

Leo Yee Sin

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Research Interests:

- HIV Medicine/AIDS
- Dengue
- Arbovirus
- Emerging Infections
- Implementation Research
- Communicable Diseases and General Infectious Diseases
- Outbreak Diseases Management

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Biography

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

- Ng OT, Marimuthu K, Chia PY, Koh V, Chiew CJ, De Wang L, Young BE, Chan M, Vasoo S, Ling LM, Lye DC, Kam KQ, Thoon KC, Kurupatham L, Said Z, Goh E, Low C, Lim SK, Raj P, Oh O, Koh VTJ, Poh C, Mak TM, Cui L, Cook AR, Lin RTP, Leo YS, Lee VJM. SARS-CoV-2 Infection among Travelers Returning from Wuhan, China. *N Engl J Med*. 2020 Apr 9;382(15):1476-1478. doi: 10.1056/NEJMc2003100. Epub 2020 Mar 12. PMID: 32163698; PMCID: PMC7121487.
<https://www.nejm.org/doi/full/10.1056/NEJMc2003100>
- 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://academic.oup.com/cid/article/73/9/e2932/5898476?login=false>
- 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://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(20\)31757-8/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(20)31757-8/fulltext)
- Tan CW, Chia WN, Young BE, Zhu F, Lim BL, Sia WR, Thein TL, Chen MI, Leo YS, Lye DC, Wang LF. Pan-Sarbecovirus Neutralizing Antibodies in BNT162b2-Immunized SARS-CoV-1 Survivors. *N Engl J Med*. 2021 Oct 7;385(15):1401-1406. doi: 10.1056/NEJMoa2108453. Epub 2021 Aug 18. PMID: 34407341; PMCID: PMC8422514.
<https://www.nejm.org/doi/full/10.1056/NEJMoa2108453>
- 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://www.bmj.com/content/371/bmj.m4542>

Notable Research Awards & Grants

Name of Awards & Grants	Year Obtained
NHIC Innovation to Develop (I2D) Grant A Rapid Point-of-Care Test Kit for Diagnosing Zika Virus Infection	2019
NHIC Innovation to Protect (I2P) Grant Invention Title: Biomarker Detection System	2019

Translating Research Into Healthcare

2023:

- Elderly urged to get 2nd Covid-19 booster jab to protect against severe illness. Published on 07 Jan 2023. <https://www.straitstimes.com/singapore/people-80-years-and-older-should-get-up-to-date-vaccine-protection-to-ward-against-severe-covid-19-say-experts>
- The Big Read: Through the frontliners' eyes, what went well and what fell short in Singapore's Covid-19 fight. Published on 18 Feb 2023. <https://www.todayonline.com/big-read/big-read-through-frontliners-eyes-what-went-well-and-what-fell-short-singapores-covid-19-fight-2110646>
<https://www.todayonline.com/big-read/big-read-short-report-card-ground-spores-covid-19-fight-2110696>
<https://www.channelnewsasia.com/singapore/big-read-covid-19-pandemic-frontliners-vaccines-foreign-workers-3288056>
- Experts' verdict: mostly an A. Published on 20 Feb 2023. <https://www.straitstimes.com/singapore/s-pore-handled-covid-19-well-despite-a-few-shortcomings-experts>
- "சிங்கப்பூர் மிகவும் சிறப்பாக ாயல்பட்டது (S'pore handled Covid-19 well, despite a few shortcomings: Experts)". Published on 20 Feb 2023. *No url
- Heart of the Matter - S3E33: NCID chief and vaccine expert on long days, missed meals and flying in a fog during COVID-19 fight. Published on 31 Mar 2023. CNA Corporate Webpage (HOTM page): <https://www.channelnewsasia.com/listen/heart-matter/ncid-chief-and-vaccine-expert-long-days-missed-meals-and-flying-fog-during-covid-19-fight-3386786>
CNA Facebook Page: <https://www.facebook.com/93889432933/posts/pfbid0oXpPQ1q1pmBnejQAGxcyuJEeS91KNKB9Dp5VXRjC8XLdGgpRxvGawylqJq3b68mh/?d=w&mibextid=DcJ9fc>
CNA938 Facebook Page: <https://www.facebook.com/100055657225487/posts/pfbid0sYrFUyk45DYkRm2Zp5W7MSJ4yN8rSFsPXo82FT9nfM6vTMpMBUEpMpt3Uug6LvGl/?d=w&mibextid=DcJ9fc>
CNA LinkedIn Page: https://www.linkedin.com/posts/channelnewsasia_heart-of-the-matter-s3e33-ncid-chief-and-activity-7047371926930927617-krdH?utm_source=share&utm_medium=member_ios

