05/1998-02/2002: Principal Investigator at the Laboratory of Molecular Biology and Biotechnology, Sector of Genetics, Cell Biology and Growth, Department of Biology, University of Patras, Greece. Position funded by the FP6 FAIR program of EU.
- 02/2002-12/2004: Head of the Department of Food Inspection Agency, Region of Western Greece, Ministry of Development, The Greek Government.
- 01/2005-06/2009: Inspector of the Department of Food Inspection Agency, Region of Western Greece, Ministry of Development, The Greek Government.
- 06/2009-05/2013: Assistant Professor Aquaculture, term of office position, Department of Marine Sciences, School of The Environment, University of The Aegean.
- 05/2013-08/2015: Assistant Professor Aquaculture, permanent position, Department of Marine Sciences, School of The Environment, University of The Aegean.
- 08/2015-04/2017: Assistant Professor Diseases of Aquatic Organisms and Aquaculture, permanent position, Department of Marine Sciences, School of The Environment, University of The Aegean.

- 04/2016-today: Director of the Ichthyology, Aquaculture and Aquatic Animal Health Laboratory, Department of Marine Sciences, School of The Environment, University of The Aegean.
- 04/2017- 09/2023: Associate Professor Diseases of Aquatic Organisms and Aquaculture, permanent position, Department of Marine Sciences, School of The Environment, University of The Aegean.
- 10/2023-today: Professor Diseases of Aquatic Organisms and Aquaculture, permanent position, Department of Marine Sciences, School of The Environment, University of The Aegean.

## **Teaching**

### Undergraduate Courses

*Department of Marine Sciences, School of The Environment, University of The Aegean*

- 2009-today: Aquaculture  
 2010-today: Fish Diseases  
 2009-2013: Methods of sampling and sample handling (co-teaching)  
 2009-2016: Ichthyology (co-teaching)  
 2009-2013: Marine Pollution (co-teaching)  
 2013: Microbiological qualitative inspection of fish and food (co-teaching)

*Department of Biological applications and Technology, University of Ioannina*

- 2002-2006: Aquaculture  
 2003-2005: Molecular Immunology

*Department of Biology, University of Patras*

- 2002: Molecular Biology I (co-teaching) Lab exercises  
 2001: Cell Biology II (co-teaching) Lab exercises  
 2000: Cell Biology I (co-teaching) Lab exercises

*Institute of Aquaculture, University of Stirling, Scotland*

- 1995: Fish Immunology

### Postgraduate Courses

*Department of Marine Sciences, School of The Environment, University of The Aegean*

- 2009-today: Integrated Coastal Management

*Department of Veterinary Medicine, University of Thessaly*

- 2010-2001, 2016: Specialization on Pathological Problems of Cultivated Aquatic Organisms

*Department of Biological applications and Technology, University of Ioannina*

- 2003-2006: Agrochemistry and Biological Production

*Department of Biology, University of Patras*

- 2000-2002: Aquaculture

## **Supervision**

- Undergraduate Dissertations: >70  
 Postgraduate Dissertations: 5  
 PhD Students: 5

## **Invited Speaker**

- 24/09/1999: Aquaflow Workshop, Thessalonika, Greece  
 23/11/2002: New Developments on Fish Pasteurellosis Vaccination, University of Udine, Udine, Italy  
 7-11/4/2003: Food Security & Hygiene, Institute of Further Education, Patras, Greece  
 27/6-1/7/2005: Food Inspection by the Competent Authorities-Sampling, Food Inspection Agency, Mytilene, Greece  
 03/02/2016: Results from the application in pilot scale of the autogenous vaccine against encephalitis of sea bass of Pharmaq, Norway, Athens, Greece  
 16/02/2017: Results of year-round application in pilot scale of the autogenous vaccine against encephalitis of sea bass of Pharmaq, Athens, Greece  
 4-6/11/2022: 15<sup>th</sup> Panhellenic Veterinary Conference, Athens, Greece

## Research Interests

Topics of research that interest Prof. Bakopoulos relate to all aspects of aquatic animal diseases prevention including: isolation and description of pathogens, study of their biochemistry and sensitivity/resistance to chemotherapeutants, phenotypic and antigenic characterization of pathogens, production and characterization of immune sera, monoclonal antibody technology, development of immunological techniques for diagnosis, identification and analysis of antigens and immune responses, development of culture media that promote synthesis of natural antigens, development of vaccine mixtures and study of their efficacy and immune stimulation, mechanisms of immunopathology of viral, bacterial and parasitic pathogens, study of parasites and genetic improvement of production fish, use of bioactive substances in fish nutrition and analysis of their action at the level of innate immunity and development.

