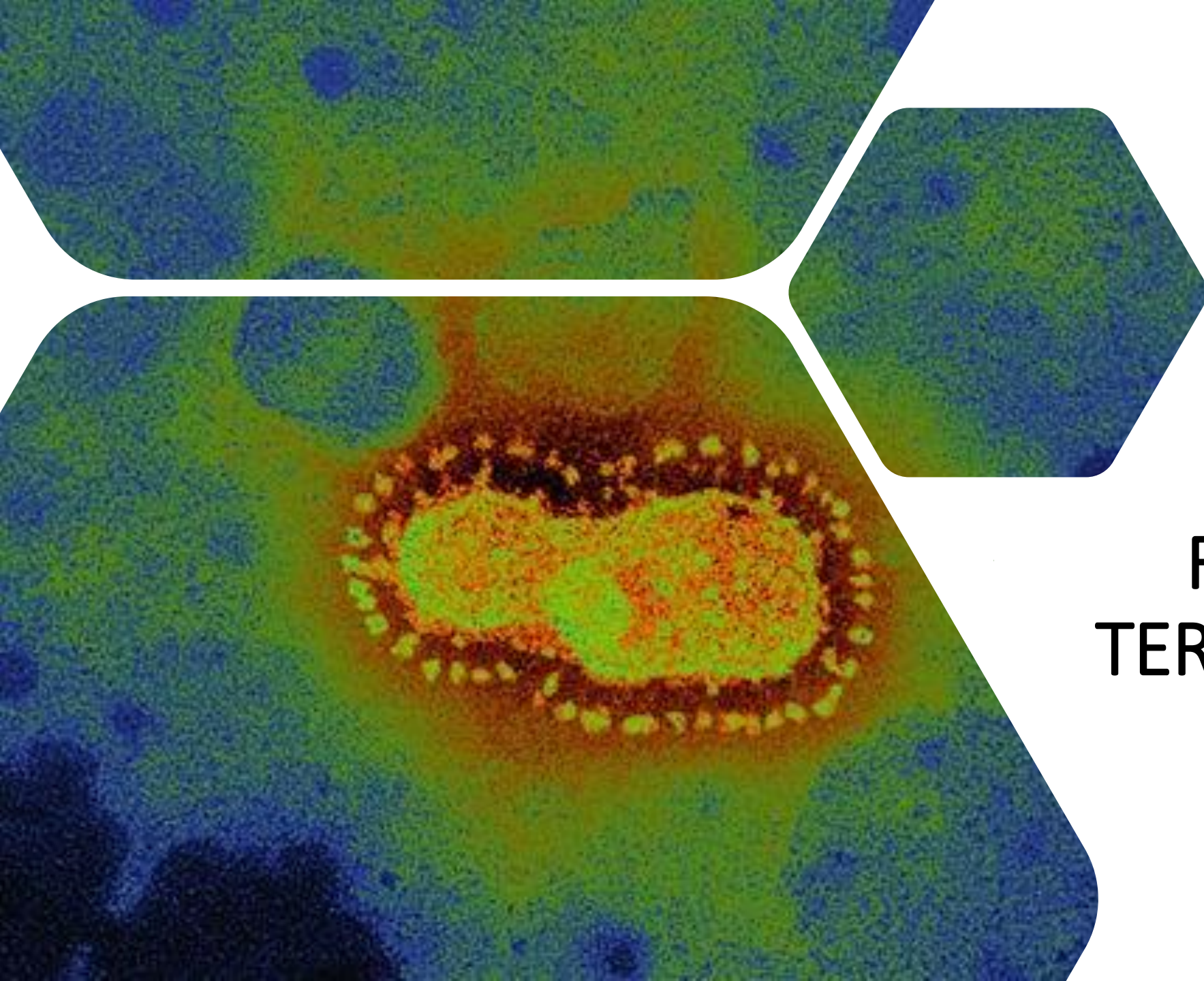




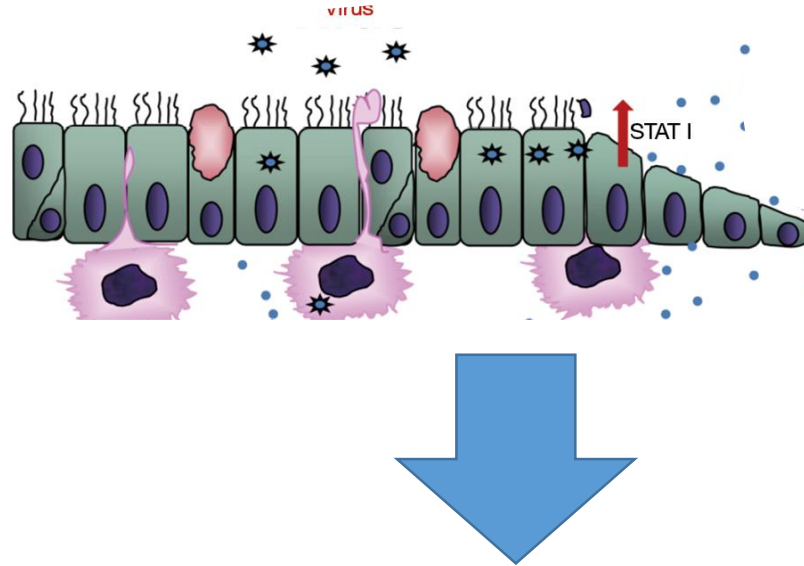
RESPON IMUN TERHADAP VIRUS

Marselina I Tan
SITH-ITB

IMUNITAS BAWAAN



RESPON
TUBUH

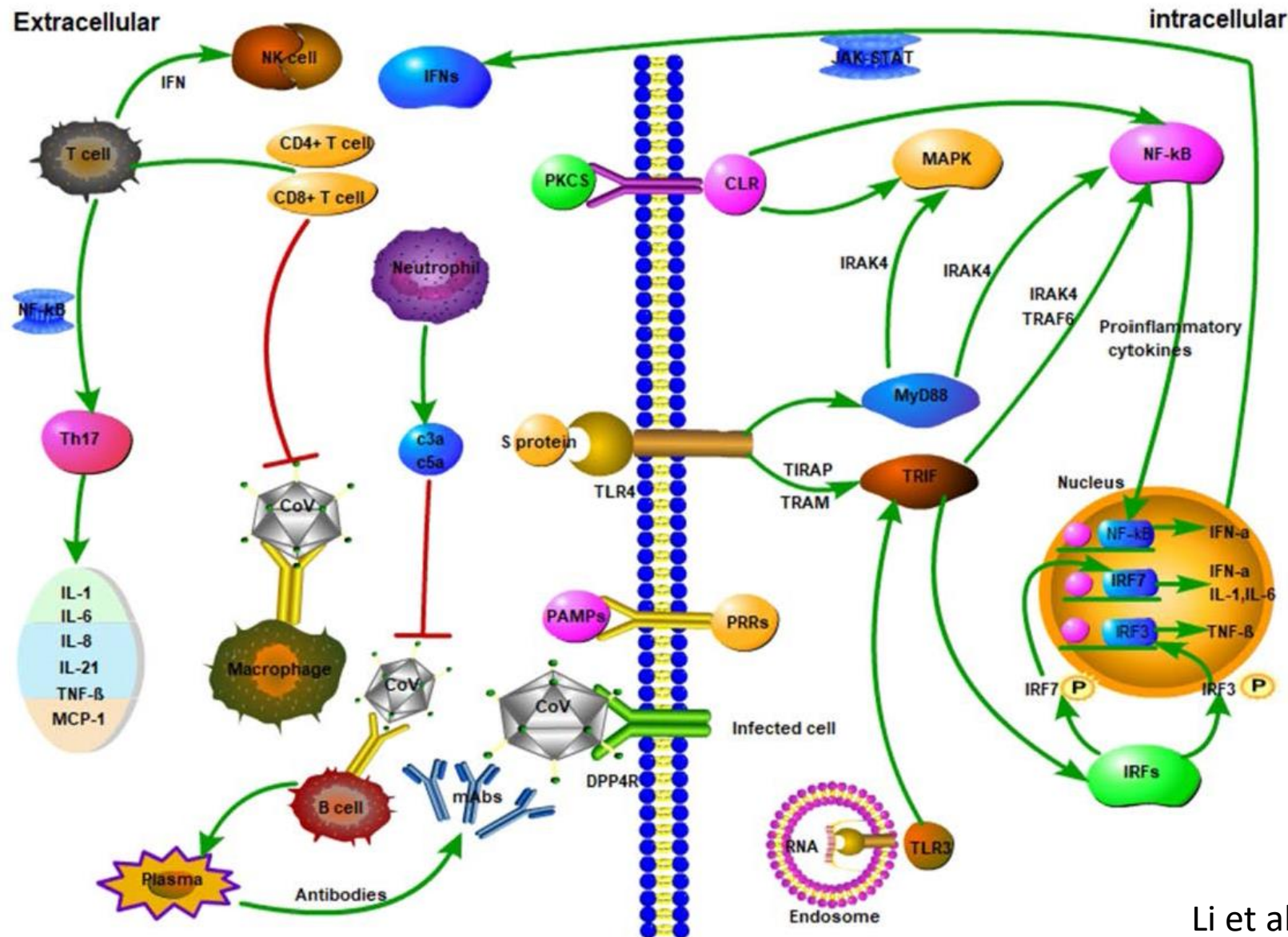


Jika dengan imunitas bawaan Dapat
