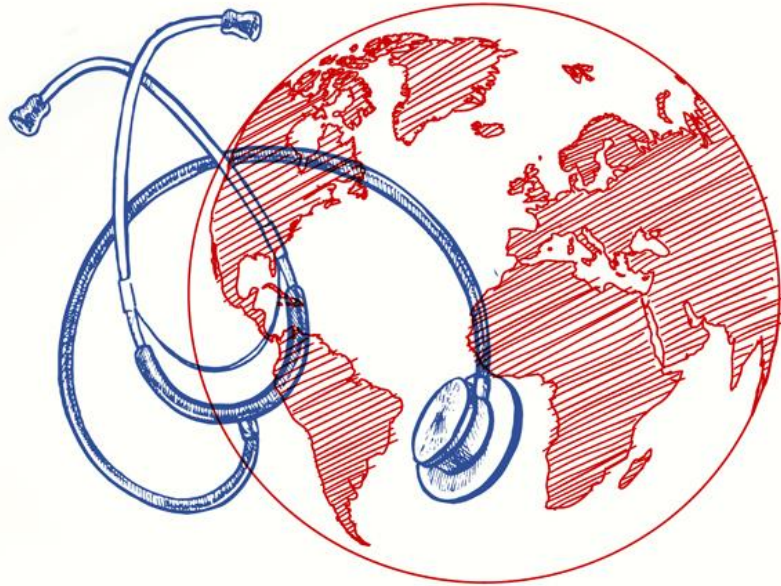


# Global Health Cast 65

May 03, 2024



Dr. Melvin Sanicas  
X @Vaccinologist



Prof. Dr. Joe Schmitt  
X @Prof\_Schmitt

# What we talk about today

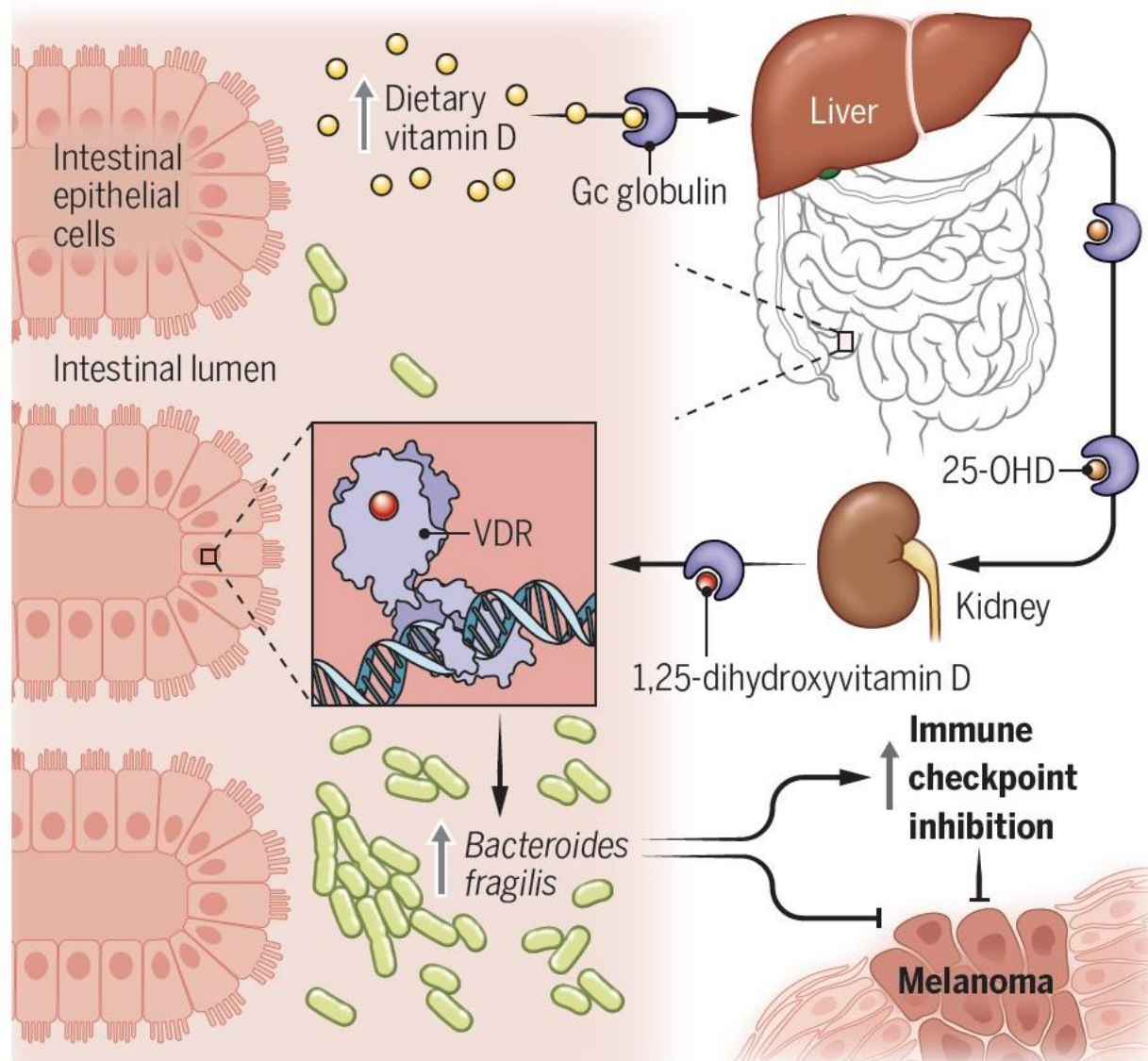
- **H5N1 - UPDATE**
- **Microbes and Vitamin D aid immunotherapy**
- **First haemophilia B gene therapy approved**
- **Monoclonal effective against malaria**
- **Cryptococcus neoformans: review**
- **Vaccine confidence – institutional confidence**

