BioHabana 2024

**Day 2, Tuesday, April 2nd**

SESSION 1 Chairmen: Prof. Fazle Akbar & Prof. Gerardo Guillén

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| 09:00 - 09:45 | **Key Lecture:** “Quo vadis” in vaccinology? From dissecting mechanisms of poor responsiveness towards new tools to tailor adaptive immunity”, Prof. Carlos Guzmán. PhD; Head of the Department of Vaccinology and Applied Microbiology at the Helmholtz Center for Research in Infectious Diseases (HZI), Germany. |
| 10:00 - 10:20 | *Pandemic preparedness: Targeting the mucosal immune system*. Prof. Gerardo Guillén, Center for Genetic Engineering and Biotechnology, Cuba. |
| 10:30 - 10:50 | *BA.1 update for the Abdala Vaccine. Prof.* Enrique Iglesias, Center for Genetic Engineering and Biotechnology, Cuba. |
| 11:00 - 11:20 | **COFFEE BREAK** |
| 11:20 - 11:40 | *NASVAC: Ten Years Journey in Bangladesh*. Prof. Mamun Al Maatah, Bangabandhu Sheikh Mujib Medical University Bangladesh. |
| 11:50 - 12:10 | *Ten Years Observation of Anti-viral and Anti-fibrotic Effect of NASVAC for Treating CHB Patients Guiding to Discontinuation of NUCs: A Step of Unlimited Prospect and Challenge for “Elimination of Hepatitis by 2030 in Developing Countries”. Prof.* Sheikh Mohammad Fazle Akbar, Ehime University Graduate School of Medicine, Oita University Graduate School of Medicine, Miyakawa Memorial Research Foundation, Tokyo, Japan |
| 12:20 - 12:40 | *Optimization of the Hebernasvac’s immune response in a therapeutic vaccination scheme.* Dr. Aurélie Mauras . IDMIT, The French Alternative Energies and Atomic Energy Commission, France |
| 12:45 - 13:05 | *Pathogenesis of SARS-CoV-2 in a non-human primate model and evaluation of new therapies*. Dr. Cécile Herate. IDMIT, The French Alternative Energies and Atomic Energy Commission, France |
| 13:10 - 13:30 | *Immunogenicity induced by synthetic pertussis-oligosaccharides conjugated to tetanus toxoid*. Dr. Sonsire Fernandez Castillo. Finlay Vaccine Institute, Cuba. |
| 13:35 – 13:55 | *Safety, immune response and effectiveness of pneumococcal conjugate vaccine Quimi-Vio: evidences for introducing in preschool children in Cuba*. Dr. Maria Eugenia Tolero Romani, Institute of Tropical Medicine “Pedro Kouri” (IPK), Cuba. |

