Schedule	Sunday, 28th Nov.	Monday, 29th Nov.	Tuesday, 30th Nov.	Wednesday, 1st Dec.	Thursday, 2nd Dec.	Friday, 3th Dec.	Saturday, 4th Dec.
8:30-9:00		Abdala vaccine, the first Latin American vaccine against COVID-19 **Miladys LIMONTA** **Cuba**	**Luca Giustini** **USA** **Undefined yet**	Cost of Quality: human error prevention and reduction, and history of the quality movement **Willis THOMAS** **USA**	**Alistair HURT** **Germany** **Undefined yet**	Lentiviral vector reference material **Keith CARSON** **USA**	
9:05-9:35	**Travel Havana-Varadero**	Fermentation process for production of recombinant SARS CoV-2-spike receptor binding domain on *Pichia pastoris platform* **Juan RIVERA** **Cuba**	SARS-CoV-2 nucleocapsid protein elicits a diversified strong humoral response in COVID-19 convalescent patients **Rodolfo VALDÉS** **Cuba**	Peptide therapeutic drugs: The fastest way from research to production **Hilda GARAY** **Cuba**	Evaluation of an alternative activation and immobilization method for CB.Hep-1 mAb immunosorbent using Zetarose CL4B **Mayté QUINTANA** **Cuba**	Updating of good manufacturing practices requirements in Cuba for biological products **Biorkys YAÑEZ** **Cuba**	
9:40-10:10		Purification of SARS-CoV-2 RBD antigen **Ernesto URRUTIA** **Cuba**	*Nicotiana benthamiana* plants as bioreactor: SARS-CoV-2 RBD production as study case **Abel HERNÁNDEZ** **Cuba**	Elaboration of lipid nanoparticles for mRNA **vaccines** **Carter LOSCH** **Germany**	Determination of absolute protein concentration by amino acid analysis of recombinant protein reference materials **Yanet TAMBARA** **Cuba**	Novel trends in Cuban biotechnology industry: Application of risk analysis to release active pharmaceutical ingredients **Danelys VELÁZQUEZ** **Cuba**	
10:15-10:45		Abdala vaccine candidate, a productive challenge **Carmen CHUAY** **Cuba**	Characterization by mass spectrometry of the recombinant protein RBD obtained in different expression systems **Ivan ANDUJAR** **Cuba**	A low-molecular-weight leukocyte extract obtaining by ultrafiltration with immunomodulatory properties **Eduardo SÁNCHEZ** **Cuba**	Formulation development of a growth hormone releasing Hexapeptide: characterization insights **Hector SANTANA** **Cuba**	**Risk Management** **Steve OLSON** **USA**	
10:50-11:20		Quality control of Cuban vaccine candidates against COVID-19, a battle against time **Lourdes COSTA** **Cuba**	NasalFERON, formulation that contains Interferon alfa 2b for COVID-19 prophylactic treatment **Ana AGUILERA** **Cuba**	Doses study of the CIGB550-E7 vaccine candidate with alum adjuvant in the TC-1 model **Nadia RODRIGUEZ** **Cuba**	Multilayer filtration as clarification step in VLP purification protocol **Elias NELSON** **Cuba**	Vaccine technology in human and animal health **Pilar RODRÍGUEZ** **Cuba**	
11:25-11:40		Coffee-Break					
11:45-12:15		Immunogenicity, antigenicity and molecular integrity tests of a vaccine candidate against SARS-CoV-2 infection **Mabel IZQUIERDO** **Cuba**	LC-MS/MS analyses for identification of conjugation sites, side reactions, and reproducibility evaluation in conjugate vaccines **Luis JAVIER** **Cuba**	E2-CD154 vaccine candidate is safe and immunogenic in pregnant sows, and maternal derived neutralizing antibodies protect piglets from CSFV challenge **Danny PÉREZ** **Cuba**	Raw material chemical analysis **José ZARAZÚA** **Mexico**	Jusvinza, an altered peptide ligand against hyper-inflammation induced by SARS-CoV-2, is safe in *Macaca fascicularis* **Jorge CASTRO** **Cuba**	
12:20-12:50		AICA. Enters into the world of biotechnology and vaccines. A growing partnership with CIGB **Emilio VALLÍN** **Cuba**	Determination of elemental impurities in pharmaceutical samples by ICP techniques **Rodrigo MORETTO** **Brazil**	High performance electrophoresis applied as 2D PAGE and Western Blotting in HCP analysis **Mechtild HOFMANN** **Germany**	All molecular solutions under one roof is what HiGenoMB is all about **Susanne FRASH** **Germany**	Cuba engineering activity in pharmaceutical industry: technological maintenance or effective support to processes? study case **Tania DE LA CRUZ** **Cuba**	Travel Varadero-Havana
12:55-1:25		Global regulatory requirements for anti COVID-19 vaccines **Javier VÁZQUEZ** **Cuba**	BIACORE experiments in physicochemical characterization of drug substances that involve protein-protein interaction in their biological activity **Ania CABRALES** **Cuba**	Host contaminant analysis **Moises LÓPEZ** **Mexico**	Software validation and data management **Antonio CORTES** **Spain**	Preformulation studies and real time stability of the Heberprovac for cancer prostate treatment **Matilde LÓPEZ** **Cuba**	