## Publications

### Monographs

- 1) **Bakopoulos V.** (1992). The effect of temperature on the efficacy of organophosphate treatment of the sea louse, *Lepeophtheirus salmonis*, Kroyer 1838. M.Sc. Thesis. Institute of Aquaculture, University of Stirling, Scotland.
- 2) **Bakopoulos V.** (1996). Studies on fish Pasteurellosis with particular reference to diagnosis. Ph.D. Thesis. Institute of Aquaculture, University of Stirling, Scotland.

### Chapters in Books

- 1) **Bakopoulos V.** (2014). Vibriosis in Mediterranean aquaculture: specific reference to *Vibrio* species other than *Listonella (Vibrio) anguillarum* (Chapter 12). In: Aspects of Mediterranean Aquaculture, Farming, Health, Processing, Angelidis P. (ed), Blue Crab PC Publisher, Chalastra Greece, 1<sup>st</sup> Edition, 265-304pp. ISBN: 978-618-80999-0-6.
- 2) **Bakopoulos V.** (2014). The fish pathogen *Photobacterium damsela* subsp. *piscicida* (Chapter 14). In: Aspects of Mediterranean Aquaculture, Farming, Health, Processing, Angelidis P. (ed), Blue Crab PC Publisher, Chalastra Greece, 1<sup>st</sup> Edition, 319-354pp. ISBN: 978-618-80999-0-6.
- 3) **Bakopoulos V.** (2021) 1<sup>st</sup> Publication in Greek of the 3<sup>rd</sup> Edition of the book entitled: «Aquaculture: Farming Aquatic Animals and Plants», J.S. Lucas, P.C. Southgate & C.S. Tucker (eds). Konstantaras publications, ISBN: 978-960-608-056-2.
- 4) **Bakopoulos V.** (2021) 1<sup>st</sup> Publication in Greek of the 2<sup>nd</sup> Edition of the book entitled: «The Diversity of Fishes, Biology, Evolution and Ecology Examination», G.S. Helfman, B.B. Collette, D.E. Facey & B.W. Bowen (eds). Broken Hill Publishers Ltd., ISBN: 978-9925-575-33-6.

### Articles in peer reviewed International Journals

- 1) V. **Bakopoulos**, A. Adams & R.H. Richards (1995). Some biochemical properties and antibiotic sensitivities of *Pasteurella piscicida* isolated in Greece and comparison with strains from Japan, France and Italy. *Journal of Fish Diseases* 18, 1-7.
- 2) V. **Bakopoulos**, A. Adams & R.H. Richards (1997). The effect of iron limitation growth conditions on the cell and extracellular components of the fish pathogen *Pasteurella piscicida*. *Journal of Fish Diseases* 20(4), 297-305.
- 3) V. **Bakopoulos**, A. Adams & R.H. Richards (1997). Production and characterization of monoclonal antibodies against *Pasteurella piscicida*, the causative agent of fish pasteurellosis. *Journal of Fish Diseases* 20(4), 307-315.
- 4) V. **Bakopoulos**, A. Adams & R.H. Richards (1997). Serological relationship of *Photobacterium damsela* subsp. *piscicida* isolates (the causative agent of fish Pasteurellosis) determined by western blot analysis using six monoclonal antibodies. *Diseases of Aquatic Organisms* 28, 69-72.
- 5) V. **Bakopoulos**, Z. Peric, H. Rodger, A. Adams & R.H. Richards (1997). First report of fish Pasteurellosis from Malta. *Journal of Aquatic Animal Health* 9, 26-33.
- 6) **Bakopoulos V.**, Volpatti D., Adams A., Galleotti M. & Richards R.H. (1997). Qualitative differences in the immune response of rabbit, mouse and sea bass, *Dicentrarchus labrax*, L, to *Photobacterium damsela* subsp. *piscicida*, the causative agent of fish Pasteurellosis. *Fish and Shellfish Immunology* 7, 161-174.