diatasi → virus dapat dimusnahkan

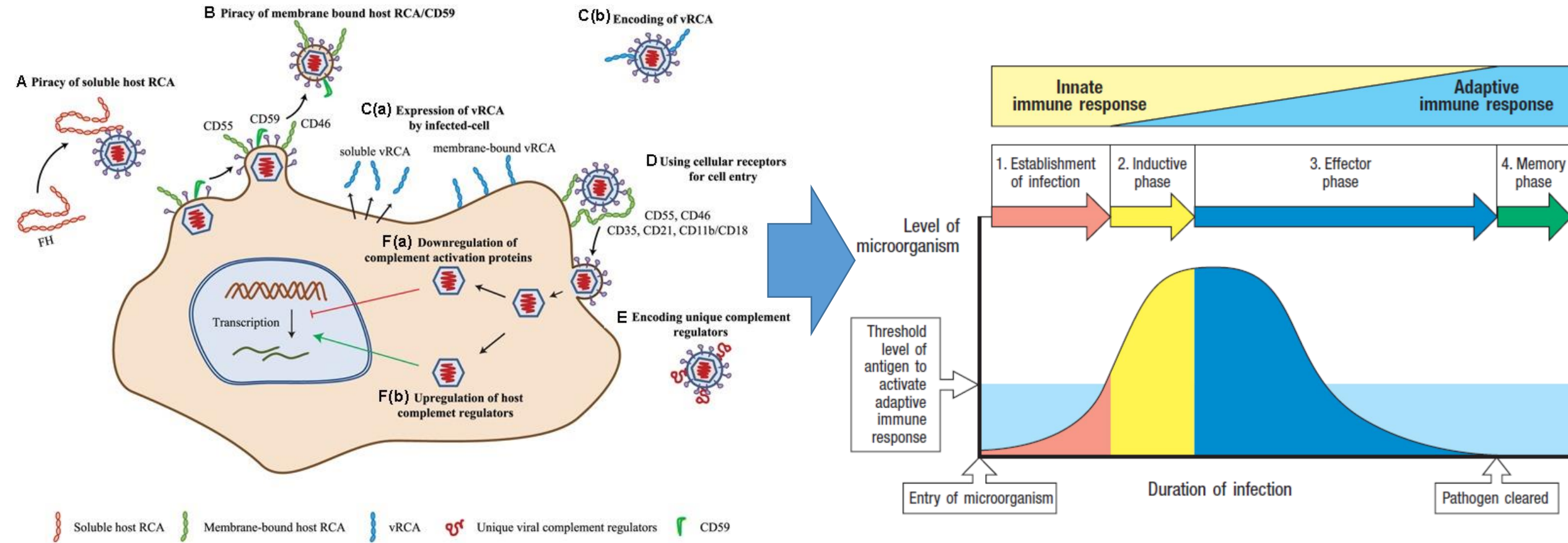
Wang *et al.*, 2018

Chen *et al.*, 2009

Mekanisme pertahanan tubuh terhadap virus Corona



Mekanisme kerja Virus Corona untuk mengelak dari system imun bawaan



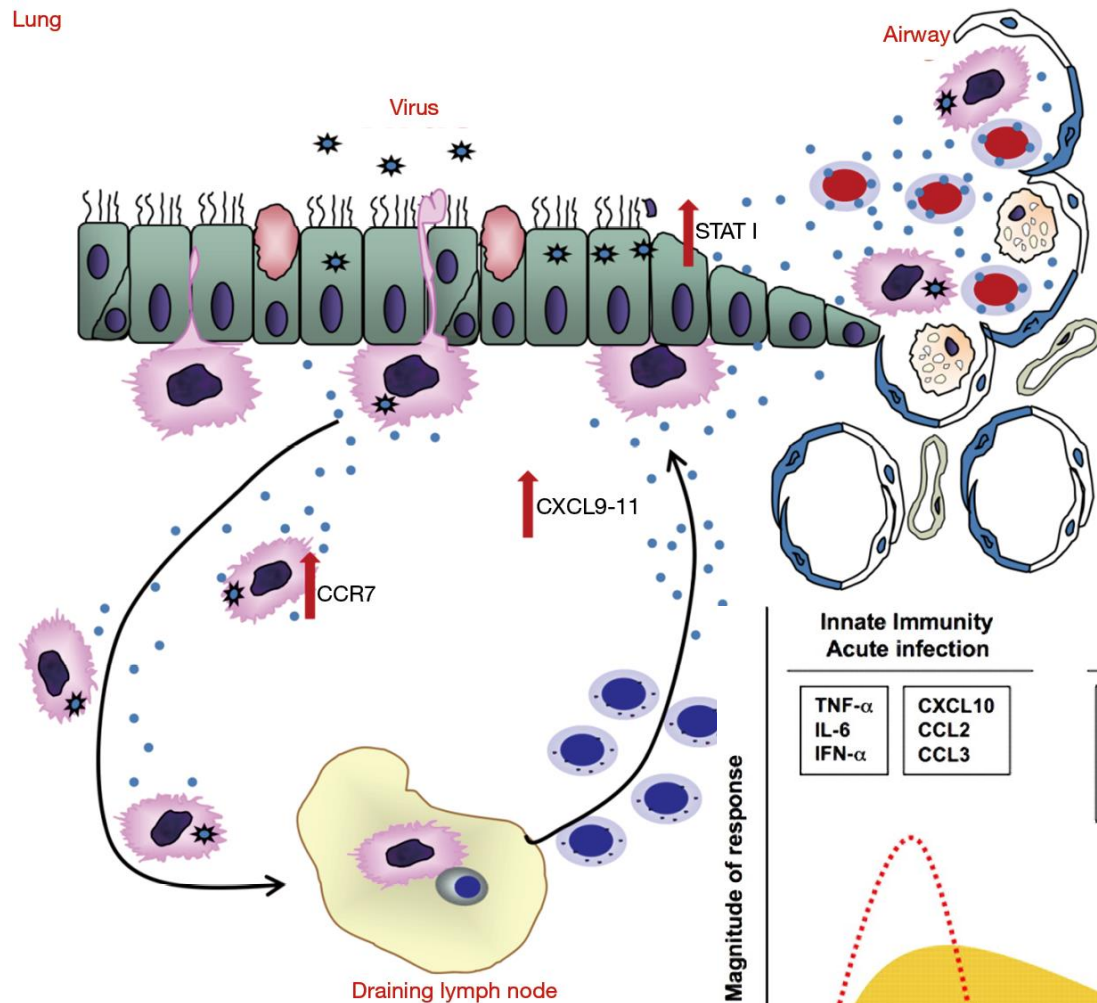
