



中国科学院
CHINESE ACADEMY OF SCIENCES

CAS-BAS Webinar on COVID-19

Wednesday, 9 September 2020, 19:30-22:30 Beijing Time
9 September, 08:30-11:30 Brasília Time

Profile of the Brazilian Participants

Opening Remarks:

HELENA B. NADER, Vice President, BAS

Helena B. Nader obtained her PhD at the Federal University of São Paulo (Unifesp) and post-doctoral training as a Fogarty (NIH) fellow at the University of Southern California. She is professor and head of the Institute of Pharmacology and Molecular Biology at Unifesp and ranked Scientist 1A of CNPq. Her research field is molecular and cell biology of glycoconjugates. She has received several national and international awards and honors. At her university she was the first woman to become Pro-rector of Undergraduate as well as Pro-rector of Research and Graduate programs. She has been a role model for many women in Brazilian universities, helping to promote the empowerment of women and breaking solid barriers in society. She is member of the Brazilian Academy of Sciences, TWAS (The World Academy of Sciences), and ACAL (Latin America Academy of Sciences). She is co-chair of IANAS (Inter-American Network of Academies of Sciences). She is honorary president, former vice-president (2007-2011) and President (2011-2017) of the Brazilian Society for the Advancement of Sciences (SBPC), and former president of the Brazilian Society of Biochemistry and Molecular Biology (SBBq, 2007-2008).

MARCELO MORALES, Secretary of Policies for Training and Strategic Actions, Ministry of Science, Technology and Innovations

Marcelo Morales graduated in Medicine at the University of São Paulo (USP - 1995) and obtained his PhD in Biological Sciences (Biophysics) at the Federal University of Rio de Janeiro (UFRJ - 1998). He is currently Full Professor at UFRJ and his research focus on the area of Biophysics and Physiology, with an emphasis on Biophysics and Cellular and Systems Physiology (Renal and Respiratory) and Molecular Biology. He was Secretary General and President of the Latin American Federation of Biophysical Societies (LAFeBS), President of the Brazilian Society of Biophysics (SBBf), Coordinator of the National Council for the Control of Animal Experimentation (CONCEA). He was also Secretary of the Brazilian Society for the

Advancement of Sciences (SBPC). He was Director of Agricultural, Biological and Health Sciences at CNPq (2014-2019) and assumed the interim Presidency of CNPq (September to December 2016) and the role of Substitute President (2015-2019). He is currently the President of the International Union of Pure and Applied Biophysics (IUPAB) (for 2017-2020 term), and a full member of the National Academy of Medicine and the National Academy of Pharmacy. He is the current Secretary of Policies for Training and Strategic Actions, Ministry of Science, Technology and Innovations.

Latest Progress in Research on COVID-19:

CARLOS MOREL, BAS Full Member, Oswaldo Cruz Foundation

Presentation: Highlights of Brazil

Carlos Medicis Morel is the Director of the Centre for Technological Development in Health (CDTS) and a Senior Researcher at the Oswaldo Cruz Foundation (Fiocruz), an institution affiliated to the Ministry of Health of Brazil. He is a member of the Brazilian Academy of Sciences and of The World Academy of Sciences (TWAS). From 1998 to 2004 he served as the Director of the Special Programme for Research and Training in Tropical Diseases at the World Health Organization in Geneva. He actively participated in creation of various programs and organizations of worldwide recognition to promote research and development in neglected diseases: Medicines for Malaria Venture, Global Alliance for Tuberculosis Drug Development, Drugs for Neglected Diseases initiative and the Foundation for Innovative New Diagnostics. He authored 101 papers in peer-reviewed scientific journals and mentored the theses of 20 MSc and 10 DSc graduate students.

