CURRICULUM VITAE

**NAME: SELVANESAN A/L SENGOL**.

Date of birth: 13, June. 1970.

Place of birth: Selangor, Malaysia.

**ACADEMIC QUALIFICATIONS;**

i) Diploma Medical Assistant (Ministry of Health Malaysia).

ii) Pos Basic in Orthopedic Nursing, (Ministry of Health Malaysia).

1. Bachelor of Science - Biomedical Science (University Putra Malaysia).
2. Diploma in Medical Microbiology (SEAMEO -TROPMED)
3. Master of Science - Biomedical Science (University Kebangsaan Malaysia).

**WORK EXPERIENCE;**

Year Position Place

1993-2003 Medical Assistant Tengku Ampuan Rahimah Hospital,

(10 Years) Klang, Selangor, Malaysia

2003 – present Science Officer National Public Health Laboratory,

(20 Years) (Microbiologist) Sg. Buloh. Malaysia

**CONTRIBUTIONS TO MINISTRY OF HEALTH AND SOCIETY.**

* Work at Emergency Department Tengku Ampuan Rahimah Hospital as Medical Assistant - Handling emergency and trauma patients/victims. (1993-2003).
* Lead / participate in medical teams for sport event and meetings involved international participants (1993-2001).
* Trainer and facilitate the Basic Life Support training in the state of Selangor (1996- 2003).
* Trainer and facilitate Advance Cardiac Life Support training in the state of Selangor (1996- 2003).
* Trainer and facilitate Pediatric Cardiac Life Support training in the state of Selangor (2001- 2003).
* Assisted Ministry of Health to organize and participate in medical teams for special events including disease outbreaks in the country. (1993-2003).
* Involved in management of patient suspected infected with SARS virus at emergency department, hospital Tengku Ampuan Rahimah. (2000).
* Identification of Neisseria Meningitides as the cause of the outbreak of meningitis in the state of Selangor (2003).
* Technical committee for constructions of BSL 3 Laboratory, National Public Health Laboratory, Malaysia (2004-2007).
* Facilitator for USPACOM/COE Pandemic Influenza Workshop: Laboratory Technician Training. (20-23 May 2008)
* Secretariat for ASEAN +3 Workshop on Development of Laboratory Based Surveillance and Strengthening Regional Laboratory Network. (1-13 Aug 2008)
* Presented research Paper at Universitas Indonesia. (17-19 May 2010) - Jakarta Indonesia.
* Trainer and facilitator (Laboratory) Malaysian Technical Cooperation Program (MTCP)- Epidemiological Intelligence Management Program (EIMP) Course 2012. (04 - 22 June 2012) – Malaysia.
* Presenter at 9th Allied Health Scientific Conference Malaysia 2012 (10-11 Sept 2012) – Kuala Lumpur.
* Facilitator and Trainer at ASEAN+3 Partnership Workshop on Virus Isolation and Molecular Detection of Enterovirus 71. (19-21 Nov 2012).
* Committee member for preparation of Measles/ Rubella Surveillance Guidelines. (2012).
* Present paper at BSKB Research Day 2013. (7-8 Oct 2013).
* Committee member for preparation of Poliovirus Surveillance Guidelines. (2014).
* Secretariat and presenter for Strengthening Laboratory Surveillance Briefings (24 June 2014).
* Facilitator and presenter for Respiratory Virus Antigen Detection Workshop (27-28 Aug 2014)
* Secretariats for ASEAN +3/ WHO laboratory surveillance annual meetings. (2003-2015).
* Facilitator and presenter for Respiratory Virus Antigen Detection Workshop (21-23 April 2015).
* Secretariat 2nd ASEAN National Laboratory Contact Person (NLCP) Meeting. (1-13 Aug 2015)
* Committee member for preparation of Malaysian Influenza Surveillance Protocol. (2016).
* Presented at Respiratory Virus Disease, Implementation of ILI And SARI Surveillance Training (13 May 2016).
* Presented at Training on Infectious Diseases Sampling Method (12 Oct 2016) -Kuala Lumpur.
* Lead internal Auditor MS ISO 15189 for National Public Health Laboratory (NPHL). 2012-2017).
* Presentation on Introduction to Biosafety Cabinet (10-11 August 2017).
* Assisted Ministry of Health and involved in an investigation of poliovirus outbreak in Sabah (2019).
* Committee member for preparation of COVID-19 Surveillance Guidelines (2020).
* NPHL Laboratory coordinator for COVID-19 pandemic. (2020-2022).
* NPHL laboratory technical coordinator for COVID-19 test kit evaluation (2020-2022).

