## **Dung Viet Le**

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## Academic positions

2021-2025	Lecturer, Aquaculture Department, Faculty of Fisheries
2018-2021	Lecturer, Aquatic Pathology Department, Faculty of Fisheries
2016-2017	Researcher, Molecular Biology Department, Center of Biotechnology, Research
	Institute for Aquaculture No.1
2008-2016	Researcher, Mollusk Department, National Broodstock Center for Mariculture Species
	in Northern Vietnam, Research Institute for Aquaculture No.1
<b>Education</b>	
2012-2016	Ph.D. in Aquaculture, Auckland University of Technology, New Zealand
	Aquaculture Biotechnology Group & Cawthron Institute
	Supervisors: Prof. Andrea Alfaro and Nick King
2008-2010	MSc. in Aquaculture, National Taiwan Ocean University, Taiwan
	Laboratory of Yew-Hu Chien
	Supervisors: Prof. Yew-Hu Chien
2002-2008	BSc. in Aquaculture, Nha Trang University, Vietnam
	Supervisors: Dr. Nguyen Dich Thanh

# Management & Scientific leadership

- 2018-2025 **Founder and Group leader of Livefeed Lab**, Faculty of Fisheries. 12 members include 3 employees whose salaries are paid from my grant. Manage customer service: water analysis, technology development, problem solving, commercialization, testing products. Manage production operation. Manage experiments. Manage contract and finance.
- 2021-2025 Head of Aquaculture Department, Faculty of Fisheries. 10 members (1 Associate Professor, 3 Ph.D, 4 Master, 2 Bachelor). Manage the teaching curriculum of Aquaculture undergraduate program. Manage the aquaculture practice program. Manage the thesis supervision. Manage the funding and project.
- 2019-2021 Vice Head of Aquatic Pathology Department, Faculty of Fisheries. 8 members (2 Associate Professor, 3 Ph.D., 1 Master, 2 Bachelor). Manage the teaching curriculum of Aquatic Pathology undergraduate program. Manage the pathology practice program. Manage the thesis supervision. Manage the funding and project.
- 2017-2018 **Owner and Manager of shrimp farm**. Mong Cai city, Quang Ninh province, Vietnam. Four staff & 3 part-time employees. 2ha scale, shrimp production of 40 tons/year.
- 2016-2017 **Head of Molecular Biology Department**, Center of Biotechnology, Research Institute for Aquaculture No.1. 5 members. Manage experiments. Manage project.
- 2010-2012 Head of Mollusk Department, National Broodstock Center for Mariculture Species in Northern Vietnam, Research Institute for Aquaculture No.1. 5 members. Manage bivalve production: 20 million oyster spat/year, 2 million snout-otter clam spast/year. Manage research project.

