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**SEAOHUN**  
Southeast Asia One Health  
University Network

# Let's Unite to Stop Future Pandemics: *the Role of Universities*

**Vipat Kuruchittham, PhD**

Executive Director of SEAOHUN

[vipat@seaohun.org](mailto:vipat@seaohun.org)

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**UC DAVIS**  
One Health Institute  
School of Veterinary Medicine

**AFROHUN**  
Advancing One Health

**EcoHealth  
Alliance**

**V** Ata Health Strategies

**icap** Global  
Health

**Berkeley**  
UNIVERSITY OF CALIFORNIA

Project  
**ECHO**

**UCI** University of  
California, Irvine

*This presentation is made possible by the generous support of the American people through the United States Agency for International Development (USAID). The contents are the responsibility of SEAOHUN and do not necessarily reflect the views of USAID or the United States Government.*

A detailed, high-magnification microscopic image of various viruses. The central focus is a large, spherical virus with a greenish-yellow core and a dense outer layer of white, spike-like proteins. Surrounding it are other viruses of different shapes and sizes, some appearing as dark, irregular clusters and others as smaller, more uniform spheres. The background is a deep red, textured surface, possibly representing a cell membrane or a blood vessel wall.

“IF ANYTHING KILLS OVER 10 MILLION PEOPLE IN THE NEXT FEW DECADES,  
IT’S MOST LIKELY TO BE A HIGHLY INFECTIOUS VIRUS  
RATHER THAN A WAR – NOT MISSILES, BUT MICROBES,”

*Bill Gates (2015)*



# A WORLD AT RISK

Annual report on global preparedness  
for health emergencies

Global Preparedness Monitoring Board



2019

A yearly investment of US\$ 1.9–3.4 billion to strengthen animal and human health systems would yield an estimated global public benefit of more than US\$ 30 billion annually,

**a ROI of 10 to 1 or higher!**

Considering the benefits to economic growth (not counting the enormous cost to human life), investing in health systems to implement the IHR (2005) would yield a positive return on investment in all plausible scenarios.



UNCTAD

Prosperity for all



## Global economy could lose over \$4 trillion due to COVID-19 impact on tourism

30 June 2021

Economic losses are mounting in developing countries due to the absence of widespread COVID-19 vaccinations.



© Fabien



The image is a digital composition on a dark blue background. On the right side, a globe is depicted with a glowing blue network of lines and dots, representing global connectivity. On the left side, there are three stylized, glowing blue virus particles with prominent surface spikes. A horizontal, semi-transparent grey banner is positioned across the center of the image, containing the text "PANDEMIC HAS NO BOUNDARY." in a white, sans-serif font.

PANDEMIC HAS NO BOUNDARY.