**TRAINING RECORDS**.

* Workshop – The Biolog MicroStation for Bacteria, Yeast and Filamentous Fungi Identification System Training. (29-30 May 2003) – MKA, Ipoh.
* Workshop – Basic Training Course on Electron Microscopy. (27 Sept -9 Oct 2004).
* Workshop – Evaluation of Early Warning and Response (EWAR (Functions in Ministry of Health Malaysia. (23Nov -3 Dec 2004).
* Workshop – National Training Course in Ultramicrotomy and Immunolabelling. (8-10 Dec 204).
* Biosafety and Biosecurity Training (31 Mei 2005 – 2 June 2005)- Kuala Lumpur.
* Workshop - Confocal Microscope- Introduction and Training Course. (16-18 Aug 2005).
* Training - Basic Microscopy Knowledge and Maintenance Course. (23 Aug 2005).
* Laboratory Training in Diagnostic Electron Microscopy (1 Sept – 12 oct 2007) Australian Animal Health Laboratory, Geelong, Australia.
* Conference - 17th Electron Microscopy Society Malaysia (EMSM) Scientific Conference. (2007)
* Workshop - Frontier in Diagnostic Electron Microscopy on Infectious Diseases. (26-27 Nov 2008)
* Training on Research Statistical Analysis For Professional Groups. (27-30 Sept 2010)
* Training on Scientific Research Report Writing For Professional Groups. (14-16 Dec 2010)
* Seminar- VPFESEM Application. (10 March 2011).
* BSL 3 Usage Intensive Course on 23 May 2012 – Kuala Lumpur.
* Seminar – GATAN Electron Microscopy Attachments for SEM & TEM In Life Science and Medic Application. (19 June 2012) University Malaya.
* Workshop- Strengthening Scientific Writing. (04-05 July 2012).
* 9th Allied Health Scientific Conference Malaysia 2012 (10-11 Sept 2012) – Kuala Lumpur.
* Training on Dengue Virus Serotype Surveillance Program Implementation. (28 Aug 2012)
* Training on Laboratory Equipment Calibration- Theory and Practical for (Temperature, Mass and Volume). (18-19 Oct 2012)
* Pre-conference Workshop Bio-Risk Management- Building A Sustainable Bio-risk Culture in the Asia-Pacific Region (22 -23 Apr 2013).
* APBA Biosafety Conference – Building a Sustainable Bio-risk Culture in the Asia-Pacific Region (24 -25 Apr 2013).
* Bioinformatics And Analysis of Virus Sequences Workshop (26 – 28 June 2014)
* MBBA-ASM workshop: bio-risk awareness for Ebola healthcare workers (19 Sept 2014).
* Training on Simulation of EBOLA & Avian Influenza Virus Outbreak at Selangor State. (16 Oct 2014)
* Training on Understanding of Calibration Certificate (25 Sept 2014)
* Training on Handling and Usage of Ultrafiltration System (16 Feb 2015)
* Cell Culture Seminar. (1-2 June 2015) -Kuala Lumpur
* International Conference on Radiation Safety & Security In Healthcare Services (03-04 Oct 2015).
* Training on Influenza Laboratory Surveillance Techniques (18-20 Nov 2015) Chinese CDC Beijing, China
* Laboratory Biosafety & Security – Part and Parcel (04 Nov 2016).
* Training on Basic Epidemiology and Methods (2-23 Nov 2016)
* Hands-on Training on Euro-immune Chikungunya ELISA IgM & IgG. (8 May 2017)
* Workshop on Virus Isolation and Characterization for National Influenza Centre Staff in the WHO-Western Pacific Region (29 May- 2 June 2017)- VIDRL Australia
* Introduction to Biological Safety Cabinet Technology: User’s Essentials Workshop (train the trainer) (04 – 06 July 2017) – Bangkok, Thailand.
* Introduction to Biological Safety Cabinet Technology: User’s Essentials Workshop (train the trainer) (14 – 15 Sept 2017)- Bangkok, Thailand.
* Biological Safety Cabinet Certification Workshop: A Rectifier’s Intermediate Course (18 -22 Sept 2017) – Bangkok, Thailand.
* Bio-Risk Management (05-07 February 2018).
* Radiation Safety and Emergency Management Training- 3 day’s course. (yearly).
* Workshop for Molecular Analysis of Measles and Rubella Viruses (20-22 March 2019)
* Risk Management for NCDC Project (25-26 June 2019)
* Multiplex Real Time PCR Detection of Respiratory Viruses (09-10 Oct 2019).
* Training Course on Bioinformatics and Data Analysis of Influenza Viruses (14 -17 Oct 2019).
* POCT Measles Study International Training (13 – 21 Aug 2019)
* Training on Flavivirus Laboratory Surveillance (11 – 12 Sept 2019)
* Infectious Substance Shipping for Local sample- Transportation of COVID-19 Patient Specimen (1 Sept 2021).
* Genomic Diversity of SARS-CoV-2 In Malaysia (03 Nov 2021).
* Strengthening Biothreat Preparedness in ASIA PACIFIC Region (14-15 June 2022)
* Oligonucleotide Synthesis- Method and Principals of Primer and Probe Design for Molecular Applications (23 Aug 2022)
* Rapid Whole Genome Sequencing of SARS-CoV-2 Using Nanopore Sequencing Technology (23 March 2022).
* Fundamentals of Working Safely in BSC (14 Nov 2022).
* Strengthening Efforts to identify and disrupt the use of Toxin as Weapons by non-State Actors by Engaging Multisector Stakeholders in Malaysia and Philippines. (16-18 May 2023)

