



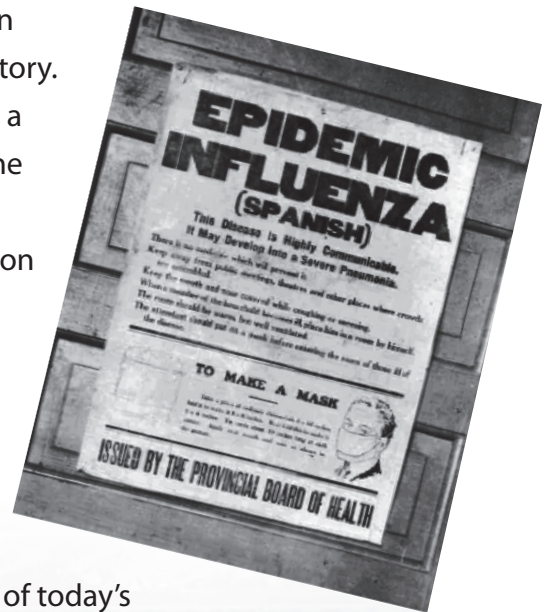
Overview of the Global Virus Network

“We represent centers of excellence for research in medical virology from across the globe. Our work is dedicated to understanding, preventing and eradicating viral disease threats to mankind. Today, we affirm the need for new programs to coordinate, support and promote research that bridges the gap between virus surveillance and public health implementation. We gather in Washington, D.C. to support goals and ideals of the Global Virus Network, a new approach to fostering true collaboration among all regions and all peoples of the world. Seeking to improve the immediate responses to emerging viral threats, train future generations of medical virologists, and advise governments or non-governmental organizations on viral disease threats and their control, the Global Virus Network fills a critical need in international health for today and into the future.”

GVN declaration of support was signed
March 3, 2011, Washington, D.C.



"The 1918-1919 influenza pandemic killed more people in absolute numbers than any other disease outbreak in history. A contemporary estimate put the death toll at 21 million, a figure that persists in the media today, but understates the real number. Epidemiologists and scientists have revised that figure several times since then. Each and every revision has been upward. Frank Macfarlane Burnet, who won his Nobel prize for immunology but who spent most of his life studying influenza, estimated the death toll as probably 50 million, and possibly as high as 100 million. A 2002 epidemiologic study also estimates the deaths at between 50 and 100 million (Johnson and Mueller, 2002). The world population in 1918 was only 28 percent of today's population. Adjusting for population, a comparable too today would be 175 to 350 million. By comparison, at this writing [2005] AIDS has killed approximately 25 million, and an estimated 40 million more people are infected with the virus." [John Barry, "1918 Revisited: Lessons and Suggestions for Further Inquiry." From the 2005 Institute of Medicine Workshop, "The Threat of Pandemic Influenza. Are We Ready?"]



ARE WE READY? NO. NOT YET.

In hindsight, the world of 1918 might be excused for having been so quickly and devastatingly overwhelmed by a new virus emerging from the cauldron of world war. Yet, a century later, nations and global health agencies still are routinely surprised by the sudden emergence of a novel virus from some obscure jungle, pig, chicken, bat, tick or mosquito. It happens with surprising regularity.

Just in the last few years two obscure mosquito-borne viruses (Chikungunya and Zika) have invaded the Western Hemisphere to cause serious chronic arthritis, and microcephaly, respectively. Other newly discovered viruses (MERS, H7N9) have the potential to cause epidemic respiratory illnesses with high mortality. A recent (2016) report from the Commission on Global Health Risk Framework for the Future estimated that the annualized expected loss from potential pandemics is more than \$60 billion, and the Commission proposes an incremental spending of about \$4.5 billion per year to respond to those pandemic risks, only a fraction of what we expend on other risks to humankind.

Emerging and re-emerging viruses and their vectors continue to represent a major national and international security concern.

The Global Virus Network (GVN) has an important role to play in our preparedness and responses to those emerging viral threats, especially in the aspect related to research.

