Scientific Program of the 7th International Calicivirus Conference, 2019

Sunday October 13th

3:30pm – 8:15pm - Registration open

5:00pm Welcome and Introduction: Peter White

Mary Estes Lecture: 5:15pm – 6:15pm Marion Koopmans – Erasmus University, The Netherlands.
Noroviruses: the intricate interplay between viruses, hosts and environment

6:15pm – 8:15pm Welcome reception with drinks and canapes and light music. Barkers, PARKROYAL Darling Harbour

Monday October 14th

7:00am – 7:30pm Registration open
7:00am – 8:30am Setup Posters for Day 1

SESSION 1: VIRUS STRUCTURE AND ENTRY 8:30am – 10:00am

8:30 – 9:00 S1.1 State-of-the-Art Speaker: David Bhella - Medical Research Council, University of Glasgow, Centre for Virus Research, Glasgow, UK
Calicivirus VP2 forms a portal-like assembly following receptor engagement

9:00 – 9:15 S1.2 Ming Tan - Cincinnati Children's Hospital Medical Center, Cincinnati, USA
Structural basis of host ligand specificity change of GII porcine noroviruses from their human norovirus ancestors

9:15 – 9:30 S1.3 Thomas Smith - University of Texas Medical Branch, Galveston, USA
Structural studies on the highly dynamic murine norovirus capsid

9:30 – 9:45 S1.4 Kosuke Murakami - National Institute of Infectious Diseases, Tokyo, Japan
Bile acids and ceramide are critical to allow GII.3 human norovirus entry into human intestinal enteroids

9:45 – 10:00 S1.5 B.V. Venkataram Prasad - Baylor College of Medicine, Houston, USA
X-ray crystallographic structure of GII.4 norovirus capsid show inherent conformational flexibility of the capsid protein

10:00 – 10:45 Tea/Coffee Break
SESSION 2: VACCINES AND IMMUNITY  
10:45am – 1:00pm

10:45 – 11:15  S2.1  State-of-the-Art Speaker:
Ralph Baric - University of North Carolina, Chapel Hill, USA
Norovirus Vaccines: Current Status

11:15 – 11:30  S2.2  Sean Tucker - Vaxart, San Francisco, USA
Oral vaccine to prevent norovirus infection induces mucosal homing plasmablasts and T follicular cells in humans

11:30 – 11:45  S2.3  Timo Vesikari - Tampere University, Finland
Norovirus VLP vaccine produced in Nicotiana benthamiana

11:45 – 12:00  S2.4  Kentaro Tohma - U.S. Food and Drug Administration, Silver Spring, USA
Comprehensive antigenic mapping of GII.4 noroviruses reveals a new immunodominant antigenic site that correlates with the emergence of major variants

12:00 – 12:15  S2.5  David Allen - London School of Hygiene and Tropical Medicine, London, UK
NOROPATROL: Interactions between population immunity and circulating GII.4 norovirus strains

12:15 – 12:30  S2.6  Preeti Chhabra - Centers for Disease Control and Prevention, Atlanta, USA
Homotypic and heterotypic protection and risk of re-infection following natural norovirus infection in an endemic setting

12:30 – 12:45  S2.7  Monica Pajuelo - Universidad Peruana Cayetano Heredia, Lima, Peru
Immune response to norovirus infection in a birth cohort in peri-urban Lima, Peru

12:45 – 1:00  S2.8  Jim Sherwood - Takeda Pharmaceuticals International, Zurich, Switzerland
Efficacy of an intramuscular bivalent norovirus GI.1/GII.4 virus-like particle vaccine candidate in healthy US adults

1:00 – 2:15  Lunch – Level R and BARKERS Sections 1&2

SESSION 3: EPIDEMIOLOGY AND TRANSMISSION  
2:15pm – 4:15pm

2:15 – 2:45  S3.1  State-of-the-Art Speaker:
Martin Chan - Chinese University of Hong Kong, Hong Kong Special Administrative Region, China
Rise of non-GII.4 capsids and GII.P16 polymerase in norovirus gastroenteritis

