



Sapna Pradip Sadarangani

Senior Consultant, NCID and Department of Infectious Diseases, TTSH

Assistant Professor, Lee Kong Chian School of Medicine, NTU

Research Collaborator, Mayo Clinic, Rochester, MN, USA

Research Interests:

- Vaccine-preventable Diseases, particularly in the Elderly and Children
- Infections in the Elderly, Particularly Influenza
- Emerging Infectious Diseases
- Global Health and Travel Medicine
- Clinical Trials
- Sero-epidemiology
- Climate Change & Environmental Health

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Biography

Dr Sapna Sadarangani received her MBBS from the Yong Loo Lin school of Medicine, National University of Singapore. She completed her Internal Medicine-Pediatrics Residency training at the Western Michigan University, USA in 2012 being Chief Med-Peds resident from 2011-2012. Her Infectious Diseases Fellowship training was at the Mayo Clinic, Rochester, MN, USA in 2012-2015 where she won the Joseph Geraci Award in Infectious Diseases in 2015. She is board certified with ABIM for Internal Medicine and Infectious Diseases and with ABP for Paediatrics, and Fellow of the Academy of Medicine, Singapore. Dr. Sadarangani is an Infectious Diseases physician at NCID and completed her MSc in Public Health with the London School of Hygiene and Tropical Medicine with Distinction. Her interests are in vaccinology/vaccine-preventable diseases, global health, emerging infectious diseases, outbreak preparedness, tropical medicine, climate change, and environmental health.

Selected Publications

- Ng OT, Marimuthu K, Koh V, Pang J, Linn KZ, Sun J, De Wang L, Chia WN, Tiu C, Chan M, Ling LM, Vasoo S, Abdad MY, Chia PY, Lee TH, Lin RJ, Sadarangani SP, Chen MI, Said Z, Kurupatham L, Pung R, Wang LF, Cook AR, Leo YS, Lee VJ. SARS-CoV-2 seroprevalence and transmission risk factors among high-risk close contacts: a retrospective cohort study. *Lancet Infect Dis*. 2021 Mar;21(3):333-343. doi: 10.1016/S1473-3099(20)30833-1.
[https://www.thelancet.com/journals/laninf/article/PIIS1473-3099\(20\)30833-1/fulltext](https://www.thelancet.com/journals/laninf/article/PIIS1473-3099(20)30833-1/fulltext)

- Sadarangani SP, Young BE, Lian W, Phua HP, Chen MI, Barr I, Yeo TW, Dalan R, Chow A. DYNAMIC cohort study evaluating metabolic predictors of influenza vaccine immune response in older adults. *NPJ Vaccines*. 2022 Nov 1;7(1):135. doi: 10.1038/s41541-022-00548-z.
<https://www.nature.com/articles/s41541-022-00548-z>
- Young BE, Mak TM, Ang LW, Sadarangani S, Ho HJ, Wilder-Smith A, Barkham T, Chen M. Influenza vaccine failure in the tropics: a retrospective cohort study of waning effectiveness. *Epidemiol Infect*. 2020 Dec 2;148:e299. doi: 10.1017/S0950268820002952. PMID: 33261680; PMCID: PMC7801929.
<https://www.cambridge.org/core/journals/epidemiology-and-infection/article/influenza-vaccine-failure-in-the-tropics-a-retrospective-cohort-study-of-waning-effectiveness/87A2CBE95B761D59902B68BC0BDFC65D>
- Mattar CN, Kalimuddin S, Sadarangani SP, Tagore S, Thain S, Thoon KC, Hong EY, Kanneganti A, Ku CW, Chan GM, Lee KZ, Yap JJ, Tan SS, Yan B, Young BE, Lye DC, Anderson DE, Yang L, Su LL, Somani J, Tan LK, Choolani MA, Chan JK. Pregnancy Outcomes in COVID-19: A Prospective Cohort Study in Singapore. *Ann Acad Med Singap*. 2020 Nov;49(11):857-869. doi: 10.47102/annals-acadmedsg.2020437. PMID: 33381779.
<https://pubmed.ncbi.nlm.nih.gov/33381779/>
- American Society of Tropical Medicine and Hygiene (ASTMH) Green Task Force members; Dumre SP, LaBeaud AD, Ehrlich H, Vazquez Guillamet LJ, Ondigo BN, Sadarangani SP, Wamae CN, Whitfield K. Why Climate Action Is Global Health Action. *Am J Trop Med Hyg*. 2022 Jul 18;107(3):500–3. doi: 10.4269/ajtmh.22-0189. Epub ahead of print. PMID: 35895350; PMCID: PMC9490666.
<https://www.ajtmh.org/view/journals/tpmd/107/3/article-p500.xml>
- Sadarangani SP, Htun HL, Ling W, Hawkins R, Yeo TW, Rivino L, MacAry PA, Leo YS. Association of systemic vitamin D on the course of dengue virus infection in adults: a single-centre dengue cohort study at a large institution in Singapore. *Singapore Med J*. 2024 Jun 1;65(6):332-339. doi: 10.11622/smedj.2022064. Epub 2022 Jun 2.
<https://doi.org/10.11622/smedj.2022064>
- Zain A, Sadarangani SP, Shek LP, Vasoo S. Climate change and its impact on infectious diseases in Asia. *Singapore Med J*. 2024 Apr 1;65(4):211-219. doi: 10.4103/singaporemedj.SMJ-2023-180. Epub 2024 Apr 23. PMID: 38650059; PMCID: PMC11132621.
https://journals.lww.com/smj/fulltext/2024/04000/climate_change_and_its_impact_on_infectious.3.aspx
- Pathy LS, Tan WY, Clapham H, Sadarangani SP. The Application of Precision Public Health to Vaccinology. *World Scientific Annual Review of Vaccine Design*. 2024 Oct 4:2430001.
<https://www.worldscientific.com/doi/abs/10.1142/S2972428724300011>