Examples of Emerging and Re-emerging Pathogenic Viruses

Year	Virus	Disease
1973	Rotavirus	Major cause of infantile diarrhea worldwide
1975	Parvovirus B19	Aplastic crisis in chronic hemolytic anemia
1976	Ebola	Hemorrhagic fever. Outbreaks in W. Africa in 2013.
1977	Hantaan	Hemorrhagic fever with renal syndrome
1980	Human T-lymphotropic virus I (HTLV-1)	T-cell lymphoma-leukemia
1982	HTLV-2	Hairy cell leukemia
1988	Human herpes-virus-6 (HHV-6)	Roseola subitum
1988	Hepatitis E	Enterically-transmitted hepatitis
1989	Hepatitis C	Parenterally-transmitted liver disease
1993	Sin Nombre	Adult respiratory distress syndrome
1994	Sabia	Brazilian hemorrhagic fever
1994	Hendra	Respiratory and neurologic disease in horses and humans. Australia and SE Asia
1997	H5N1	Avian Influenza
1999	Nipah	Encephalitis and respiratory illness. Outbreaks in SE Asia. Infection from bats and pigs.
1999	West Nile	Mosquito-borne African virus appeared in US. Can cause encephalitis or meningitis.
2001	Metapneumonia	Acute wheezing in young children
2003	SARS	Chinese coronavirus causing worldwide cases of Severe Acute Respiratory Syndrome.
2003	Monkeypox	Discovered in 1958 in Africa. US outbreak caused by imported rodents from W. Africa
2005	HTLV-3 and -4	Single West African cases from primate bites
2012	MERS	Camel-related coronavirus causing Middle East Respiratory Syndrome (MERS).
2013	H7N9	Avian influenza virus
2013	Chikungunya	Discovered in East Africa in 1952. Spread by mosquitoes into the Americas in 2013-14.
2014	Enterovirus D68	Associated with sudden paralysis in children in US
2014	Zika	Discovered in Uganda in 1947. Mosquito-borne virus spread into West Hemp. in 2014

THE GENESIS OF THE GVN

The concept of a Global Virus Network (GVN) began back in the 1980's when Dr. Robert Gallo realized that virtually no working virologists had a global directive for researching the cause of AIDS during the earliest years of the epidemic. Conversely, important groups such as the World Health Organization which did have a global mandate for combatting the new disease had virtually no resident expertise in the kind of virus that Dr. Gallo and his colleagues subsequently shown to be the cause of AIDS, namely, a retrovirus. Examining the history of other great epidemics of the 20th century, Influenza and Polio, reveals similar disconnects between available expertise and the urgent public need to identify causation and prevention modes.

In March, 2011 thirty of the world's leading medical virologists gathered in Washington, DC to pledge their support for a coalition of virology institutions worldwide, poised to act in times of viral outbreaks and committed to advancing knowledge on current viral killers. The Global Virus Network is the result.

GVN Centers, with strong working relationships among them, are poised to engage in any outbreak situation by providing the world's only network of top basic medical virologists from around the globe covering all classes of human viral threats. GVN is also committed to training the next generation of medical virologists in order to meet the critical need posed by the graying of members of the field's own discipline, and to inform and educate policymakers and members of the public about the role of medical virologists in mitigating viral illness and preventing infections from taking hold in populations. This is especially important as longtime, expert medical virologists worldwide have noticed a significant decline in medical students entering the field of medical virology.

GVN was "incubated" within the Institute of Human Virology at the University of Maryland School of Medicine until it became fully organized in 2011. IHV is led by one of the GVN co-founders, Dr. Robert Gallo, who is renowned for his pioneering discoveries of human retroviruses (HTLV-1/HTLV-2) and in particular with his co-discovery of HIV as the cause of AIDS and development of the HIV blood test, which enabled health care workers for the first time to screen and rapidly diagnose for HIV. Dr. Gallo's personal and institutional support for the GVN has allowed the coalition to take shape and to become operational. GVN's mission is also advanced by the commitment and dedication of its Centers of Excellence.