Murphy, 6th ed, 2016

Agrawal et al., 2017



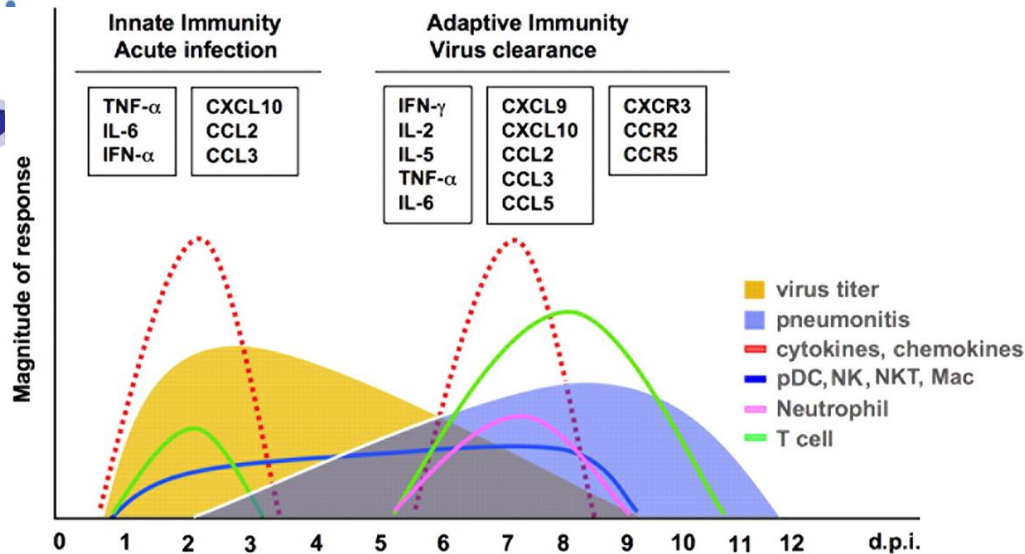
RESPON
TUBUH

IMUNITAS BAWAAN



Wang *et al.*, 2018

IMUNITAS ADAPTIF

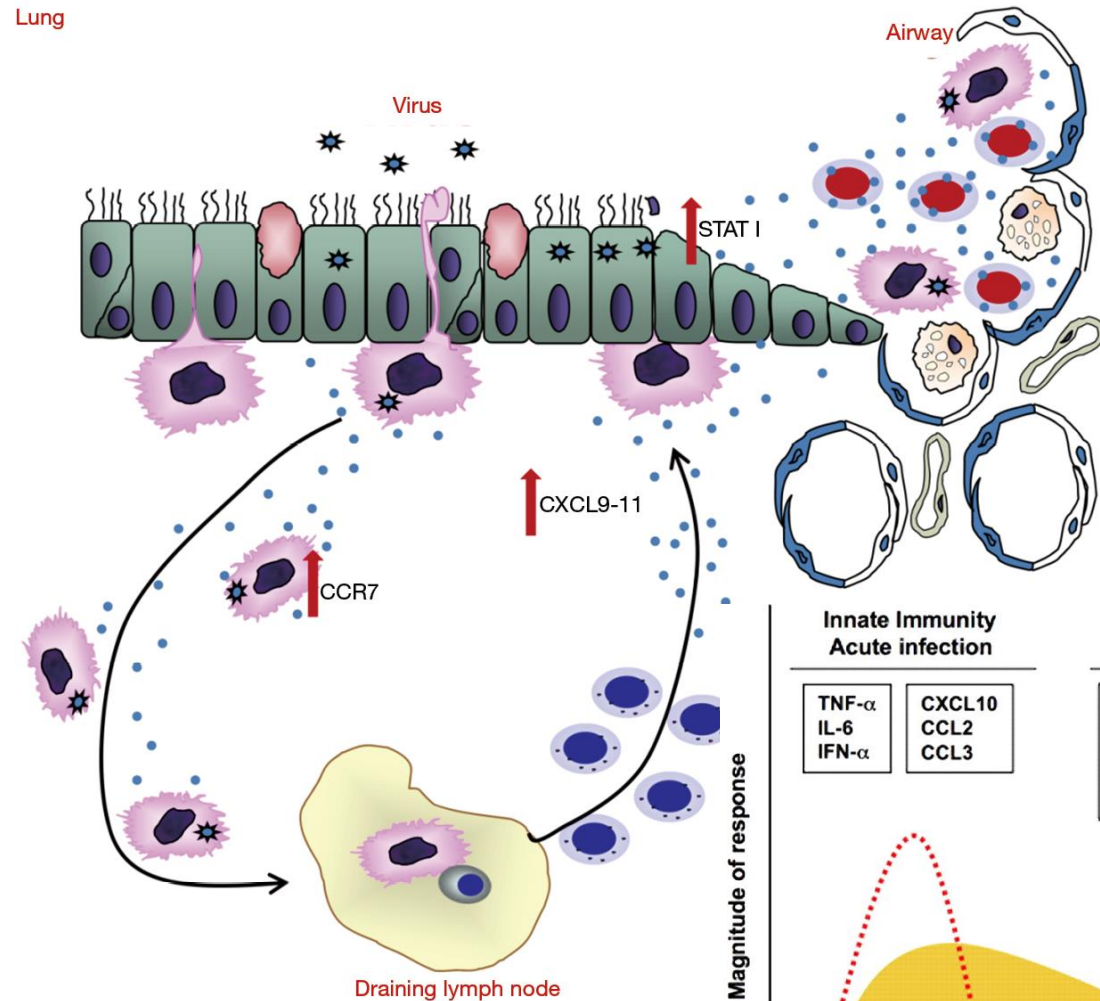


Chen *et al.*, 2009



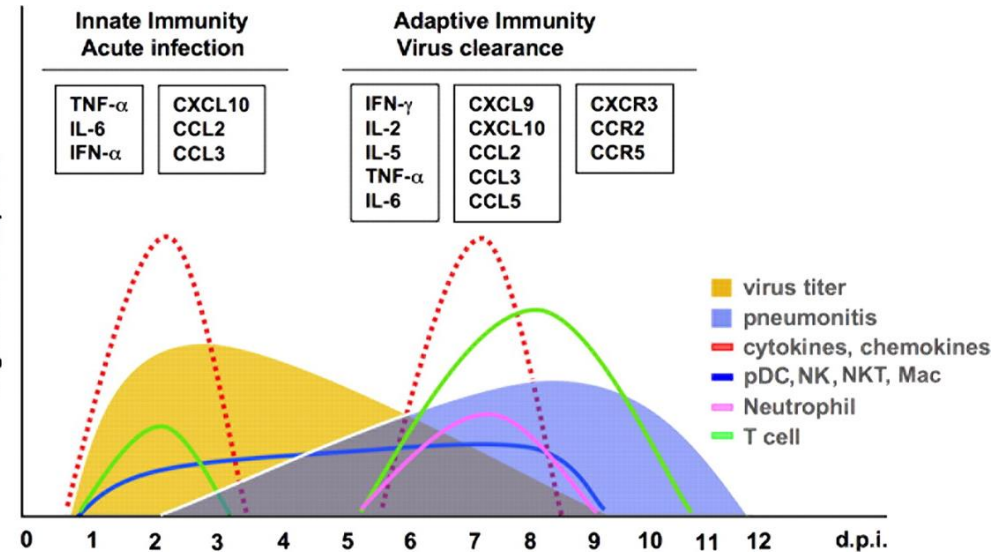
RESPON
TUBUH

IMUNITAS BAWAAN



Wang *et al.*, 2018

IMUNITAS ADAPTIF



Chen *et al.*, 2009

HOW CORONAVIRUS CAN KILL

SYMPTOMS

The coronavirus attacks cells in the respiratory system

- **Runny nose**

- **Cough**

- **Sore throat**

- **High temperature**

SPREAD

- Novel coronavirus first spread to humans from an animal – thought to be a snake – at the South China Seafood Wholesale Market.

- The virus is transmitted between humans in droplets from coughing and sneezing and touching or shaking hands.