- 7) **Bakopoulos V.**, Volpatti D., Papapanagiotou E., Richards R.H., Galeotti M. & Adams A. (1997). Development of an ELISA to detect *Pasteurella piscicida* in culture and in “spiked” fish tissue. *Aquaculture*, 156(3/4), 359-365.
- 8) V. **Bakopoulos**, A. Adams, M. Galeotti & G.J. Dimitriadis (2000). In vitro growth inhibition studies of *Photobacterium damsela* subspecies *piscicida*, using various antibodies. *Bulletin of The European Association of Fish Pathologists* 20 (6), 237-243.
- 9) V. **Bakopoulos**, K. Poulos, A. Adams, M. Galeotti & G. J. Dimitriadis (2002). The effect of novel growth media on the virulence and toxicity of cellular and extracellular components of the fish pathogen *Photobacterium damsela* subsp. *piscicida*. *Bulletin of The European Association of Fish Pathologists* 22 (4), 272-279.
- 10) V. **Bakopoulos**, M. Pearson, D. Volpatti, L. Gousmani, A. Adams, M. Galeotti and G. J. Dimitriadis (2003). Investigation of media formulations promoting differential antigen expression by *Photobacterium damsela* subsp. *piscicida* and recognition by sea bass, *Dicentrarchus labrax*, (L.), immune sera. *Journal of Fish Diseases* 26(1), 1-13.
- 11) V. **Bakopoulos**, D. Volpatti, L. Gusmani, M. Galeotti, A. Adams, G.J. Dimitriadis (2003). Vaccination trials of sea bass, *Dicentrarchus labrax* (L.), against *Photobacterium damsela* subsp. *piscicida*, using novel vaccine mixtures. *Journal of Fish Diseases* 26(2), 77-90.
- 12) **Bakopoulos V.**, Hanif A., Poulos K., Galeotti M., Adams A. & Dimitriadis G.J. (2004). The effect of *in vivo* growth on the cellular and extracellular components of the marine bacterial pathogen *Photobacterium damsela* subsp. *piscicida*. *Journal of Fish Diseases* 27, 1-13.
- 13) C. Poulos, V. **Bakopoulos**, V. Zolota & G.J. Dimitriadis (2004). Histopathological findings after sea bass (*Dicentrarchus labrax* L.) exposure to extracellular products of *Photobacterium damsela* subsp. *piscicida* produced *in vivo*. *Aquaculture Research* 35 (10), 931-936.
- 14) A. Hanif, V. **Bakopoulos**, G.J. Dimitriadis (2004). Maternal transfer of humoral specific and non specific immune parameters to sea bream (*Sparus aurata*) larvae. *Fish & Shellfish Immunology* 17(5), 411-435.
- 15) A. Hanif, V. **Bakopoulos**, I. Leonardos, G.J. Dimitriadis (2005). The effect of sea bream (*Sparus aurata*) broodstock and larval vaccination on the susceptibility by *Photobacterium damsela* subsp. *piscicida* and on the humoral immune parameters. *Fish & Shellfish Immunology* 19 (4), 345-361.
- 16) Kagalou, Papadimitriou, **Bakopoulos** & Leonardos (2008). Assessment of microcystins in lake water and the omnivorous fish (*Carassius gibelio*, Bloch) in lake Pamvotis (Greece) containing dense cyanobacterial bloom. *Environmental Monitoring & Assessment* 137, 185-195.
- 17) T. Papadimitriou, I. Kagalou, V. **Bakopoulos** & I.D. Leonardos (2010). Accumulation of microcystins in water and fish tissues: An estimation of risks associated with microcystins in most of the Greek Lakes. *Environmental Toxicology* 25(4), 418–427.
- 18) V. **Bakopoulos** & V-C. Ksidia (2014). *Pontobdella muricata* infection of *Raja clavata* and *Dasyatis pastinaca* off the coast of Lesbos, Greece. *Journal of the Marine Biological Association of the United Kingdom* 94(2), 405–409.
- 19) V. **Bakopoulos**, I. Nikolaou, N. Kalovyryna, E. Amirali, G. Kokkoris and E. Spinos (2015). Prevention of fish photobacteriosis. Comparison of the efficacy of intraperitoneally administered commercial and experimental vaccines. *Mediterranean Marine Science* 16(2), 385-392.
- 20) V. **Bakopoulos**, D. White, M-A. Valsamidis, F. Vasilaki (2017). Experimental infection of *Octopus vulgaris* (Cuvier, 1797) with *Photobacterium damsela* subsp. *piscicida*. Immunohistochemical tracking of antigen and tissue responses. *Journal of Invertebrate Pathology* 144, 24-31. (<http://dx.doi.org/10.1016/j.jip.2017.01.008>).
- 21) E. Spinos, G.D. Kokkoris, V. **Bakopoulos** (2017). Prevention of sea bass (*Dicentrarchus labrax*, L. 1758) photobacteriosis and vibriosis. Long term efficacy study of intraperitoneally administered bivalent commercial vaccines. *Aquaculture* 471, 172–184.
- 22) V. **Bakopoulos**, I. Karoubali, A. Diakou (2017). Parasites of the Lessepsian invasive fish *Lagocephalus sceleratus* (Gmelin 1789) in the eastern Mediterranean Sea, *Journal of Natural History* 51(7-8), 421-434, DOI:10.1080/00222933.2017.1279690
- 23) **Bakopoulos V.**, Nikolaidis A., Kolygas M., Athanassopoulou F. (2017). Contribution to the parasites and associated pathology of wild Serranidae from the Aegean Sea. *Journal of the Hellenic Veterinary Medical Society*, in press.