- Heart of the Matter: NCID chief and vaccine expert reflect on sacrifices and lessons in COVID-19 fight. Published 01 Apr 2023.
<https://www.channelnewsasia.com/podcasts/heart-matter-ncid-chief-and-vaccine-expert-reflect-sacrifices-and-lessons-covid-19-fight-3387676>
<https://m.youtube.com/watch?v=ZC-L2VVgb8I>
<https://www.channelnewsasia.com/watch/heart-matter-ncid-chief-and-vaccine-expert-experience-they-went-through-singapores-covid-19-fight-video-3401496?fg-aggp=ZoFf0IPI9ZOQA1aFZ1A5ju%252FqQiUsZBLUKhXu88tpYffBkXQ0MvLVWj3VR%252FAxCTmDOU%252F0oT%252FCvuyfps7uU7455O%252BpNRrRGoZlDkTPsfAb6nA%252Fma%252FuwaT6HX2JRHjb1ByEWOLKr%252BbYPY2LYyGtWfgDrxnaHeYjPEfouTI6qOEd9jai85v2Ej%252FGZ5NKLqxnTcGSc45wjQo4RI%252FZ7Jch%252Br%252B4jFeQ73QTD25%252B%252F69xntPc%252FW7FiQS9KjyYbkR4DVzVnC6JZoGJobxP87rOC70XephRpfM%252FfBr2HK5Wem5wq70IhXLumvZtr2Tzpf8%252F2xRlf%252BeX%252F7ju8dYONijGuywkJM%253D>
- "近期冠病病例偏高 超市口罩检测仪销量增两三成 (With recent rise in COVID-19 cases, sale of masks and ART test kits in supermarkets increased by 20 per cent). Published on 13 Apr 2023. <https://www.8world.com/singapore/covid-19-rise-in-demand-for-masks-and-art-kits-following-recent-surge-in-cases-2105261>
- Not true that Omicron deadlier than flu, say Singapore experts. Published on 17 Apr 2023. <https://www.straitstimes.com/singapore/not-true-that-omicron-is-more-deadly-than-the-flu-say-experts-here>
- Bukit Panjang Covid-19 volunteers, PA staff given medallions as appreciation for helping residents. Published on 30 Apr 2023.
<https://www.straitstimes.com/singapore/bukit-panjang-covid-19-volunteers-pa-staff-given-medallions-as-appreciation-for-helping-residents>
- 梁玉心：望二合一疫苗推出 同时对抗冠病及流感 (Professor Leo hopes that there can be a vaccine that deals with Omicron and Influenza). Published on 30 Apr 2023. https://www.zaobao.com.sg/realtime/singapore/story20230430-1389027?fbclid=IwAR1LqvP-7Bplv2V_KJ5ybpFRn3q3pYXi3MqHayR3wp7pb3wrhe8lefr6zKI
- "Usaha atasi virus baru harus dipergiat walau pandemic Covid-19 berlalu: NCID (Efforts to overcome the new virus should be intensified even after the Covid-19 pandemic passes: NCID). Published on 30 Apr 2023.
<https://www.beritaharian.sg/setempat/usaha-atasi-virus-baru-harus-dipergiat-walau-pandemik-covid-19-berlalu-ncid?fbclid=IwAR0Pz4woncbNMb4uyabrO7BAmhC4iyogr4tLjOrvFvBL21Qn7TSabxUgWv8>
- "NCID executive director Leo Yee-Sin looks forward to the availability of 2-in-1 vaccine to fight COVID-19, influenza at the same time 梁玉心：望二合一疫苗推出 同时对抗冠病及流感. Published on 01 May 2023.
<https://www.zaobao.com.sg/realtime/singapore/story20230430-1389027?fbclid=IwAR1LqvP->

- Bukit Panjang COVID-19 volunteers, PA staff given medallions as appreciation for helping 9நவிக்ரம் நீட்டியோருக்கு அங்க்காரம் ,பதக்க"Published on 01 May 2023. *No url
- Hospitalisations and ICU admissions for COVID-19 reach highest levels this year; expert warns of more mild cases being admitted to prevent severe illness. 冠病病患住院及 ICU 人数今年最高" Published on 02 May 2023. *No url
- "It's a good time to pass the baton': NCID chief Leo Yee Sin on leaving her role after six years". Published on 05 May 2023. ["It's a good time to pass the baton': NCID chief Leo Yee Sin on leaving her role after six years - CNA \(channelnewsasia.com\)](https://www.channelnewsasia.com/chief-leo-yee-sin-on-leaving-her-role-after-six-years)
- Why do people get reinfected with COVID and are the symptoms more severe. Published on 05 May 2023. <https://www.mediaportal.com/Ojg2012349278>
- "Leo Yee-Sin: Epidemic network should be established throughout country to prevent large-scale infectious diseases in the future. 梁玉心 : 吸取冠病疫情教训 全国应建立流行病网络 防治未来大规模传染病" Published on 08 May 2023. <https://www.zaobao.com.sg/realtime/singapore/story20230507-1391852>
<https://www.zaobao.com.sg/news/singapore/story20230508-1391933>
- Behind The Mask: Our Healthcare Story. Published on 12 May 2023. <https://www.channelnewsasia.com/watch/behind-the-mask>
- Moving from front line to command post in war on diseases. Published on 04 Jun 2023. <https://www.straitstimes.com/singapore/leo-yee-sin-shifting-from-front-lines-to-the-war-room-in-fight-against-future-disease-outbreaks>