Last Updated at (M/D/YYYY)  
11/26/2021, 2:22 PM

Total Cases

260,092,573

Total Deaths

5,182,579

Total Vaccine Doses Administered

7,527,195,943

Cases | Deaths by  
Country/Region/Sovereignty

US

28-Day: 2,275,673 | 31,061  
Totals: 48,126,574 | 775,797

Germany

28-Day: 1,116,509 | 4,958  
Totals: 5,670,253 | 100,480

United Kingdom

28-Day: 1,097,673 | 4,248  
Totals: 10,076,116 | 144,876

Russia

28-Day: 1,043,706 | 33,148  
Totals: 9,303,751 | 263,934

Turkey

28-Day: 717,104 | 5,842  
Totals: 8,678,609 | 75,840

Ukraine

28-Day: 564,386 | 18,189  
Totals: 3,548,842 | 88,664

Poland

28-Day: 435,381 | 5,413  
Totals: 3,434,272 | 82,186

Netherlands

28-Day: 426,789 | 797  
Totals: 2,575,172 | 19,607

France

28-Day Cases

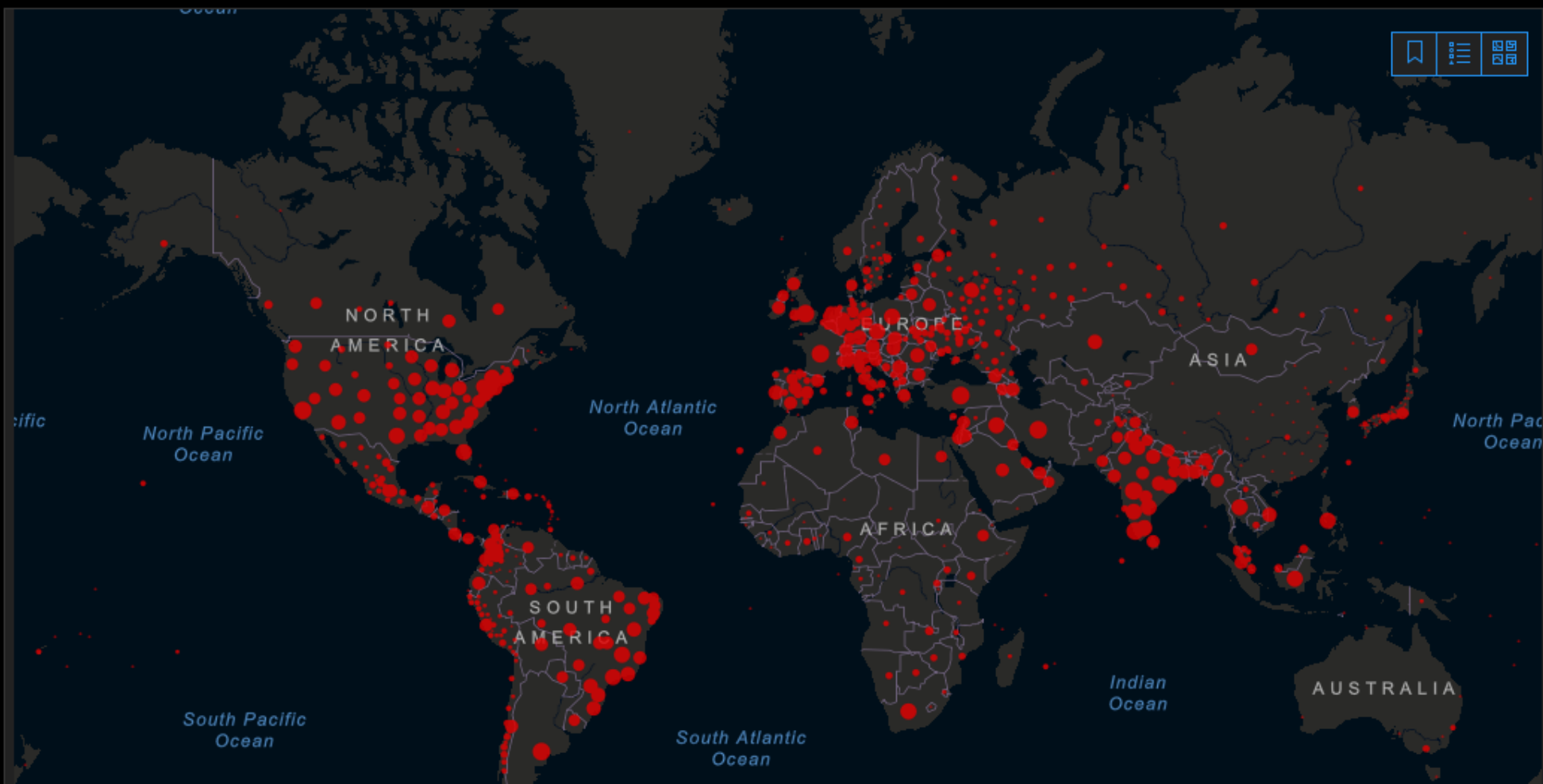
14,098,812

28-Day Deaths

199,826

28-Day Vaccine Doses Administered

818,144,377





ARE WE PREPARED FOR THE NEXT PANDEMIC?





HOW CAN WE ENSURE THAT OUR WORLD IS SAFE  
FOR OUR FUTURE GENERATIONS?





# A LEADING REGIONAL NETWORK OF UNIVERSITIES ON ONE HEALTH CAPACITY BUILDING







**SEAOHUN**  
Southeast Asia One Health  
University Network

92 UNIVERSITIES IN 8  
COUNTRIES

\*as of September 2021



**OUR MISSION:** To develop a resilient and competent One Health workforce to effectively prevent, detect and respond to infectious disease threats by leveraging education, research, and training excellence provided by member universities.

SEAOHUN advocates the role of universities to ...



