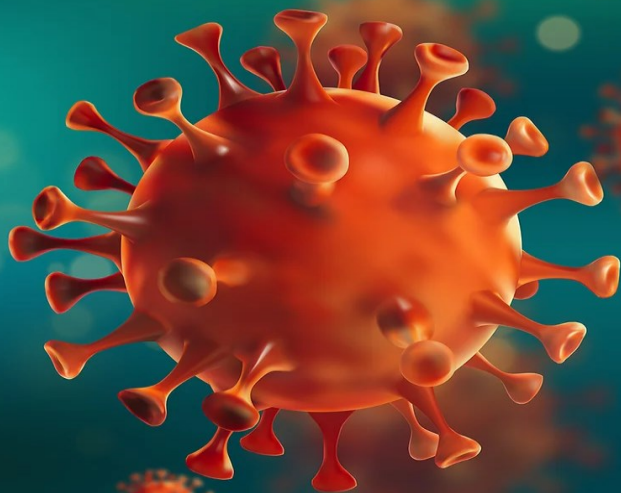


WSV2023

ONE HEALTH – ONE WORLD – ONE VIROLOGY

June 15 - 17, 2023

Rīga Stradiņš University, Latvia



WSV2023 Program

Day 1, Thursday 15.6.

9.00 - 10.00 Registration and exhibition with coffee [Lobby]

10.00 - 10.15 Welcoming words [Hall 1]

10.15 - 12.30 **SESSION I: Zoonotic viruses**

Chairs: Marietjie Venter and William Wilson

Keynote 1: EMERGING VIRUS PSEUDOTYPES – A ONE VIROLOGY APPROACH

Janet Daly, University of Nottingham, Nottingham, UK

Keynote 2: ONE WORLD, ONE HEALTH... ONE VIROME

Alessandra Scagliarini, Alma Mater Studiorum, University of Bologna, Italy

1. Invited talk: EXPERIMENTAL AND “NATURAL” INFECTION OF SHEEP AND MOSQUITOES WITH RIFT VALLEY FEVER PHLEBOVIRUS

William Wilson, Agricultural Research Service, USDA, Kansas, USA

2. IMPORTANCE OF HOST FACTORS DURING ALPHAVIRUS REPLICATION

Tero Ahola, University of Helsinki, Helsinki, Finland

3. ROLE OF PRM AND E INTERACTIONS IN VIRUS RELEASE AND CELLULAR TROPISM OF POWASSAN VIRUS

Joyce Jose, Huck Institutes of the Life Sciences, The Pennsylvania State University, USA

4. TICK-BORNE FLAVIVIRUS NS5 ANTAGONIZES INTERFERON SIGNALING BY INHIBITING THE CATALYTIC ACTIVITY OF TYK2

Ségolène Gracias, Institut Pasteur, Université de Paris Cité, Paris, France.

12.30 - 13.30 LUNCH [RSU cafeteria]

13:30-15:30 **SESSION II: Flaviviruses**

Chairs: Richard Kuhn and Shailendra K. Saxena

Keynote 3: ZIKA VIRUS VACCINE DEVELOPMENT: EXPERIENCE IS NOT PREPAREDNESS

Theodore C Pierson, National Institute of Allergy and Infectious Diseases (NIAID), USA

1. Invited talk: STRUCTURAL STUDIES OF FLAVIVIRUS – ANTIBODY INTERACTIONS

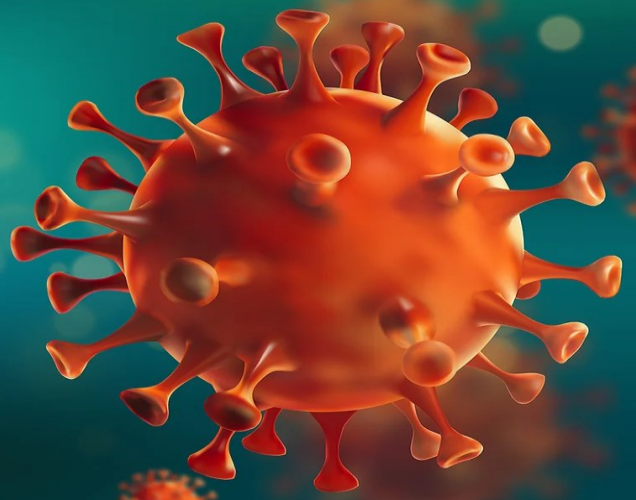
Richard Kuhn, Purdue University, West Lafayette, Indiana, USA