2:45 – 3:00  S3.2  Aron Hall - Centers for Disease Control and Prevention, Atlanta, USA
The burden of norovirus disease in ambulatory care settings, as estimated using administrative data—United States, 2001 – 2015

3:00 – 3:15  S3.3  Molly Steele - Emory University, Atlanta, USA
Characterizing norovirus transmission from outbreak data in the United States

3:15 – 3:30  S3.4  Anita Kambhampati - Centers for Disease Control and Prevention, Atlanta, USA
Spatiotemporal trends in norovirus outbreaks in the United States, 2009—2017

3:30 – 3:45  S3.5  Bonita Lee - University of Alberta, Canada
Alberta Provincial Pediatric EnTeric Infection Team (APPETITE) – a 4-year gastroenteritis prospective study from patient to the laboratory

3:45 – 4:00  S3.6  Carly Adams - Emory University, Atlanta, USA
Quantifying the roles of vomiting, diarrhea, and residents vs. staff in norovirus transmission in U.S. nursing home outbreaks

4:00 – 4:15  S3.7  Thomas Inns - Public Health England, London,
How many norovirus outbreaks are there in long-term care facilities? An epidemiological study

5:30 – 7:30  P1  Poster viewing with drinks and canapés
7:30 – 8:00  Remove Posters
Tuesday October 15th

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SESSION 4: REPLICATION AND PATHOGENESIS  8:30am – 10:15am

8:30 – 9:00  S4.1  **State-of-the-Art Speaker:**  
Nihal Altan-Bonnet- National Institutes of Health, MD, USA  
*All aboard: Vesicles, enteric viruses and strength in numbers*

9:00 – 9:15  S4.2  Christiane Wobus - University of Michigan, Michigan, USA  
Glycolysis is critical for optimal replication of noroviruses

9:15 – 9:30  S4.3  Turgut Esad Aktepe - Doherty Institute University of Melbourne, Melbourne, Australia  
Uncoupling the integrated stress response during norovirus infection

9:30 – 9:45  S4.4  Kim Green - National Institute of Health, Bethesda, USA  
Human norovirus targets epithelial cells in the small intestine

9:45 – 10:00  S4.5  Ian Goodfellow - University of Cambridge, Cambridge, UK  
Noroviruses subvert the core stress granule component G3BP1 to promote viral VPg-dependent translation

10:00 – 10:15  S4.6  Kazuhiro Katayama - Kitasato University, Tokyo, Japan  
Functional analysis of norovirus minor capsid protein VP2

10:15 – 10:45  Tea/Coffee Break

SESSION 5: MOLECULAR EPIDEMIOLOGY AND EVOLUTION  10:45am – 12:45pm

10:45 – 11:15  S5.1  **State-of-the-Art Speaker:**  
Gabriel Parra - U.S. Food and Drug Administration, Silver Spring, USA  
*Norovirus evolution and emergence: A tale of two genes*

11:15 – 11:30  S5.2  Corinna Pietsch - Institute of Virologie, Leipzig University, Germany  
Human sapovirus among in-patients with diarrhoea in Germany

11:30 – 11:45  S5.3  Joseph Kendra - U.S. Food and Drug Administration, Silver Spring, USA  
Antigenic cartography of GII.4 noroviruses shows discrete inter-variant clustering and limited intra-variant diversification

11:45 – 12:00  S5.4  Natthawan Chaimongkol - National Institute of Health, Bethesda, USA  
An eight-year cohort surveillance study in immunocompromised patients 2010-2019: genetic evolution and replicative capacity of noroviruses in human intestinal enteroids

12:00 – 12:15  S5.5  Deog-yong Lee - Korea Centers For Disease Control And Prevention, Cheongju, South Korea  
Comparative analysis of norovirus infection and genotype distribution between epidemic and sporadic outbreak

