National Institutes of Health Update

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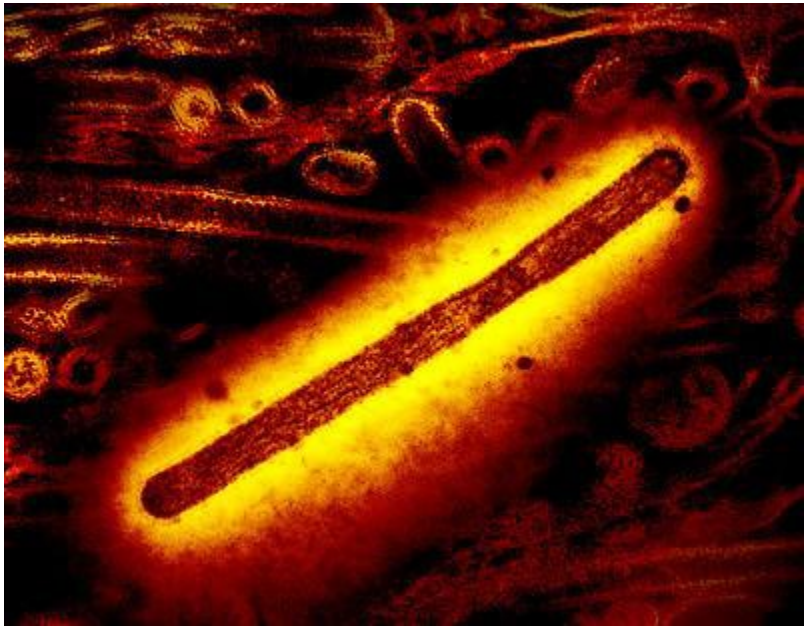
National Institutes of Health

January 2025

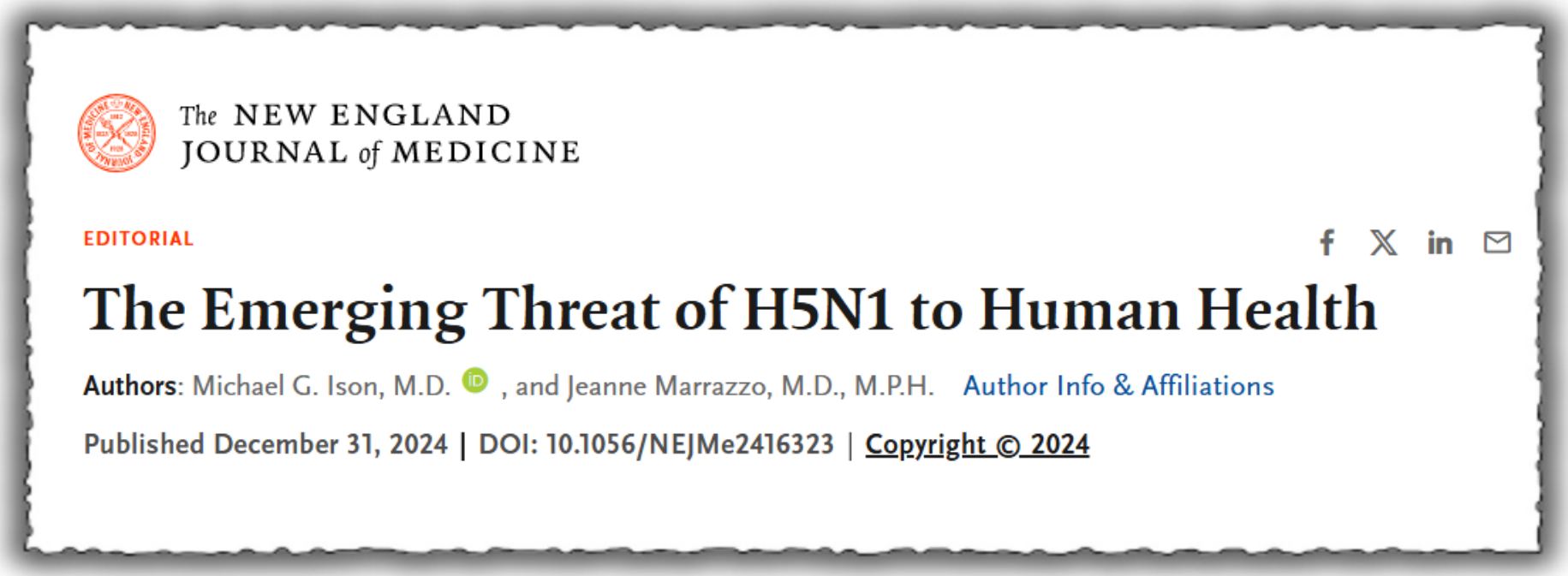
Influenza Update

NIAID Now | December 20, 2024

NIAID Research Key to H5N1 Influenza Preparedness Efforts



Transmission electron microscope image of a rod-shaped influenza A H5N1/bird flu virion; in the background is a second transmission electron micrograph of H5N1 virus particles (both round and rod-shaped). Creative composition and colorization/effects by NIAID; transmission electron micrograph imagery is courtesy CDC. Scale has been modified/not to scale. Credit: CDC and NIAID