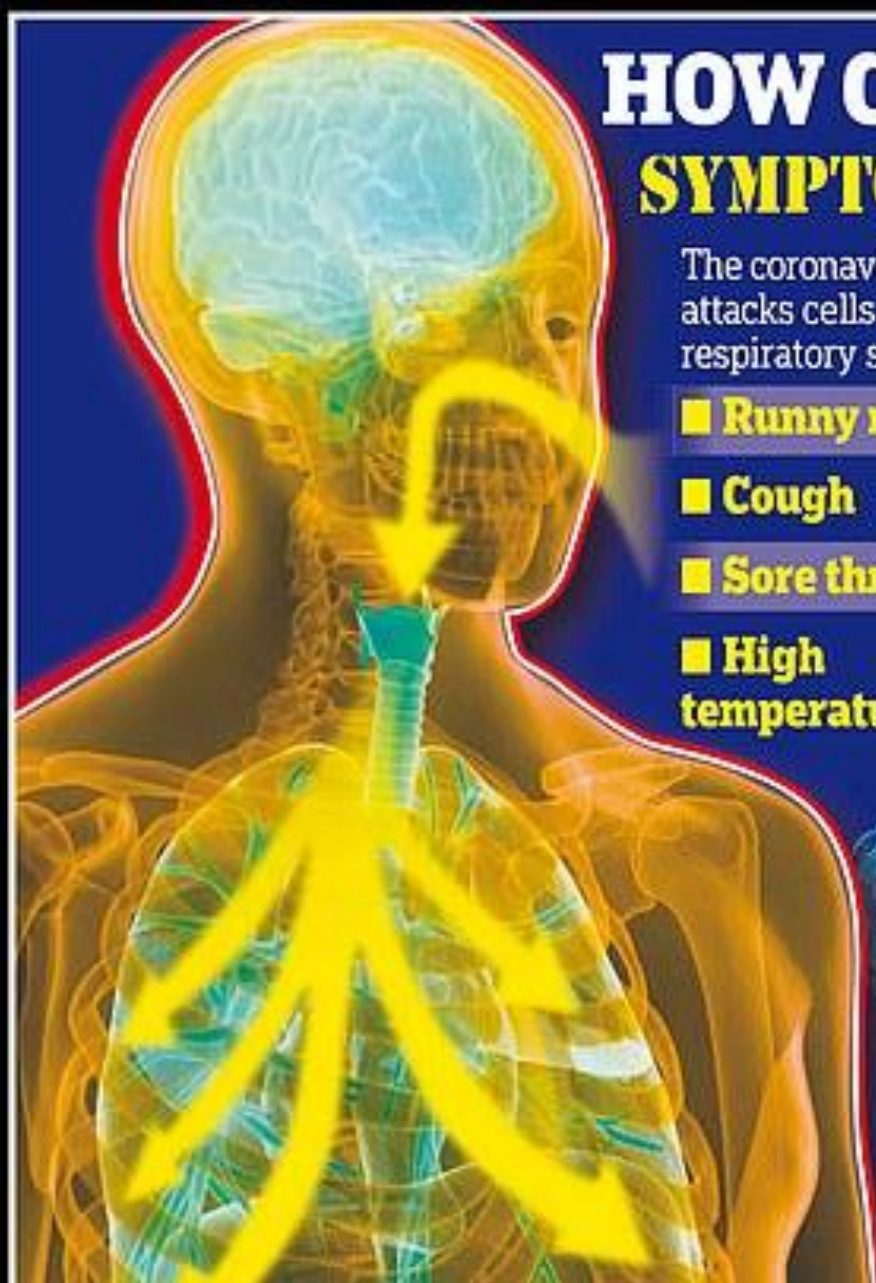
- It enters humans through the nose and mouth, then finds a 'host cell' in the respiratory system, such as one in the nose. The host cell then bursts and other nearby cells in the body are infected with the virus.

DEATH

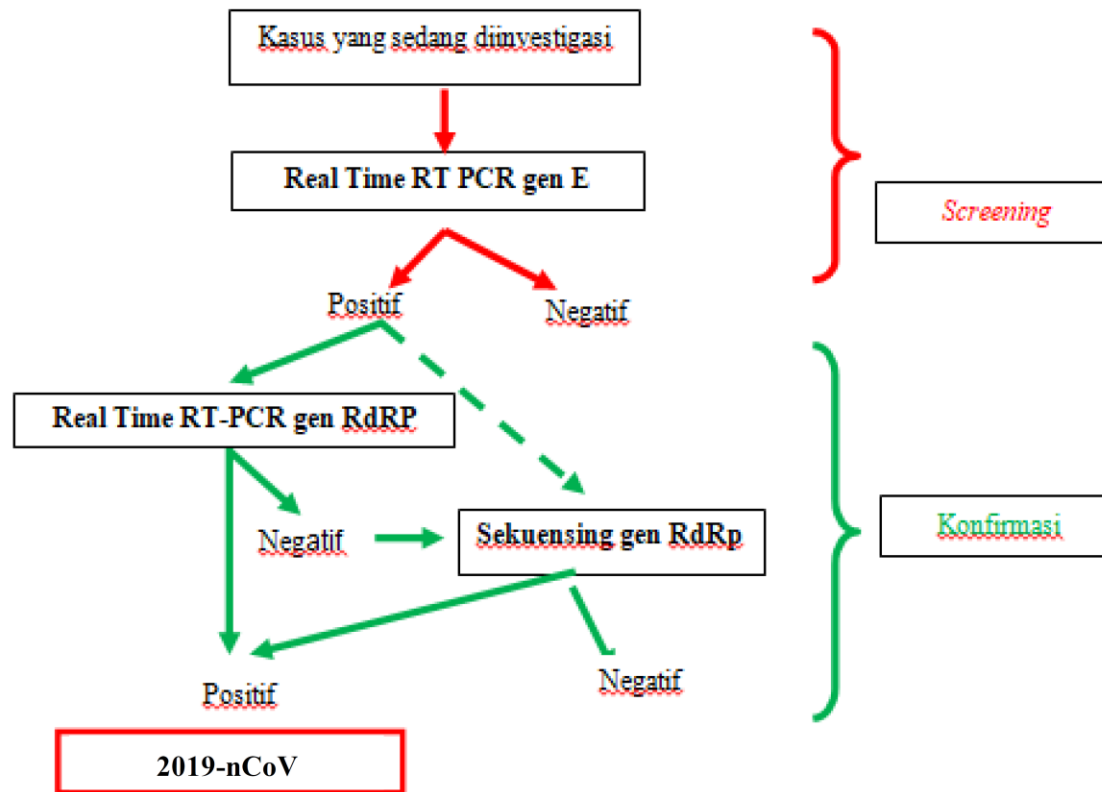
- Most victims die from complications including pneumonia and from swelling in the lungs.