BioHabana 2024

**Infectious Diseases**

**Day 3, Wednesday, April 3rd**

SESSION 2 Chairmen: Prof. Mamun Al Maatah & Dr. Julio Cesar Aguilar

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| 09:00 - 09:45 | **Key Lecture:** *Emerging arboviruses. The case of dengue, progress and current challenges.* Prof. Guadalupe Guzmán Tirado. Ph.D., Director of the Research Center, Institute of Tropical Medicine “Pedro Kouri” (IPK), Cuba. |
| 10:00 - 10:20 | *The low density lipoprotein receptor related protein-1, a target for dengue antiviral research*. Prof. Vivian Huerta, Center for Genetic Engineering and Biotechnology, Cuba. |
| 10:30 - 10:50 | *Epidemiological situation. Cuba 2023.* Prof. Francisco A. Durán García, National Director of Epidemiology, Ministry of Health, Cuba. |
| 11:00 - 11:20 | **COFFEE BREAK** |
| 11:20 - 11:40 | *National action protocol for the management of covid-19. Results and lessons learned.* Prof.Ileana del Rosario Morales Suarez. Director of Science and Technological Innovation, Ministry of Health, Cuba. |
| 11:40 - 11:55 | *Evolución del Protocolo de Actuación Nacional para la Covid-19 en Cuba: patrones de atención durante la pandemia.* Amaylid Arteaga García, National Coordinating Center for Clinical Trials (CENCEC), Cuba. |
| 11:55 – 12:10 | *Multi-population mathematical modeling of vaccination Champaign of COVID-19 in Cuba. Prof.* Raúl Guinovart, Havana University, Cuba. |
| 12:10 – 12:25 | COVID’s protocols general discussion |
| 12:25 - 12:45 | *An Emerging Crisis in Bangladesh*. Dr. Nuzhat Choud Hury, Bangabandhu Sheikh Mujib Medical University, Bangladesh. |
| 12:55 - 13:15 | *An Immunoaffinity Solid Phase Extraction System to Capture and Isolate Non-Primate Mammalian Viruses*. Dr. Reynier Suarez, Missouri University, USA. |
| 13:25 – 13:45 | *Insights into cellular alterations by SARS-CoV-2: what have we learnt in 4 years*. Dr. Maria Montoya González. Centro de Investigaciones Biológicas Margarita Salas (CIB-CSIC), Spain. |

BioHabana 2024

**Poster session 1, Autoimmunity and Infectious Diseases**

**Day 3, Wednesday, April 3rd**

Chairmen: Prof. Gilda Lemos & Prof. Enrique Iglesias

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| 10:00-10:05 | *Validation of the SUMASIGNAL HCV and SUMASIGNAL HBV real-time PCR kits (one step) with Ultrafiltered Leukocyte Extract samples.* Alicia Fleites Vázquez, Civil Defense Scientific Research Center (CICDC), Cuba. |
| 10:10 - 10:15 | *Validation of the HBsAg one Ultra Version, HCV Ab and HIV Ab & Ag DIAPRO systems for use in blood product samples*. Yanín Hernández Rodríguez, Civil Defense Scientific Research Center (CICDC), Cuba. |
| 10:20 – 10:25 | *Development of an ELISA-type assay for the evaluation of antibody avidity produced by vaccination with booster doses with Mambisa and Abdala in convalescents.* Gilda Lemos-Pérez, Center for Genetic Engineering and Biotechnology, Cuba. |
| 10:30 – 10:35 | *Validation of a surrogate enzyme-linked immunosorbent assay (ELISA) for neutralization of receptor binding domain (RBD) binding to the ACE-2 receptor with human serum, plasma and umbilical cord samples.* Ricardo Ulises Martínez Rosales, Center for Genetic Engineering and Biotechnology, Cuba. |
| 10:40 – 10:45 | *Design of a rapid test for the diagnosis of SARS-CoV-2* . Yanelis Cruz Santana, Civil Defense Scientific Research Center (CICDC), Cuba. |
| 10:50 – 10:55 | *ABDALA, vacuna cubana, nuevas pautas de trabajo en el desarrollo no clínico de seguridad.* Lizet Aldana Velazco, Center for Genetic Engineering and Biotechnology, Cuba. |
| 11:00 - 11:20 | **COFFEE BREAK** |
| 11:20 – 11:25 | *Caracterización por LC-MS/MS de SOBERANA®02.* Olivia Martínez, Finlay Vaccine Institute, Cuba. |
| 11:30 – 11:35 | *Chemically assisted dimerization of a recombinant RBD of SARS-CoV2 spike protein as an alternative source of antigen for Soberana 01 and Plus Vaccines.* Lisandra Pérez Pérez, Finlay Vaccine Institute, Cuba. |
| 11:40 – 11:45 | *Desarrollo No Clínico de Seguridad de Jusvinza. Un péptido contra procesos hiperinflamatorios.* Jorge Castro Velazco, Center for Genetic Engineering and Biotechnology, Cuba. |
| 11:50 – 11:55 | *Animal model of acute kidney injury. Biochemical, histological and molecular characterization.* Hanlet Camacho Rodríguez, Center for Genetic Engineering and Biotechnology, Cuba. |
| 12:00 – 12:05 | *Activity of domain III-specific antibodies in early convalescence of dengue virus infection: a case study.* Danya Medina Carrasco, Center for Genetic Engineering and Biotechnology, Cuba. |
| 12:10 – 12:15 | *Jusvinza decrease Netosis in a peritoneal inflammation animal model.* Anabel Serrano, Center for Genetic Engineering and Biotechnology, Cuba. |
| 12:20 – 12:25 | *Mezcla de pétidos sintético para la detección de anticuerpos IgG contra Treponema pallidum*. Idialis Hernandez Spengler, Center for Immunoassays, Cuba |
| `12:30 – 12:35 | *In silico prediction of T cell epitopes of SOBERANA® vaccines conserved in the Ómicron variants*. Daniel Alejandro Maycock Herrera, Finlay Vaccine Institute, Cuba. |
| 12:40 – 12:45 | *Predicción in silico y síntesis química de sitios antigénicos del Treponema pallidum.* Ivonne Gómez Cordero, Center for Immunoassays, Cuba |
| 12:50 – 12:55 | *Reactivos biológicos empleados en el diagnóstico y prevención de enfermedades infecciosa.* Isi Veitia Coba*,* Center for Genetic Engineering and Biotechnology, Cuba. |
| 13:00 – 13:05 | *The impact of HeberFERON in patients with COVID-19.* Yaquelin Ducan, Center for Genetic Engineering and Biotechnology, Cuba. |
| 13:10 – 13:15 | *Evaluation of safety and immunogenicity in pregnant women and their newborns after vaccination with Abdala.” ESPIRTA Study*. Ivan Campa Legrá, Center for Genetic Engineering and Biotechnology, Cuba. |
| 13:20 – 13:30 | *A new approach to antibacterial therapy: development of bacteriophage-containing formulations.* Dr. Balázs Kiss[, Fluart Innovative Vaccine Ltd, Hungary.](https://synapse.patsnap.com/organization/800920b160d38c1b2ee898e70960f80d) |
| 13:35 – 13:40 |  |