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2. Invited talk: ACQUISITION OF NORTH AMERICAN TICK-BORNE BANDAVIRUS AND FLAVIVIRUS BY INVASIVE HAEMAPHYSALIS LONGICORNIS DURING TICK CO-FEEDING

Meghan Hermance, *University of South Alabama College of Medicine, Mobile, USA*

3. IMPLICATIONS FOR FLAVIVIRUS NUCLEOCAPSID CORE-ENVELOPE GLYCOPROTEIN INTERACTIONS

Conrad Nicholls, *Purdue University, West Lafayette, Indiana, USA*

4. THE SLIPPERY SLOPE: HOW METABOLISM CONTROLS VIRUS-HOST INTERACTIONS AND PATHOGENESIS

Rushika Perera, *Colorado State University, Fort Collins, Colorado, USA*

5. EMERGENCE OF DENGUE VIRUS IN THE SAVANNA REGION, KANO, NORTHWESTERN NIGERIA

Lawal Dahiru Rogo, *College of Health Sciences, Bayero University Kano, Nigeria*

15.30 - 16.00 Coffee break and exhibition

16.00 - 18.50 **SESSION III: Human DNA viruses**

Chairs: Maria Söderlund-Venermo and Modra Murovska

Keynote 4: MECHANISMS OF HERPESVIRAL CAPSID MOBILITY AND TRANSPORT THROUGH THE CHROMATIN LABYRINTH

Maija Vihinen-Ranta, *University of Jyväskylä, Finland*

Keynote 5: FROM THE RESPIRATORY TRACT TO THE BONE MARROW AND BEYOND. RECEPTOR SWITCHING AS PARVOVIRUS INVASION STRATEGY

Carlos Ros, *University of Bern, Switzerland*

1. PERSISTENT PARVOVIRUSES IN HUMAN TISSUES

Maria Söderlund-Venermo, *University of Helsinki, Finland*

2. SIGNIFICANT ASSOCIATION WITH HIGH PREVALENCE AND ACTIVITY OF CUTAVIRUS IN PARAPSORIASIS SKIN

Ushanandini Mohanraj, *University of Helsinki, Finland*

3. JC POLYOMAVIRUS INFECTION AND REPLICATION IN HUMAN IPS CELL-DERIVED GLIAL CELLS INDEPENDENT OF SV40 T ANTIGEN

Zhiping Chen, *Tokyo Institute of Technology, Tokyo, Japan*

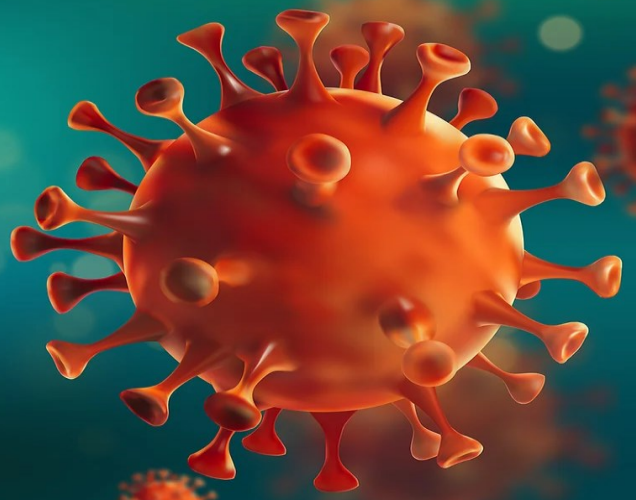
4. ROLE OF HUMAN PAPILLOMAVIRUS AND VACCINATION: A WEB-BASED SURVEY

Angelika Krūmiņa, *Rīga Stradiņš University, Riga, Latvia*

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5. PRESENCE OF HUMAN HERPESVIRUSES INFECTION MARKERS IN HOSPITALIZED COVID-19 PATIENTS IN LATVIA

