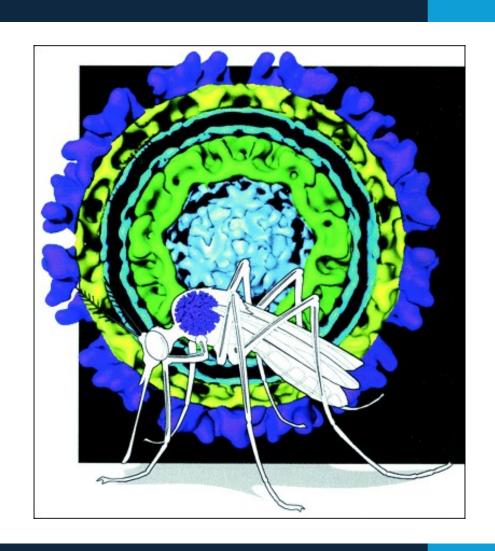
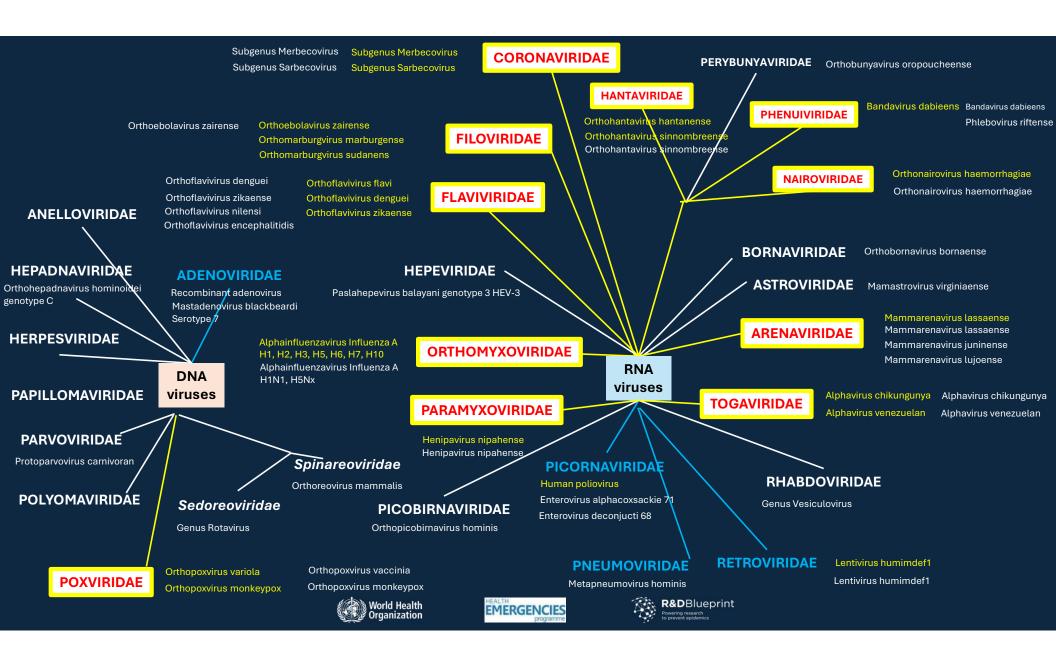
Naomi Forrester-Soto 8th April 2025

Togavirus PAC outcomes



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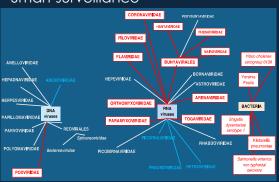
A scientific approach for pandemic research preparedness

Proactive pathogen discovery & surveillance

Basic research

Pathogen biology **Pathogenesis** Immunology

"Smart surveillance"



Research on viral structures, infection mechanisms, immune responses, and host interactions

Translational research

Antigen design Vaccinology Development of reagents & tools Assays & Animal models Advanced manufacturing

Family TPPS & MCMs development

MCMs with a broader spectrum addressing multiple or evolving pathogens:

- Priority Pathogens Prototype pathogens

Research infrastructure

Establishing robust and research deployment strategies

The prompt initiation of clinical clinical trial capabilitiestrials is essential for the prompt evaluation and distribution of new medical countermeasures during an outbreak.