- Severe pneumonia can kill people by causing them to 'drown' in the fluid flooding their lungs.

- The virus also causes swelling in the respiratory system, which can make it hard for the lungs to pass oxygen into the bloodstream – leading to organ failure and death.



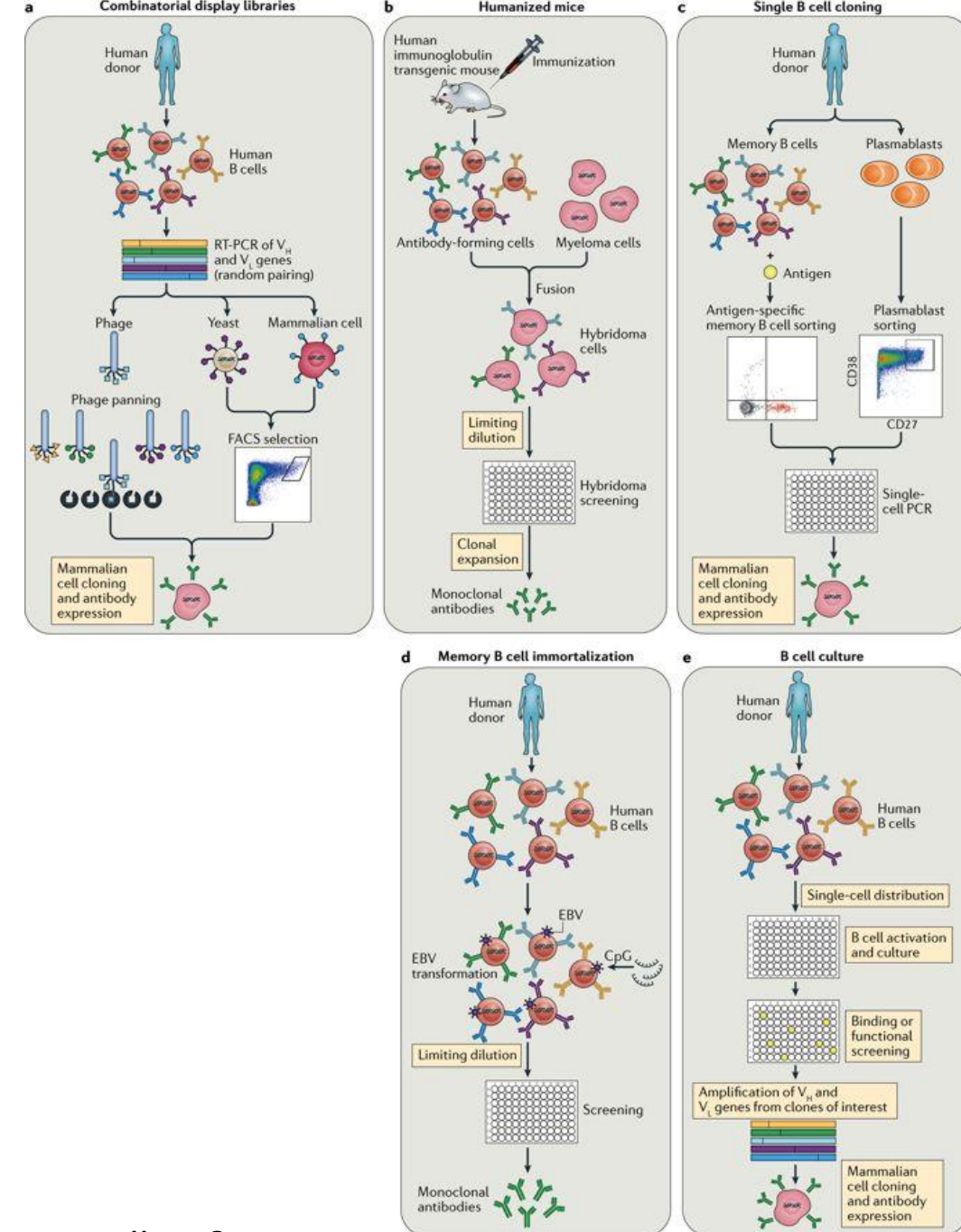
Bagaimana cara deteksi infeksi coronavirus



