

CURRICULUM VITAE



DR. NORFARRAH MOHAMED ALIPIAH

Research Officer

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Google Scholar [Norfarrah Mohamed Alipiah](https://scholar.google.com/citations?user=Norfarrah%20Mohamed%20Alipiah)

BIOGRAPHY

Dr. Norfarrah Mohamed Alipiah is a Research Officer in the Aquatic Animal Health and Therapeutics Laboratory, Institute of Bioscience, Universiti Putra Malaysia. She specializes in the field of Systems Biology, with focus area on RNA biology and molecular mechanism. Her research primarily directed at understanding the molecular function regulation of pathogenesis and host-microbes interaction by exploring mechanistic relationship that affect function as well as associated regulatory pathways. She was involved in six research projects, where she led three of them. Her research projects involved current biotechnology tools to address solution to reduce antimicrobial resistance (AMR), aquatic zoonotic diseases, and conservation genomics for aquatic organisms.

Dr. Norfarrah undergraduate study was in Bachelor of Science (Hons) major in Biology. She later continues her studies and graduated Master of Science with fields of study Microbiology in 2012 and Doctor of Philosophy (Systems Biology) in 2021, both while working simultaneously as Research Officer. She has published in total of 16 articles on topics related to molecular mechanisms, microbial pathogenesis, and antibacterial properties from aquatic sources. She is reviewer for several international journal such as Journal of Pure and Applied Microbiology, BioMed Research International and Aquaculture Environment Interactions. Throughout her research experience, she has developed passion in nature conservation towards aquatic animals and environment.

ACADEMIC QUALIFICATIONS

- PHD, Systems Biology, Institute of Systems Biology, Universiti Kebangsaan Malaysia (2021). Thesis Title: Characterization of Bacterial Conserved Small RNA in *Burkholderia pseudomallei*
- MSc, Microbiology, Faculty of Medicine and Health Sciences, Universiti Putra Malaysia (2012)
- BSc (Hons), Biology, Faculty of Science, Universiti Putra Malaysia (2002)

SPECIALIZATION

Areas Of Expertise

Systems Biology, RNA Biology and Molecular Mechanism.

Research Interest

- Molecular function regulation of pathogenesis and host-microbes interaction by exploring mechanistic relationship that affect function as well as associated regulatory pathways.
- Nature conservation towards aquatic animals and environment through conservation genomics study

RESEARCH GRANTS

- Project Leader, Small Interfering RNA Molecule as Antagonist to Vibrio Quorum Sensing Regulation in Asian Sea Bass *Lates calcarifer* Fingerlings (2022 - 2024). GP-IPM, Universiti Putra Malaysia - RM 35,000.00
- Project Leader, High Immunity Breeds Selection of *Epinephalus fuscoguttatus* (tiger grouper) Fingerlings against Vibriosis through Transcriptome Array Assessment (2012 – 2014). Ministry of Science and Technology (MOSTI) Malaysia - RM 152,600.00
- Project Leader, Active Molecules of Microbial Consortia Isolated from Potential Invertebrates (2010 – 2012). Research University Grants Scheme (RUGS), Universiti Putra Malaysia - RM 30,000.00
- Co-researcher, Occurrence, Antimicrobial Resistance Profile and Virulence Associated Genes of Vibrio spp. Isolated from Cultured Shrimp in Peninsular Malaysia (2022 - 2024), GP-IPM, Universiti Putra Malaysia

- Co-researcher, Integrated quorum quenching strategies to reduce antimicrobial resistance in shrimp aquaculture (2019 - 2023) International Development Research Centre, Canada & Global Antimicrobial Resistance Innovation Fund (GAMRIF), United Kingdom.
- Sub-project researcher, Small RNA-Sequencing of *Vibrio harveyi* cultured in quenching culture conditions (2021 – 2023). IBS - AquaHealth Internal Fund HICoE, Universiti Putra Malaysia

PUBLICATION

Scopus H-index: 6, Total citation: 93

Google Scholar H-index: 6, Total citation: 184

Data on 1st June 2023

1. Hassan M, Mohd Ali MR, Zamri HF, Nor Amdan NA, Azmai MNA, Maniam S, **Norfarrah MA**, Hashim R. Distribution, Prevalence, and Antibiotic Susceptibility Profiles of Infectious Noncholera Vibrio Species in Malaysia. *Journal of Tropical Medicine*. 2023;2023. **Q2**
2. Lukman B, Roslindawani M, Azzam-Sayuti M, **Norfarrah MA**, Annas S, Ina-Salwany M, et al. Disease development in red hybrid tilapia following single and co-infection with tilapia lake virus and *Streptococcus agalactiae*. *Aquaculture*. 2023;739251. **Q1**
3. Muthukrishnan S, Mohd-Padil H, **Norfarrah MA**, Natrah I. Data on genome assembly and annotation of *Marinobacter* sp. strain CA1 isolated from indigenous diatom found in whiteleg shrimp pond in Malaysia. *Data in Brief*. 2022;108049. **Q3**
4. Munyati-Othman N, Appasamy SD, Damiri N, Emrizal R, **Norfarrah MA**, Ramlan EI, et al. Regulation of Glycine Cleavage and Detoxification by a Highly Conserved Glycine Riboswitch in *Burkholderia* spp. *Current Microbiology*. 2021;78:1-13. **Main Author, Q4**
5. Noor NM, Defoirdt T, **Norfarrah MA**, Murni K, Daud H, Natrah I. Quorum sensing is required for full virulence of *Vibrio campbellii* towards tiger grouper (*Epinephelus fuscoguttatus*) larvae. *Journal of Fish Diseases*. 2019;42(4):489-95. **Q1**
6. Abdoulie C, Mariana-Nor S, Mohammed A-P, Intan-Safinar I, Muhammad-Farhan N, **Norfarrah MA**. Extraction and Characterization of Organ Components of the Malaysian Sea Cucumber *Holothuria leucospilota* Yielded Bioactives Exhibiting Diverse Properties. *BioMed Research International*. 2019. **Q3**
7. **Norfarrah MA**, Ramli NHS, Low C-F, Shamsudin MN, Yusoff FM. Protective effects of sea cucumber surface-associated bacteria against *Vibrio harveyi* in