Anda Vilmane, *Rīga Stradiņš University, Riga, Latvia*

6. OCCURRENCE OF HUMAN HERPESVIRUS-6A/B AND HUMAN HERPESVIRUS -7 IN MYALGIC ENCEPHALOMYELITIS/CHRONIC FATIGUE SYNDROME

Santa Rasa-Dzelzkaleja, *Rīga Stradiņš University, Riga, Latvia*

7. EBV INFECTION PROMOTES MIGRATION OF THE HOST B CELLS VIA UP-REGULATION OF THE INFLAMMATORY CHEMOKINE RECEPTORS CCR1 AND CCR2

Irina Holodnuka Kholodnyuk, *Institute of Microbiology and Virology, Rīga Stradiņš University, Latvia*

19.00 - 21.00 **Welcome Reception**

Day 2, Friday 16.6.

8.30 – 10.35 SESSION IV: Influenza and coronaviruses

Chairs: Richard Kuhn and Ahmed Abdel-Moneim

Keynote 6: INFLUENZA IN ANIMALS AND BIRDS

Stacy Schultz-Cherry, *WHO Influenza Collaborating Center, St. Jude Children's Research Hospital, USA*

Keynote 7: THE CONTINUING THREAT OF CLADE 2.3.4.4B H5N1 HIGH PATHOGENICITY AVIAN INFLUENZA VIRUS: WHAT HAVE WE LEARNT FROM THE EPIZOOTIC?

Ashley C. Banyard, *Animal and Plant Health Agency (APHA-Weybridge), Addlestone, Surrey, UK*

1. ASSESSING THE ZOO NOTIC POTENTIAL OF BAT INFLUENZA-A LIKE VIRUSES

Efstathios S Giotis, *St Mary's Campus Imperial College London, UK*

2. CONCURRENT ANTIBODY DETECTION IN DROMEDARY CAMELS WITH MERS, SARS-COV-2 AND INFLUENZA A VIRUS, NORTH-WEST NIGERIA

Ismaila Shittu, *National Veterinary Research Institute, Vom Plateau State, Nigeria*

3. CORONAVIRUS ENVELOPE PROTEINS INTERACT WITH HOST PROTEINS TO REGULATE PATHOGENICITY

Burtram Fielding, *National Bioinformatics Institute, University of the Western Cape, South Africa*

4. MUTATIONS IN STRUCTURAL PROTEINS DURING CELL CULTURE PROPAGATION OF SARS-COV-2 VARIANTS

Zineb Rhazzar, *Med V Military Hospital and University Mohammed V, Rabat, Morocco*

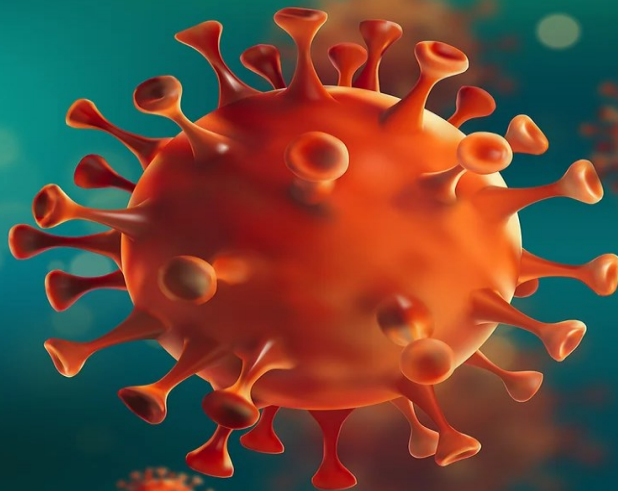
10.35 – 11.00 **Exhibition and coffee**

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11.00– 13.10 **SESSION V: Animal viruses**

Chairs: Yashpal Malik and Gisselle N Medina

Keynote 8: WEST NILE VIRUS: A VIRTUAL BRIDGE THAT LINKS AFRICA AND EUROPE

Giovanni Savini, Istituto Zooprofilattico Sperimentale dell'Abruzzo e del Molise Giuseppe Caporale, Italy