THE VISION

The GVN vision is "A world prepared to prevent, contain and control viral epidemic threats, through the collaboration of a global network of expert virus laboratories."

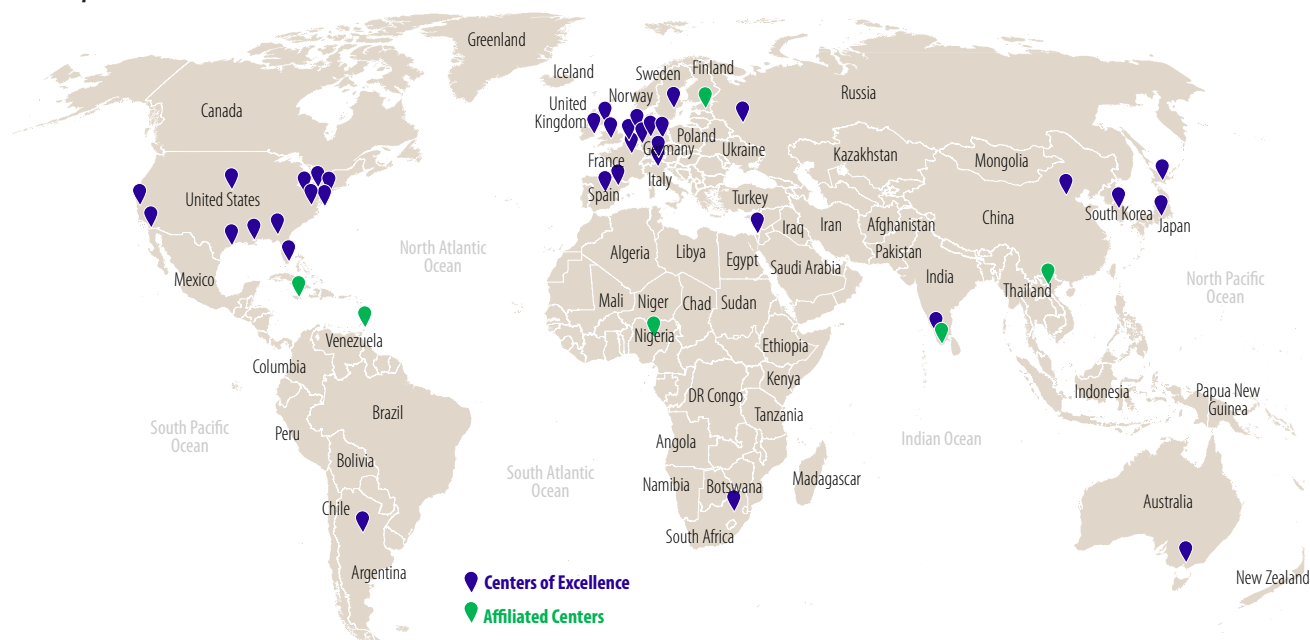
The GVN vision is achieved by: (1) Establishing a global network of expert virology laboratories; (2) Promoting research for the development of new tools, including diagnostic test, antiviral medicines and vaccines; (3) Training the next generation of experts in virology; and (4) Advocating for a more comprehensive and inclusive response to viral threats worldwide.

THE NETWORK

The Global Virus Network (GVN) is a coalition top experts in medical virology in more than 25 countries on six continents, collectively working to advance knowledge about how viruses attack humans, and to develop diagnostics, drugs and vaccines to prevent illness and death. No single institution in the world has expertise in all viral areas that can initiate epidemics. GVN brings the top virologists together in innovative ways to leverage individual strengths and to focus global teams of scientists on key scientific problems. The power of GVN lies in its global reach, the depth of its science, the speed with which it can tackle new research problems, and its commitment to solving viral challenges facing the human population.

