MALAYSIAN SOCIETY OF PARASITOLOGY AND TROPICAL MEDICINE
PERSATUAN KAJIPARASIT DAN PERUBATAN TROPIKA MALAYSIA
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SANDOSHAM MEDALLIST 2019

DR NAZNI WASI AHMAD

Dr Nazni Wasi Ahmad joined the Medical Entomology Unit, which is also the WHO Collaborating Centre for the Ecology, Taxonomy and Control of Vectors of Malaria, Filariasis and Dengue, Institute for Medical Research (IMR), Kuala Lumpur in 1993 as a Research Officer, and Senior Research Officer, to date.

Dr Nazni is an active researcher with a diverse interest in many fields of medical entomology, which includes dengue, chikungunya and Zika vectors, re-emerging and exotic vectors, insecticide resistance, forensic entomology, maggot debridement therapy, transgenic mosquitoes, *Wolbachia* and Sterile Insect Techniques. Her biomedical career is marked by many excellent and extraordinary scientific discoveries and inventions too many to name. Among these are the world's first demonstration that a Malaysian blowfly, *Lucilia cuprina*, could be used to debride intractable wound and saving limbs from amputation. She also found new anti-microbial agents from this fly particularly effective against the MRSA microorganism. She and co-workers first established transgenic *Aedes aegypti* and *Aedes albopictus* in IMR outside UK and was able to achieve the world's first semi-field trials and open field trials involving transgenic mosquitoes.

In addition, she and co-workers developed world's first comprehensive rapid enzyme-based test kits for the detection of the insecticide resistance, and forensic entomology test kits for the determination of post-mortem interval. More recently, Dr Nazni and team established a strain of *Aedes aegypti* transfected with *Wolbachia* which blocks dengue, chikungunya and Zika virus replication and conducted large scale field trial in dengue hotspots by releasing these mosquitoes. They achieved convincing results demonstrating a significant reduction of dengue cases in release sites. As a result, the Ministry of Health has expanded the trial into a dengue control programme, which is the second in the world, after the successful Australia programme. In collaboration with the International Atomic Energy Agency (IAEA) and the Malaysian Nuclear Agency, Dr Nazni also trialed the Sterile Insect Techniques to control the dengue vector by sterilizing the male mosquitoes via gamma-irradiation.

Recently, Dr Nazni and team have successfully obtained certification of WHO Good Laboratory Practice laboratory for testing vector control products, one of the six in the Asian region.

Dr Nazni is a prolific writer and has authored and co-authored 153 publications in reputable peer-reviewed regional and international journals, in addition to 16 consultancy technical reports, 4 chapters in books, 3 research highlights, 4 submissions of DNA sequences to NCBI gene bank, and 11 TV documentaries. Dr Nazni also actively participated in many local and international seminars and presented 219 papers as keynote, plenary and presentations. Her research enabled her to file 11 patents and commercialise 4 products.

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As a result of her excellent research, Dr Nazni is recognized with 39 awards and honours; inclusive of 2 Awards (KMN, PPC) bestowed by His Majesty The King; the prestigious WHO Dr Lee Jong-wook Memorial Prize for Public Health (2018), the Excellent Service Award on four occasions from IMR and a similar award at the national level, National Institutes of Health (NIH) Best Researcher Award (2014), NIH Best Biomedical Research Award (2014), NIH Innovation Award (2014), National Innovation Award (1999, 2012), Gold Medal in the 30th International Exhibition of Inventions, Innovations & New Products, Geneva, Switzerland (2002), National Young Scientist Award (2000), and numerous other awards and honours.

Dr Nazni is acknowledged as an expert in medical entomology and is often called upon to provide advisory and consultative services. She was invited as a member of the WHO Expert Advisory Panel on Vector Biology & Control, Technical Officer for IAEA Interregional technical cooperation project (2014-2019), etc. She was also appointed as a member in many other committees, such as the IMR Research Review Committee, Secretariat for WHO Collaborating Centers in Malaysia since 2012, etc. In addition, Dr Nazni supervised 127 DAP&E, BSc, MSc and PhD students.

Dr Nazni joined MSPTM in 1994 as an ordinary member and was elected to the Council since 1996 and served for more than 15 years in capacity as Council Member, Honorary Treasurer (1997-1999), Honorary Secretary (2002-2004), and President (2009-2010). She was the Organizing Chairman of the MSPTM Annual Seminar on 2 occasions and member of organizing committees of National and International Seminars on many occasions. She was Chairperson for Scientific and Fund Raising as well as Secretariat for many Annual Scientific Seminars of MSPTM, She also serves as a member of the Editorial Board of the Society's Journal Tropical Biomedicine since 1998 to date.

Dr Nazni's accomplishments and contributions are most worthy of the acclaim of the Malaysian Society of Parasitology & Tropical Medicine by presentation of the Prestigious Sandosham Medal