Gambar 5.5 Alur Pemeriksaan Spesimen 2019-nCoV

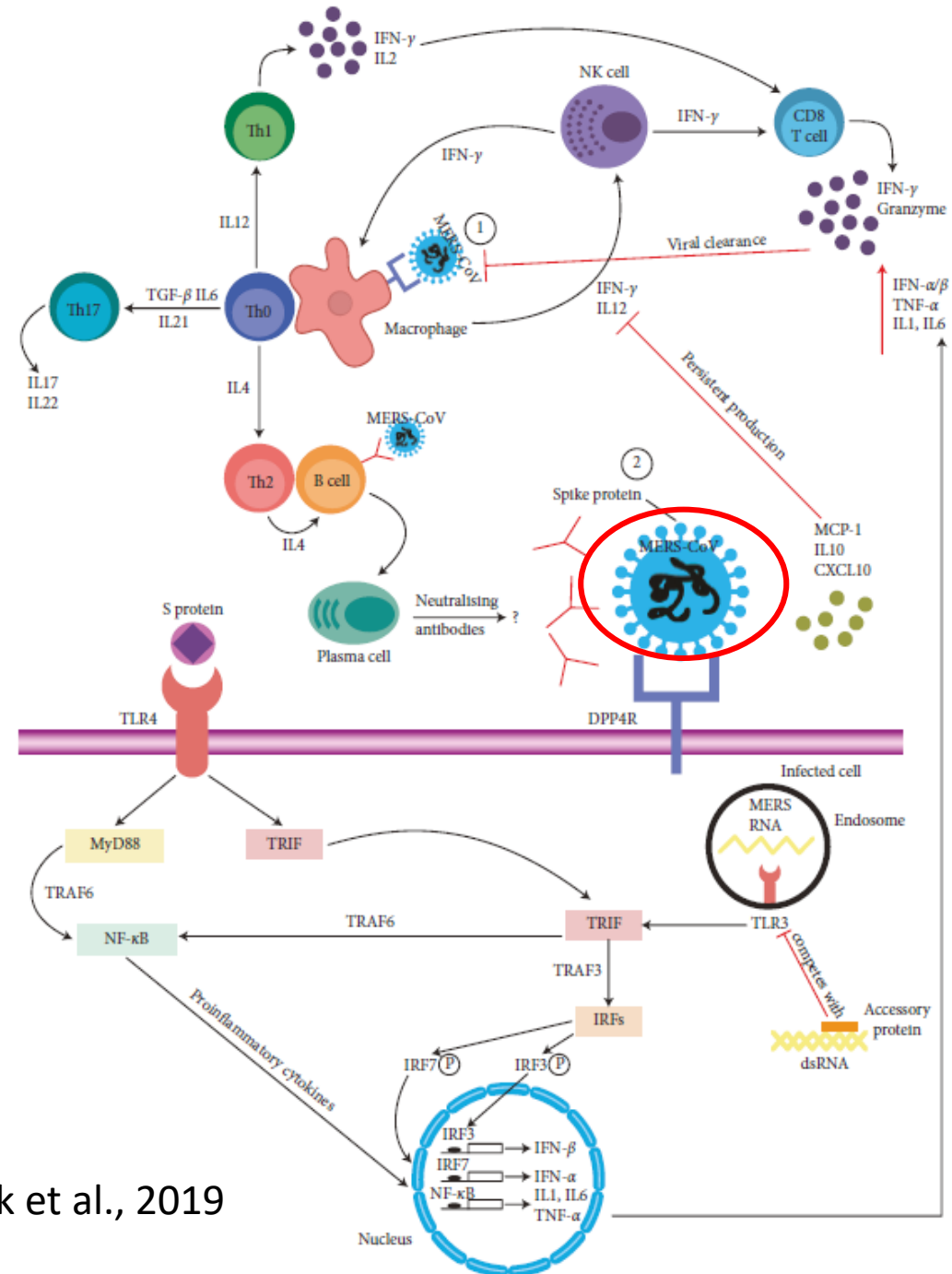
Vaksin dan kandidat vaksin

- Sampai saat ini belum ada vaksin untuk Virus Corona
- Berbagai kandidat vaksin dapat dikembangkan :
 - Passive immunotherapy
 - Active immunotherapy



Walker & Burton, 2018

- Active immunotherapy



Mubarak et al., 2019