12:15 – 12:30  S5.6  Judith Breuer - University College London, London, UK  
NOROPATROL: Preadaptation of pandemic GII.4 noroviruses in hidden virus reservoirs years before emergence

12:30 – 12:45  S5.7  Jan Vinjé - Centers for Disease Control and Prevention, Atlanta, USA  
Updated classification of viruses in the family *Caliciviridae* and genus *Norovirus*

12:45 – 2:15  Lunch – Level R and BARKERS Sections 1&2

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SESSION 6: ANTIVIRAL CONTROL AND PREVENTION 2:15pm – 4:00pm

2:15 – 2:45  S6.1 State-of-the-Art Speaker:
Kyeong-Ok Chang - Kansas State University, Manhattan, USA
Protease inhibitors for caliciviruses

2:45 – 3:00  S6.2 Jana Van Dycke - University of Leuven, KU Leuven, Belgium
In vitro and in vivo inhibition of norovirus replication by a novel class of indolylarylsulfones

3:00 – 3:15  S6.3 Miranda de Graaf - Erasmus University Medical Centre, Rotterdam, The Netherlands
Treatment of chronic norovirus infections in immunocompromised patients

3:15 – 3:30  S6.4 Myra Hosmillo - University of Cambridge, Cambridge, UK
Utilisation of human intestinal organoids to identify therapeutic approaches against human norovirus

3:30 – 3:45  S6.5 Darryl Falzarano - VIDO-InterVac, Saskatoon, Canada
Development of an antiviral assay for noroviruses using human intestinal enteroids

3:45 – 4:00  S6.6 Peter White - University of New South Wales, Sydney, Australia
Antiviral agents against caliciviruses, the good the bad and the ugly

5:30 – 7:30  P2 Poster viewing with dinks and canapés
7:30 – 8:00  Remove Posters

Wednesday October 16th

8:00am – 3:30pm  Registration open

SESSION 7: BURDEN OF DISEASE IN LOW- AND MIDDLE-INCOME COUNTRIES 8:30am – 10:15am

8:30 – 9:00  S7.1 State-of-the-Art Speaker:
Janet Mans - University of Pretoria, Pretoria, South Africa
Elucidating the burden of norovirus in low resource settings – progress and challenges

9:00 – 9:15  S7.2 Kristin Nelson - Emory University, Atlanta, USA
Attributing diarrheal disease to norovirus across epidemiologic contexts

9:15 – 9:30  S7.3 Sylvia Becker-Dreps - University of North Carolina, Chapel, USA
Epidemiology and clinical characteristics of sapovirus gastroenteritis in a Nicaraguan birth cohort

9:30 – 9:45  S7.4 Zarin Abdullah - Infectious Diseases Division, icddr,b, Dhaka, Bangladesh
Norovirus infection among all ages in Bangladesh: A case-control study

9:45 – 10:00  S7.5 Miguel O’Ryan - Universidad de Chile, Santiago, Chile
The burden of norovirus disease in children: a multi-country study in Chile, Brazil, Thailand and the Philippines

10:00 – 10:15  S7.6 Umesh Parashar - Centers for Disease Control and Prevention, Atlanta, USA
Etiology of diarrhea requiring hospitalization in children under 5 in the WHO Global Pediatric Diarrhea Surveillance network

