





**EDUCATIONAL  
FUND** 

***COVID-19:  
Building on the HIV response to introduce  
innovation in a pandemic***



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# Innovation in a pandemic: 40 years of HIV to the rescue?

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## Objectives

- Understand the role of **innovation in science** in the COVID19 response
- Where did this innovation come from and **how was it mobilized** so quickly?
- What role did our **experience with HIV** play?
- Can the COVID19 response **enhance the HIV response** in the future?



# Vale Professor Gita Ramjee



April 8<sup>th</sup>, 1956 – March 31<sup>st</sup>., 2020



# The impact of COVID19 on R&D: including HIV



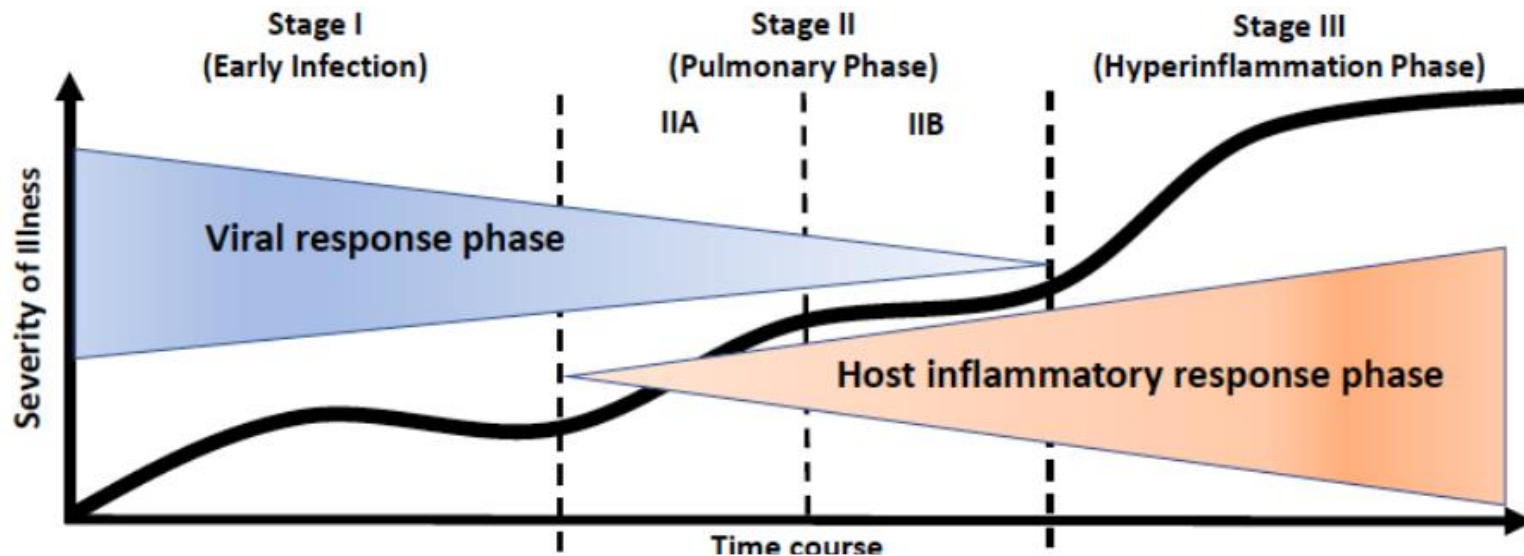
Estimated loss in Australia alone in the University sector is \$2.5 billion in 2020, loss of 14,000 EFT with long term impact on research workforce



# The impact of HIV on COVID19



# COVID19 treatments: not all about the virus



Antivirals: small molecules, antibodies and interferons

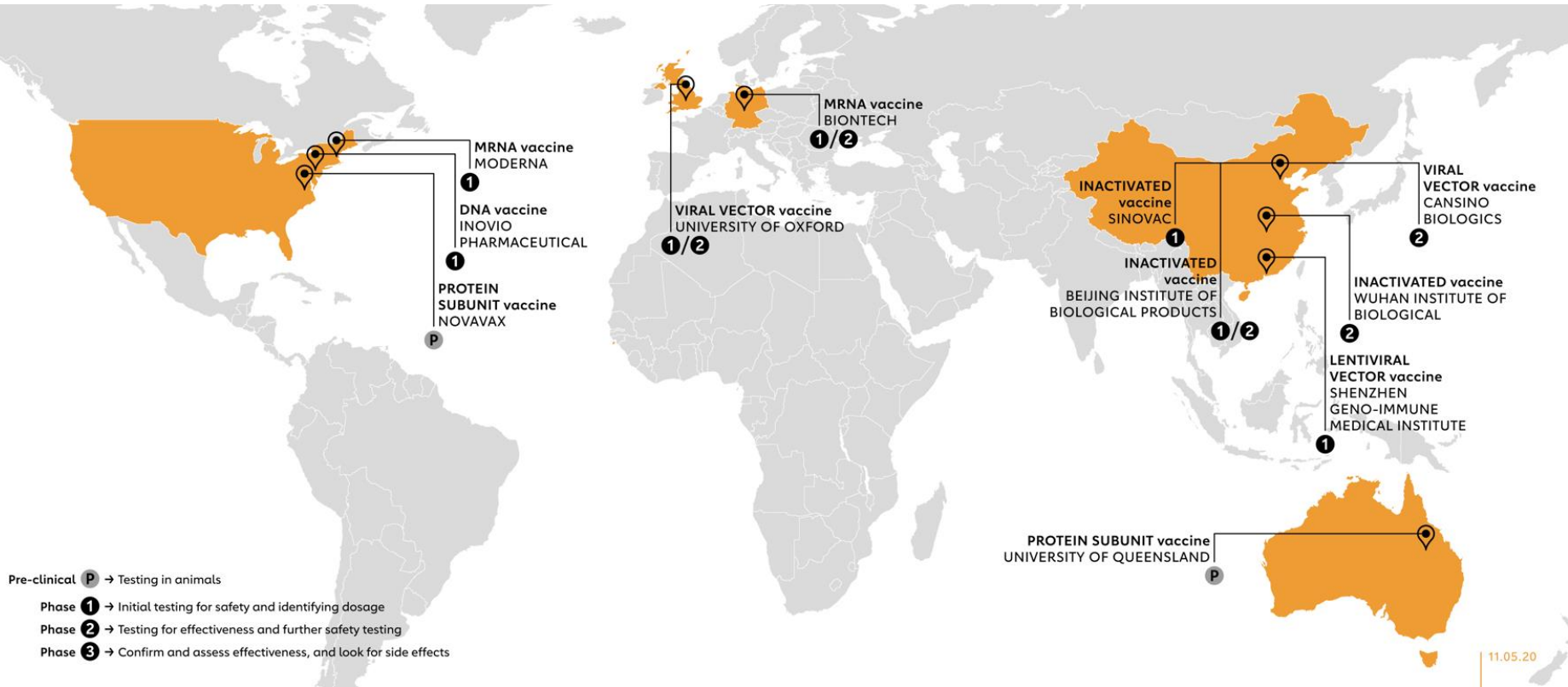
Anti-cytokines, anti-inflammatory, steroids

