



Leo Yee Sin

Executive Director, NCID

Senior Consultant, Department of Infectious Diseases, TTSH and NCID
Professor, Saw Swee Hock School of Public Health, Yong Loo Lin School of Medicine, Lee Kong Chian School of Medicine

Research Interests:

- HIV Medicine
- Communicable Diseases and General Infectious Diseases
- Outbreak Diseases Management

Email: Yee_Sin_Leo@ncid.sg

Yee_Sin_Leo@ttsh.com.sg

Biography

Prof Leo Yee Sin is the Executive Director of the National Centre for Infectious Diseases, Singapore.

As an adult Infectious Disease specialist, Prof Leo has led her team through multiple outbreaks in Singapore. These include Nipah in 1999, SARS in 2003, the pandemic influenza in 2009, Zika in 2016 and multiple surges of Dengue. She successfully managed Singapore's first imported case of the Monkeypox in May 2019. Her current priority is now in the fight against Covid-19.

Prof Leo has published more than 300 scientific papers. Her experience and expertise in outbreak management is frequently called upon as advisor and conference speaker at national, regional and international level. Apart from her clinical and administrative duties; she is also heavily involved in research and teaching. Topics of her research interest include dengue, influenza, emerging infections, HIV and Covid-19.

She has won many awards among which are three National Day Awards, one is the most prestigious Public Service Star in recognition for her outstanding battle against SARS in 2003 and two others for The Public Administration Medal in Silver and Bronze, for the year 2020 and 2012 respectively. Other awards include the Excellence Star Award 2005, Red Ribbon Award 2014 and the National Healthcare Group (NHG) Distinguished Senior Clinician Award 2016.

Selected Publications

- Lamontagne F, Agoritsas T, Macdonald H, Leo YS ... Vandvik PO. A living WHO guideline on drugs for covid-19. *BMJ*. 2020; 370:m3379. doi: 10.1136/bmj.m3379. PMID: 32887691. <https://pubmed.ncbi.nlm.nih.gov/32887691/>.
- Young BE, Ong SWX, Ng LFP Lin RTP, Leo YS, Renia L, Wang LF, Lye DC; Singapore 2019 Novel Coronavirus Outbreak Research team. Viral dynamics and immune correlates of COVID-19 disease severity. *Clin Infect Dis*. 2020; ciaa1280. doi: 10.1093/cid/ciaa1280. PMID: 32856707. <https://pubmed.ncbi.nlm.nih.gov/32856707/>.
- Young BE, Fong SW, Chan YH Leo YS, Wang LF, Renia L, Lee VJ, Smith GJD, Lye DC, Ng LFP. Effects of a major deletion in the SARS-CoV-2 genome on the severity of infection and the inflammatory response: an observational cohort study. *Lancet*. 2020; 396(10251):603-611. doi: 10.1016/S0140-6736(20)31757-8. PMID: 32822564. <https://pubmed.ncbi.nlm.nih.gov/32822564/>.

- Lee PH, Tay WC, Sutjipto S Leo YS, Lye DC, Lee TH. Associations of viral ribonucleic acid (RNA) shedding patterns with clinical illness and immune responses in Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) infection. *Clin Transl Immunology*. 2020; 9(7):e1160. doi: 10.1002/cti2.1160. PMID: 32742654. <https://pubmed.ncbi.nlm.nih.gov/32742654>.
- Rochwerg B, Agarwal A, Zeng L, Leo YS Guyatt G. Remdesivir for severe covid-19: a clinical practice guideline. *BMJ*. 2020; 370:m2924. doi: 10.1136/bmj.m2924. PMID: 32732352. <https://pubmed.ncbi.nlm.nih.gov/32732352/>.

Notable Research Awards & Grants From Past 5 Years

Name of Awards & Grants	Year Obtained
NMRC Zika Response Research Fund for “Development of a point-of-care test to diagnose Zika virus infection”	2017
NMRC Zika Response Research Fund for “Development of multiple serological platforms for differentiation of Zika and dengue virus infections”	2017
NRF Competitive Research Programme (CRP) for “Development of Mosquito-Borne Infectious Disease Diagnostic Devices with New Antibody”	2017
NHIC Innovation to Develop ('I2D') Grant for “A Rapid Point-of-Care Test Kit for Diagnosing Zika Virus Infection”	2019

Translating Research Into Healthcare

- Initial results of study find no community spread of Covid-19 in Singapore as of end-March. *Today Online*. Published 29 April 2020. <https://www.todayonline.com/singapore/initial-results-study-find-no-community-spread-covid-19-singapore-end-march>
- Major study underway to find out extent of Covid-19 infection. *The New Paper*. Published 30 April 2020. <https://www.tnp.sg/news/singapore/major-study-underway-find-out-extent-covid-19-infection>
- Big names join hands in battle against coronavirus. *The Straits Times*. Published 30 April 2020. <https://www.straitstimes.com/singapore/big-names-join-hands-in-battle-against-virus>
- New studies by local researchers explore social impact of Covid-19 outbreak in Singapore. *Today Online*. Published 21 May 2020. <https://www.todayonline.com/singapore/new-studies-local-researchers-explore-social-impact-covid-19-outbreak-singapore>