No other entity exists like the GVN. GVN is an independent 501(c)3, non-profit organization. Its mission is to strengthen medical preparedness and response against viral disease, including those that could become global pandemics. GVN is integrated by 38 Centers of Excellence and 6 Affiliated Institutions in 24 countries. *(see map on next page)*

Map of Centers of Excellence and Affiliated Centers



Centers of Excellence	
Argentina	IBBM – National University of La Plata
Australia	Peter Doherty Institute for Infection & Immunity, University of Melbourne
Belgium	Northern Europe Consortium, Gembloux Agro-Biotech
China	Chinese Consortium – Chinese Centers for Disease Control
France	Institut Pasteur
Germany	Robert Koch Institute Berlin; Technical University of Munich; Philipp University Marburg; University of Veterinary Medicine Hannover
India	Amrita Institute of Medical Sciences, Kerala
Ireland	University College Dublin
Israel	Tel Aviv University
Italy	Italian Consortium – University of Verona
Japan	National Institute of Infectious Diseases (NIID-Tokyo)
Netherlands	Department of Virology, Erasmus MC Erasmus University Hospital
Russia	Moscow Center for HIV/AIDS Prevention and Treatment
South Africa	National Institute for Communicable Diseases, Johannesburg
South Korea	International Vaccine Institute
Spain	Centro de Biología Molecular Severo Ochoa (CBMSO), Madrid; Centre de Recerca en Sanitat Animal (CRESA), Barcelona
Sweden	Scandinavian-Baltic Consortium, Karolinska Institute
U.K.	MRC-University of Glasgow, Scotland; The Pirbright Institute, England
USA	California: University of California San Francisco; Scripps Research Institute; J. Craig Venter Institute; Colorado: Colorado State University, Fort Collins; Florida: University of Miami; Georgia: Emory University; Louisiana: Tulane University School of Medicine; Maryland: Institute of Human Virology at the University of Maryland; Johns Hopkins Bloomberg School of Public Health; Michigan: University of Michigan; New York: Icahn School of Medicine at Mt. Sinai; University of Rochester Medical Center; University of Buffalo; Pennsylvania: University of Pittsburgh Cancer Institute; Texas: UTMB Galveston National Laboratory.

Affiliated Centers	
Estonia	University of Tartu
Grenada, W.I.	St. George's University
India	Molecular Virology Laboratory Rajiv Gandhi Centre for Biotechnology
Jamaica	University of the West Indies, Mona
Nigeria	Institute of Human Virology-Nigeria
Vietnam	National Institute of Hygiene and Epidemiology, Hanoi

BENEFITS OF MEMBERSHIP

- ➊ **Research Collaboration:** Opportunities to identify new collaborations with leading medical virologists from around the world. Members of the GVN meet annually to share information and ideas, including pre-publication data, and to work as teams on critical issues. Regional meetings offer additional opportunities for networking and coalition building, in addition to webinars and other Internet-based forums. Joint grant applications involving multiple GVN Centers have been submitted or are on the drawing board. Individual Centers will benefit from working collaboratively through the network on priority programs and projects.
- ➋ **Training Future Virologists:** Intensive Short Course in Medical Virology, one-week course taught by GVN leaders. To be adapted for non-US settings.
- ➌ **New Strategic Partners:** GVN brings new partners and resources into the field, thereby leveraging funds and expanding impact.
- ➍ **Visibility and Impact:** GVN members are associated with a leading scientific brand. GVN outreach activities, including those with the press, receive significant attention.

Ongoing Programs

ANNUAL MEETINGS

The GVN scientific leadership meets annually in order to address the Network's priorities. The Global Virus Network (GVN) has convened general meetings of the entire network on eight occasions, including the launch of the GVN in 2011 (2011: DC, USA and Dublin, Ireland; 2012: Naples, Italy; and Baltimore, USA; 2013 Munich, Germany and Moscow, Russia; 2015 Beijing, China; 2016 Sapporo, Japan). It was well-understood from the outset that such a diverse, dispersed international group of medical virologists would need to hold regular meetings in order to further organize the group, plan for the future and learn about each member's current research and concerns. Since the formal establishment of the non-profit organization, Global Virus Network, Inc., the general meetings have become a critical platform for identification of program priorities and the exchange of ideas. We are planning to hold our next meeting in Melbourne, Australia. This event will be hosted jointly by the Doherty and Pasteur Institutes.