## H5N1 Update: no live H5N1 avian flu virus in sour cream or cottage cheese

- Last week, the Food and Drug Administration (FDA) announced that preliminary tests on 96 PCR-positive retail milk samples were negative for live virus on follow-up tests using egg inoculation (gold standard for determining viability).
- This week, the agency announced egg inoculation results for 201 more PCR-positive dairy product samples, which also included cottage cheese and sour cream. None showed any evidence of live virus.
- Earlier this week, the FDA said PCR tests were negative on samples of powdered infant formula and powdered formula marketed for toddlers.
- So far the only human case was confirmed by Texas officials on April 1.

<https://www.fda.gov/food/alerts-advisories-safety-information/updates-highly-pathogenic-avian-influenza-hpa>  
<https://www.aphis.usda.gov/livestock-poultry-disease/avian/avian-influenza/hpai-detections/mammals>

# Microbes and Vitamin D aid immunotherapy



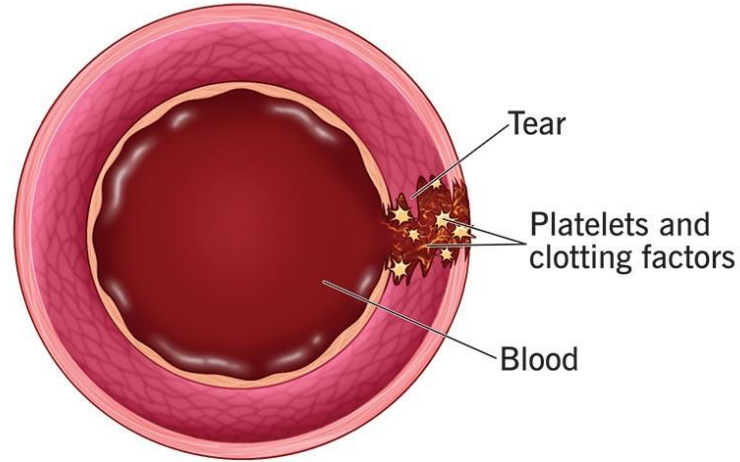
## Abstract

Immune checkpoint inhibitors (ICIs) enhance antitumoral T cell responses by blocking interactions of the inhibitory receptors cytotoxic T lymphocyte-associated protein 4 (CTLA-4) or programmed cell death protein 1 (PD-1) that are expressed on T cells with their ligands. ICIs are used to treat a variety of cancer types, including melanoma, non-small cell lung cancer, and renal cell carcinoma, with patients often displaying long-lasting responses. Nevertheless, a substantial proportion of patients do not respond to ICIs, and the gut microbiome has been identified as a key modulator of ICI effectiveness. Diet strongly influences gut microbial composition and function. On page 428 of this issue, Giampazolias *et al.* report the identification of vitamin D as a dietary component involved in promoting microbial regulation of responses to ICI therapy in mice.