Provide the capacity building of professionals across sectors to solve complex One Health issues



Do research that matter support policymakers with evidence-based information for decision making



Support public health surge capacity e.g., diagnostic testing, outbreak investigation



# What to do when there is no data system?

- MOH noticed that rates of infant and maternal mortality were high
- No data available to allocate limited resources, not even any data on mortality rates by district
- Low literacy
- Lacking electricity and cell phone coverage

**CAN A SURVEILLANCE SYSTEM BE ESTABLISHED?**







Don't focus solely on technical (hard) skills when teaching One Health, let's transform students from passive to active learners by applying learner-centered activities and having multidisciplinary students learning together in their journey to become One Health leaders.



**You don't hire  
for skills, you hire  
for **attitude**. You  
can always teach  
**skills**.**

**– Simon Sinek**



**SIMON**

**S**





Do research that matter, support policymakers with evidence-based information



Public Health Surge Capacity





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## USAID ONE HEALTH WORKFORCE – NEXT GENERATION (OHW-NG) PROJECT

The five-year project (October 2019 – September 2024)

**To empower One Health university networks to sustainably develop and deliver world-leading model programs for equipping professionals with transdisciplinary skills to address complex global health issues.**



# USAID STRATEGIES TO PREVENT SPILLOVER (STOP SPILLOVER) PROJECT



- The five-year project (October 2020 – September 2025)
- **To understand and address the threats posed by zoonotic viral diseases and reduce the risk of viral spillover and spread.**
- Led by Tufts University, SEAOHUN coordinates and manages the STOP Spillover implementation in Southeast Asia in collaboration with its 12 consortium partners.

The consortium will strengthen capacity in priority countries to:

- Monitor, analyze, and characterize the risk of priority zoonotic viruses spilling over from animals to people.
- Develop, test, and implement interventions and policies to reduce the risk of priority viral zoonotic spillover.
- Mitigate the amplification and spread of priority zoonotic viral diseases if spillover occurs.





# CHEVRON STRENGTHENING ONE HEALTH EDUCATION IN SOUTHEAST ASIA PROJECT

**To increase knowledge and practice of One Health to better prepare the Southeast Asia region to combat infectious disease outbreaks originating from animals.**

The two-year project (January 2021 – December 2022), led and managed by SEAOHUN, strengthens One Health education from school-aged children and their teachers, university students and their professors, to practicing health professionals who are solving complex health issues in their communities.