The main objectives of the GVN annual meetings meeting will include:

1. Present and discuss the most current findings in medical virology, include expert presentations on cutting-edge research in medical virology, and a progress report from the Executive Committee, an introduction to new GVN member Centers, selected updates and scientific reports from GVN members and discussion bringing their expertise in order to advance the knowledge to prevent, diagnose and treat viral challenges.
2. Address GVN and future directions: A special Welcome Session for new Centers and Affiliates will be held. During this session, new institutions will be introduced to the rest of the GVN Community. New programs are announced and there is an open discussion regarding ways to advance the GVN mission.
3. Provide the framework to increase collaborations between world experts: The meeting fosters collaborations that would not otherwise come to fruition.

CHIKUNGUNYA TASKFORCE

The GVN Chikungunya Task Force is a group of leading scientists from around the world committed to finding solutions to the growing problem of Chikungunya virus. Activities of the CHIK TF include:

Review the state of the science and potential research opportunities on animal models of infection and disease, candidate vaccine constructs, new anti-viral drugs, and seroepidemiology studies for previously unrecognized cases of CHIK, while including a focus on the Caribbean.

Identify potential funding sources to support international collaborative research and address gaps in knowledge. Train the next generation of researchers to study the interactions between viruses and mosquito vectors. Provide expertise and visibility as GVN speaks about this challenge to a variety of audiences.

Led by Dr. Scott Weaver, PhD , (University of Texas Medical Branch (UTMB) in Galveston), and Dr. Marc Lecuit, MD, PhD , (Institut Pasteur in Paris).	
• Barry Beaty, PhD, Colorado St. University	• Andres Merits, PhD, University of Tartu, Estonia
• James Crowe, MD, Vanderbilt University	• Kenneth Olson, PhD, Arthropod-Borne Infectious Disease Laboratory at Colorado State University.
• Diane Griffin, PhD, Johns Hopkins University	• Janusz Paweska, DVM, National Institute of Communicable Diseases, South Africa
• William Hall, PhD, University College Dublin, Ireland	• Kate Ryman, PhD, University of Pittsburgh
• William Klimstra, PhD, University of Pittsburgh	• In-Kyu Yoon, MD, AFRIMS, Thailand
• Peter Liljestrom, PhD, Karolinska Institutet, Sweden	
• Jean Lim, PhD, Mount Sinai Hospital, NY	
• Calum N.L. Macpherson, PhD, St. George's University, Grenada	

Chikungunya Task Force Map



HTLV-1 TASK FORCE

The mission of the HTLV Task Force is to speed the pathway to discovery of drugs that will stop virus transmission or progression from infection to disease, in addition to educating the public about the nature of these viruses, the diseases they cause, and how to prevent their spread.

Experts from 11 countries, led by Dr. Robert Gallo, GVN co-founder and scientific director and director of the Institute of Human Virology (IHV) at the University of Maryland School of Medicine, Dr. Luc Willems (Research Director, National Fund for Scientific Research at University of Liège) and Dr. Hideki Hasegawa (Director, Department of Pathology, National Institute of Infectious Diseases, Japan) are leading the Task Force.