**CURRENT WORK ACTIVITIES.**

- Unit Head for Viral Isolation Laboratory. Manage and handling viral culture in risk group 2,3 and 4. Manage BSL3 laboratory and tissue culture laboratory.

- Unit Head for Viral Isolation Laboratory. Handling biological samples like viruses and bacteria

- Involve in managing the laboratory, preparing samples and viewing under the microscope, and produce result. Responsible in decision-making and involve in identifying organism via electron microscopy method.

- Technical committee for fire and safety, National Public Health Laboratory. (Head of radiation safety committee)

- Secretariat for national biosafety and biosecurity committee.

- Laboratory Technical Coordinator for NCDC Malaysia.

* Secretariat for disease preparedness and surveillance National committee
* Involved in disease outbreak management especially in laboratory component.
* Radiation Protection officer for National Public Health Laboratory, handling all issues regarding radiations.
* NPHL Kit evaluation technical Coordinator and facilitator
* NPHL Technical officer for Influenza virus, SARS-CoV-2 and other Respiratory viruses
* Biological Safety Cabinet trainer
* Member of Biosafety and Security committee, NPHL.
* Country representative for WHO/ WPRO Regional Influenza Meeting.
* Country representative for WHO/ WPRO Regional Measles/ Rubella Meeting.
* Country representative for WHO/ WPRO regional Poliovirus (environmental) Meeting.
* Steering committee member for Strengthening regional biothreat preparedness meeting.