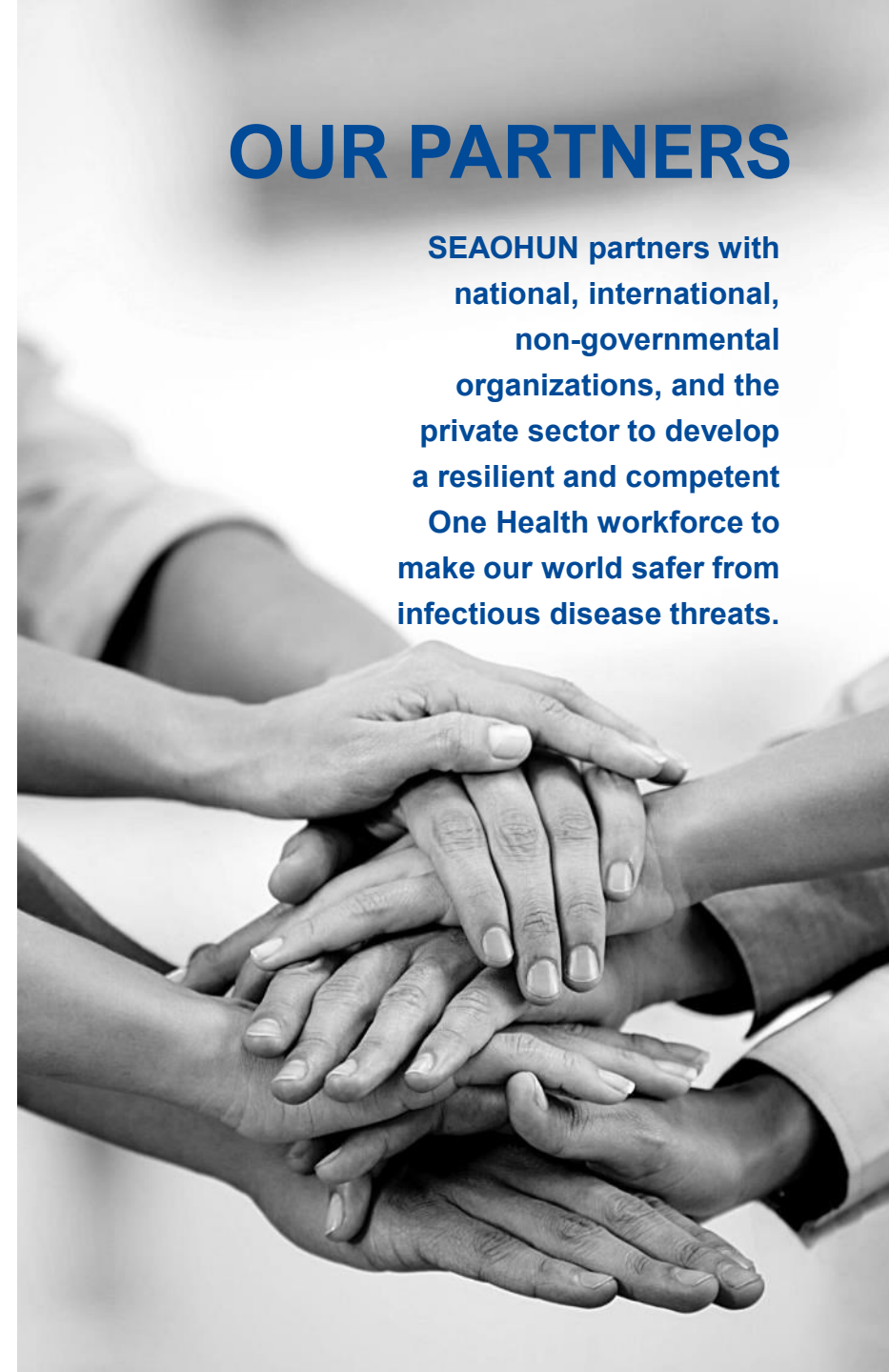
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- United States of Agency for International Development (USAID)
- Chevron
- Korea International Cooperation Agency (KOICA)
- United States Department of State (U.S. DOS)
- Pfizer
- Food and Agriculture Organization of the United Nations Regional Office for Asia and the Pacific (FAO RAP)
- World Organization for Animal Health Sub-Regional Representation for Southeast Asia (OIE SRR-SEA)
- ASEAN Plus Three Field Epidemiology Training Network (ASEAN+3 FETN)
- Regional Field Epidemiology Training Program for Veterinarians (R-FETPV)
- Southeast Asian Ministers of Education Organization Tropical Medicine and Public Health Network (SEAMEO TROPMED)
- SEAMEO Regional Centre for STEM Education (SEAMEO STEM-ED)
- Eijkman Institute for Molecular Biology, Indonesia
- IPB Primate Research Center, Indonesia
- Agricultural Research for Development (CIRAD), Thailand
- Chulalongkorn University Veterinary Antimicrobial Resistance Cluster, Thailand
- Thai Coordinating Unit for One Health (Thai CUOH), Ministry of Public Health, Thailand
- Tropical Disease Research Center (TDRC) of Khon Kaen University, Thailand
- Bureau of Animal Industry, Department of Agriculture, the Philippines
- International Livestock Research Institute (ILRI), Vietnam
- Wildlife Conservation Society (WCS), Vietnam
- University of California Davis and its One Health Workforce – Next Generation Consortium
- Tufts University and its Strategies to Prevent Spillover Consortium

## OUR PARTNERS

**SEAOHUN partners with national, international, non-governmental organizations, and the private sector to develop a resilient and competent One Health workforce to make our world safer from infectious disease threats.**