BioHabana 2024

**Autoimmunity**

**Day 4, Thursday, April 4th**

SESSION 3 Chairmen: Prof. Kyung-Hyun Cho & Prof. Maria del Carmen Domínguez

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| 09:00 - 09:30 | **Key Lecture:** *Jusvinza: a new drug for the treatment of inflammation. From bioinformatics design to medical practice*. Prof. Maria del Carmen Domínguez, Head of the Autoinmunity Laboratory, Center for Genetic Engineering and Biotechology, Cuba.  |
| 09:30 - 10:00 | **Key Lecture:** *Synergistic anti-inflammatory activity of CIGB-258 and apoA-I via stabilization and protection of high-density lipoproteins*. Prof. Kyung-Hyun Cho, Raydel Research Institute, Republic of Korea |
| 10:00 - 10:20 | *Jusvinza in the treatment of hyperinflation associated with COVID-19. Dr.* Mabel Hernández Cedeño, Center for Genetic Engineering and Biotechnology, Cuba. |
| 1020 - 10:40 | *Proteomic Profile Regulated by the immunomodulatory drug Jusvinza in neutrophils isolated from rheumatoid arthritis patient.* Dr. Arielis Ulloa, Center for Genetic Engineering and Biotechnology, Cuba. |
| 10:40 - 11:00 | Jusvinza’s general discussion |
| 11:00 - 11:20 | **COFFEE BREAK** |