The NEW ENGLAND JOURNAL of MEDICINE

EDITORIAL

The Emerging Threat of H5N1 to Human Health

Authors: Michael G. Ison, M.D. , and Jeanne Marrazzo, M.D., M.P.H. Author Info & Affiliations

Published December 31, 2024 | DOI: 10.1056/NEJMe2416323 |

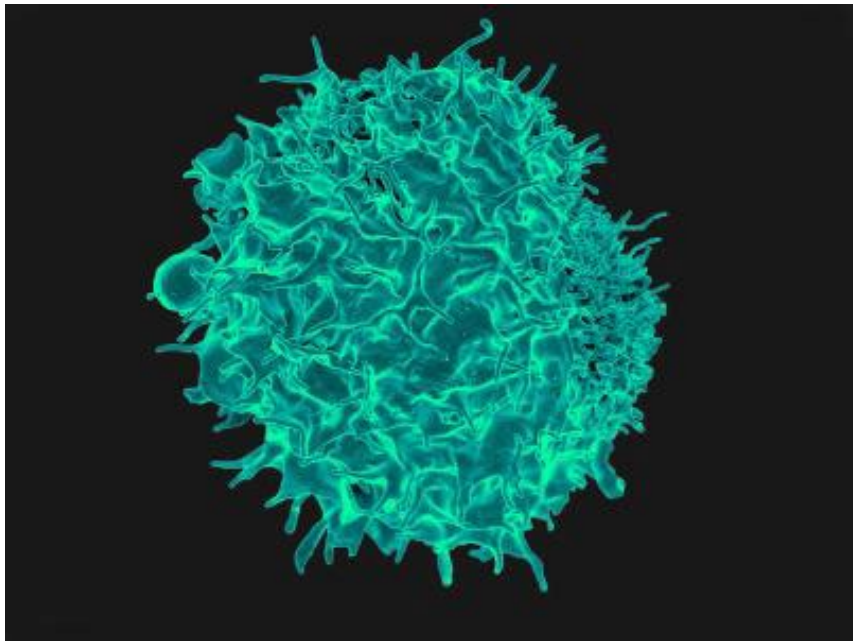
NIH Officials describe four keys to controlling the current outbreak:

- Timely, effective collaborations
- Vigilant surveillance of emerging mutations and assessment of the threat of human-to-human transmission
- Continued development and testing of medical countermeasures
- Precautions to prevent exposure to the virus and minimize the risk of infection

NIH National Institute of Allergy and Infectious Diseases

NIAID Now | December 19, 2024

Calling for Reinforcements: A New Way to Recruit Immune System Helpers Could Lead to Better Flu Vaccines



Colorized scanning electron micrograph of a human T cell
Credit: NIAID

V Mallajosyula *et al.* Coupling antigens from multiple subtypes of influenza can broaden antibody and T cell response. Science. (2024 Dec 19)

Maternal Health Update

Eunice Kennedy Shriver National Institute of Child Health and Human Development

Healthy pregnancies. Healthy children. Healthy and optimal lives.

Thursday, September 5, 2024

Item of Interest: NIH announces final winners of the Connecting the Community for Maternal Health Challenge

COVID-19 Update

- NIH-funded study finds long COVID affects adolescents differently than younger children
- Adolescents were most likely to experience low energy/tiredness while children were most likely to report headache
- Children and adolescents were found to experience prolonged symptoms after SARS-CoV-2 infection in almost every organ system
  - Most had symptoms affecting more than one system

Gross RS *et al*. Characterizing Long COVID in Children and Adolescents: RECOVER Pediatric Study. Journal of the American Medical Association. (2024 August 21)