- 24) **Bakopoulos, V.**, Tsepa, E., Diakou, A., Kokkoris, G., Kolygas, M.N., Athanassopoulou, F. (2017). Parasites of *Scyliorhinus canicula* (Linneus, 1758) in the northeastern Aegean Sea. Journal of the Marine Biological Association of the United Kingdom, doi:10.1017/S0025315417001552.
- 25) **Bakopoulos, V.**, Kosma I., Laspa E. (2017). Quantitative and qualitative analysis of sea bream, *Sparus aurata* (L.), humoral immune response, vaccinated with commercial and experimental vaccines against vibriosis and photobacteriosis. Journal of the Marine Biological Association of the United Kingdom, doi:10.1017/S0025315417001631.
- 26) Chalazas Th., Tzoraki O., Cooper D., Efstratiou A., **Bakopoulos V.**, 2017, Ecosystem service evaluation of streams for nutrients and bacteria purification of a pastureland watershed, Fresenius Environmental Bulletin Journal, Parlar publisher, Volume 26, No. 12A/2017 pages 7849-7859.
- 27) Katsanevakis S., Tsirintanis K., Tsaparis D., Doukas D., Sini M., Athanassopoulou F., Kolygas M.N., Tontis D., Koutsoubas D. and **Bakopoulos V.** (2019). The cryptogenic parasite *Haplosporidium pinnae* invades the Aegean Sea and causes the collapse of *Pinna nobilis* populations. Aquatic Invasions, 14(2), p. 150–164.
- 28) Evangelopoulos E., Batjakas I.E., Spinos E. & **Bakopoulos V.** (2020). Length-Weight relationships of 12 commercial fish species caught with static fishing gear in the N. Ionian Sea (Greece). Thalassas (published online 23 January 2020). doi:10.1007/s41208-020-00195-y.
- 29) Kolygas M.N., Lampou E., Doukas D., Tontis D., Pappas I.S., Gourzioti E., **Bakopoulos V.**, Kakava E., & Athanassopoulou F. (2020). Squamous Cell Carcinoma (SCC) in Brown meagre (*Sciaena umbra* Linnaeus, 1758), a new candidate species for aquaculture in Mediterranean. Journal of the Hellenic Veterinary Medicine Society, 71(3), 2399-2406. doi:https://doi.org/10.12681/jhvms.25104
- 30) Chatziantoniou A., Karagaitanakis A., **Bakopoulos V.**, Papandroulakis N. & Topouzellis K. (2021). Detection of Biogenic Oil Films near Aquaculture Sites Using Sentinel-1 and Sentinel-2 Satellite Images. Remote Sensing **13**, 1737-1752. <https://doi.org/10.3390/rs13091737>
- 31) Vela-Avitúa S., Thorland I., **Bakopoulos V.**, Papanna K., Dimitroglou A., Kottaras E., Papaharisis L., Guinand B., Tsigenopoulos C.S. & Aslam M.L. (2022). Genetic basis for resistance against Viral Nervous Necrosis: GWAS and potential of genomic prediction explored in farmed European sea bass (*Dicentrarchus labrax*). Frontiers in Genetics **13**, 804584. <https://doi.org/10.3389/fgene.2022.804584>.
- 32) White D-M., Valsamidis M-A., **Bakopoulos V.** (2022). *In vitro* hemocyte phagocytosis activation after experimental infection of common octopus, *Octopus vulgaris* (Cuvier, 1797) with *Photobacterium damsela* subsp. *piscicida* or *Vibrio alginolyticus* at different temperatures and infection routes. Journal of Invertebrate Pathology **191**, 107754, <https://doi.org/10.1016/j.jip.2022.107754>.
- 33) Valsamidis M-A., White D-M., Kokkoris, G.D., **Bakopoulos V.** (2022). Immune response of European sea bass (*Dicentrarchus labrax* L.) against combination of antigens from three different pathogens. Veterinary Immunology and Immunopathology **256**, <https://doi.org/10.1016/j.vetimm.2022.110535>
- 34) White D.-M., Valsamidis M.-A., Kokkoris, G., **Bakopoulos V.** (2022). The effect of temperature and infection route on *in vitro* hemocyte phagocytosis activation after experimental infection of common octopus, *Octopus vulgaris* (Cuvier, 1797) with either *Photobacterium damsela* subsp. *damsela* or *Vibrio anguillarum* O1. Microbial Pathogenesis **174**, <https://doi.org/10.1016/j.micpath.2022.105955>
- 35) **Bakopoulos, V.**, Panagiotaki, A., Valsamidis, M.-A., White, D.-M., Papaharisis, L., Dimitroglou, A., & Kakava, E. (2023). Correlations of betanodavirus load in the brain of experimentally infected sea bass (*Dicentrarchus labrax*, L.) with varying levels of resistance to viral nervous necrosis. Mediterranean Marine Science, 24(3), 514–525. <https://doi.org/10.12681/mms.34425>
- 36) Toubanaki, D.K., Efstathiou, A., Tzortzatos O.-P., Valsamidis, M.-A., Papaharisis, L., **Bakopoulos, V.**, Karagouni, E. (2023). Nervous Necrosis Virus Modulation of European Sea Bass (*Dicentrarchus labrax*, L.) Immune Genes and Transcriptome towards Establishment of Virus Carrier State. International Journal of Molecular Sciences, 24, 16613. doi: <https://doi.org/10.3390/ijms242316613>.
- 37) Spinos, E., Katselis, G., Valsamidis, M. A., White, M. D., & **Bakopoulos, V.** (2024). Refining the Occurrence of Viral Encephalopathy and Retinopathy, Photobacteriosis, and Vibriosis in Connection