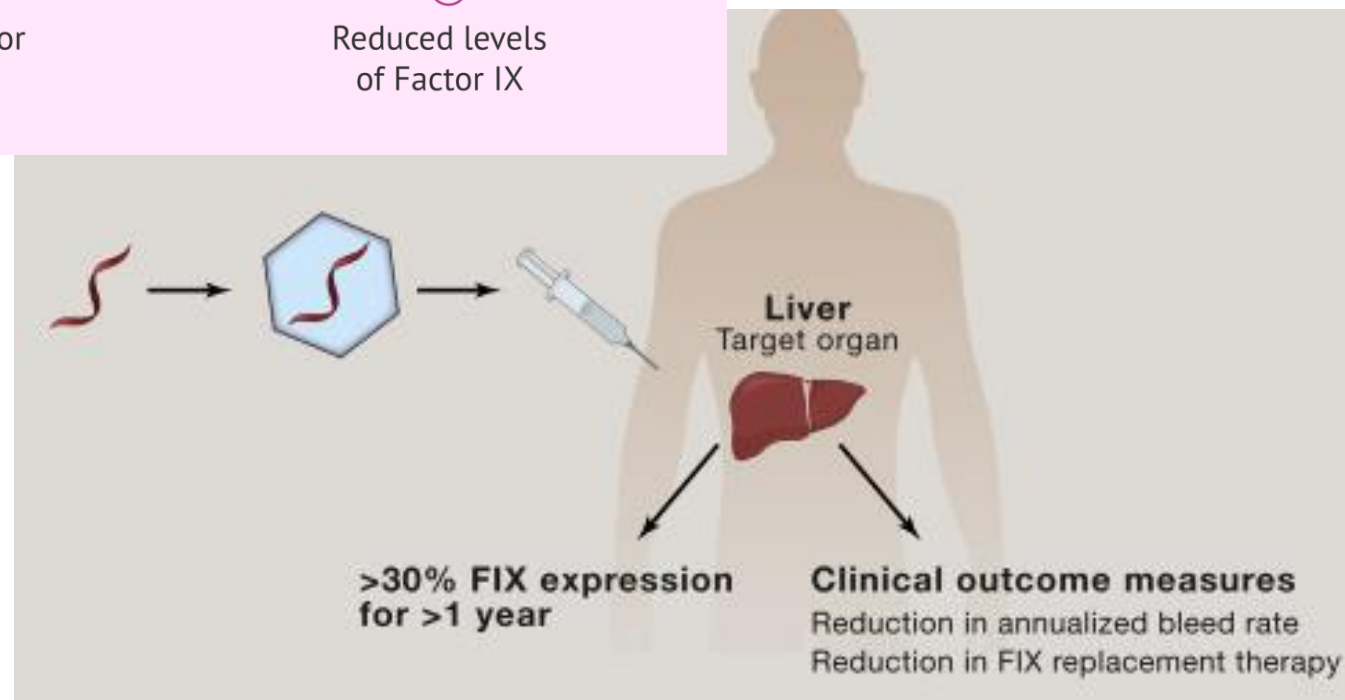
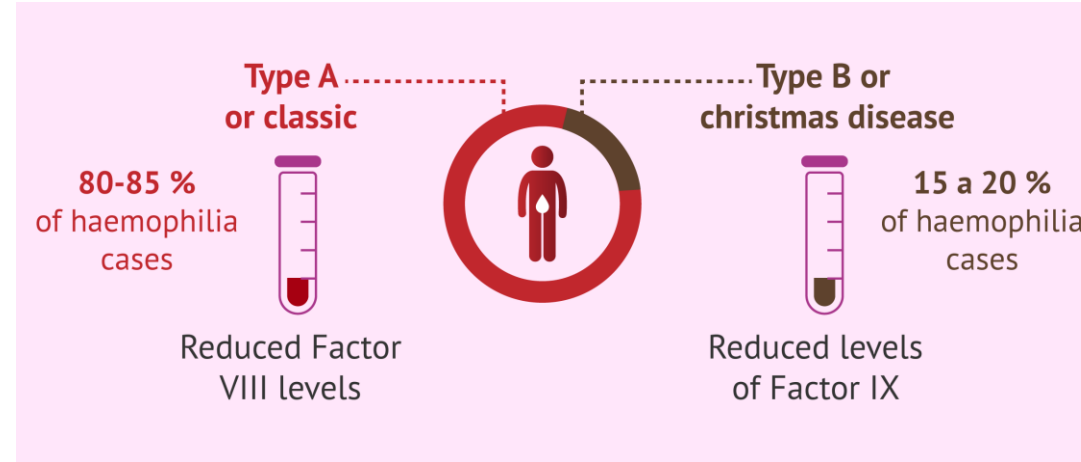
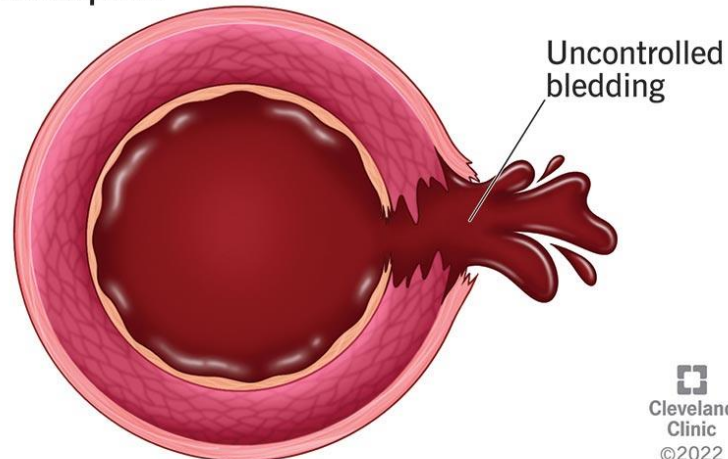
# First hemophilia B gene therapy approved