RECOVER-TLC Will Advance Long COVID Research

NIAID Now | November 26, 2024

First Webinar of Long COVID Treatment Initiative Highlights Early Progress

https://fnih.org/our-programs/recover-tlc-will-advance-long-covid-research/

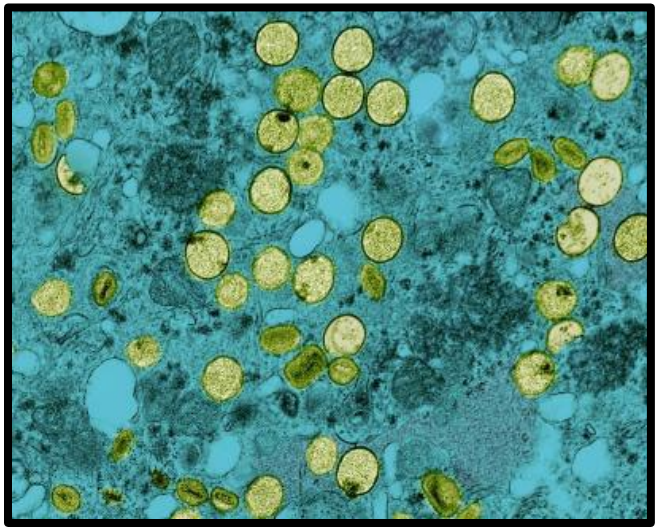
Mpox Update

U.S. Department of Health and Human Services
NIH News
National Institutes of Health

National Institute of Allergy and Infectious Diseases (NIAID)
http://www.niaid.nih.gov
October 16, 2024

Mpox Vaccine Is Safe and Generates a Robust Antibody Response in Adolescents

NIH Clinical Trial Addresses Knowledge Gap on Vaccine Use in Adolescent Populations



Colorized transmission electron micrograph of mpox virus particles (light green) found within VERO E6 cells (teal). The virus particles are in various stages of maturity, which accounts for differences in shape. Captured at the NIAID Integrated Research Facility in Fort Detrick, Maryland.
Credit: NIAID

NIH Update

NIH Director's Blog

ChatGPT-Like AI Tool Promises to Speed Treatment Advances and Free Doctors' Time by Matching Patients with Clinical Trials

Posted on December 19th, 2024 by Dr. Monica M. Bertagnolli

A new tool called TrialGPT uses AI to quickly match patients to potential clinical trials, requiring less time of clinicians. Credit: Donny Bliss/NIH, Rocketclips/Adobe Stock, IconLauk/Adobe Stock, Jacartoon/Adobe Stock, Anatoliy/Adobe Stock

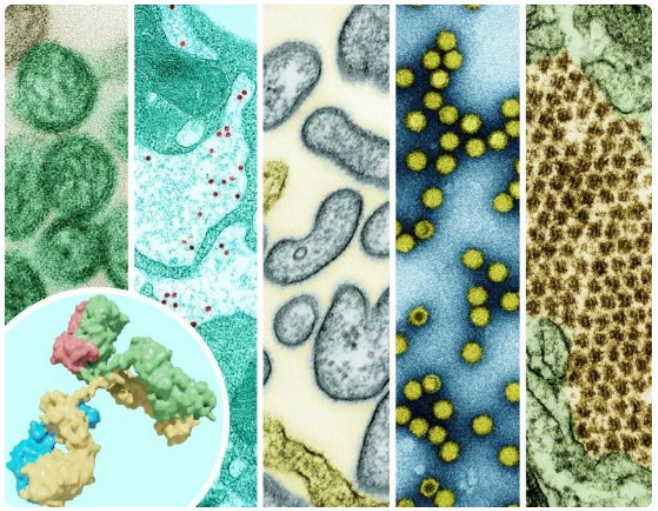
Q Jin, *et al*. Matching Patients to Clinical Trials with Large Language Models. Nature Communications. (2024 Nov 18)

Pandemic Preparedness Update

NIH Awards Establish Pandemic Preparedness Research Network

September 13, 2024

The National Institutes of Health (NIH) has established a pandemic preparedness research network to conduct research on high-priority pathogens most likely to threaten human health with the goal of developing effective vaccines and monoclonal antibodies. Currently, many of the diseases caused by these pathogens have no available vaccines or therapeutics, and investing in this research is key to preparing for potential public health crises—both in the United States and around the world. NIH's National Institute of Allergy and Infectious Diseases (NIAID) expects to commit approximately $100 million per year to fund the program, pending the availability of funds.



The ReVAMPP network will support monoclonal antibody and vaccine research on pathogens from many different groups of viruses, including those shown here: hantavirus, yellow fever virus, Nipah virus, picornavirus, and Chikungunya. Microscopy captured at the NIAID Integrated Research Facility in Ft Detrick, MD.

Credit: NIAID

Thank you