- with Seawater Physicochemical Parameters: A Five-Year Case Study. *Mediterranean Marine Science*, 25(1), 14–27. <https://doi.org/10.12681/mms.34893>
- 38) Tzortzatos, O.-P., Toubanaki, D.K., Kolygas, M.N., Kotzamanis, Y., Roussos, E., **Bakopoulos, V.**, Chatzopoulos, A., Athanassopoulou, F., Karagouni, E (2024). Dietary *Artemisia arborescens* Supplementation Effects on Growth, Oxidative Status, and Immunity of Gilthead Seabream (*Sparus aurata* L.). *Animals* 14, 1161. <https://doi.org/10.3390/ani14081161>
- 39) Toubanaki, D.K., Tzortzatos, O.-P., Efstathiou, A., **Bakopoulos, V.**, Karagouni, E. (2025). Influence of Viral Re-Infection on Head Kidney Transcriptome of Nervous Necrosis Virus-Resistant and Susceptible European Sea Bass (*Dicentrarchus labrax*, L.). *Viruses* 17, 230. <https://doi.org/10.3390/v17020230>.
- 40) White, D.-M., Anastasiadou, E., Valsamidis, M.-A., **Bakopoulos, V.** (2025). Lysozyme Activity in the Hemolymph of Octopus vulgaris (Cuvier, 1797) Following Challenge with Gram-Negative Bacteria: Insights into Temperature-Driven Innate Immune Response. *Fishes* 10, 428. <https://doi.org/10.3390/fishes10090428>
- 41) Toubanaki, D.K., Tzortzatos, O.-P., Efstathiou, A., **Bakopoulos, V.**, Karagouni, E. (2025). Deciphering European Sea Bass (*Dicentrarchus labrax*) Resistance to Nervous Necrosis Virus by Transcriptome Analysis from Early Infection Towards Establishment of Virus Carrier State. *International Journal of Molecular Sciences* 26, 9220. <https://doi.org/10.3390/ijms26189220>
- 42) Kolygas MN, Kostou V, Pappas IS, Karagouni E, Toubanaki DK, **Bakopoulos V**, Kotzamanis YP, Nathanailides C and Athanassopoulou F (2025). *In vitro* antibacterial activity of essential oils from medicinal plants against major fish pathogens in Mediterranean aquaculture. *Frontiers in Aquaculture* 4, 1665877. doi: 10.3389/faquc.2025.1665877