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# **Research Projects**

Summary:	I have acquired US\$ 1.1 million (~VND\$ 27 billion) as the principal investigator (PI)	
	or team leader (TL) or proposer of research projects.	
2022-2024	Post-harvest treatment of oyster for sashimi products, PI, Quang Ninh province	
	Department of Science & Technology, Vietnam, US\$100,000	
2021-2022	Biomass production of photosynthetic bacteria using tuna cooking juice and sugar	
	mollasses, PI, Megavet company, Vietnam, \$5000	
2021-2022	Post-harvest treatment of de-sanding clams, PI, Lenger Seafoods company, Vietnam,	
	US\$6000	
2020-2021	Development of indoor shrimp RAS production system in the North of Vietnam, PI,	
	Office of the Coordinator program National Goals of New Rural Building, Vietnam	
	(National level), US\$250,000	
2018-2021	Creation of novel nano silica mineral enrichment to enhance diatom growth, Co-PI,	
	Vietnam National University, US\$15,000	
2020-2021	Disease in tilapia caused by Edwardsiella ictaluri and Aeromonas hydrophila, Team	
	member, World Bank, US\$80,000	
2019-2020	Increase the hatching rate of Artemia parthogenetica cysts harvested from Aral Seas,	
2010 2020	PI, MTT company, Vietnam, \$US5000	
2018-2020	Isolate and grow potential probiotic <i>Lactobacillus</i> sp. from shrimp's gut which	
	suppress Vibrio parahaemolyticus, Team member, Ha Long University, Vietnam,	
2010 2020	US\$10,000	
2018-2020	Construction of the continuous algal culture system, PI, Tam Duc Fisheries	
2018-2020	Cooperatives, Vietnam, US\$5,000	
2018-2020	Acclimatize and grow white leg shrimp <i>Litopenaeus vannamei</i> in freshwater (0 ppt), PI, Tam Duc Fisheries Cooperatives, Vietnam, US\$5,000	
2018-2019	Produce FLOC <sup>+</sup> to feed shrimp juvenile and to mix with shrimp feed, PI, Tam Duc	
2010-2017	Fisheries Cooperatives, Vietnam, US\$5,000	
2018-2019	Stimulate photosynthetic bacteria to produce higher Coenzyme Q10 yield, PI, Tam	
2010 2019	Duc Fisheries Cooperatives, Vietnam, US\$5,000	
2018-2019	Increase biomass of photosynthetic bacteria used for aquaculture and livestock culture,	
	PI, Tam Duc Fisheries Cooperatives, Vietnam, US\$5,000	
2018-2019	Acclimatize and grow tiger shrimp Penaeus monodon in freshwater (0 ppt), PI, Tam	
	Duc Fisheries Cooperatives, Vietnam, US\$5,000	
2017-2018	Apply biofloc technology to grow white leg shrimp Litopenaeus vannamei in green	
	house during winter, PI, Tam Duc Fisheries Cooperatives, Vietnam, US\$50,000	
2016-2017	Pathophysiological host response of oyster larvae to OsHV-1, Team member, Ministry	
	of Business, Innovation and Employment, New Zealand	
2016-2017	Fast restructuring of metabolic networks during pharmacologically induced	
	metamorphosis of marine molluscs, Team member, Auckland University of	
	Technology	
2016-2017	Metabolic regulation of copper immunotoxicity during marine mussel embryogenesis:	
	Application of a multi-resolution biomarker toolkit, Team member, Ministry of	
0010 0014	Business, Innovation and Employment, New Zealand	
2012-2016	Cultivation of the New Zealand geoduck clam, <i>Panopea zelandica</i> , PI, Ministry of	
	Business, Innovation and Employment, New Zealand	
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- 2011-2013 Enhance production of hard clam, oyster, and geoduck spat, Proposer, Ministry of Agriculture and Rural Development, Vietnam, \$US150,000
- 2011-2013 Enhance production of marine fish seed, Proposer, Ministry of Agriculture and Rural Development, Vietnam, \$US150,000
- 2010-2012 Research on technology of producing seed and culturing Pacific oyster for export, Proposer, Ministry of Agriculture and Rural Development, Vietnam, \$U\$150,000
- 2009-2011 Research on creating specific pathogen free (SPF) broodstock source of white leg shrimp, Proposer, Ministry of Agriculture and Rural Development, Vietnam, \$US150,000
- 2009-2011 Research on technology of producing seed and culturing mangrove red snapper for export, Proposer, Ministry of Agriculture and Rural Development, Vietnam, \$US100,000
- 2009-2011 Building bivalve hatchery production capacity in Vietnam and Australia, Team member, Australian Center for International Agricultural Research, Australia
- 2008-2011 Research on producing seed of three species of grouper, Team member, Ministry of Agriculture and Rural Development, Vietnam, \$U\$150,000
- 2008-2010 Apparent digestibility of corn distiller's dried grains with soluble and de-hulled lupin meal for orange-spotted grouper *Epinephelus coioides*, PI, Science Research Council, Taiwan
- 2007 Growth of seabass (*Lates calcarifer*, Bloch 1970) fingerlings reared in the floating raceway system: An application of von Bertalanffy's growth curve, PI

## **Publications**

<u>Summary</u>: I have extensive experience pursuing national and international funding and maintain a strong science excellence ethic, with 22 peer-reviewed publications to date (e.g., on Aquaculture, Aquaculture Research, Journal of Applied Aquaculture, Journal of Shellfish Research, Antibiotics).