GVN HTLV-1 Task Force Map



- Accolla, Roberto, University of Insubria, Department of Surgical and Morphological Sciences, Italy
- Bangham, Charles, Imperial College, U.K, Faculty of Medicine, Department of Medicine, UK
- Bazarbachi, Ali, American University, Lebanon
- Bertazzoni, Umberto, University of Verona, Department of Life and Reproduction Sciences, Section of Biology and Genetics
- Carneiro-Proietti, Anna Barbara de Freitas, Fundação Hemominas, Brasil
- Cheng, Hua, Institute of Human Virology University of Maryland School of Medicine, USA
- Chieco-Bianchi, Luigi, University of Padova, Department of Surgery, Oncology, and Gastroenterology, Italy
- Ciminale, Vincenzo, Università Degli Studi di Padova, Department of Surgery, Oncology, and Gastroenterology, Italy
- Gallo, Robert C., Institute of Human Virology University of Maryland School of Medicine, USA
- Gessain, Antoine, Institut Pasteur, France
- Gotuzzo, Eduardo, Cayetano Heredia National Hospital, Lima, Peru
- Hall, William, University College Dublin, Centre for Research in Infectious Disease, Ireland
- Harford, Joseph, National Cancer Institute, NIH, USA
- Hasegawa, Hideki, National Institute of Infectious Diseases, Japan
- Hermine, Olivier, Laboratory of molecular mechanisms of hematologic disorders and therapeutic implications, France
- Jacobson, Steven, National Institute of Neurological Disorders and Stroke (NINDS), NIH, USA
- Macchi, Beatrice, University of Rome "Tor Vergata", and IRCCS—Department of Neuroscience, Italy
- Macperson, Cal, St. George's University, West Indies
- Mahieux, Renaud, Ecole Normale Supérieure de Lyon, Département de virologie humaine, France
- Matsuoka, Masao, Institute for Virus Research, Kyoto University, Japan
- Murphy, Edward, University of California—San Francisco, Departments of Laboratory Medicine and Epidemiology/ Biostatistics, USA
- Peloponese, Jean-Marie, Centre d'études d'agents Pathogènes et Biotechnologies pour la Santé. Montpellier, France
- Reis, Jordana, René Rachou Research Center, FIOCRUZ, Laboratory of Biomarkers for Diagnosis and Monitorin, Brasil
- Simon, Viviana, Mount Sinai Hospital, Department of Microbiology, USA
- Tagaya, Yutaka, Institute of Human Virology, University of Maryland School of Medicine, Division of Basic Sciences, Cell Biology Lab, USA
- Taylor, Graham P, Imperial College London, Department of Medicine, Molecular Diagnostics Unit, UK
- Watanabe, Toshiki, The University of Tokyo, Department of Medical Genome Sciences, Graduate School of Frontier Sciences, Japan
- Willems, Luc, University of Liege, Molecular and Cellular Epigenetics and Molecular Biology, Belgium
- Yamano, Yoshiyuki, St. Marianna University Graduate School of Medicine, Institute of Medical Science, Department of Rare Diseases Research, Japan

Members of the GVN Task Force on HTLV recently published an opinion piece in the journal, *Blood*, on the need for better screening of transplantation donor organs in order to prevent new cases of HTLV-associated diseases. The commentary—Screening transplant donors for HTLV-1 and -2—was published online on November 9, 2016 in *Blood*'s First Edition section. Hardcopy publication in the journal and indexing in PubMed will follow shortly. An early online version of the paper is available at: <https://goo.gl/zHo9hw>.

In addition, members of the GVN Task Force on HTLV also published a review article on November 11, 2016 in *Antiviral Research* entitled, "Reducing the global burden of HTLV-1 infection: An agenda for research and action." The abstract is below. Hardcopy publication in the journal and indexing in PubMed will follow shortly. An early online version of the paper is available at: <https://goo.gl/Uxp0ox>.

ZIKA TASK FORCE

Announced in February 11, 2016, Baltimore, MD: GVN Zika Task Force's objective is to implement international efforts to catalyze cooperative activities that can make a difference in response to the emergency.