Abstracts/posters in Conferences: More than 60 in national and international conferences.

#### **Research-Education Projects**

- 1993-1995 **Studies on Fish Pasteurellosis with special reference to Diagnosis.** Funded by the Human Capital Training & Mobility programme of EU. Fellowship, Institute of Aquaculture, University of Stirling, Scotland, UK. 100,000€. Personal Fellowship.
- 1998-2002 **Fish Pasteurellosis. Applied Research on Vaccine Development.** Funded by FAIR FP6, Contract No. CT97-3449, Department of Biology, University of Patras, Patras, Greece. 900,000€. Principal Researcher at the Coordinating Partner.
- 2004-2006 **Prototype experimental breeding and culture of polychaetes under controlled conditions.** Funded by EPAL, Ministry of Agriculture, Department of Biological Applications and Technologies, University of Ioannina, Ioannina, Greece. Research Associate.
- 2006-2007 **Comparative study of fish parasites biodiversity from Kavala (Aegean sea), Messolonghi bay (Ionian sea) and coast of Montenegro (Adriatic sea).** Funded by the Joint Research and Technology Programs Greece-Montenegro 2004-2006. Department of Biological Applications and Technologies, University of Ioannina, Ioannina, Greece. Research Associate.
- 2009 **Creation of monitoring system for the assessment of the status of rivers Louros and Arachthos of the Amvrakikos gulf and Assessment of biotic and abiotic parameters at the bottom of Amvrakikos gulf and correlation with fish production.** Funded by the Prefecture of Arta, Department of Biological Applications and Technologies, University of Ioannina, Ioannina, Greece. Member of the Research Team.
- 2012 **Analysis of the immunopathology mechanisms under natural and experimental infections of fish with Nodavirus: importance of the infection for public health.** Funded by the program “Thales”, Code No. 4501, Department of Veterinary Medicine, University of Thessaly, Karditsa, Greece. 535,000€. Member of the Research Team.
- 2012 **Management Actions for fisheries at the Protected Area of the National Marine Park of Zakynthos.** Funded by the program MedPan North, Department of Marine