#### 2022

- Tim Young, Samantha L. Gale, Norman L.C. Ragg, Silvia G. Sander, David J. Burritt, Billy Benedict, **Dung V. Le**, Andrea C. Alfaro, Silas G. Villas-Bôas. Metabolic regulation of copper toxicity during marine mussel embryogenesis. **Metabolites** (About to submit)
- 23. Minh Anh Do, Hoa Thi Dang, Nhinh Thi Doan, Hong Lam Thi Pham, Tuyet Anh Tran, Van Cam Thi Le, Tim Young, Dung Viet Le. Silver nanoparticle toxicity on Artemia parthenogenetica nauplii hatched on axenic tryptic soy agar solid medium. Scientific Report (Under review)
- 22. Nguyễn Thị Dung, Lê Việt Dũng, Kim Văn Vạn, Trương Đình Hoài. (2022). Experimental study on combining nanosilver and florfenicol in the treatment of *Aeromonas veronii* disease on channel catfish (*Ictalurus punctatus*). Vietnam J. Agri. Sci., Vol. 20, No. 4: 475-483 (English abstract)
- Lê Việt Dũng. (2022). Testing the antiprotozoal potential of nanosilver against *Ichthyophthirius multifiliis* on snakehead fish (*Channa argus*). Vietnam J. Agri. Sci., Vol. 20, No. 2: 235-245 (English abstract)
- 20. Jatta, S., Fall, J., Diouf, M., Viet Dung, L., & Sheen, S. S. (2022). The effects of substituting soybean meal, we tcheat Flour and Cassava Flour with Groundnut Cake, Poultry By-product Meal, Brewery Waste and Rice Bran on Growth and Body Composition of Tilapia

Fry. European Journal of Agriculture and Food Sciences, 4(3), 30–34. https://doi.org/10.24018/ejfood.2022.4.3.320

 Quynh, L. M., Huy, H. V., Thien, N. D., Van, L. T. C., & Dung, L. V. (2022). Synthesis of Si/SiO2 core/shell fluorescent submicron-spheres for monitoring the accumulation of colloidal silica during the growth of diatom *Chaetoceros* sp. Communications in Science and Technology, 7(1), 1-7. <u>https://doi.org/10.21924/cst.7.1.2022.661</u>

2021

- D. K. Nguyen, L. Nguyen and D. Viet Le. (2021). A low-cost efficient system for monitoring microalgae density using gaussian process, IEEE Transactions on Instrumentation and Measurement, vol. 70, 1-8, Art no. 7504308, doi: 10.1109/TIM.2021.3119142.
- 17. Đoàn Thị Nhinh, Đặng Thị Hóa, Trần Thị Trinh, Lê Việt Dũng, Nguyễn Thị Hương Giang, Kim Văn Vạn, Đặng Thị Lụa, Trương Đình Hoài. (2021). Comparison and evaluation of cross-infection possibility of *Edwardsiella ictaluri* isolated from tilapia and channel catfish under the experimental conditions. Vietnam J. Agri. Sci., Vol. 19, No. 5: 605-615 (English abstract)
- 16. Kim Van Van, Le Viet Dung, Truong Dinh Hoai. (2021). Effect of beta-glucan and some vitamins supplementing in feed on survival, growth rates and resistance to *Flavobacterium columnare* of tilapia (*O. niloticus*). Journal of Veterinary Science and Technology, Vol. 28, No. 2: 45-51 (English abstract)
- 15. Nguyễn Hữu Vinh, Đặng Thị Hóa, Lê Thị Cẩm Vân, Đoàn Thị Nhinh, Trần Thị Trinh, Đỗ Hoàng Hiệp, Trương Đình Hoài, Kim Văn Vạn, Phạm Thị Lam Hồng, Lê Việt Dũng. (2021). Technical efficiency of white-leg shrimp (*Litopenaeus vannamei*) culture over winter crop between outdoor ponds and indoor shrimp production system in nam dinh province. Vietnam J. Agri. Sci., Vol. 19, No. 7: 901-912 (English abstract)
- 14. Le, D.V., Chien Y.H. (2021). Digestibility of dehulled lupine meal, corn distiller's dried grain with solubles and defatted soybean meal for orange-spotted grouper *Epinephelus coioides*. Journal of Applied Aquaculture, DOI: <u>10.1080/10454438.2021.1999881</u>
- Nhinh, D.T.; Le, D.V.; Van, K.V.; Huong Giang, N.T.; Dang, L.T.; Hoai, T.D. (2021). Prevalence, virulence gene distribution and alarming the multidrug resistance of *Aeromonas hydrophila* associated with disease outbreaks in freshwater aquaculture. Antibiotics, 10, 532. https://doi.org/10.3390/antibiotics10050532