Diverse vaccines and platforms Broad-spectrum therapeutics antivirals, small molecules Monoclonal antibodies; and point-of-care diagnostics.

MOHs and researchers in at-risk countries in the driving seat

Pathogen X causing Pandemic

All Families

Priority & Prototype Pathogens

Pathogen X

https://cdn.who.int/media/docs/default-source/consultation-rdb/who-report-scientific-approach-pandemic-preparedness.pdf?sfvrsn=1f209cb3_4







In summary

By expanding research efforts for all viral and bacterial Families' using the CORCs'...

...research advances in a decentralized & collaborative way.

By developing Global R&D Roadmaps for each Family using an open and transparent approach...

... knowledge gaps are addressed in a way that contributes to equity in access to knowledge and innovations

By continuing to collaborate in evaluation of MCMs integrated in outbreak response, led by Ministries of Health and national research teams,....

... equity in access to MCMs, and trust from communities are strengthened.









Togavirus team "at a glance"

5 independent experts from 4 countries Panama, South Africa, UK, USA) 80% from LMIC 20% men

32 species considered

7

viruses screened

viruses shortlisted as L1 (PHEIC Risk) Togaviridae is recommended as a priority viral family with Chikungunya and VEE both recommended as the prototype pathogens

Members

First Name	Last Name	Title and Affiliation
Naomi	Forrester (Chair)	Reader in Vector Ecology, Pirbright Institute, United Kingdom.
Sandra	López Vergès	Ph.D., Senior Health Researcher, Chief of the Dept. of Research in Virology and Biotechnology, Gorgas Memorial Research Institute for Health Studies, Panama.
Felicity	Burt	PhD, Acting Head of Division of Virology, Professor/ Medical Scientist, Research Pathogen Laboratory, South African Research, Chair (SARChI): Vector borne and zoonotic pathogens research, Faculty of Health Sciences at the University of the Free State (UFS) and National Health Laboratory Services (NHLS), South Africa.
Tem	Morrison	PhD, Professor of Immunology & Microbiology, University of Colorado Anschutz School of Medicine, United States of America.
Kylene	Kehn-Hall	MS, PhD, Professor Virology, Department of Biomedical Sciences and Pathobiology, VA-MD College of Veterinary Medicine, United States of America.

Expertise represented

Alphaviruses, Virology, Immunology, Old World Alphaviruses, Host-Pathogen interactions, Pathogenesis, Antiviral Development

Pre-Screening

- A rapid review of ICTV list (2022) was conducted which identified 32 species and 35 virus from the Alphaviruses genus.
- These were reviewed to identify those with the greatest potential to cause an epidemic or pandemic (PHEIC)
- Following the review and group discussion, the team agreed on of 7 viruses to prioritize for screening

Agreed Pre-Screening List

- 1. Chikungunya virus
- 2. Eastern equine encephalitis virus
- 3. Madariaga virus
- 4. Mayaro virus
- 5. Onyong-nyong virus
- 6. Ross River virus
- 7. Venezuelan equine encephalitis virus

Recommendations for the PAC

- 1. Togaviridae is considered by the group as an important viral family containing several viruses of epidemic and pandemic concern.
- 2. Following the scientific screening and post screening reviews, the group recommends:
 - List 1 (PHEIC Risk)

= Chikungunya + Venezuelan Equine Encephalitis (2 pathogens)

List 2 (Pathogen X)

- = Eastern Equine + Madariaga + Mayaro + Ross river(4 pathogens)
- List 3 (Cause for Concern)
- = Onyong-nyong virus

- (1 pathogens)
- 3. Chikungunya and Venezuelan Equine Encephalitis are both recommended as prototype pathogens
- 4. Recent development of CHIKV vaccine can help develop vaccines for other key alphaviruses
- 5. VEEV and EEEV are agents of concern as they have the capability of being transmitted as an aerosol
- 6. Going forward, priorities are:
 - Monitoring of the effectiveness of the CHIKV vaccine
 - Resources to develop other key alphavirus vaccines