- Sciences, University of The Aegean, Lesvos, Greece. 48,000€. Coordinator and Scientific Responsible.
- 2012-2013 **Management Measures for Fisheries in the Marine Protected Area of the National Marine Park of Sigri.** Funded by the Museum of Natural History of the Petrified Forest of Lesvos. Department of Marine Sciences, University of The Aegean, Lesvos, Greece. 53,360€. Member of the Research Team.
- 2013-2015 **Education of employees of the super market chain I.&S. Sklavenitis S.A. on fish safety and hygiene.** Funded by I.&S. Sklavenitis S.A. 28,500€. Coordinator and Scientific Responsible.
- 2013-2014 **Comparison of two injectable bivalent (Vibrio-Photobacterium) commercial vaccines in field conditions.** Funded by AQUA VET S.A. 12,300€. Coordinator and Scientific Responsible.
- 2013-2015 **Study of the hygiene status of Kalloni Bay, Lesvos.** Funded by the Region of North Aegean. Department of Marine Sciences, University of The Aegean, Lesvos, Greece. 19,000€. Coordinator and Scientific Responsible.
- 2014-2015 **Use of antimicrobial substances for the prevention and treatment of common diseases of cultivated fish and assessment of their efficacy and safety.** Funded by the program COOPERATION, GSRT, Code No. 11ΣΥΝ\_3\_147, Department of Veterinary Medicine, University of Thessaly, Karditsa, Greece. 670,000€. Member of the Research Team.
- 2015-2017 **Comparison of The Efficacy of available vaccines against Nodavirus.** Funded by Aqua Vet S.A, Cephalonia Aquaculture and Galaxidi Aquaculture S.A. Department of Marine Sciences, University of The Aegean, Lesvos, Greece. 27,060€. Coordinator and Scientific Responsible.
- 2016-2021 **Genetic Improvement of sea bass and bream – Disease Resistance.** Funded by Nireus S.A. Department of Marine Sciences, University of The Aegean, Lesvos, Greece. 173,600€. Coordinator and Scientific Responsible.
- 2017-2018 **Vaccination trials on sea bass against Pasteurellosis and Vibriosis.** Funded by FATRO S.P.A., Italy. Department of Marine Sciences, University of The Aegean, Lesvos, Greece. 7,500€. Coordinator and Scientific Responsible.
- 2017-2020 **Center for the Study and Sustainable Exploitation of Marine Biological Resources - CMBR.** Funded by the Ministry of Economy, Department of Marine Sciences, University of The Aegean, Lesvos, Greece. 100,002€. Coordinator and Scientific Responsible for the objectives by University of The Aegean.
- 2018-2022 **Development of a PCR microarray for the determination of gene changes related with the resistance of sea bass (*Dicentrarchus labrax*) against VNN from b-nodavirus, with possibility of commercialization.** EPALth 2014-2020, Ministry of Agriculture. 498,747.90€. Coordinator and Scientific Responsible.
- 2018-2020 The effect of Climate change on the Virulence of Pathogenic Microorganisms and on the Physiology of sensitive aquatic animal hosts. Human Training and Life Log Learning Program, Ministry of Education, 34,300.00€. Coordinator and Scientific Responsible.
- 2020-2023 TriVac-Development of trivalent vaccines against VNN, Photobacteriosis and Vibriosis. Hellenic Foundation of Research and Innovation, HFRI-FM17-294. 170,000.00€. Coordinator and Scientific Responsible.
- 2021-2024 **AGRICA II: Excellence network on AgroFood Research & Innovation of North Aegean (Code 80642) of the Operational Program Regional Excellence II with budget 698.174,75€.** Member of the main research team.
- 2022-2023 **"Effectiveness of plant and marine substances for the prevention and treatment of parasitism by Microcotyle spp, Myxosporea and myxobacteriosis in farmed gilthead sea bream (*Sparus aurata* L.)." (acronym "AltMedSea-bream").**  
ACTION OF NATIONAL SCOPE: Special Actions "Aquaculture" – "Industrial Materials" -"Open Innovation in Culture" of the Operational