## Hemophilia

Normal blood vessel

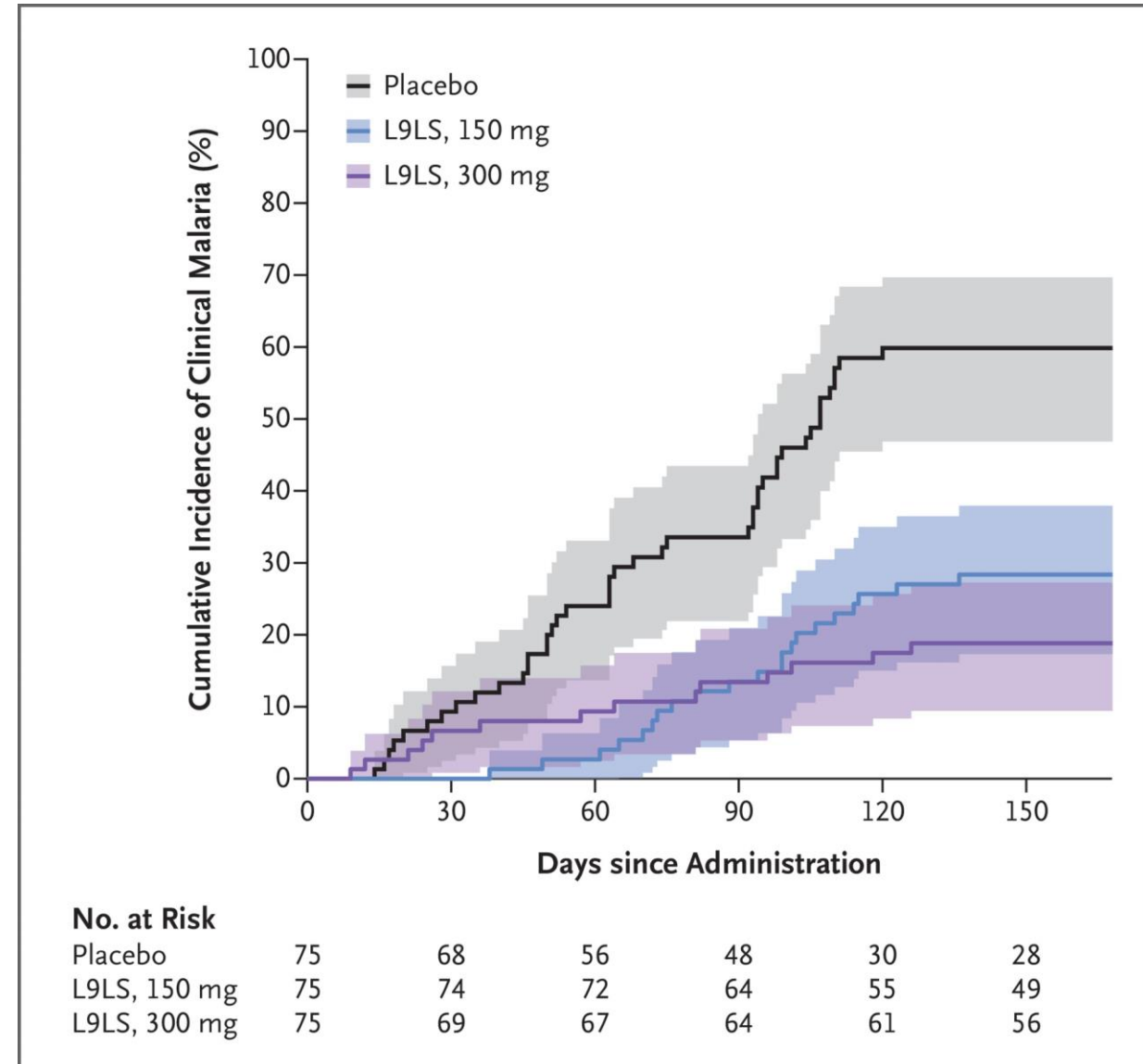