SESSION 5 Chairmen: Prof. Stephen Connelly & Prof. Giselle Pentón

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| 11:20 - 11:40 | Virtual presentation: *Pendiente.* Prof. Femke Broere. Utrecht University, Netherlands. |
| 11:45 - 12:05 | Virtual presentation: *Targeting intestinal ILC3 for the treatment of autoimmunity*. Prof. Djordje Miljkovic, Department of Immunology, IBISS, University of Belgrade, Serbia.  |
| 12:10 - 12:30 | *Phycocyanobilin, a potentially new treatment for multiple sclerosis.*Prof. Giselle Pentón, Center for Genetic Engineering and Biotechnology, Cuba. |
| 12:35 - 12:55 | *Immunological effect of itolizumab in autoimmune scenarios.* Dr. Mayrel Labrada, Center for Molecular Immunology, Cuba. |
| 12:55 - 13:15 | *Targeting the CD6-ALCAM Pathway to Treat Autoimmune and Inflammatory Disease*. Prof. Stephen Connelly. Equillium, Inc., La Jolla, California. USA. |
| 13:15 - 13:30 | *Safety and effect of Itolizumab in patients with autoimmune diseases.* Dr. Yanelda García, Center for Molecular Immunology, Cuba. |
| 13:30 - 13:50 | *Itolizumab in the Treatment of aGVHD and Lupus Nephritis*. Prof. Stephen Connelly. Equillium, Inc., La Jolla, California. USA. |
| 13:50 - 14:00 | Itolizumab’s general discussion |

BioHabana 2024

**Poster session 2, Autoimmunity and Infectious Diseases**

**Day 4, Thursday, April 4th**

Chairmen: Dr. Vivian Huerta & Dr. Enrique Noa Romero

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| 10:00-10:05 | *Evaluación de la respuesta de anticuerpos IgG inducida por vesículas de membrana de Streptococcus pneumoniae serotipo 2.* Dainet Sidron Perez, Finlay Vaccine Institute, Cuba. |
| 10:10 - 10:15 | *Obtención y caracterización de vesículas de membrana de Streptococcus pneumoniae serotipo 3 y evaluación inmunológica de combinaciones de vesícula de Sp 3 con conjugados de neumococo.* Jenniffer Fernandez Lorenzo, Finlay Vaccine Institute, Cuba. |
| 10:20 – 10:25 | *Preparing for the next pandemic: Increased expression of interferon stimulated genes after local administration of Nasalferon or HeberNasvac*. Jorge Aguiar Santiago, Center for Genetic Engineering and Biotechnology, Cuba. |
| 10:30 – 10:35 | *Differential immunodominant regions in human response to dengue virus infection and in IgG repertoire elicited in an animal model by immunization with recombinant domain III of the envelope protein.* Luis Gabriel González Lodeiro, Center for Genetic Engineering and Biotechnology, Cuba. |
| 10:40 – 10:45 | *El mono verde caribeño (Chlorocebus aethiops sabaeus) como biomodelo relevante para la evaluación de seguridad y eficacia de candidatos vacunales contra el virus del dengue.* Roberto González Romero, Center for Production of Laboratory Animals, Cuba. |
| 10:50 – 10:55 | *Recombinant vaccine formulations based on domain III and capsid regions of the zika virus, which induce humoral and cellular immune response in immunocompetent mice.* Iris Valdes Prado, Center for Genetic Engineering and Biotechnology, Cuba. |
| 11:00 – 11:20 | **COFFEE BREAK** |
| 11:20 – 11:25 | *Selection of the administration device for the CIGB-669 vaccine candidate (MAMBISA).* Yinet Barrese, National Coordinating Center for Clinical Trials (CENCEC), Cuba. |
| 11:30 – 11:35 | *Nasal formulation based on the RBD and N proteins of SARS-CoV-2 combined with dAMPc adjuvant, induces humoral and cellular immune responses in BALB/c mice.* Laura Lazo Vázquez, Center for Genetic Engineering and Biotechnology, Cuba. |
| 11:40 – 11:45 | *Títulos de anticuerpos anti-RBD Omicron BA.5 del SARS-CoV-2 generados por Abdala en leche materna.* Maylin Pérez Bernal, Center for Genetic Engineering and Biotechnology, Cuba. |
| 11:50 – 11:55 | *Perfil de seguridad de la vacuna Abdala en Cuba 2022-2023.* Dra. Alida Olga Hernández Mullings, Center for Genetic Engineering and Biotechnology, Cuba. |
| 12:00 – 12:05 | *CIGB-210: an experimental drug targeting host and viral proteins to inhibit viral infections.* Dr.Celia Fernández Ortega, Center for Genetic Engineering and Biotechnology, Cuba. |
| 12:10 – 12:15 | *Evaluation of the stability of the genetic material of SARS-CoV-2 in the means of transporting samples of national production.* Danay Carrillo Valdes, Civil Defense Scientific Research Center (CICDC), Cuba. |
| 12:20 – 12:25 | *Performance of the Biological Risk Management System at the Civil Defense Scientific Research Center.* Tamara Hernández Sánchez, Civil Defense Scientific Research Center (CICDC), Cuba. |
| 12:30 – 12:35 | *Long term evaluation of HBsAg levels in the serum of samples from chronic hepatitis b patients treated with HeberNasvac in the phase IV clinical trial*. Iván Luis Santos Martínez, Center for Genetic Engineering and Biotechnology, Cuba. |
| 12:40 – 12:45 | *Intranasal Mambisa booster in Abdala-vaccinated mice and monkeys.* Ingrid Rodríguez Alonso, Center for Genetic Engineering and Biotechnology, Cuba. |
| 12:50 – 12:55 | *One dose of Mambisa vaccine candidate is able to boost the immune response to Abdala in Sprague Dawley rats.* Dr. Edith Suzarte, Center for Genetic Engineering and Biotechnology, Cuba. |
| 13:00 – 13:05 | *Activation of CD14+ monocytes in subjects vaccinated with VA-MENGOC-BC®.* Rocmira Pérez Nicado, Finlay Vaccine Institute, Cuba. |
| 13:10 – 13:15 | *The Green Monkey, critical biomodel in non-clinical toxicology of Cuban products against COVID-19.* Daniel Jay Pérez, Center for Production of Laboratory Animals, Cuba. |
| 13:20 – 12:25 |  |