GVN Zika Task Force map



- Sazaly Bin Abu Bakar, PhD, Msc, Bsc, University of Malaya, Kuala Lumpur, Malaysia
- Michael Diamond, MD, PhD, Washington University School of Medicine, St. Louis, MO, USA
- Esper Kallas, MD, PhD, University of Sao Paulo, Brazil
- Susan J. Fisher, PhD, UCSF School of Medicine
- Antoine Gessain, MD, PhD, Institut Pasteur, Paris, France
- Xavier Abad Morejón de Girón, PhD, Centre de Recerca en Sanitat Animal, Catalonia, Spain
- Diane Griffin, MD, PhD, Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, USA
- Andrew Haddow, PhD, United States Army Medical Research Institute of Infectious Disease, MD, USA
- Giuseppe Ippolito, MD, National Institute for Infectious Diseases Lazzaro Spallanzani, Rome, Italy
- Albert Ko, MD, Yale School of Public Health, New Haven, CT, USA
- Alain Kohl, PhD, MRC-University of Glasgow Centre for Virus Research, Glasgow, Scotland
- Marc Lecuit, MD PhD, Institut Pasteur, Paris, France
- Eric Leroy, PhD, Institut de Recherche pour le Développement, Montpellier, France
- Julius Lutwama, PhD, Makerere University, Uganda Virus Research Institute, Entebbe, Uganda
- Gene D Morse, PharmD, University at Buffalo HIV and HCV Clinical Pharmacology Laboratory

- John Mackenzie, AO, PhD, FTSE, FASM, FACTM, Curtin University, Perth, Australia
- Núria Busquets Martí, PhD, Centre de Recerca en Sanitat Animal, Catalonia, Spain
- Jorge Osorio, PhD, University of Wisconsin, Madison, WI, USA and University of Antioquia Medical School and Fundacion Antioqueña de Infectologia, Medellin, Colombia
- Janusz T. Paweska, PhD, NHLS Johannesburg National Institute for Communicable Diseases
- Giovanni Rezza, MD, Istituto Superiore di Sanità, Rome, Italy
- Amadou Sall, PhD, Institut Pasteur de Dakar, Dakar, Senegal
- Cameron Simmons, PhD, The Peter Doherty Institute for Infection and Immunity, Melbourne, Australia
- Raymond Schinazi, PhD, Hon DSc, Emory School of Medicine, Atlanta, GA, USA
- Ed Tramont, MD, National Institute of Allergy and Infectious Diseases
- Maria Van Kerkhove, PhD, Institut Pasteur
- Nikos Vasilakis, PhD, University of Texas Medical Branch, Galveston, Texas, USA
- David Watkins, PhD, University of Miami, Miami, FL, USA
- Stephen Whitehead, PhD, National Institute of Allergy and Infectious Diseases

Recent activities include: development of FAQ, an electronic survey on Zika and flavivirus research taking place at each institutions and at the GVN centers, as well as unique resources and expertise available; GVN co-signed with Wellcome Trust on Data sharing in public health emergencies; GVN Co-organized with Emory University Bridging the Sciences: Zika Virus Meeting, May 1-3, 2016; Webinar with Burson Masteller; Implementation of Zika Serum Bank.

GVN ZIKA SERUM BANK TO SUPPORT DIAGNOSTICS AND VACCINE DEVELOPMENT

A major obstacle to understanding and controlling the Zika epidemic is affordable diagnostics that can be implemented in clinical settings without sophisticated laboratories. Several academic and commercial groups are working to develop better assays to detect the antibodies that are generated after Zika virus infection, but evaluating and optimizing these new diagnostics requires “gold standard” clinical samples of known antibody content. Unfortunately, patients seen in endemic locations or travelers seen here in the United States typically provide only a small quantity of blood that is consumed for their own diagnosis, leaving little or no extra sample for used to evaluate new tests. Another critical need for these clinical samples is to evaluate the immune response to Zika virus infection and compare this response to vaccines that are now beginning human clinical trials.

The Global Virus Network (GVN) has been responding to this need by acquiring blood samples from patients diagnosed in the United States who are willing to donate a relatively large volume a few weeks after their illness. But there are major logistical and scientific challenges, including: Identifying these patients; arranging for the blood donation; confirming that the samples contain Zika antibodies; and determining whether antibodies against related viruses such as dengue are present and likely to cross-react with Zika in diagnostic tests.