2019

- Ragg, Norman L.C., Samantha L. Gale, **Dung V. Le**, Nicola A. Hawes, David J. Burritt, Tim Young, Jessica A. Ericson, Zoë Hilton, Ellie Watts, Jolene Berry, and Nick King. (2019). The effects of aragonite saturation state on hatchery-reared larvae of the greenshell mussel *Perna canaliculus*. Journal of Shellfish Research 38 (3), 779-793
- 11. Erikson, U., Truong, H.T.M., Le, D.V., Pham, P.D., Svennevig, N., Phan, V.T. (2019). Harvesting procedures, welfare and shelf life of ungutted and gutted shortfin pompano (*Trachinotus falcatus*) stored in ice. Aquaculture 498, 236-245

2018

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- Le, D.V. (2018). Survival and growth rates of white-leg shrimp *Litopenaeus vannamei* (Boone, 1931) reared in freshwater and saline brackishwater. Vietnam Journal of Agricultural Science 16, 799-804
- Le, D.V., Young, T., Alfaro, A.C., Ragg, N.L.C., Hilton, Z., Watts, E., King, N. (2018). Practical fertilization procedure and embryonic development of the New Zealand geoduck clam (*Panopea zelandica*). Journal of the Marine Biological Association UK. 98: 475-484.

## 2017

- Young, T., Kesarcodi-Watson, A., Alfaro, A.C., Merien, F., Nguyen, T.V., Mae, H., Le, D.V., Villas-Bôas, S. (2017). Differential expression of novel metabolic and immunological biomarkers in oysters challenged with a virulent strain of OsHV-1. Developmental and Comparative Immunology. 73: 229-245.
- Le, D.V., Alfaro, A.C., Ragg, N.L.C., Hilton, Z., Watts, E., King, N. (2017). Functional morphology and performance of the New Zealand geoduck clam (*Panopea zelandica*) larvae reared in a flow-through culture system. Aquaculture. 468: 32-44.
- Le, D.V., Alfaro, A.C., Pook, C., Ragg, N.L.C., Hilton, Z., King, N. (2017). Biochemical composition of New Zealand geoduck clam broodstock (*Panopea zelandica*) conditioned under different temperature and feeding regimes. Aquaculture Research. 48: 1799-1814.
- Le, D.V., Young, T., Alfaro, A.C., Watts, E., King, N. (2017). Effect of neuroactive compounds on larval metamorphosis of New Zealand geoduck (*Panopea zelandica*). Aquaculture Research. 48: 3080-3090.
- 4. Le, D.V., Alfaro, A.C., Ragg, N.L.C., Hilton, Z., King, N. (2017). Establishing the thermal window for aerobic scope in New Zealand geoduck clams (*Panopea zelandica*). Journal of Comparative Physiology B. 187: 265-276.
- Le, D.V., Alfaro, A.C., Ibarrola, I., Ragg., N.L.C., Hilton, Z., King, N. (2017). Allometric scaling of physiological rates in the New Zealand geoduck clam, *Panopea zelandica*. Aquaculture. 473: 105-109.

## 2016

 Le, D.V., Alfaro, A.C., Ragg, N.L.C., Hilton, Z., King, N. (2016). Aerobic scope and oxygen regulation of New Zealand geoduck (*Panopea zelandica*) in response to progressive hypoxia. Aquaculture. 463: 28-36.

## 2014

 Le, D.V., Alfaro, A.C., King, N. (2014). Broodstock conditioning of New Zealand geoduck (*Panopea zelandica*) within different temperature and feeding ration regimes. New Zealand Journal of Marine and Freshwater Research. 48: 356-370.

## Popular scientific news (in Vietnamese)

Nguyen T.S., Le D.V., and K.V. Dinh\* (2019). Invasive species in Vietnam: benefits and harms. Science & Development Magazine, the Vietnamese Ministry of Science & Technology (invited paper for the management of invasive species in Vietnam).