BioHabana 2024

**Autoimmunity and Infectious Diseases**

**Day 5, Friday, April 5th**

SESSION 6 Chairmen: Prof. Theodoros Kelesidis & Dr. Nibaldo L. González Sosa

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| 9:00 – 09:40 | **Key Lecture:** *Therapeutic targeting of hyperinflammation in chronic HIV infection with CIGB-258* Prof. Theodoros Kelesidis, University of Texas Southwestern Medical Center, Texas, USA |
| 09:50 - 10:10 | *Cardiac and pulmonary protective effect of CIGB 500 peptide***.** Prof. Lin Lin Wang. Shanghai Institute Materia Medica, China. |
| 10:15 - 10:30 | *Prevalence of Carbapenem Resistance Gene bla Oxa23 in Multi-drug Resistant Acinetobacter Baumannii Clinical Isolates from Bangladesh*. Dr. Musarrat Mahtab, North South University, Dhaka, Bangladesh |
| 10:35 – 10:50 | *Protection of SOBERANA® vaccines in the pediatric population against SARS-CoV-2 variants of concern*. Dr. Enrique Noa Romero, Civil Defense Scientific Research Center (CICDC), Cuba. |
| 10:55 – 11:15 | **COFFEE BREAK** |
| 11:15 – 11:30 | *Infectivity test with SARS-CoV-2 (Delta and Omicron) in the Golden Syrian Hamster. Modeling for viral challenge of ABDALA vaccine*. Dr. Nibaldo L. González Sosa, Civil Defense Scientific Research Center (CICDC), Cuba. |
| 11:35 - 11:50 | *Accuracy of cellular biomarkers to estimate the risk of death in patients with sepsis.* Prof. Frank Daniel Martos Benítez, National Institute of Neurology, Cuba. |
| 11:55 – 12:10 | Novel nasal formulations, based on CLPs, as vaccine candidates against sarbecoviruses. Dr. Lisset Hermida, China-Cuba Biotechnology Joint Innovation Center (CCBJIC) and BioCubaFarma. |