1. Invited talk: BASIC VIROLOGICAL AND TRANSLATIONAL DIAGNOSTICS AND VACCINOLOGY RESEARCHES LED TO ERADICATION OF RINDERPEST AND CONTROL OF MANY OTHER DISEASES IN INDIA

Raj Kumar Singh, ICAR-Indian Veterinary Research Institute, Bareilly, Uttar Pradesh, India

2. DEVELOPMENT OF A BFDV VACCINE CANDIDATE IN N. BENTHAMIANA

Goodman Mulondo, University of Cape Town, Cape Town, South Africa

3. EMERGENCE OF AFRICAN SWINE FEVER VIRUS: EPIDEMIOLOGY, DIAGNOSTICS AND VACCINE SITUATION UPDATES FROM INDIA

Yashpal Singh Malik, Guru Angad Dev Veterinary and Animal Sciences University, Ludhiana, Punjab, India

4. MULTIPLE-LINEAGE PORCINE ASTROVIRUS INFECTION OF PORCINE BRAIN IN SOUTH KOREA

Jun-Soo Park, Jeonbuk National University, Jeonbuk, Republic of Korea

5. FIRST DETECTION AND GENETIC CHARACTERIZATION OF NEUROTROPIC ASTROVIRUSES IN BRAIN TISSUE OF WILD RACCOON DOGS.

Su-Beom Chae, Jeonbuk National University, Jeonbuk, Republic of Korea

6. DEVELOPMENT OF REVERSE GENETIC SYSTEM AND INFECTIOUS MOUSE MODEL FOR AKABANE VIRUS

Eun-Jee Na, Jeonbuk National University, Jeonbuk, Republic of Korea

13.10– 14.10 **Lunch [cafeteria] or WSV Society Overview meeting [Room K-201, 2nd floor]**

14.10 – 15.35 **SESSION VI: Emerging and re-emerging viral threats**

Chairs: Angelika Krūmiņa and Burtram C. Fielding

Keynote 9: MARBURG VIRUS ECOLOGY WITH SPECIAL REFERENCE TO NATURAL TRANSMISSION MECHANISMS

Janusz T. Paweńska, National Institute for Communicable Diseases, Johannesburg, South Africa

1. Invited talk: ACCELERATING VACCINE DEVELOPMENT: CEPI'S 100-DAY MISSION TO COMBAT FUTURE PANDEMICS

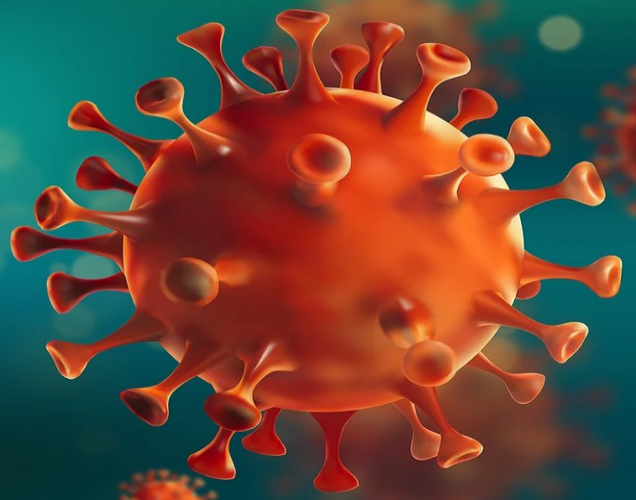
Arun Kumar, Coalition for Epidemic Preparedness Innovations (CEPI), Oslo, Norway

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2. WEST NILE VIRUS, A MISSED CAUSE OF ACUTE FEVER OF UNKNOWN CAUSE AND NEUROLOGICAL INFECTIONS AMONG HOSPITALIZED PATIENTS THROUGH THE COVID19 PANDEMIC IN SOUTH AFRICA.

