



Van Duy Nguyen

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ACADEMIC INTEREST

A hard-working and dedicated scholar with a strong track record of researching, teaching and project management in **Microbiology & Biotechnology** for improved **Health** and a **Sustainable World**, with a focus on **Medical & Marine Microbiology, Molecular Biology, Genomics & Microbiome-based Pharmaceutical Product Development (Probiotics, Vaccines, Bacteriocins)** in **Food, Medical & Environmental** sectors.

EDUCATION

- 2005 - **PhD in Microbiology, Ernst-Moritz-Arndt-University of Greifswald, Germany** (*English programme, Full MOET/DAAD Scholarship, Key Background & Expertise: Microbiology, Molecular Biology, Antimicrobial resistance, Biochemistry, Omics, Bioinformatics*)
- 2008
- 1999 - **BSc in Biology, Vietnam National University, Hanoi, Vietnam**
- 2003
- Honour Program for Talented Students
 - Result: First Class (GPA 8.91/10.0)
- 2016 **Certificate of Higher Education, University of Danang – University of Pedagogy, Vietnam**

WORK EXPERIENCE

- 2009 - **Lecturer (2009-2016)/Associate Professor (2016-present), Nha Trang University, Vietnam**
- Present
- **Research topics: Group Leader of Research in Microbiology & Biotechnology** for development of **Microbiome-based pharmabiotics (probiotics, bacteriocins, vaccines)** against cancers and infectious diseases (vibriosis, *Helicobacter pylori*,...) for improved **Food Security, Human and Animal Health** by using multi-disciplinary approaches of **Microbiology, Molecular Biology, Biochemistry, Genomics, Microbiome, Bioinformatics, Big Data, and Biotechnology**.
 - **Teaching UG modules: Microbiology, Medical Microbiology, Molecular Biology Techniques, Environmental Biotechnology, Marine Biotechnology.**
 - **Teaching PG modules: Molecular Biology of Cell, Molecular Analysis and Diagnostics, Advanced Microbial Biotechnology, Probiotics Technology, Genomics.**
 - Successfully supervised **30+ BSc and 20+ MSc** student dissertations in **Microbiology & Biotechnology**. Supervising **02 PhD students (2021-2023)**.
 - Vice Director of Academic and Student Affairs at Institute of Biotechnology & Environment, NTU. Lead Student Tutors for tutorial activity up to 1,000 students.
 - Program Director, **BSc/MSc Biotechnology (Medical & Pharmaceutical Biotechnology; Food & Fisheries Biotechnology)**, responsible to the development & management of curricula/modules.
- 6-8/2022 **Visiting Research Fellow at Royal Holloway University of London, UK**
R&D on the MRC/MOST project “*Development of spore vaccines against Helicobacter pylori*”
- 2020-2021 **Consultant for United Nations as Expert in Biodiversity in Asia**
Authored a 60-page-report on Bioprospecting in Vietnam
- 2018 - **Scientific Advisor of Hi-tech, Startup, R&D Organisations, Vietnam & UK**
- Present Consulting & scientific advice for Research and Development Project Management
- 2017-2018 **Visiting Research Fellow at University of Greenwich (UK), Cardiff University (UK), University of Lisbon (Portugal)**
- R&D on Antimicrobial & Anticancer Bacteriocins from Human Microbiome using Biosciences, Biomedical Sciences, Big-Data and Bioinformatics approach
 - Teaching assistance (Biomaterials) in computer labs and tutor activity

- 2013 **Invited Visiting Lecturer in Prince of Songkla University (PSU), Thailand**
Delivered the course Microbial Enzymes to MSc Biotechnology students
- 2003-2005 **Lecturer Assistant at Vietnam National University, Hanoi, Vietnam**
Teaching and research assistance in Biology

SELECTED RESEARCH PUBLICATIONS

1. Liebeke M, Pöther DC, **Nguyen V.D.**, Albrecht D, Becher D, Hochgräfe F, Lalk M, Hecker M, Antelmann H. (2008): Depletion of thiol-containing proteins in response to quinones in *Bacillus subtilis*. *Molecular Microbiology*, 69(6):1513-29. (**Q1** Journal in Microbiology, **IF 5.0** (2008), **105 citations**) (4*)