1:30-3:00	Lunch						
3:05-3:35		Production of recombinant human IFN-gamma and HeberFERON **Gustavo FURRAZOLA** **Cuba**	Mass spectrometric characterization of low-abundance species in active pharmaceutical ingredient of synthetic peptides **Vladimir BESADA** **Cuba**	Technologies and products to support biotechnological product manufacturing **Peter GURSKE** **Germany**	Analytical method validation: Overview and regulatory requirements expectations **Luis OJEDA** **Spain**	The cocoon of transgenic silkworms as a suitable system for obtaining heterologous proteins of pharmaceutical interest **Lianet RODRÍGUEZ** **Cuba**	
3:40-4:10		HeberFERON. From desktop to medical practices **Iraldo BELLO** **Cuba**	Analytical instrumentation and more for quality and process control **Peter GURSKE** **Germany**	Aliam: automation integral solutions **Oliva BLANCK** **Switzerland**	Aseptic process validation. Media fill design in a multiproduct plant. A real case study **Raúl FERNANDEZ** **Spain**	Heberprot-P Technological details, a therapy to treat diabetic foot ulcers (DFU), and its use in the Cuban integral care program for patients with DFU **Manuel RAICES** **Cuba**	
5:00-5:30	Venue Information Program Presentation **Rodolfo VALDÉS** **Cuba**						
5:30-6:30	Building Biotech Products **Key Lecture** **Jorge VEGA** **Cuba**					Biomanufacturing 2021 Closing Biomanufacturing 2023 Launching **Rodolfo VALDÉS** **Cuba**	
6:30-7:00	**Special Cultural Moment**						

SCHEDULE		Recorded Presentation (TV-1)	Recorded Presentation (TV-2)	Recorded Presentation (TV-3)	Recorded Presentation (TV-4)
Monday Tuesday Wednesday Thursday	**8:30 - 8:45**	Monoclonal and polyclonal antibodies as biological reagents for SARS-CoV-2 diagnosis through nucleocapsid protein detection **Daily HERNÁNDEZ** **Cuba**	Production of Bacterially-expressed CIGB-247 recombinant antigen for the HEBERSaVax VEGF active immunotherapy **Aniurka PANFET** **Cuba**	Consistency of the Heberprot-P® manufacturing process **Vivian PUJOL** **Cuba**	Certification by CECMED of the CIGB-814 peptide reference material used in Jusvinza® analytical release **Cristina RODRÍGUEZ** **Cuba**
	8:50 - 9:05	Comparison between convalescent plasma and purified immunoglobulins to recognize SARS-CoV-2 S-protein linear peptides **Sigifredo PADILLA** **Cuba**	Implementation of a purification method for an antigen of an immune checkpoint molecule-based cancer therapeutic vaccine **Camila CANÁAN** **Cuba**	Validation of Heberprot-P active pharmaceutical ingredient by the HPLC-RP analytical technique **Jennifer ROJAS** **Cuba**	Trend analysis of environmental microbiological control of a biopharmaceutical plant in its three operational conditions **Biunayki REYES** **Cuba**
	9:10 - 9:25	Recombinant protein expression in HEK293 cells to obtain a vaccine candidate against SARS-CoV-2 based on the N-protein **Thailin La O** **Cuba**	Immunogenicity and thermal stability of the Porvac® protein subunit vaccine formulation stored at 25 Celsius degrees for twelve months **Yusmel SORDO** **Cuba**	Elimination and exchange of trifluoroacetate counter-ion in a cationic peptide: improvements in the process **Ever PÉREZ** **Cuba**	Methodology based on risk analysis to turn a dedicated plant into a multi-product plant **Milda PÉREZ** **Cuba**
	9:30 - 9:45	Preformulation study of the vaccine candidate CIGB-66 against SARS-CoV-2 virus by parenteral route **Margarita COBA** **Cuba**	Mass balance in the quality control of synthetic peptides. An useful tool for consistency of the process **José MARCELO** **Cuba**	Characterization of polyribosylribitol phosphate by high efficiency size-exclusion chromatography with ultraviolet detection **Yaneylis MÉNDEZ** **Cuba**	Methodology for equipment cleaning validation and continuous verification on the Epidermal Growth Factor production process **Rebeca BOUYÓN** **Cuba**
	9:50 - 10:05	Study of adsorption of the RBD-Ppa protein to the IMAC-Cu matrix **Juliet PADRÓN** Cuba	Drinking water as raw material for biomanufacturing: analysis of physicochemical parameters to evaluate its quality **Rebeca VIZCAÍNO** **Cuba**	Risk assessment establishment of the P64Kr production process **Dania BACARDÍ** **Cuba**	Determination of critical process parameters in HBsAg manufacturing used as API in vaccine production **Yeny DE LA TORRE** **Cuba**