Marietjie Venter, *Faculty of Health, University of Pretoria, South Africa*

3. A COMBINATION OF TWO RESISTANCE MECHANISMS IS CRITICAL FOR TICK-BORNE ENCEPHALITIS VIRUS TO ESCAPE A BROADLY NEUTRALISING HUMAN ANTIBODY THAT TARGETS THE ENVELOPE PROTEIN

Daniel Ruzek, *Masaryk University; Brno, Czech Republic*

15.35 – 16.05 INTRODUCING HIFI READS TECHNOLOGY AND SBB® INNOVATIVE SEQUENCING TECHNOLOGY

Sponsor talk: Nicolas Piganeau, *Diamedica, (Platinum sponsor)*

16.05 – 16.40 SESSION VII: **Diagnostics**

Chairs: Matthew Moore and Ingus Skadiņš

1. Invited talk: DEEP SEQUENCING AT THE ZONOTIC INTERFACE UNCOVERS NOVEL, EMERGING AND HIGH CONSEQUENCE VIRUSES

Shirin Ashraf, *MRC-University of Glasgow Centre for Virus Research, UK*

2. DEVELOPMENTS IN DETECTION AND CONTROL OF HIGHLY TRANSMISSIBLE VIRAL PATHOGENS

Matthew Moore, *University of Massachusetts, Amherst, USA*

16.40 – 17.00 Group photo

17.00 – 18.00 Poster session; coffee & snacks [Lobby]

19:00-20.30 Walk Tour in Old Riga

Day 3, Saturday 17.6

8.30 – 10.40 SESSION VIII: **Viral vaccines**

Chairs: Udeni Balasuriya and Dario di Luca

Keynote 10: UNMET NEEDS OF ANIMAL VACCINES - OPTIONS TO APPROACH THEM

Egbert Mundt, *Boehringer Ingelheim Animal Health France, Lyon, France*

1. Invited talk: RIFT VALLEY FEVER VACCINES: CHARACTERIZATION OF THE NEXT GENERATION MP-12 LIVE-ATTENUATED VACCINE, RVAX-1

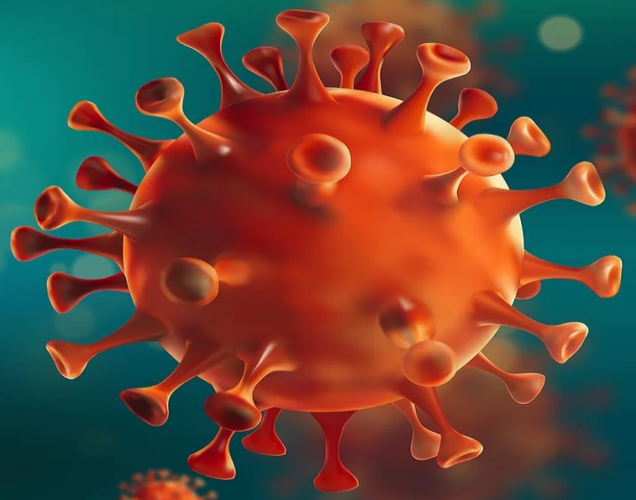
Tetsuro Ikegami, *The University of Texas Medical Branch at Galveston, USA*

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2. DEVELOPMENT OF SAFE RECOMBINANT DENGUE VIRUS VACCINE TARGETING NON-STRUCTURAL PROTEINS USING ATTENUATED VACCINIA VIRUS DI6 STRAIN

Kyoko Tsukiyama-Kohara, *Kagoshima University, Kagoshima, Japan*

3. BACULOVIRAL COVID-19 DNA VACCINE CROSS-PROTECTS AGAINST SARS-COV2 VARIANTS

Young Bong Kim, *Konkuk University and KRBioTech Co. Ltd., Gwangjin-gu, Seoul, Republic of Korea*

4. SARS-CoV-2 INFECTION TRIGGERS MORE POTENT ANTIBODY-DEPENDENT CELLULAR CYTOTOXICITY (ADCC) RESPONSES THAN COVID-19 VACCINES

Hadi Yassine, *Biomedical Research Center, Qatar University, Doha, Qatar*

5. NATURAL KILLER CELLS IN SARS-COV-2-VACCINATED SUBJECTS WITH INCREASED EFFECTOR CYTOTOXIC CD56DIM CELLS AND MEMORY-LIKE CD57+NKG2C+CD56DIM CELLS.