PAULO M. BUSS, Sustainable Health Equity Movement (SHEM)

Presentation: SHEM Efforts for an Equity-Focused Response to the COVID-19 Pandemic

Paulo M. Buss, MD, MPH, DSc is Emeritus Professor at The Oswaldo Cruz Foundation (FIOCRUZ) and Full Member of the Brazilian National Academy of Medicine, since 2005. He is Director of the Center for Global Health at FIOCRUZ, since 2009. Buss is an Honorary Member of the Portuguese and Argentinian Academies of Medicine. He is former President of FIOCRUZ (2001-2008) and former Director of the National School of Public Health (ENSP). He has previously represented Brazil in the World Health Organization's Executive Council (2004-2007 and 2008-2011). He was President of the World Federation of Public Health Associations (WFPHA) (2006-2008) and member of the Executive Board of the International Association of National Institutes of Public Health (IANPHI) (2006-2009). He was a founder and the first Executive Director of the Brazilian Association for Collective Health (ABRASCO). From March 2006 to March 2008 he served as Chair of the Brazilian Commission on Social Determinants of Health and was the coordinator of the World Conference on Social Determinants of Health held in Brazil in 2011. He was member of the PAHO (Pan American Health Organization) Commission for Health Equity and Inequalities in the Americas. He is author of the book "Health diplomacy and global health: Latin-American

Perspectives (2017) and more than 180 papers and 60 book chapters. Academic and interest areas of knowledge: public health; social determinants of health; health planning and administration.

Facilitator:

WANDERLEY DE SOUZA, BAS Full Member, Federal University of Rio de Janeiro

Wanderley de Souza holds a bachelor's degree in Medicine from the Federal University of Rio de Janeiro (1974), a Master's degree in Biological Sciences (Biophysics) from the Federal University of Rio de Janeiro (1976) and a PhD in Sciences (Biophysics) from the Federal University of Rio de Janeiro (1978). Full professor at the Carlos Chagas Filho Institute of Biophysics at UFRJ and researcher at the National Center for Structural Biology and Bioimaging of the same university, he was executive secretary of the Ministry of Science, Technology and Innovation (MCTI) and Secretary of Science and Technology of the State of Rio de Janeiro, when he created the Center for Distance Higher Education of the State of Rio de Janeiro (Cederj). He was also director of the National Institute of Metrology, Quality and Technology (Inmetro), deputy director and director of the Carlos Chagas Institute of Biophysics and first rector of the State University of Northern Rio de Janeiro Darcy Ribeiro (UENF) and the West Zone State University (UEZO). He was director and president of the Brazilian Studies and Projects Funding Agency (Finep). Member of the National Academy of Medicine, Brazilian Academy of Sciences and The World Academy of Sciences (TWAS).

COVID-19 and Wildlife: Traceability Studies

PEDRO FERNANDO DA COSTA VASCONCELOS, BAS Full Member, Evandro Chagas Institute

Presentation: Arthropod- and vertebrate-borne viruses in the Brazilian Amazon: present situation and risk factors for epidemic and pandemic occurrence
Graduate in Medicine (Federal University of Pará-1982); PhD in Medicine and Health Federal University of Bahia-1999); post - doctoral (University of Texas Medical Branch, Galveston-USA-2002/2003). Medical researcher at the Evandro Chagas Institute (IEC, 1983-2019); chief of Department of Arbovirology and Hemorrhagic Fevers (1999-2014). Director of the Evandro Chagas Institute (2014-2019); Member, Brazilian Academy of Sciences(ABC). Fellow of CNPq level 1A. Received from the Presidency of Republic of Brazil: the Commends of Medical Merit and the National Commend of Scientific Merit (2018). Honorary International Fellow- American Society of Tropical Medicine and Hygiene (2018). Director of the PAHO/WHO Collaborating Center for Arbovirus Reference and Research at the IEC (1998-2019). Coordinator- National Reference Laboratory for Dengue, Yellow Fever, Chikungunya, West Nile, Zika and other arboviruses, and Filoviruses based on IEC (1998-2019). Associate Professor of Pathology- Pará State University (UEPA). Member of study group on alphaviruses and flaviviruses for the International Committee of Taxonomy of Viruses. Coordinated the studies that

resulted in the isolation and characterization of more than 10 thousand virus strains, and in the characterization of more than 100 new virus species to science. Principal investigator of the IEC team that demonstrates originally to the world that Zika virus was responsible for microcephaly and other congenital malformations.