- brown-marbled grouper fingerlings. *Aquaculture Environment Interactions*. 2016;8:147-55. **First & Corresponding Author, Q1**
8. Aslizah MA, Ina-Salwany MY, Mohd-Zamri S, Hassan M-D, **Norfarrah MA**. Molecular characterization of *Vibrio harveyi* virulence- associated serine protease and outer membrane protein genes for vaccine development. *International Journal of Biosciences*. 2016;8(3):10 - 28.
 9. **Norfarrah MA**, Mariana-Nor S, Fatimah MY, Arshad A. Membrane biosynthesis gene disruption in methicillin-resistant *Staphylococcus aureus* (MRSA) as potential mechanism for reducing antibiotic resistance. *Indian journal of microbiology*. 2015;55(1):41-9. **First & Corresponding Author, Q4**
 10. Ceesay A, Shamsudin, M.N., **Norfarrah, M.A**, Ismail, I.S. Biodiversity and adaptability of *Holothuria leucospilota* and *Stichopus japonicus* sea cucumber species in artificial environment. *Journal of Aquaculture Research and Development*. 2012;3(2). **Scopus**
 11. Mariana N, Nik K, Neela V, **Norfarrah MA**, Zamberi S. In vivo evaluation on Malaysian coastal isolates of *Gracilaria changii* and *Stichopus badionotus* through heat-burn methicillin-resistant *Staphylococcus aureus* (MRSA) infection animal model. *African Journal of Microbiology Research*. 2011;5(12):1379-82.
 12. Al-Haj NA, Shamsudin M, **Norfarrah MA**, Zamri H, Ahmad B, Siddig I, et al. Characterization of *Nigella sativa* L. essential oil-loaded solid lipid nanoparticles. *American Journal of Pharmacology and Toxicology*. 2010;5(1):52-7. **Scopus**
 13. Shamsudin MN, **Norfarrah MA**, Yusoff FM, Arshad A. Molecular–Bioassay Methods: Complementary Approaches for Development and Evaluation of Anti-Infective Marine Product. *Pertanika Journal of Tropical Agricultural Science*. 2009;32(1):63-7. **Scopus**
 14. Mariana N, **Norfarrah MA**, Yusoff F, Arshad A. Selective in vitro activity of marine extract on genes encoding membrane synthesis of methicillin resistance *Staphylococcus aureus*. *Biotechnology*. 2009;8(1):180-3. **Corresponding Author, Scopus**
 15. Mariana N, **Norfarrah MA**, Nik K, Yusoff F, Arshad A. Evaluating the antibacterial activity and in vivo assay of methanolic extract of *Stichopus badionotus*. *International Journal of Pharmacology*. 2009;5(3):228-31. **Corresponding Author, Scopus**
 16. Al-Haj N, **Norfarrah MA**, Shamsudin M, Yusoff F, Arshad A. Novel antibacterial activity of peptide gene extracted from Malaysian sea cucumber. *Research Journal of Biological Sciences*. 2009;4(4):482-6.

BOOK

1. Yasin I-SM, Chan K-W, **Norfarrah MA**, Mansor M, Ismail N, et al. 2021. *Institute of Bioscience Silver Jubilee: 1996-2021: The Reminiscence of a Quarter Century of Glory*. Universiti Putra Malaysia: Institute of Bioscience, Universiti Putra Malaysia.

PROFESSIONAL AFFILIATION

- Member of Microbiology Society. Affiliate member C032709, 2020 – now
- Member of Malaysian Society for Biochemistry and Molecular Biology, Ordinary OM-2022-006, from 2017 – now
- Member of Malaysian Society for Microbiology. Ordinary member MSM/M/18/19/LOM11, 2019
- Member of Research Officer Association Universiti Putra Malaysia. Ordinary member 2009013, from 2009 – now
- Member of Institute Bioscience Welfare and Social Club. Ordinary member, from 2009 – now

REVIEWERS

1. Journal of Pure and Applied Microbiology
2. BioMed Research International
3. Aquaculture Environment Interactions
4. Journal of Applied Microbiology
5. Journal of Antimicrobial Chemotherapy