Sabrina Rizzo, *University of Ferrara, Ferrara, Italy*

6. ONE-YEAR FOLLOW-UP ON IMMUNOGENICITY OF TWO-DOSE BBIBP-CORV (SINOPHARM) COVID-19 VACCINE IN MOROCCO: RESULTS OF THE NEUTRALIZING ACTIVITY AGAINST SARS-COV-2 VARIANTS OF CONCERN

Maha Ouarab, *National Center for Scientific and Technical Research & University Mohammed V, Rabat, Morocco*

10.40 – 11.10 Exhibition and coffee

11.10 – 12.45 **SESSION IX: Viral intervention**

Chairs: Valērija Groma and Raj Kumar Singh

Keynote 11: SARS-COV-2 DERIVED RNA REPLICONS AS VACCINE CANDIDATES

Luis Enjuanes, *National Center for Biotechnology (CNB-CSIC), Universidad Autónoma de Madrid, Spain*

1. CHARACTERIZATION OF FLAVIVIRUS STRUCTURE AND INFECTIVITY AFTER NON-IONIC DETERGENT TREATMENT

Annika Robinson-Hudspeth, *Purdue University, Indiana, USA*

2. PLANTARICIN NC8 AB RAPIDLY AND EFFICIENTLY INHIBITS FLAVIVIRUSES AND SARS-COV-2 BY DISRUPTING THEIR ENVELOPES

Abubakr Omer, *Örebro University, Örebro, Sweden*

3. E6-siRNA IN COMBINATION WITH OXALIPLATIN: A NEW STRATEGY FOR TREATMENT OF HPV-RELATED CERVICAL CANCER

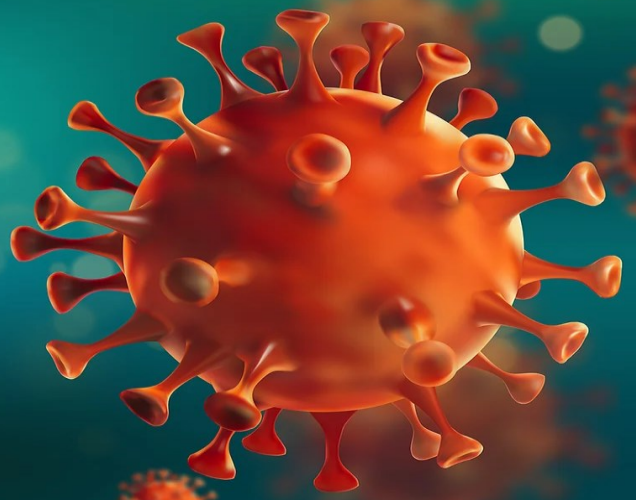
Hossein Bannazadeh Baghi, *Tabriz University of Medical Sciences, Tabriz, Iran*

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4. AN INDIRECT CO-CULTURING MODEL SYSTEM THAT LINK LITHIUM ANTI-INFLAMMATORY EFFECTS AND ENDOTHELIAL INTEGRITY IN RVFV INOCULATED RAW 264.7 CELLS

Raymond T. Makola, *University of Limpopo (Turfloop Campus) Sovenga, South Africa*

12.45 – 13.45 SESSION X: Plant viruses

Chairs: Anupam Varma and Selvarajan Ramasamy

Keynote 12: DO PLANT VIRUSES HAVE A ROLE IN THE 'ONE HEALTH' APPROACH?