2. Leelakriangsak M, Huyen NT, Töwe S, **Nguyen V.D.**, Becher D, Hecker M, Antelmann H, Zuber P. (2008): Regulation of quinone detoxification by the thiol stress sensing DUF24/MarR-like repressor, YodB in *Bacillus subtilis*. *Molecular Microbiology*, 67(5):1108-24. (**Q1** Journal in Microbiology, **IF 5.0** (2008), **77 citations**) (4*)
3. Töwe S, Leelakriangsak M, Kobayashi K, **Nguyen V.D.**, Hecker M, Zuber P, Antelmann H. (2007): The MarR-type repressor MhqR (YkvE) regulates multiple dioxygenases/glyoxalases and an azoreductase which confer resistance to 2-methylhydroquinone and catechol in *Bacillus subtilis*. *Molecular Microbiology*, 66(1):40-54. (**Q1** Journal in Microbiology, **IF 5.0** (2008), **65 citations**) (4*)
4. **Nguyen V.D.**, Mäder U, Tran NP, Cavin JF, Tam le T, Albrecht D, Hecker M, Antelmann H. (2007): The proteome and transcriptome analysis of *Bacillus subtilis* in response to salicylic acid. *Proteomics*, 7(5):698-710. (**Q1** Journal in Biochemistry, **IF 5.0** (2007), **59 citations**) (4*)
5. **Nguyen V.D.**, Wolf C, Mäder U, Lalk M, Langer P, Lindequist U, Hecker M, Antelmann H. (2007): Transcriptome and proteome analyses in response to 2-methylhydroquinone and 6-brom-2-vinyl-chroman-4-on reveal different degradation systems involved in the catabolism of aromatic compounds in *Bacillus subtilis*. *Proteomics*, 7(9):1391-408. (**Q1** Journal in Biochemistry, **IF 5.0** (2007), **58 citations**) (4*)
6. **Nguyen V.D.**, Pham T.H., Nguyen T.H.T, Nguyen T.T.X., Lone H. (2014): Screening of marine bacteria with bacteriocin-like activities and probiotic potential for ornate spiny lobster (*Panulirus ornatus*) juvenile. *Fish and Shellfish Immunology*, 40(1): 49-60. (**Q1** in Medicine/ Immunology/Microbiology, **IF 4.27**, **45 citations**) (4*)
7. Nguyen C, **Nguyen V.D.** (2016): Discovery of azurin-like anticancer bacteriocins from human gut microbiome through homology modeling and molecular docking against the tumor suppressor p53. *Biomed Research International*, 2016, Article ID 8490482, pp. 1-12. (**Q2** in Medicine/Microbiology, **IF 2.58**, **31 citations**) (3*)
8. **Nguyen V.D.**, Pham T.T. (2022): *Penicillium vietnamense* sp. nov., the first novel marine fungi species described from Vietnam with a unique conidiophore structure and molecular phylogeny of *Penicillium* section *Charlesia*. *Mycobiology*, 50:3, 155-165. (**Q2** Journal in Plant Science, **Q3** in Microbiology/Infectious Disease, **IF 2.07**) (3*)
9. Pham T.T., Dinh K.V. & **Nguyen V.D.** (2021): Biodiversity and Enzyme Activity of Marine Fungi with 28 New Records from the Tropical Coastal Ecosystems in Vietnam. *Mycobiology*, 49:6, 559- 581. (**Q2** Journal in Plant Science, **Q3** Journal in Microbiology/Infectious Disease, **IF 2.07**) (3*)
10. Nguyen T.H. and **Nguyen V.D.** (2017): Characterization and Applications of Marine Microbial Enzymes in Biotechnology and Probiotics for Animal Health. In: Se-Kwon Kim and Fidel Toldrá, editors, *Advances in Food and Nutrition Research*, 80:37-74, Burlington: Academic Press. (**Q2** in Food Science, **IF 3.89**, **12 citations**) (3*)
11. **Nguyen V.D.**, Nguyen TT, Pham TT, Packianather M, Le CH (2019): Molecular screening and genetic diversity analysis of anticancer Azurin-encoding and Azurin-like genes in human gut microbiome deduced through cultivation-dependent and cultivation-independent studies. *International Microbiology*, 22, 437–449. (**Q3** Journal in Microbiology, **IF 2.48**) (3*)
12. Nguyen T.K.C, Pham T.T, Huynh T.B.M., Tran T.H., Packianather M., Le C.H., **Nguyen V.D.** (2020): Design and Development of a Novel Anticancer Peptide from Human Gut Microbiome by Using Recombinant Protein Engineering. *IFMBE Proceedings*, vol 69, Springer.
13. **Nguyen V.D** (2016): Marine glycans in relationship with probiotic microorganisms to improve human and animal health. In: Se-Kwon Kim (ed.), *Marine Glycobiology: Principles and Applications*, CRC Press, 67-84.
14. **Nguyen V.D.**, Nguyen H.H.C. (2015): Molecular screening of Azurin-like anticancer bacteriocins from human gut microflora using bioinformatics. *Advances in Intelligent Systems and Computing*, 358, 219-229, Springer.
15. Nguyen T.T.G., Nguyen T.C., Leelakriangsak M., Pham T.T., Pham Q.H., Lueangthuwapranit C., **Nguyen V.D.** (2018): Promotion of *Lactobacillus plantarum* on growth and resistance against acute hepatopancreatic necrosis disease pathogens in white-leg shrimp (*Litopenaeus vannamei*). *Thai Journal of Veterinary Medicine*, 48(1): 19-28.

GRANT & PROJECT EXPERIENCE

2021 Vingroup Innovation Foundation (£200K, PI)

Innovative and Smart Agriculture Platform: A Digital Transformation and High Technology Integration for improved Coffee Value Chain and Supply Chain in Vietnam (INNSA)

2020 Joint Newton Fund program on Infectious Diseases: **UK Medical Research Council (£466,981; Co-I)**, *Helicobacter pylori* in Vietnam: Prevalence, AMR & Vaccination (PI: Prof. Simon Cutting, Royal Holloway University of London, UK) and **Vietnam Ministry of Science & Technology (£150K, PI)**, *Development of spore vaccines against Helicobacter pylori*.

