



Horizontal Technology
Programme Office

INFECTIOUS DISEASES



ID HTPO SEMINAR SERIES



Dr Wei Yan Ng

Singapore National Eye Centre



Join zoom meeting [here](#)

Meeting ID: 884 8987 6559

Passcode: 827339

Friday, 20th May 2022

5:30pm to 6:30pm (SGT)



Webinar is open to all
No registration required

Blockchain and AI for disease surveillance: Our research experience

Digital transformation induced by the COVID-19 pandemic has seen greater focus on the potential of technologies such as artificial intelligence (AI) and blockchain. This has coincided with greater emphasis on community healthcare to decentralise healthcare beyond the hospital environment. Our research experience shows that digital technology innovation centred on AI and blockchain can potentially transform healthcare by improving disease surveillance in the primary care setting. This includes combining both technologies to develop robust yet verifiable deep learning systems that can be deployed readily in the community for disease detection and monitoring. Blockchain can also be utilised as a standalone enabling-technology for healthcare services including pandemic surveillance, movement pass monitoring and medical notarisation. Considerations to implement these technologies include regulatory approvals, system validation, security, privacy as well as system efficiency.

Wei Yan Ng graduated from the Yong Loo Lin School of Medicine, National University of Singapore, in 2010 and was entered Ophthalmology residency in the Singapore National Eye Centre in 2011 and obtained his Ophthalmology specialist accreditation in 2020. He is currently an Associate Consultant in Singapore National Eye Centre and is pursuing subspecialty training in Paediatric Ophthalmology. He has a keen interest in research and has published extensively in peer-reviewed journals. His main research interest is in healthcare digital technologies, including digital platforms, Internet of Things, Artificial Intelligence, Natural Language Processing and Blockchain. He is currently actively involved as part of the digital innovation team in Singapore National Eye Centre and a member of the AI Special Interest Group in KKH.