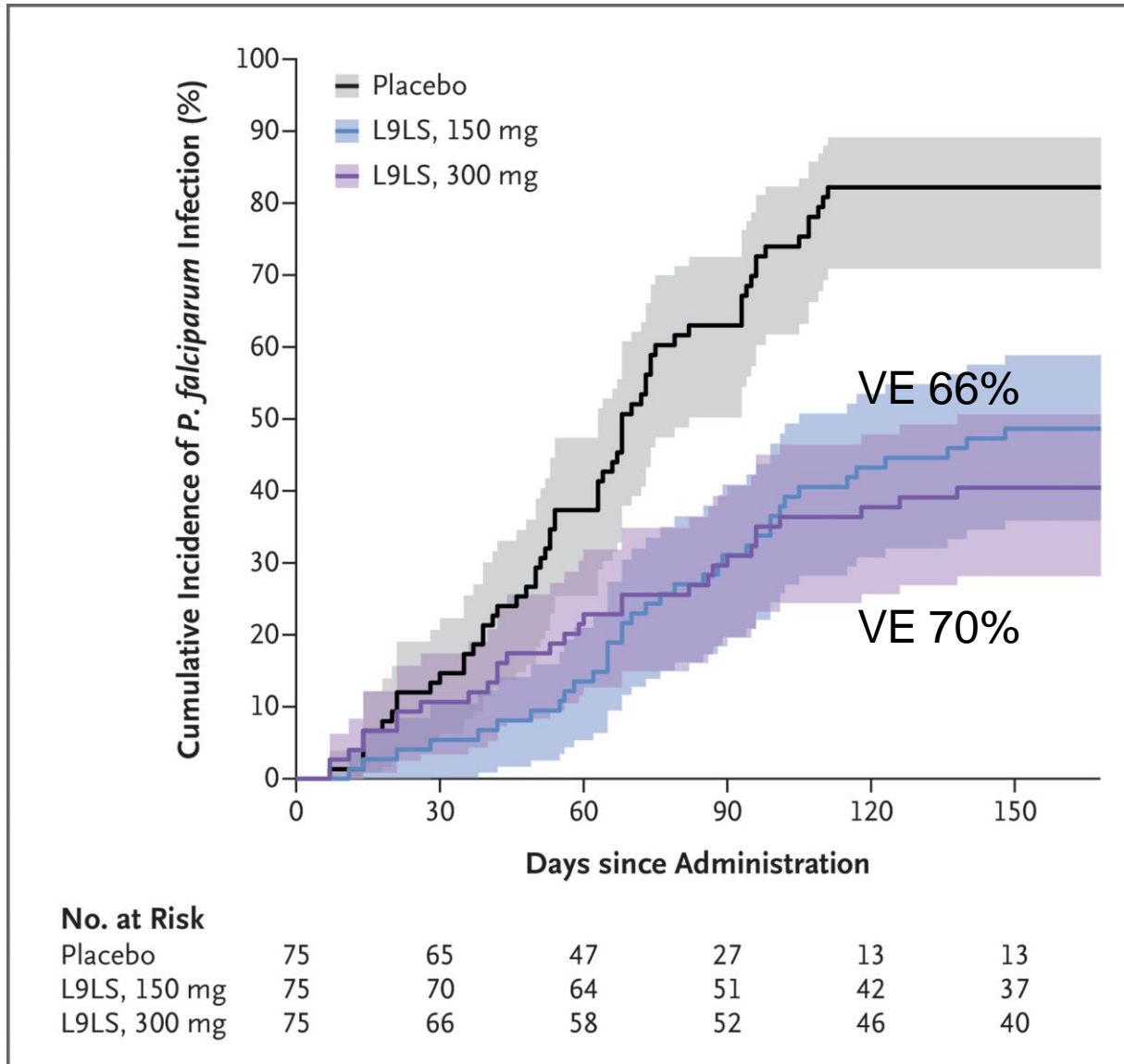