Le, D.V. (2019). New technologies in shrimp seed production. Vietnam Fisheries Magazine

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## **Contributions to conferences**

Organizer

- 3. **Faculty of Fisheries**, Indoor Shrimp Production System technology, December, 2021. online Symposium.
- Faculty of Fisheries, Prospective Improvement of Productivity in Aquaculture Systems in Vietnam Using High Oxygen Supply Technology from Japan, December 2019. Hanoi, Vietnam
- 1. **Faculty of Fisheries,** Research and application of natural bioactive compounds for aquatic disease prevention, 2019. Hanoi, Vietnam

### Invited speaker

- 23. Le, D.V. (2022). Breeding and growing polychaete *Tylorrhynchus heterochaetus* in Vietnam. International Symposium on Special Aquaculture, Anhui Academy of Agricultural Science online China.
- 22. Le, D.V. (2022). Application of sonoelectroschmistry on treating the water in shrimp farming, Research, Development and Application of Green Aquacultureof Special Aquatic Species Sympossium, Anhui Academy of Agricultural Science, online China.
- Le, D.V. (2022) Oyster seed production technology. Reorienting the Strategies Towards Sustainable Aquaculture and Fisheries, Kerala University of Fisheries and Ocean Studies, online India.
- Le, D.V. (2021) Integrated Multi-Trophic Aquaculture, Extension of high value marine and brakish water aquaculture model. Department of Agriculture and Rural Development, Binh Thuan province, Vietnam
- 20. Le, D.V. (2021) Application of Green Chemical Principles in Aquaculture, IOMC Toolbox "From design to action", online Vietnam.
- 19. Le, D.V. (2020) Inbreeding depression in clam seed production, status and solutions. Scientific technology of sustainable clam production in Vietnam. Can Tho, Vietnam.
- Le, D.V., Kim, V.V. (2019). Softshell turrle aquaculture in Vietnam. Aquatic Special Species Aquaculture. Anhui Academy of Agricultural Science, Maanshan, China
- 17. Le, D.V., Kim, V.V. (2019). The status of freshwater aquaculture in Vietnam with recent development of white-legged shrimp cultured in freshwater. Aquatic Special Species Aquaculture. Anhui Academy of Agricultural Science, Benghu, China.
- Le, D.V., (2018) Cultivation of the New Zealand geoduck clam. National Shellfish Conference, Seattle, USA.

#### Oral or poster presentations

- 15. Nguyen Ngoc Tuan, Truong Dinh Hoai, **Le, D.V.** (2019). Potential of Moringa olefera extract as antimicrobial alternatives for aquaculture disease prevention. Research and application of natural bioactive compounds for aquatic disease prevention. Hanoi, Vietnam.
- 14. Young, T., Le, D.V., et al., 2016. OsHV-1 hijacks host metabolism in oyster larvae. New Zealand Aquaculture Conference, Nelson, New Zealand

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- 13. Gale, S., Le, D.V., et al., 2016. Piloting biochemical tools to assess bivalve early life health in response to ecologically relevant coastal stressors. New Zealand Marine Sciences Society & Australian Marine Sciences Association Joint Conference, Wellington, New Zealand
- Young, T., Le, D.V., et al., 2016. Disturbance of larval host metabolism in response to OsHV-1 virus exposes novel immunological biomarkers. New Zealand Marine Sciences Society & Australian Marine Sciences Association Joint Conference, Wellington, New Zealand
- Young, T., Le, D.V., et al., 2016. Metabolic regulation of immunotoxicity during marine invertebrate embryogenesis. New Zealand Marine Sciences Society & Australian Marine Sciences Association Joint Conference, Wellington, New Zealand
- Ragg, N.L.C., Le, D.V., et al., 2016. Sensitivity of cultured larval mussels (*Perna canaliculus*) to seawater aragonite saturation state. 4th International Symposium on the Ocean in a High-CO<sub>2</sub> World, Hobart, Tasmania, Australia
- Le, D.V., Alfaro, A.C., Ragg, N.L.C., Hilton, Z., King, N., 2015. Innovative wireless heart monitor to assess health in bivalves. New Zealand Marine Sciences Society Conference, Auckland, New Zealand (Talk)
- Le, D.V., Alfaro, A.C., 2015. Geoduck aquaculture potential in New Zealand New Aquaculture Opportunities for New Zealand. Funding, Species, and Strategies Conference, Auckland, New Zealand (Talk)
- 7. Young, T., Gale, S.L., Ragg, N.L.C., Le, D.V., Alfaro, A.C., Watts, E., Sander, S., Bennedict, B., Taylor, J., Villas-Boas, S.G., Burritt, D., 2015. Identification of health biomarkers during larval development of marine mussels exposed to sub-lethal copper concentrations: An integrated, multi-disciplinary approach. Society for Environmental Toxicology and Chemistry, Nelson, New Zealand (Poster)
- Le, D.V., Alfaro, A.C., Ragg, N.L.C., King, N., 2014. A novel tool to assess the health of the New Zealand geoduck clam (*Panopea zelandica*). World Aquaculture Society, Adelaide, Australia (Poster)
- Le, D.V., Alfaro, A.C., King, N., 2013. Shell development of New Zealand geoduck clam larvae. World Aquaculture Society, Ho Chi Minh, Vietnam (Poster)
- Alfaro, A.C., Young, T., Ganesan, A., Rusk, A., Le, D.V., de Jong, N., Higgins, C., Brooks, J., Pook, C., 2013. Multi-disciplinary approach to study larval development. New Zealand Marine Science, Hamilton, New Zealand (Talk)
- 3. Le, D.V., Chien, Y.H., 2011. Apparent digestibility of corn distiller's dried grains with solubles and de-hulled lupine meal for juvenile grouper *Epinephelus coioides* using the multiple ingredient diet method. International Symposium on Grouper Culture, Taiwan (Abstract)
- Le, D.V., 2011. SWOT analysis Innovative approach to sustainable oyster culture in Vietnam. International Oyster Symposium, Tasmania, Australia (Abstract)
- 1. Le, D.V., Chien, Y.H., 2009. Apparent digestibility of corn distiller's dried grains with solubles and de-hulled lupine meal for juvenile grouper *Epinephelus coioides* using the single ingredient diet method. World Aquaculture Society, Kuala Lumpur, Malaysia (Talk)