The GVN is meeting this critical need by expanding a nascent program to obtain, validate and make available to the research community these “gold standard” sera from a variety of patients. The effort is led by the GVN’s Zika Task Force Chair, Dr. Scott Weaver, at the University of Texas Medical Branch (UTMB) in Galveston, a GVN Center of Excellence, and the site of the World Reference Center for Emerging Viruses and Arboviruses.

The goal is to assemble a collection of at least 50 individual samples of patient sera, each in quantities sufficient to supply 25 or so investigators. Oversight by the GVN leadership and the GVN Zika Task Force members will ensure that these important samples are made available to interested investigators.

Funds for collecting, testing, shipping convalescent Zika blood samples are being provided by a grant from the Allergan Foundation, a U.S.-based, private charitable foundation.

SHORT COURSE FOR EMERGING LEADERS IN MEDICAL VIROLOGY

There is a critical need for highly-skilled, broadly-educated medical virologists worldwide. This course meets one of GVN's core goals: to ensure emerging leaders in medical virology receive top flight training and have opportunities to engage with partners globally. It supplements skills already gained and provides new knowledge and avenues for broadening expertise and collaborations.

A one-week intensive course on basic, translational, and clinical aspects of viruses of great importance to human health. Lecturers will be leading medical virologists drawn from the ranks of GVN Centers of Excellence globally. All didactic courses will be on state-of-the-art aspects of research on specific viruses. Significant time for discussion and interaction with medical virology leaders will be a hallmark as well as opportunities to meet with policymakers and program officials from funding agencies in Washington DC.

Leading medical virologists from across the GVN will lecture and participate in this course. Some of last year's speakers included: Drs. Robert C. Gallo, Diane Griffin, Robert Redfield, Konstantin Chumakov, Yutaka Tagaya, Kottilil Shyamasundaran, and Ken Olson.

HCV PROVIDER TRAINING IN INDIA

Hepatitis C is a serious liver infection caused by the hepatitis C virus. It is spread person-to-person through contact with blood. Most people who are infected with it do not experience any symptoms for years. India has a high prevalence of Hepatitis C Virus (HCV), but limited public health knowledge of the disease. India also is host to a large network of community-based practitioners with limited specialist training but extensive experience in the primary management of front-line patients.

The purpose of this collaborative project between India and the Institute of Human Virology at the University of Maryland School of Medicine (IHV/UMB) is to develop an HCV training model for medical providers in India that can be duplicated and applied to other areas of South Asia. Generic medications are available and approved to use in India, but only a few providers have any experience in the management of HCV with interferon/ribavirin, and there are no infectious disease specialists in country with experience using new oral agents. Similar to when antiretroviral therapy was rolled out in the mid-2000s, India now has an acute need for providers to be trained in the management of HCV.

The collaboration with India utilizes a decentralized mentorship plan to build local capacity through high-level clinical mentoring to 50 physician and nurse mentors who will then be responsible for mentoring an average of 10 health care workers at each health facility, reaching more than 500 health care workers throughout the country. The project focuses on building specific training for specialized populations (private patients vs community clinic patients) and settings (urban versus rural) in multiple sites in India will be performed.

IHV/UMB, a Global Virus Network (GVN) Center of Excellence, will serve as the primary clinical partner for clinical and operational research activities with Indian trainees. The project will be managed by IHV/UMB professor, Shyamasundaran Kottilil, MD. The GVN will provide additional administrative support.

This collaborative effort is expected to have a major impact on efforts to eradicate hepatitis C in India.

ADVOCACY

The GVN will serve as a resource to government and international organizations seeking advice about viral disease threats, prevention or response strategies, and will advocate for research and training on virus infections and their many disease manifestations, and will disseminate information to authorities and scientific communities throughout the world, including conducting workshops and webinars for journalists and the business community, providing Congressional testimony, opinion pieces, journal articles, etc.



GLOBAL VIRUS NETWORK

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