Hemophilia

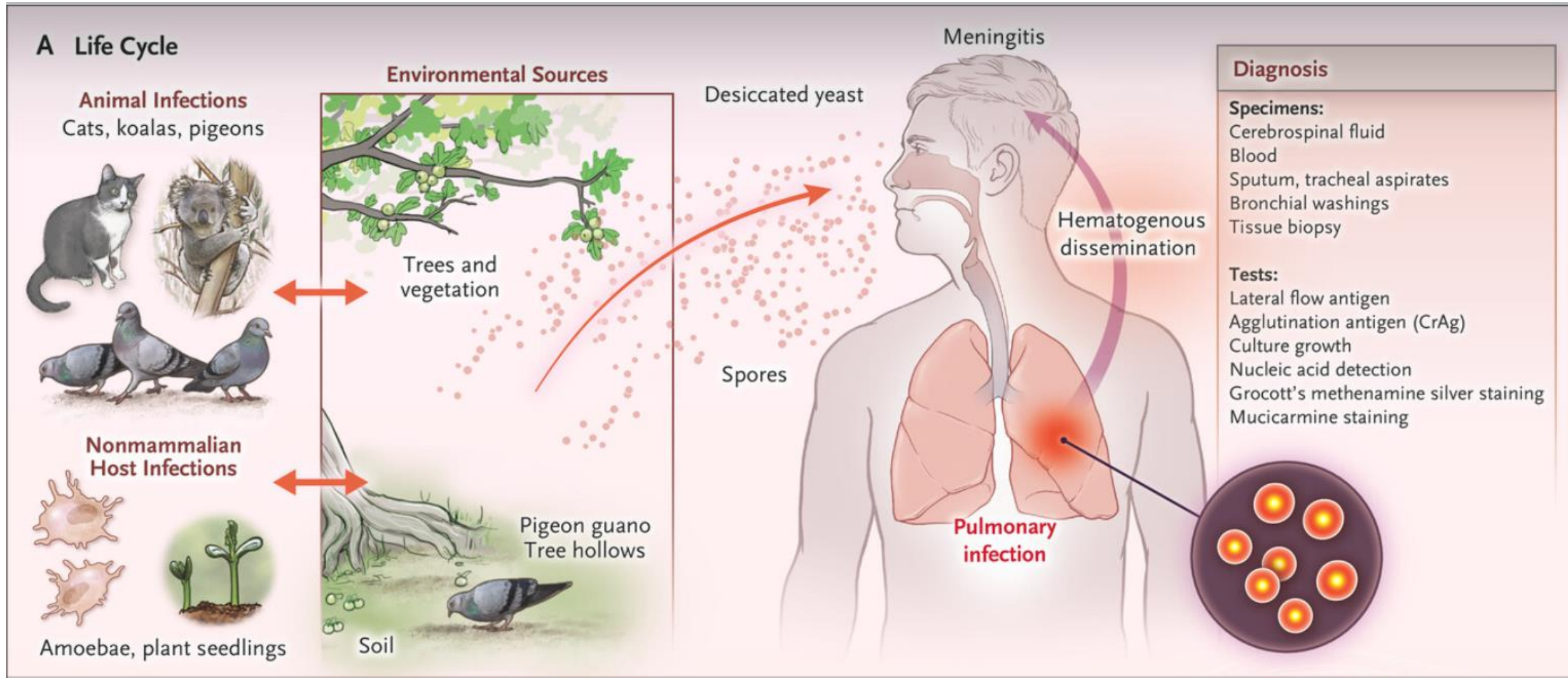


Cleveland Clinic ©2022

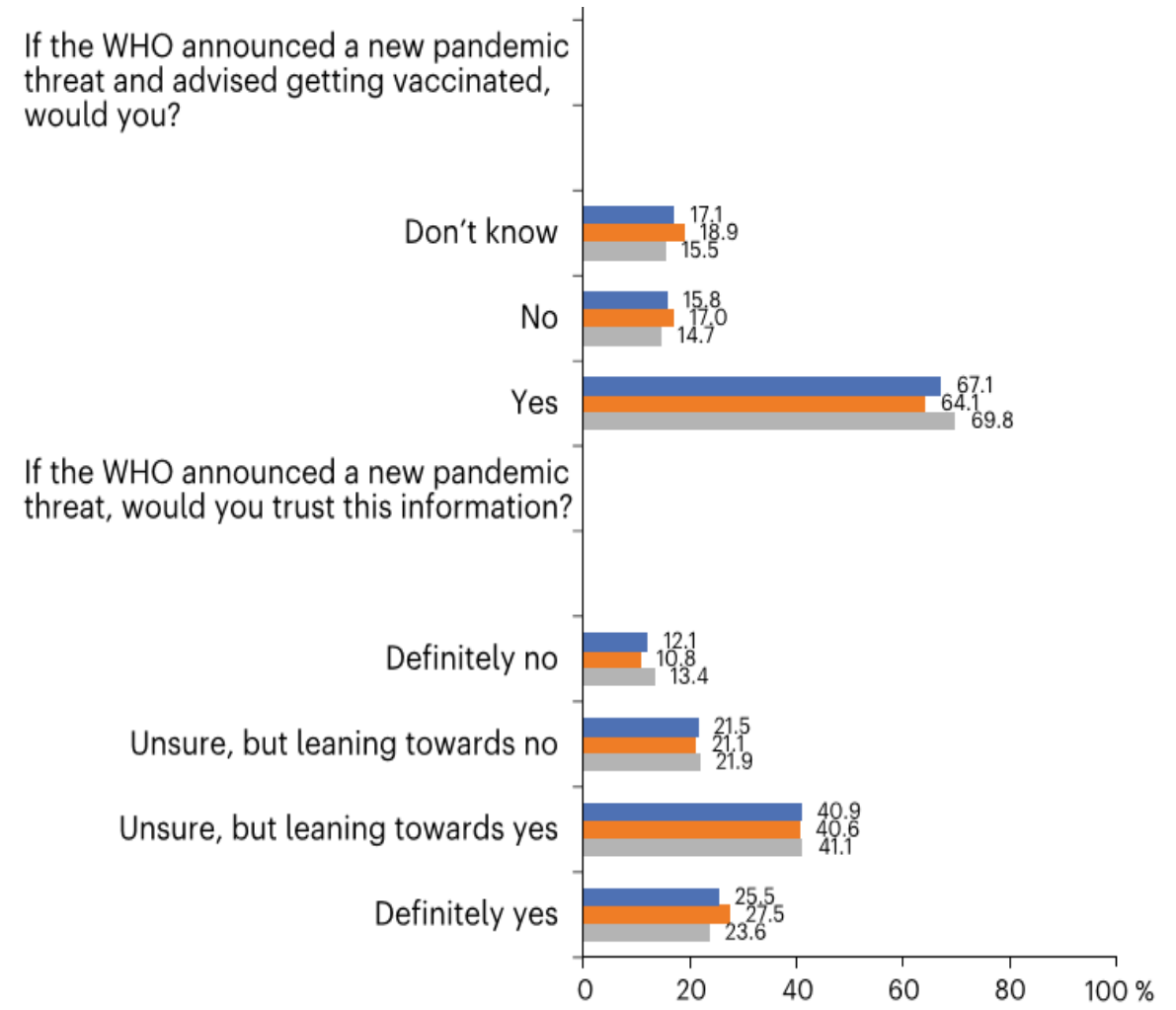