#### Intepreter

- 7. Grobest Vietnam Shrimp Industry Development Workshop, 22 April, 2021
- 6. USSEC S.E. Asia Aquaculture Feed Extrusion and Feedmilling Workshop, 30 March, 2021

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5. USSEC S.E. Asia Aquaculture Feed Nutrition Workshop, 24 February, 2021

4. USSEC S.E. Asia Aquaculture Technical Broadcas 8, 26 November, 2020

3. USSEC S.E. Asia Aquaculture Technical Broadcas 7, 24 November, 2020

2. USSEC S.E. Asia Aquaculture Technical Broadcas 6, 19 November, 2020

1. USSEC S.E. Asia Aquaculture Technical Broadcas 5, 17 November, 2020

#### Pedagogical training, teaching and supervising experience

<u>Summary</u>: I have attended and completed several pedagogical training programmes. I am in charge of the teaching curriculum of Master and Bachelor aquaculture programs. I have had more than 1200 hours of teaching various aquaculture courses in Vietnam. I have supervised 10 master and 22 bachelor students from different backgrounds. Please see my teaching portfolio for details.

#### **Teaching courses**

Undergraduate

Embryology and Morphology of Aquatic Animals Practice on Marine Aquaculture and Reproduction Practice on Freshwater Aquaculture and Reproduction Aquatic Animal Pathological Practice Aquaculture Practice

## Postgraduate

Live feed production techniques Mollusk Hatchery and Grow-Out Technology Crustacean Hatchery and Grow-Out Technology Advanced Aquaculture

#### Supervisions or mentorings

Students supervised Master students: 10 Bachelor students: 22

I have been a member of the thesis examination committee for over 30 master students within Master Program in Aquaculture & Master Program in Biotechnology (Vietnam National University of Agriculture) and International Master Program in Tropical Aquaculture (VLIR NETWORK VIETNAM BIOSCIENCES ON FOOD). I have been the examiner of over 100 bachelor students.

## Professional services

Reviewer for grant applications:

Conacyt, Mexico (National Council for Science and technology, https://conacyt.mx/)

Vingroup Innovation Foundation, Vietnam. Vingroup Innovation Foundation – VinIF was founded by Vingroup with the overriding mission of supporting scientists and young talents from universities and institutes to create world-class scientific, technological and innovative researches in the field of Science, Technology, Engineering, Medicine, Economics and Education, in order to bring about positive and sustainable changes for Vietnam (https://vinif.org/en/about-en/).