- Program Competitiveness Entrepreneurship and Innovation (EPAnEK) (project code T6YBP- 00246). Contract with the company "SKALOMA S.A." within the framework of the above project amounting to 9,360 euros.
- 2022-2023 **"Principles of Health & Biosecurity of Aquaculture Livestock"** code 80841. Contract with the Hellenic Aquaculture Producers' Organization - ELOPY for the preparation of a study - operational Guide. Scientific Responsible. Funding amount 11,780 euros.
- 2022-2023 **"Preparation of a Sanitary Study of the Gulf of Kalloni"**, code 80860. Contract with the North Aegean Region for the preparation of a sanitary study of the Gulf of Kalloni. Coordinator and Scientific Responsible. Amount of funding 66,000 euros.
- 2022-2026 **Development of functional fish feed based on bioactive compounds of marine and herbal origin, "FEEDACTIV"**, MARIE SKŁODOWSKA-CURIE ACTIONS, Call: HORIZON-MSCA-SE-2021. Total funding: 1,444,400 euros. University of the Aegean: Partner in the project with funding of 193,200 euros. Scientific director of the University of the Aegean.
- 2023-2027 **Resistance of sea bass and sea bream to diseases in the frame of zotechnical genetic improvement.** Funded by Avramar S.A.. Start: 02/2023, End: 09/2027. Coordinator and scientific manager. Funding amount €90,000.00

### International Recognition

Prof. Bakopoulos has been called to evaluate proposals and progress of projects for the programmes: CRAFT, SME Specific Measures, FP6, EU in 1998 and 2001; SBIR, Small Business Innovation Research for the United States Department of Agriculture in 2008; USA-Israel, Binational Agricultural Research & Development Fund in 2009; Cooperation 2009 funded by the Greek Secretariat of Research & Technology in 2012; Research Promotion Foundation (RPF) of Cyprus in 2017. REPRISSE evaluator (the Register of Scientific Experts set up at the MIUR, invitation under "PRIN 2017"), Ministry of Education, Italy, 2018. Evaluator of proposals in the call "Greece-China bilateral & multilateral cooperation, 2014-2020. Certified evaluator-external expert of the Hellenic Foundation of Research and Innovation (2020). Member of the Sectoral Scientific Committee of Agrotechnology and Food of the National Committee of Research, Technology and Innovation (2020). He is evaluator of Laboratories of the National System of Accreditation (ESYD) for biological tests on mammals (ESYD Protocol No. 5789/17-10-2014)

Founding member of the European College of Aquatic Animal Health (ECAAH), past Secretary of the ad hoc Executive Board and recognized member of the European Board of Veterinary Specialization (EBVS) (2015-to date). Member of the Greek Veterinary Academy and of the Inspections Committee (2016)

Prof. Bakopoulos has been asked to review articles in peer reviewed international scientific journals such as: Aquaculture Research, Fish Physiology & Biochemistry, Fish & Shellfish Immunology, Marine Biology Research, Vaccine, Mediterranean Marine Science, Journal of the World Aquaculture Society, Marine Biodiversity Records, Acta Adriatica, Frontiers in Marine Science and has been provided with the Recognized Reviewer Status from the publisher Elsevier (09/2016). He is also Review Editor in the Editorial Board of Aquatic Physiology in the journal Frontiers in Marine Science and Physiology.

### Commercialization of Research Results

a) Anti-*Photobacterium damsela* subsp. *piscicida* monoclonal antibody. Product No. PO2. Commercialization by Aquatic Diagnostics Ltd, U.K.,. Relevant Bibliography: V. **Bakopoulos**, A. Adams & R.H. Richards (1997). Journal of Fish Diseases 20(4), 307-315.

b) Anti-European sea bass (*Dicentrarchus labrax*) IgM monoclonal antibody. Product No. FO1. Commercialization by Aquatic Diagnostics Ltd, U.K.,. Relevant Bibliography: **Bakopoulos V.**,

Volpatti D., Adams A., Galleotti M. & Richards R.H. (1997). *Fish and Shellfish Immunology* 7, 161-174.