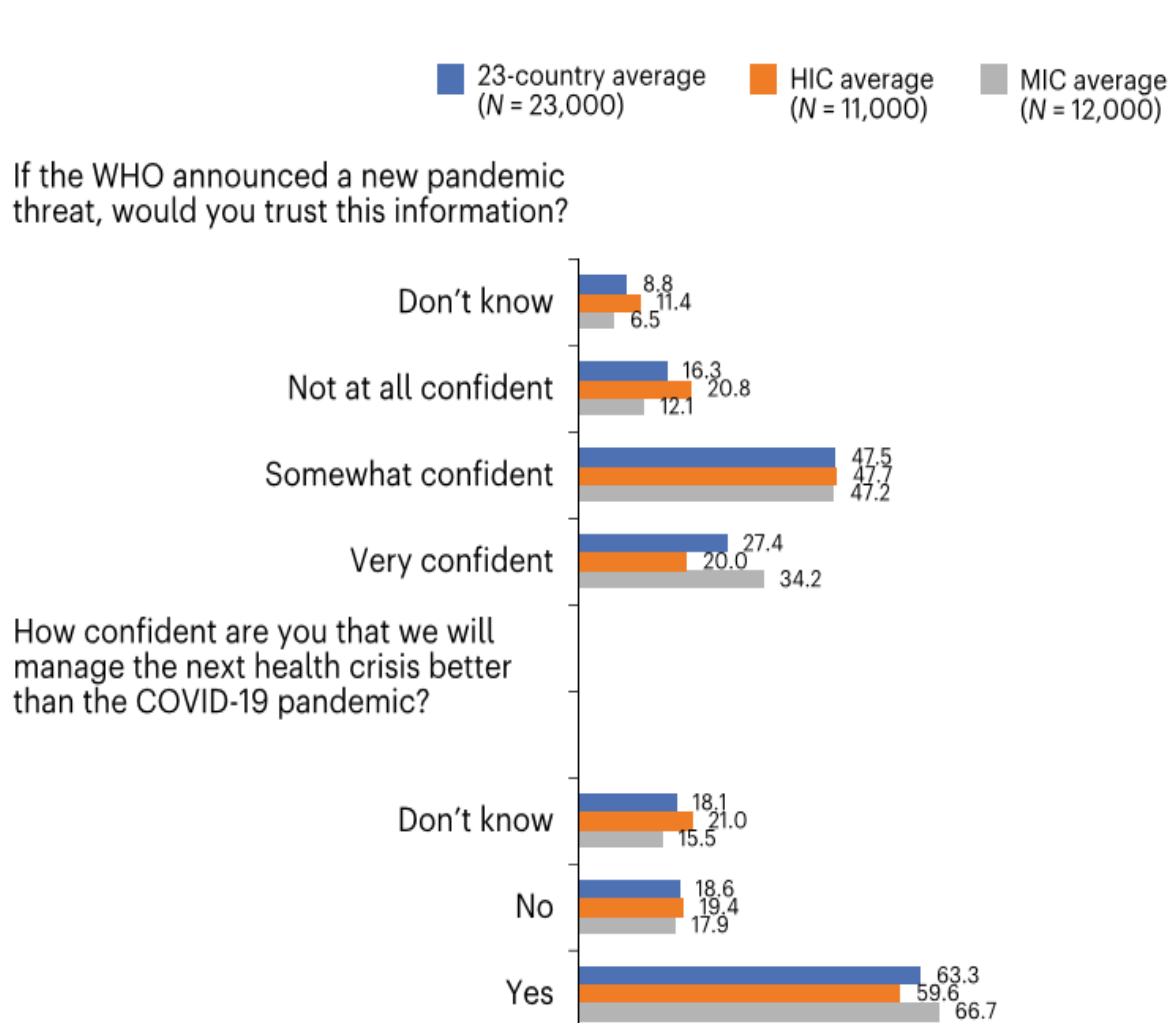
# mAB efficacy against *P. falciparum* infection (l) / disease (r)



