



### **Personal Profile**

Dr Jeffrey Seng Eng Khuan, Senior Lecturer, Senior Specialist (Aquatic Health and Diagnostics), School of Applied Science (SAS), Nanyang Polytechnic

### **Academic Qualifications**

B. Sc (Biotechnology), Honours in Veterinary Biology (Murdoch University, W.A., Australia). Ph.D (Virology and Immunology) National University of Singapore (NUS)

Dr Jeffrey Seng is a senior lecturer and senior specialist at the School of Applied Science (SAS) at Nanyang Polytechnic (NYP) Singapore. He completed his PhD in NUS focusing on identifying a fish virus, and developing a recombinant and DNA vaccines, and studying its efficacy in fish. He later completed his postdoc in NUS working on the expression and characterization of SARS coronavirus proteins using a bacterial cell surface display system. Prior to pursuing his PhD, he worked as a Research Biologist at the Center for Natural Products Research (CNPR)/ Merlion Pharmaceuticals in isolating and identifying marine bacteria from sea environment for culture to identify potential therapeutics for human diseases. At SAS, in 2013-2014, he was seconded to Barramundi Asia Pte Ltd (BA) to help BA to solve a deadly bacterial disease that caused massive fish deaths and managed to develop two autogenous bacterial vaccines for use at the BA farm. Working with the regulatory activities, Agri-Veterinary Authority of Singapore (AVA), the vaccines were certified by AVA as safe for use in fish. Seeing the value of the vaccines, BA spun off a company named Uvaxx Pte Ltd for the production and distribution of the vaccines for their farms. Since the introduction of the vaccines the farms productivity has increased tremendously. He has now ventured overseas to Vietnam to develop bacterial vaccines for pangasius catfish. He has also published several peer reviewed manuscripts and participated in talks and poster sessions in various local and overseas conferences. His current research focus includes, (a) Isolation and identification of potential fish pathogens via advance techniques, and (b) Exploration into novel methods to produce vaccines (c) Production of sustainable fish feed from animal & industrial wastes and (d) Assisting local farmers to adopt precision fish farming practices to increase productivity. His excellent contributions in teaching, research and development, have been recognized by Ministry of Education (MOE), and the Public Service Division of Singapore (PSD) by being awarded PS21 ExCEL Gold Award for the Most Innovative Project Award 2015, and PS21 ExCEL Silver Award for Innovation Champion.