Anupam Varma, Plant Virology Centre, Indian Agricultural Research Institute, New Delhi, India

1. SENSITIVE AND NOVEL DIAGNOSTICS KITS DEVELOPMENT FOR BANANA VIRUSES FOR ENSURING QUALITY BANANA PLANTS TO ENHANCE PRODUCTION IN INDIA

Selvarajan Ramasamy, ICAR-National Research Centre for Banana, Tiruchirappalli, India

2. UNUSUAL SUGAR METABOLISM OF NUCLEOCYTOPLASMIC LARGE DNA VIRUSES

Parakkottil Chothi Madhu, MET'S School of Engineering, Kerala, India

13.45 – 14.45 Lunch

14.45 – 16.25 SESSION XI: COVID-19 in humans and animals

Chairs: Yashpal Malik and Esmeralda Vizzi

Keynote 13: SARS-COV-2 IN ANIMALS: PUBLIC HEALTH IMPLICATIONS

Udeni BR Balasuriya, School of Veterinary Medicine and LADDL, Louisiana State University, LA, USA

1. Invited talk: COMPARATIVE PATHOLOGY OF SARS-COV-2 INFECTION IN DOMESTIC/WILD ANIMALS AND LABORATORY RODENTS

Mariano Carossino, School of Veterinary Medicine and LADDL, Louisiana State University, LA, USA

2. LONG-COVID-19: The devil in the details

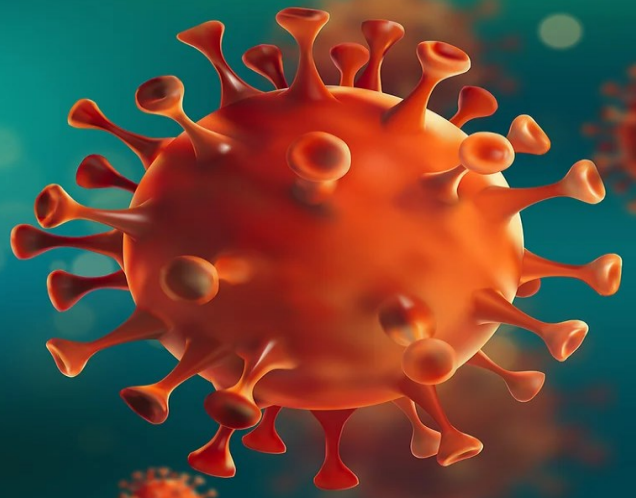
Ahmed Abdel-Moneim, College of Medicine, Taif University, KSA

3. GESTATIONAL COVID19: MORPHOLOGICAL ALTERATIONS AND DECREASED HLA-G EXPRESSION CAUSED BY SARS-COV-2 INFECTION

Silvia Beltrami, University of Ferrara, Ferrara, Italy

4. ISOLATION OF SARS-COV-2 IN CELL CULTURES HAS HELPED IN BETTER MANAGEMENT OF COVID-19 PATIENTS DURING HOSPITALIZATION

Mouhssine Hemlali, National Center for Scientific and Technical Research and University Mohammed V, Rabat, Morocco



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16.25 – 17.00 **Exhibition and coffee**

17.00 – 18.35 **SESSION XII: Viruses of human concern**

Chairs: Zaiga Nora-Krūkle and Sayed F. Abdel-Wahab

Keynote 14: MOLECULAR MECHANISM OF DIFFERENTIAL NEUROAIDS BY HIV-1 B AND C CLADES.

Shailendra K. Saxena, King George's Medical University (KGMU), Lucknow, and CSIR-Centre, India

1. ENTEROVIRUS D68 VP3 D18E INFLUENCE ON CAPSID ASSEMBLY

Jacqueline S Anderson, Purdue University, Indiana, USA

2. IS HEPATITIS E VIRUS A NEGLECTED OR EMERGING PATHOGEN IN EGYPT?

Sayed Abdelwahab, College of Pharmacy, Taif University, Saudi Arabia

3. IMMUNO-THERAPY OF HEPATITIS C VIRUS INFECTION BY HETEROLOGOUS PRIME/BOOST VACCINE

Michinori Kohara, Tokyo Metropolitan Institute of Medical Science, Tokyo, Japan

4. NETWORK ANALYSIS OF POTENT SIGNALING OF COVID-19, MPOX, PROSTATE CANCER, AND MENTAL HEALTH

Yingqiu Xie, School of Sciences and Humanities, Nazarbayev University, Astana, Kazakhstan

18.35 – 18.50 **Closing ceremony**

20.00 -> 23.00 **Gala Dinner [only for pre-registered]**

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