	10:10 - 10:25	Design and optimization of the lyophilization process of the Active Pharmaceutical Ingredient of immunomodulatory peptide Jusvinza® **Eliane BLANCO** **Cuba**	Design of a process validation test in fermenters. Comparison with fermenter sterility test conducted during performance qualification **Wilmot FERRERO** **Cuba**	Design of risk management matrices to validate aseptic process of the sterilizing filtration in a multi-product facility **Yanieyis ÁLVAREZ** **Cuba**	Some regulatory analysis applied to the manufacture of biologicals in a CIGB multiproduct facility **Natacha PÉREZ** **Cuba**
	10:30 - 10:45	Establishment by RP-HPLC of the purity test, for the analysis of the IFA of RBD, vaccine candidate against COVID-19 **Maylín La O** **Cuba**	Design and application of metrological supervision at the Center for Genetic Engineering and Biotechnology **Anabel PÉREZ** **Cuba**	Consistency analysis of the CB.Hep-1 immunosorbent large scale manufacturing process **Andrés TAMAYO** **Cuba**	Quality by Design: Reality or Utopia? **David DIAGO** **Cuba**
	10:50 - 11:05	Determination of RBD reference material isoelectric point used to release COVID-19 vaccine candidate API samples **Raydan LEMUS** **Cuba**	Reliability of measurements **Luis ÁLVAREZ** **Cuba**	New *in vitro* bioassay as part of the new trends in the quality control of biotechnological products: Heberprot-P® **Luisa GLENDA** **Cuba**	Use of risk analysis in manage changes in the biotechnological productions **Ivonne RODRÍGUEZ** **Cuba**
	11:10 - 11:25	Scaling-up of *Escherichia coli* fermentation process for recombinant P64k protein production **Denis ÁLVAREZ** **Cuba**	N-Terminal sequencing by Edman degradation implementation for the Identification of the pharmaceutical peptide CIGB-258 **Galina MOYA** **Cuba**	Synthesis and LC-MS/MS characterization of two vaccine candidates against ticks **Satomy POUSA** **Cuba**	Satisfactory execution of international simulation of product withdrawal from market with exported product together with the company Liof-Pharma **Kenia VÁZQUEZ** **Cuba**
	11:30 - 11:45	State of art of plantibody purification from transgenic plant. Plantibody HB-01 purification process as study case **Leonardo GÓMEZ** **Cuba**	Building automation systems, a new horizon for the Cuban biotechnology industry **David GOITOZOLO** **Cuba**	Qualification and continuous validation of the compressed air system of a production plant **Adonis SENRA** **Cuba**	Microbiological evaluation of the environment and proposal of an environmental monitoring program for the introduction of a new product **Caridad SUAREZ** **Cuba**
	11:50 - 12:05	Comparison of two systems for the plantibody HB-01 purification from transgenic tobacco plant leaves **Williams FERRO** **Cuba**	Fermenter requalification strategy based on risk analysis **Carlos MARTÍNEZ** **Cuba**	Establishment of a chemically defined medium for the expression of P64Kr in Escherichia coli **Laura VARAS** **Cuba**	New flow of operations in the production plant of CIGB to improve good manufacturing practices **María TUÑÓN** **Cuba**
	12:10 - 12:25	Characterization of Sodium Periodate-Zetarose-CL4B in the Hepatitis B Surface Antigen Immunopurification **Airela LLAMO** **Cuba**	Validation of peptide CIGB500 protein determination by 280 nm spectrophotometric method **Rubén LÓPEZ** **Cuba**	Study on the separation by SDS-PAGE of IFN gamma with the conditions of the European Pharmacopoeia **Osniel CABRERA** **Cuba**	Application of the risk analysis to the production of the recombinant protein HBsAg expressed in Pichia pastoris **Rafael FERNÁNDEZ** **Cuba**
	12:30 – 12:45	Mouse hybridoma cell continuous culture in the Lambda-MINIFOR bioreactor using protein free media in hundred days **Hasel ARAGÓN** **Cuba**	A liquid chromatographic method for Thiomersal quantitation in raw materials and multidose vaccine formulation **Sussette PALACIO** **Cuba**	Qualification of a system that allows samples to be transported **María DENIS** **Cuba**	Establishment of the expanded bed chromatography technology for recovery stage the new vaccine production **Yadira VICENTE** **Cuba**
	12:50 - 1:05	**BIOCEN** **Cuba** **Undefined yet**			
	1:20 -4:15	**TRADE FIRM PRESENTATION IN DIGITAL FORMAT**			
	4:15 - 5:00	**EXCHANGES WITH SPEAKERS OF RECORDED PRESENTATIONS**			