**CITATION/PUBLICATION**

1. Chua S K, Selvanesan S, Sivalingam B, Chem Y K, Norizah I, Zuridah H, Kumarasamy V, Chua K B isolation of monoclonal antibodies escape variant of dengue virus serotype 1 Singapore medical Journal 2006; 46(11): 940
2. Muhd Yusof A B, Selvanesan S, Norizah I, Zuridah H, Kumarasamy V, Mariam M, Chua K B, Rubella outbreak amongst residential students in a military vocational school of Malaysia, Malaysia medical journal vol no 3 august 2006.
3. Patrick Guda Benjamin, Jurin Wolmon Gunsalam, Son Radu, Suhaimi Napis, Fatimah Abu Bakar, Meting Beon, Adom Benjamin, Clement William Dumba, Selvanesan Sengol, Faizul Mansur, Factors Associated with Emergence and Spread of Cholera Epidemics and Its Control in Sarawak, Malaysia between 1994 and 2003,Southeast Asian Studies, Vol. 43, No. 2, September 2005
4. Paramasvaran S. Sani R.A. Krishnasamy M. Amal Nasir M. Hassan L. Mohd Zain S.N. Jeffery J. Santhana Raj L. Latifa I. Abdul Aziz. Vellayan S. Selvanesan S. An overview of nematodes infecting urban and wild rodens in malaysia. Malaysian Journal of Veterinary research, Vol. 3, No. 1, January 2012
5. Santhana Raj, L, Selvanesan, S., Paramasvaran, S., Azizah Mohamad and Baharudin Omar. Microwave Fixation Technique for Staphylococcus Aureus ATCC 25923. Annals of Microscopy 2009 Vol 9 (41-45).
6. S. Selvanesan, Baharudin Omar, Santhana Raj L., Paramasvaran S., Chua K.B. and Hing H.L. A Modifi ed Method of Preparing Formvar Film Grid for Negative Staining in Biological Sample. 2012 Vol 12 (14-19)
7. Sam IC, Noraini W, Sandhu SS, Norizah I, Selvanesan S, Thayan R, Yusof MA, Hassan A, Jafar FL, Chan YF. Seasonal influenza activity based on laboratory surveillance in Malaysia, 2011-2016. J Med Virol. 2019 Vol 91(3):498-502.
8. Noorliza Mohamad Noordin, Joon Liang Tan, Chee Kheong Chong,Yu Kie Chem, Norazimah Tajudin, Rehan Shuhada Abu Bakar, Selvanesan Sengol, Hannah Yik Phing Phoon, Nurul Aina Murni Che Azid,W Nur Afiza W Mohd Arifin, Zirwatul Adilah Aziz, Hani Hussin,Nurul Syahida Ibrahim, Aziyati Omar, Ushananthiny Ravi, Kamal HishamKamarul Zaman, Mohd Asri Yamin and Yun Fong Ngeow. Genomic diversity of SARS-CoV-2 in Malaysia, PeerJ, DOI 10.7717/peerj.12449
9. Noriah Binti Mohd Yusof, Zhi Shan Khor, Rehan Shuhada Binti Abu Bakar, Kamal Hisham Bin Kamarul Zaman, Yu Kie Chem, Nur Aina Fatini, Nur Hazliza Binti Salleh, Selvanesan Sengol, Savuth Chin, Sitha Prum, Visal Chhe, Phally Vy, Aizzuddin Mirasin, Nur Amirah Ibarahim, Izzati Azhar, Muhd Haziq Fikry Abdul Momin, Nor Azian Hafneh, Hartanti Dian Ikawati, Hana Apsari Pawestri, Arie Ardiansyah Nugraha, Kartika Dewi Puspa, Archawin Rojanawiwat, Pilailuk Akkapaiboon Okada, Siripaporn Phuygun, Thanutsapa Thanadachakul, Pakorn Piromtong, Hoang Vu Mai Phuong, Ung Thi Hong Trang, Nguyen Phuong Anh, Nguyen Vu Son, Le Thi Thanh, Noorliza Mohamad Noordin, Joon Liang Tan. Linkage disequilibrium suggests genomic stability in Omicron clades of SARS-CoV-2 from the ASEAN countries, Journal of Travel Medicine, 2023, 1-3.
10. Noorliza Mohamad Noordin, Aziyati binti Omar, Ishmah Hana Isharudin, Riasah Idris, Yukie Chem, Intan Surianne Mat Sahat, Selvanesan Sengol, Zirwatul Adilah Aziz, Zhuo-zhi Lim, Teck-Onn Lim. Sero-Prevalence of Covid-19 among workers in Malaysia. https://doi.org/10.1101/2022.01.16.2226938