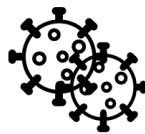
### **GHSA action packages**



**Workforce  
Development**



**National  
Laboratory  
Systems**



**Zoonotic  
Disease**

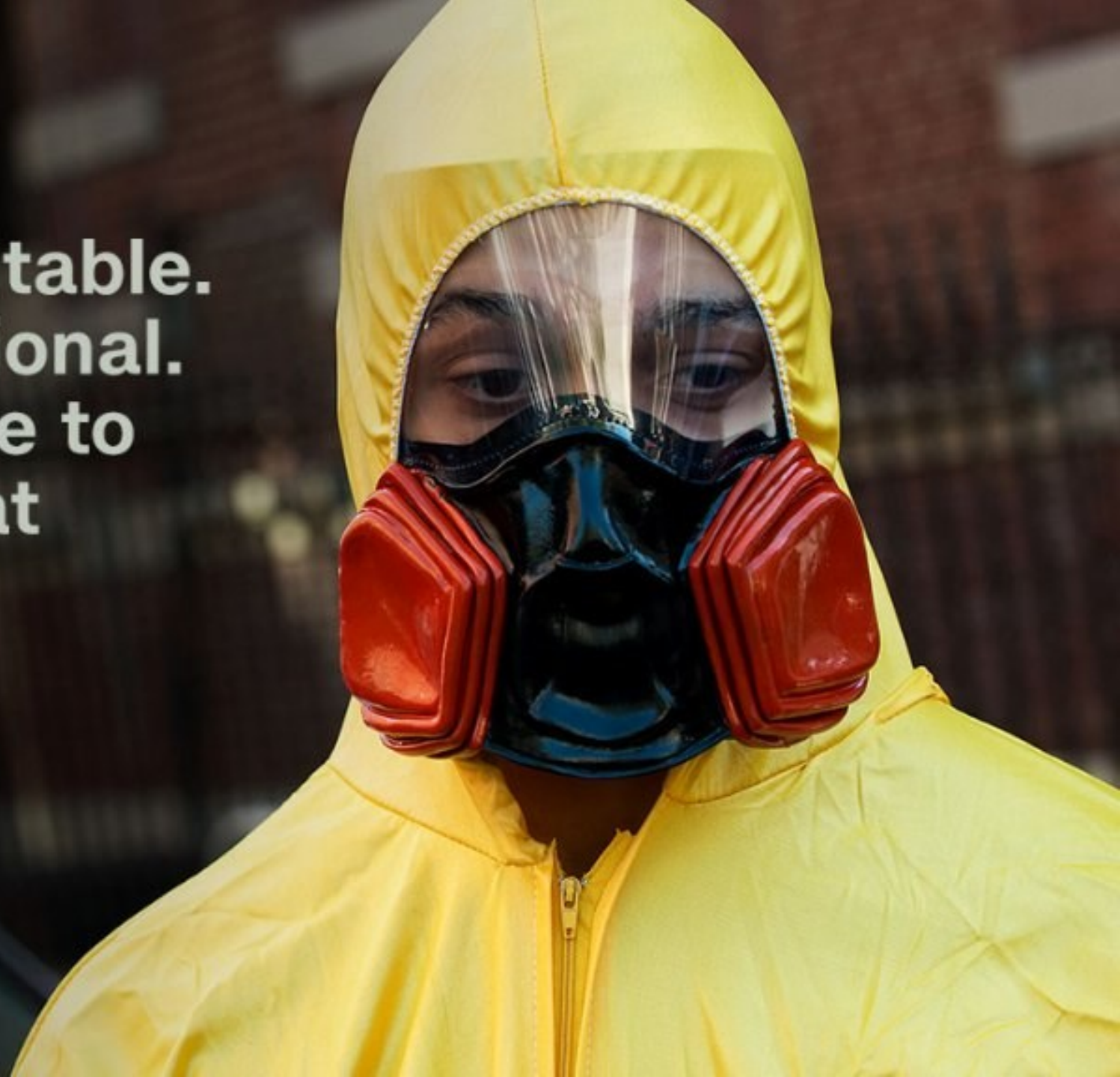


GHSA Leadership Meeting, 19 November 2021, Phuket

**“Outbreaks are inevitable.  
Pandemics are optional.  
We have the chance to  
stop something that  
could be horrific.”**

Dr. Larry Brilliant

#UnseenEnemy







Let's collaborate among ministries, **UNIVERSITIES** and the private sector in developing One Health workforce, generating evidence-based information for policymakers, and maintaining public health surge capacity.

**We Must Be United to Stop Future Pandemics.**



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University Network

**Build Immunity for Humanity**

**Vipat Kuruchittham, PhD**

Email: [vipat@seaohun.org](mailto:vipat@seaohun.org)



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