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Ministry of Agriculture and Rural Development, Vietnam Commented [H1]: Where? Ministry of Science and Technology, Vietnam Commented [H2]: Where? Department of Science and Technology of Quang Ninh, Nam Dinh, Ninh Binh, Thanh Hoa, Hai Duong provinces, Vietnam Vietnam National University Vietnam Academy of Science and Technology Reviewer for 4 journals: Aquaculture Research Journal of World Aquaculture Society Vietnam Journal of Agriculture Science Advances in Natural Sciences: Nanoscience and Nanotechnology Consultancy November 2022 Intensive white-leg shrimp culture technology Part 2, Megavet company, Hung Yen province (https://megavet.com.vn/en/) September 2022 Intensive white-leg shrimp culture technology Part 1, Megavet company, Hung Yen province (https://megavet.com.vn/en/) February 2022 Intensive white-leg shrimp culture technology, VMC Animal Health company, Ha Nam province (https://vietnamvmc.com/en/danh-muc-sanpham/animal-health-en/) December 2021 Clam physiology & cultivate clams in pond, Lenger Seafoods company, Nam Dinh province (http://ngheusach.vn/) Oyster hatchery techniques, Hatchery owners, Nam Dinh province December 2021 November 2021 Microalgal diversity in aquaculture ponds and how to manage them, VMC Animal Health company, Ha Nam province (https://vietnamvmc.com/en/danh-muc-san-pham/animal-health-en/) June 2020 Intensive white-leg shrimp culture technology, BIM company, Quang Ninh province (https://www.bimgroup.com/en/projects/detail/18) **Commercial products** Since 2022 Resting rotifer, moina, artemia eggs; depurated oysters Since 2021 Seabass, grouper fingerlings; desand clams Since 2020 Photosynthetic bacteria; probiotics; microalgae stocks; tuna hydrolysate Since 2019 Oyster, clam spat; freshwater-acclimatized white-leg shrimp post-larvae Since 2018 White-leg shrimp **Practical skills** Grow bacteria Condition broodstock of bivalves (i.e. oyster, geoduck, hard clam, and mussel), shrimps (i.e. tiger shrimp, white-leg shrimp), lobster, freshwater fish (i.e. catfish, climbing perch, tilapia) and marine fish (i.e. grouper, cobia, and snapper). Spawn bivalves, shrimps, lobster, freshwater & marine fish. Rear larvae and grow-out of bivalves, shrimps, lobster, freshwater & marine fish. Cultivate live feed (i.e. microalgae, rotifer, artemia, copepod) RAS: fish, shrimp, & bivalves Page 9 of 13

## **Research techniques**

Proximate composition analysis - method: Protein – microBCA, microKjeldahl; Lipid - Bligh & Dyer, Soxhlet; Glycogen – iodine assay, Fiber - AOAC Fatty acid & antioxidant compound analysis Histological analysis Magnetic Resonance Imaging analysis Whole-animal respiratory, feeding, and cardiogram measurements Water quality measurements Staining techniques Pathological analysis including PCR Instruments used: Fluorimeter, pH meter, Oxygen meter, YSI meter (temperature, oxygen, salinity, ammonium, nitrate, chloride), Coulter Counter, Heart rate meter, Spectrophotometer, Plate reader, Gas Chromatography, High Performance Liquid Chromatography, Light Microscope, Scanning Electron Microscope, Fluorescence Microscope, Magnetic Resonance Imaging, Fibertec, Kjeltec, Soxtec Physiological approaches: Scope for activity, feeding consumption, heart rate

Nutritional approaches: Digestibility, proximate composition, fatty acid profile Morphological and behavioral approaches: Abnormality, malfunction, stress-test Experimental design: laboratory & field conditions Data analysis: Univariate & multivariate analysis, regression analysis, modelling

## **Software**

Office software: Microsoft Word, Excel, Powerpoint, Acrobat Pro Imaging software: Photoshop, Image J, MRI Statistical software: SAS, Minitab, Primer, Sigmaplot, R, SPSS, Metaboanalyst Reference manager software: Endnote, Mendeley

## Communication/interpersonal skills

Languages: English - Fluent, Vietnamese - Native, Chinese - Basic

Experienced personal and public speaker

Excellent written report skills incl. reports, peer-review publications, project funding

Excellent planning skills incl. budget and time management across multiple time scales Good problem solver (applying TRIZ, Russian algorithm for "Theory of Inventive Problem Solving)

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