2019 **British Council (£20K, Co-I)**

Van Duy NGUYEN

- Education fit for the future: development of a university-industry-government model to deliver industrial placements in international and transnational education.* PI: Prof. Raymond Lee, University of Portsmouth
- 2018 **British Council (£60K, PI)**
Transnational Education and Research via the Academic Mobility, Business-University Collaborations and the Joint Postgraduate Programmes in Sustainability, Innovation and Entrepreneurship (TEAM-SIE)
- 2017 **NAFOSTED (£30K, Co-I)**, *Biodiversity of mycoplankton from coastal waters of Khanh Hoa province (Vietnam) deduced through culture-dependent and independent studies*
- 2017 **NAFOSTED – UK Academies (£7000, PI)**
Innovative design & development of anticancer bacteriocins from the human microbiome: Big-Data & Bioinformatics. Mentors: Dr CH Le, University of Greenwich; Dr Michael Packianather, Cardiff University
- 2016 **British Council (£29K, Co-I)**, *Enhancements of High-Quality Human Resources & Employability for Vietnam in Design & Development of High-value Added Products, Innovation & Entrepreneurship (HAPIE).*
- 2016 **MARD (Vietnam Ministry of Agriculture & Rural Development) (£50K, Co-I)**
Study on disease caused by microsporidian in penaeid shrimp
- 2015 **NAFOSTED (£38K, PI)**, *Molecular screening of potentially anticancer bacteriocins from human microflora using bioinformatics and molecular biology approaches.*
- 2015 **PSU Collaborative Research Fund, Thailand (£10K, Co-I)**
Effects of dietary probiotics on growth performance, digestive enzymes and immunity of pacific white shrimp
- 2014 **NAFOSTED (£2K, PI)**, *International Travel Award, London, UK, 20-22/10/2014*
- 2011 **NAFOSTED (£27K, PI)**, *Isolation, screening and characterization of marine bacteriocin-producing bacteria for the development of multi-functional drugs in aquaculture*
- 2011 **MOET (Vietnam Ministry of Education and Training) (£21K, Co-I)**
Study on new bacteria strains as probiotics against pathogens in ornate spiny lobster in Vietnam
- 2010 **MOET (£7K, PI)**, *Study on the use of bacteriocin-producing lactic acid bacteria for food preservation*
- 2010 **WUS, Germany (€10K, PI)**, *Returning Experts Programme Workplace equipment subsidy (APA)*

AWARDS & RECOGNITIONS

- 2021 **Ambassador of DAAD** (German Academic Exchange Organisation)
- 2020 **Consultant for United Nations** as Expert in Biodiversity in Asia
- 2019 **Certificate of Merit** from the Minister of Education and Training for excellent teaching and research
- 2016 Recognition Certificate of **Associate Professor in Microbiology**, Vietnam State Council of Professor Title
- 2014 **Certificate of Merit** from the Vietnam Education Union for excellent achievement in higher education
- 2013 **Certificate of Merit** from the Minister of Education and Training for excellent teaching and research
- 2013 **Young Scientist Award**, Minister of Science & Technology/Vietnam Young Union for excellent research
- 2008 **Full PhD Fellowship** at University of Greifswald, Germany, by MOET and DAAD (2005-2008)
- 1998 **2nd Prize**, National Biology Olympiad. **National Team**, International Biology Olympiad (IBO), Germany

PROFESSIONAL BODIES

- Full Concessionary Member, Microbiology Society (UK), 2017 - present
- Member, Bacterial Vaccines Network (www.birmingham.ac.uk/bactivac)
- Co-Founder, Vietnam-UK Network for Higher Education, Innovation & Entrepreneurship (www.vuheie.org)
- Founder and Scientific Director, Nhatrang Institute of Technology Innovation and Application (www.nitia.org)
- Member of Editorial Board, *International Journal of Probiotics and Prebiotics*
- Peer Reviewer: *Int J Biol Macromolecule, Bioengineered, Mol Bio Rep, Probiotics Antimicrob Proteins, Fish Shellfish Immunol, Oncotarget, Aquacult Res, Dis Aquat Organ, Braz J Microbiol, ...*

PROFESSIONAL DEVELOPMENT

- Certificate, The 5th AUN-QA Training Workshop for accomplishing Programme Assessment, ASEAN University Network (AUN), 2022.
- Certificate, Business-University Collaborations in Innovation & Entrepreneurship, Cardiff University, UK, 2019.
- Certificate, Vaccines 2014, London, UK, 2014.
- Certificate, Food Biotechnology for Developing Countries, China, 2013.
- Certificate, Water, Land and Southeast Asia Food Sovereignty, Indonesia, 2012.
- Certificate, Proposal Writing for International Research Projects, DAAD & German universities, 2010