Epidemiological Studies and Joint Surveillance Program on Viral Mutation and Transmissibility

CESAR VICTORA, BAS Full Member, Federal University of Pelotas

Presentation: Repeated COVID-19 antibody surveys in Brazil

Cesar G. Victora is Emeritus Professor of Epidemiology at the Federal University of Pelotas in Brazil, where he works since 1977. He has honorary appointments at Harvard, Oxford and Johns Hopkins Universities. He has conducted extensive research in maternal and child health and nutrition, birth cohort studies, inequalities in health, and on the evaluation of the impact of major global health programs in a large number of countries. He coordinates the International Center for Equity in Health, a World Health Organization Collaborating Center. He has over 750 peer-reviewed publications with 30,000 citations and is a member of the editorial boards of several journals including The Lancet. He was President of the International Epidemiological Association (2011-14) and won the Canada Gairdner Global Health Award in 2017. In 2018 and 2019, he was included in the Clarivate/Web of Science in the list of the world's highly cited scientists.

Broad-spectrum Drugs and Immunity to COVID-19 : Potential Targets and Beyond

THIAGO MORENO LOPES E SOUZA, BAS Affiliate Member, Oswaldo Cruz Foundation

Presentation: Three generations of antiviral candidates against COVID-19

Thiago Moreno Lopes e Souza is a Molecular Virologist at Fiocruz and affiliate member of the Brazilian Academy of Sciences. As an independent researcher, he has published over 60 articles in the past 12 years. His major discoveries are: 1) identification that SARS-CoV-2 is susceptible to the approved antivirals atazanavir, daclatasvir alone and in combination with sofosbuvir, therapies under evaluation to be included in the Solidarity trial; 2) that arboviruses are susceptible to sofosbuvir, a medication in clinical use against hepatitis C, a study recognized by Doctors Without Borders; 3) the identification of the Zika virus outbreak started in Brazil before the perception of health authorities (front cover of nature in May 2017); and 4) development of new next generation sequencing methods to discover pathogens with high sensitivity (front cover of Nature Biotechnology in February 2019).

Advanced Equipment for Diagnostic and Therapeutic Purposes

AMILCAR TANURI, BAS Full Member, Federal University of Rio de Janeiro

Presentation: The challenge of COVID-19 diagnostic

Amilcar Tanuri is Professor of the Federal University of Rio de Janeiro (UFRJ) and Associated Research Scientist at Mailman Scholl of Public Health, Columbia University (USA). He holds a PhD in Genetics (1990), a Master's Degree in Biophysics (1985), and a Bachelor's Degree in Medicine (1982), all from the Federal University of Rio de Janeiro (UFRJ). Amilcar Tanuri is Full Member of the Brazilian Academy of Sciences (BAS) and received the National Order of Scientific Merit (Commander degree, 2018). He is the head of the Molecular Virology Laboratory at the Federal University of Rio de Janeiro (UFRJ), which has been participating as a reference for the Brazilian AIDS Program and is presently providing external QA panels for HIV virus load and Nucleic Acid Test. He is a consultant of the Brazilian Ministry of Health in several areas. Amilcar Tanuri is also a consultant of the World Health Organization ResNet and has a broad international experience, mainly at the US Center for Disease Control and Prevention, where, as Senior Service Fellow, he helped in the establishment of laboratories network to monitor the AIDS patients treatment in some African countries. He does basic and applied programmatic research in the fields of HIV, HCV, Zika, Dengue, Chikungunya, and Yellow Fever.

Current Status and Limitations of Vaccines

JORGE KALIL, BAS Full Member, Butantan Institute

Presentation: Development of a nanoparticle multiepitope COVID vaccine for nasal administration

Jorge Kalil is Professor of Clinical Immunology and Allergy School of Medicine, University of São Paulo (FMUSP), Brazil. He is member of the DSMB for all COVID vaccines phase 3 clinical trials supported by the USA government. He's also member of CTAI, the council for immunizations of MOH. He is currently developing vaccines against COVID-19, Streptococcus, HIV, Dengue and Zika in advanced scientific stage. Director of the Butantan Institute (2011-2017). He did the industrial and clinical development of the attenuated tetravalent dengue vaccine initially developed by NIH. The phase two trial was done at his clinical service at FMUSP, and in 2016 he started the phase 3 clinical trial with 17K volunteers enrolled. He was visiting professor at the schools of Medicine of Stanford and Harvard. Kalil graduated in Medicine in Brazil (1977), he is Doctor of Science in Human Biology from the University of Paris, while working at Jean Dausset's laboratory (Dr. Dausset was awarded the Nobel Prize in 1980 for the discovery of HLA). He is member of the Brazilian Academy of Sciences and decorated Great Cross of Scientific Merit by Brazilian President and "Chevalier" of National Merit by the French President.