Saddiqui et al., J Heart Lung Transpl 2020





# COVID19 vaccine approaches



HIV vaccines: DNA, RNA, non replicating viral vectors (Ad26, Ad5, ChAd, MVA)

<https://www.gavi.org/vaccineswork/covid-19-vaccine-race>



# Access to new medicines: FDA Emergency Use Authorisation



FDA EUA granted for hydroxychloroquine (March 29<sup>th</sup>, 2020) and remdesivir (May 1<sup>st</sup>, 2020)



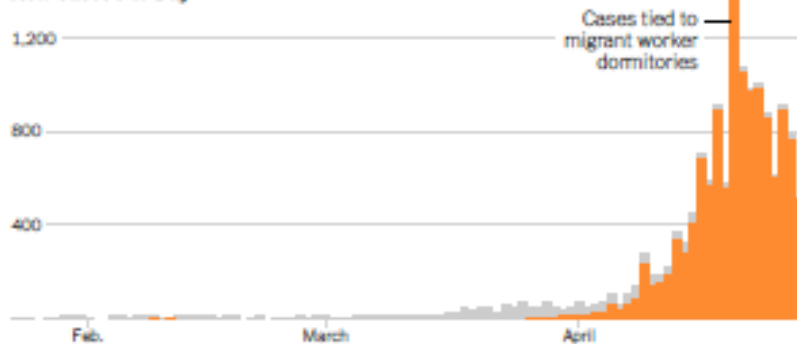
# Human rights at the centre of a pandemic response

## Packed With Migrant Workers, Dormitories Fuel Coronavirus in Singapore

By [Wenli Cai](#) and [K.K. Rebecca Lai](#) April 28, 2020

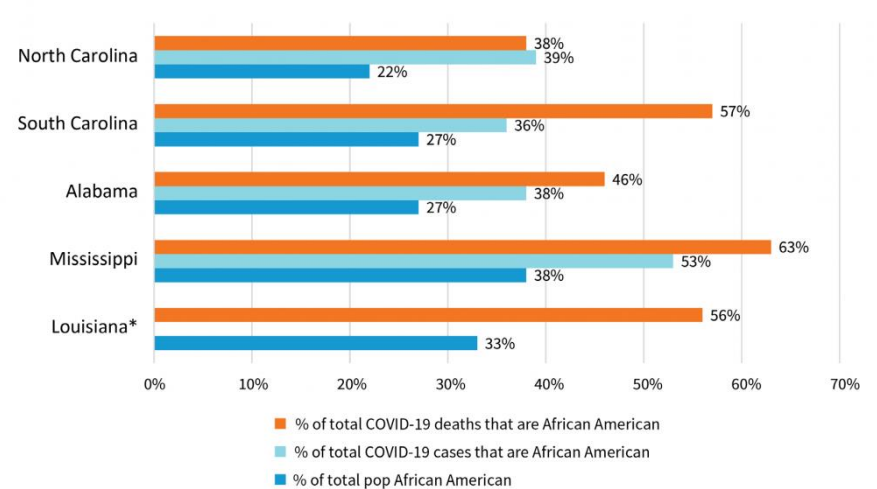
Singapore has seen a surge of coronavirus cases among migrant workers, after months of successfully controlling the outbreak. As of Tuesday, coronavirus cases linked to migrant worker dormitories accounted for 88 percent of Singapore's 14,446 cases, including more than 1,400 new cases in a single day.

New Cases Per Day



Note: Data is as of April 27, 2020.

African American rates of confirmed cases and death in Southern states





# What are the opportunities for HIV in a post COVID world?

- High **global awareness** of viruses and pandemic preparedness
- Health **system strengthening** needed globally to protect everyone
- New **global initiatives** for testing, drugs and vaccines
- Scientific **innovation for COVID19** will be high and we are likely to see a reciprocal flow to the HIV sector