- Poh XY, Lee IR, Tan CW, Chavatte JM, Fong SW, Goh YS, Rouers A, Wong N, Torres-Ruesta A, Mah SYY, Yeoh AYY, Gandhi M, Rahman N, Chin YQ, Lim JJ, Yoong TJK, Rao S, Chia PY, Ong SWX, Lee TH, Sadarangani SP, Lin RJH, Lim DRX, Chia W, Renia L, Ren EC, Lin RTP, Lye DC, Wang LF, Ng LFP, Young BE. First SARS-CoV-2 Omicron infection as an effective immune booster among mRNA vaccinated individuals: final results from the first phase of the PRIBIVAC randomised clinical trial. EBioMedicine. 2024 Aug 12;107:105275. doi: 10.1016/j.ebiom.2024.105275.
<https://doi.org/10.1016/j.ebiom.2024.105275>
- Poh XY, Torres-Ruesta A, Yoong T, Wong N, Tan CW, Rouers A, Chavatte JM, Goh YS, Rao S, Chia PY, Ong SWX, Lee TH, Sadarangani SP, Lin RJH, Neo V, Kam IKJ, Huang Y, Hor PX, Loh CY, Yeoh AY, Lim DRX, Chia W, Ren EC, Lin RTP, Fong SW, Renia L, Lye DC, Wang LF, Ng LFP, Young BE. Immunogenicity of mRNA vs. BBV152 vaccine boosters against Omicron subvariants: Final results from Phase B of the PRIBIVAC study, a randomized clinical trial. Vaccine. 2024 Nov 14;42(25):126275. doi: 10.1016/j.vaccine.2024.126275. Epub 2024 Sep 5.
<https://doi.org/10.1016/j.vaccine.2024.126275>

Notable Research Awards & Grants from Past 5 Years

Name of Awards & Grants	Year Obtained
NMRC Clinician Scientist – Individual Research Grant New Investigator Grant (CS-IRG) Probing the Immunometabolic Factors of Influenza Vaccine Immune Response in Singapore Elderly	2019
Clinician Scientist Salary Support programme (CSSSP) Probing the Immunometabolic Factors of Influenza Vaccine Immune Response in Singapore Elderly	2020
RIE2020 Collaborative CG Seed Funding A seroepidemiology study of healthcare workers and employees during the 2019-nCoV (COVID 19) outbreak at the National Centre for Infectious Diseases, Singapore	2020

Translating Research Into Healthcare

2024:

- 调查：低维他命 D 者若感染骨痛热症 出现重症几率较高 (Investigation: Low vitamin D individuals are more susceptible to severe symptoms when infected with dengue). [8world.com/singapore/dengue-and-vitamin-d-2477596](https://www.singapore.com/singapore/dengue-and-vitamin-d-2477596)
- 本地医学研究骨痛热重症者或与维生素 D 低有关 (Local research shows that severe cases of dengue fever may be related to low vitamin D).

2022:

- Move to let patients get flu, pneumococcal jabs at their designated TTSH specialist outpatient clinic. Published

16 Dec 2022. <https://www.straitstimes.com/singapore/health/more-patients-can-get-flu-pneumococcal-jabs-at-their-designated-ttsh-specialist-outpatient-clinic>

- "TTSH expands scheme for seniors to receive their influenza and pneumococcal vaccine 陈笃生医院明年起扩大两疫苗项目年长者复诊时可接种流感肺炎疫苗" Published on 16 Dec 2022. <https://www.zaobao.com.sg/news/singapore/story20221216-1343936>
- TTSH expands scheme for seniors to get flu vaccines without booking or prescription in bid to drive take-up. Published on 17 Dec 2022. <https://www.todayonline.com/singapore/flu-vaccines-seniors-ttsh-expands-pilot-more-clinics-patients-2072546>