# Cryptococcus neoformans - overview



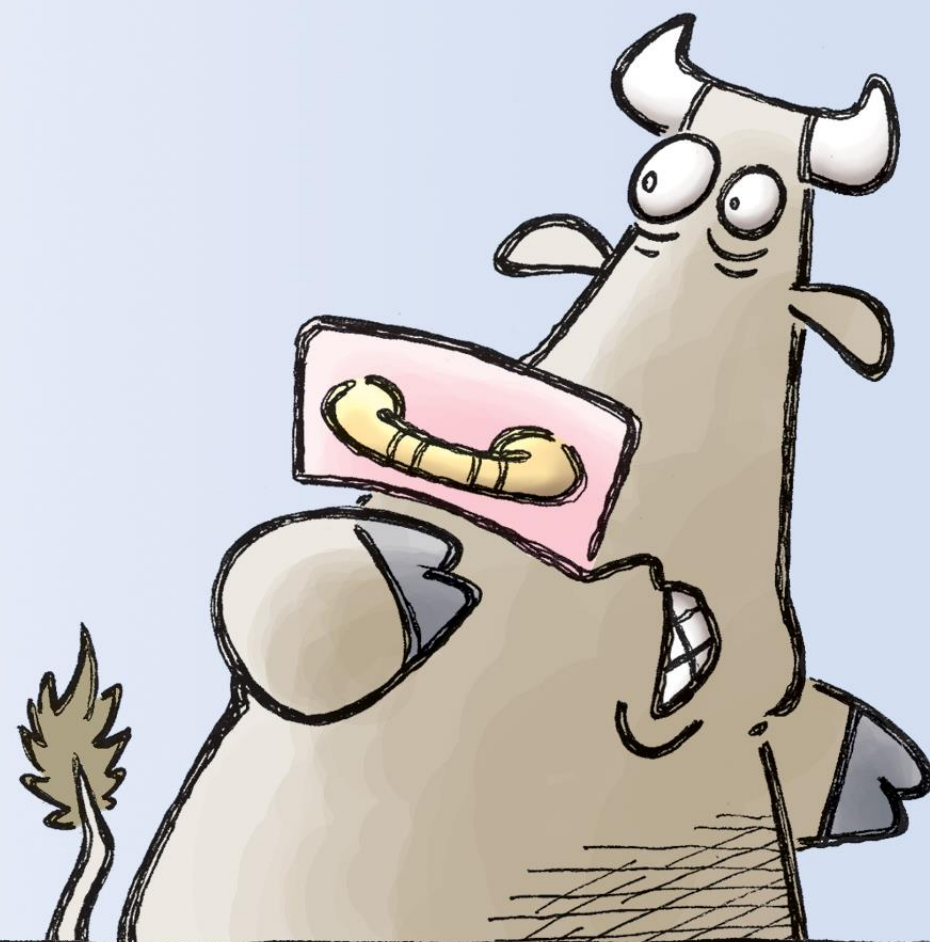
# Vaccine confidence in 23,000 adults, 23 countries (10/2023)





THE WORST  
IS BEHIND US...

... AND  
COMING  
UP FAST.



B. Rich  
HEDGEYE

# What we talked about today

- **H5N1 - UPDATE**
- **Microbes and Vitamin D aid immunotherapy**
- **First haemophilia B gene therapy approved**
- **Monoclonal effective against malaria**
- **Cryptococcus neoformans: review**
- **Vaccine confidence – institutional confidence**