10:15 – 10:45  Tea/Coffee Break
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| 10:45 – 11:15 | S8.1             | **State-of-the-Art Speaker:** Joana Rocha-Pereira – University of Leuven, KU Leuven, Belgium  
*Finding noro: zebrafish as an attractive new model to study norovirus replication* |
| 11:15 – 11:30 | S8.2             | Lauren Ford-Siltz - U.S. Food and Drug Administration, Silver Spring, USA  
Genotype-specific norovirus neutralization in human intestinal enteroids is mediated by antibodies against the protruding domain of the major capsid protein |
| 11:30 – 11:45 | S8.3             | Tomoichiro Oka - National Institute of Infectious Diseases, Tokyo, Japan  
Cell culture trials for human sapoviruses |
| 11:45 – 12:00 | S8.4             | Abimbola Kolawole - University of Michigan, Michigan, USA  
Comparison of human norovirus replication in B cells and human intestinal enteroids |
| 12:00 – 12:15 | S8.5             | Xiaoli Pang - University of Alberta, Edmonton, Canada  
Cultivation of human norovirus and human sapovirus in human intestinal enteroids |
| 12:15 – 12:30 | S8.6             | Shih-Ching Lin - Baylor College of Medicine, Houston, USA  
Do interferons restrict human norovirus replication in human intestinal enteroids? |

**SESSION 9: CALICIVIRUSES IN NON-HUMAN HOSTS**  
2:00 – 3:30pm

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| 2:00 – 2:30 | S9.1             | **State-of-the-Art Speaker:** Tanja Strive - Commonwealth Scientific and Industrial Research Organisation, Canberra, Australia  
*70 years of Biological Control of Rabbits in Australia – An Ongoing Co-Evolutionary Arms-Race* |
| 2:30 – 2:45 | S9.2             | Jackie Mahar – University of Sydney, Sydney Australia  
Discovery of new diverse *Caliciviridae* through virome sequencing |
| 2:45 – 3:00 | S9.3             | Nele Villabruna - Erasmus University Medical Centre, Rotterdam, The Netherlands  
The pattern of norovirus attachment varies among species |
| 3:00 – 3:15 | S9.4             | Robyn Hall - Commonwealth Scientific and Industrial Research Organisation, Canberra, Australia  
Robust innate immunity of young rabbits mediates resistance to rabbit haemorrhagic disease caused by RHDV but not RHDV2 |
| 3:15 – 3:30 | S9.5             | Ashwin Ramesh - Virginia Tech, Blacksburg, USA  
Determination of ID50 and DD50 of human norovirus GII.4/2003 Cin-1 variant in gnotobiotic pigs with different dose-response mathematical models |

6:30 – 11:00  
**Conference Dinner – Dockside, Darling Harbour**
Thursday October 17th

SESSION 10: FOOD SAFETY AND ENVIRONMENTAL DISTRIBUTION

9:00 – 9:30  S10.1  State-of-the-Art Speaker:
Daisuke Sano - Tohoku University, Sendai, Japan
Water disinfection and norovirus evolution

9:30 – 9:45  S10.2  Catherine Hennechart-Collette – Anses, Laboratory for Animal Health, Maisons-Alfort, France
Development of method to detect NoV and HAV in dressed vegetables

9:45 – 10:00  S10.3  Malak Esseili - University of Georgia, Griffin, USA
Human norovirus HBGA binding pocket mediates the virus specific interactions with lettuce carbohydrates

10:00 – 10:15  S10.4  Sophia Strubbia - Laboratoire de Microbiologie, Ifremer, Nantes, France
Metagenomic approach to study norovirus diversity in sewage and oyster samples

10:15 – 10:30  S10.5  Victor Mabasa - University of Pretoria, Pretoria, South Africa
Emergence of norovirus GIV and putative novel intergenotype recombinants in Pretoria, South Africa: Environmental surveillance as an early warning system

10:30 – 10:45  S10.6  James Lowther - Centre for Environment, Fisheries and Aquaculture Science, Weymouth, UK
A comparison of norovirus with viral and bacterial indicators in retail ready oysters in the United Kingdom

10:45 – 11:00  S10.7  Geun Woo Park - Centers for Disease Control and Prevention, Atlanta, USA
CrAssphage as a source tracking tool to detect human stool contamination

11:00 – 11:15  Future Calicivirus Conference and what years 2022 or 2021?

11:15 – 11:30  Closing session: Peter White

Program is correct at time of publication, however, is subject to change without notice.