PROGRAM SCHEDULE

ICAR2024

37TH International Conference on Antiviral Research (ICAR)

HOSTED BY **International Society for Antiviral Research (ISAR)**

Program Schedule

All times are listed in Australian Eastern Standard Time.

ICAR2024

Sunday, May 19, 2024

1:00 PM – 6:00 PM

Pre-Conference Symposium: An Australasian Virology Mini Symposium – Advancing Knowledge, Protecting People

GRIFFITH UNIVERSITY GOLD COAST CAMPUS

Separate registration required.

Click here for more info

Monday, May 20, 2024

12:00 PM – 1:45 PM

Special Event: Women in Science Roundtable

PHOENIX ROOM

Chaired by
Rhonda Carter

This event is at capacity.
If you have joined the waitlist, you will be notified if there are any openings.

2:00 PM – 4:15 PM

Opening Session and Plenary Session

NORFOLK BALLROOM

Chaired by
Luis Schang and **Kathie Seley-Radtke**

001. **Virus Emergence at the Human-Animal Interface**
Edward C. Holmes, FAA, FRS, *The University of Sydney, Australia, Sydney, NSW, Australia*

002. **Therapeutic Drug Development For Acute Viral Diseases: Lessons Learned and Future Perspective from a Clinician-Scientist and Can We Do Better?**
Jenny G. Low, MBBS, MPH, *Singapore General Hospital, Duke NUS Medical School, Singapore, Singapore*

4:15 PM – 4:30 PM

Break

NORFOLK FOYER

4:30 PM – 5:30 PM

Gertrude Elion Memorial Award Lecture

NORFOLK BALLROOM

Chaired by
Luis Schang and **Kathie Seley-Radtke**

003. **My Battle Against Viruses**
Professor Johan Hendrik Neyts, *KU Leuven, Belgium*

5:30 PM – 6:30 PM

Opening Reception

RELISH GRILL AND BAR

Tuesday, May 21, 2024

8:30 AM – 9:15 AM

William Prusoff Memorial Award Lecture

NORFOLK BALLROOM

Chaired by
Luis Schang and **Kathie Seley-Radtke**

004. **Viral Hemorrhagic Fevers: Challenges and Gains of Animal Model Research for Pre-Clinical Vaccine and Antiviral Screening**
Jessica R. Spengler, D.V.M., Ph.D, M.P.H., *US Centers for Disease Control and Prevention, Atlanta, GA, United States*

9:15 AM – 10:00 AM

Broad Spectrum Antiviral Drugs, Non-respiratory Biothreat Viruses, and Pandemic Preparedness

NORFOLK BALLROOM

Chaired by
John Bilello and **Subash Vasudevan**

005. **Oral Pharmacokinetics and Efficacy of Modified Oral Lipid RVn Prodrugs Against SARS-CoV-2 in Mice**
Aaron F. Carlin, M.D. Ph.D, *Department of Pathology and Medicine, University of California at San Diego, La Jolla, California, United States*

006. **Towards a Novel Host-Targeted Anti-Infective Strategy Against COVID-19 and Other Acute Respiratory Viral Diseases**
Stephan Ludwig, PhD, *Institute of Virology, Muenster, Germany*

007. **Exploring Viral RNA Methyltransferases for Antiviral Drug Design**
Radim Nencka, Ph.D., *Institute of Organic Chemistry and Biochemistry, Czech Academy of Sciences, Prague, Czech Republic*

008. **Targeting Host Kinases to Identify Novel Broad-Spectrum Antiviral Strategies**
Valeria Cagno, Ph.D., *Institute of Microbiology, Lausanne University Hospital, University of Lausanne, Lausanne, Vaud, Switzerland*

10:00 AM – 11:00 AM

NORFOLK BALLROOM

PechaKucha Competition

Chaired by
Kathie Seley-Radtke

11:00 AM – 11:15 AM

Break

NORFOLK FOYER

11:15 AM – 12:15 PM

Broad Spectrum Antiviral Drugs, Non-respiratory Biothreat Viruses, and Pandemic Preparedness *(continued)*

NORFOLK BALLROOM

Chaired by
John Bilello and **Subash Vasudevan**

009. **UNAPP: A Unique Academic-Industrial Partnership for Antiviral Research in Pandemic Preparedness**
Xuping Xie, Ph.D., *UTMB, Galveston, Texas, United States*

010. **Molnupiravir Extends its Broader Spectrum of Activity to Human Norovirus and Rotavirus in 3D Human Intestinal Enteroids**
Nanci Santos-Ferreira, *KU Leuven, Rega Institute, Laboratory of Virology and Chemotherapy, Leuven, Belgium*

011. **Targeting mpox Virus Resolvase (Mpr): In Vitro Assay Development and Inhibitors**
Zhengqiang (ZQ) Wang, Ph.D., *Center for Drug Design, College of Pharmacy, University of Minnesota, Minneapolis, Minnesota, United States*

012. **Potential Genetic Determinants Affecting Virulence of Heartland Bandavirus Infection in Mice and Therapeutic Intervention with the Ribonucleoside Analog, EIDD-2749**
Jonna B. Westover, Ph.D., *Institute for Antiviral Research, Utah State University, Logan, Utah, United States*

12:15 PM – 1:45 PM

Lunch

(included for all conference registrants)

RELISH GRILL AND BAR

12:30 PM – 1:30 PM

Special Event: Career Development Roundtable

PHOENIX ROOM

Chaired by
Leen Delang

This event is at capacity.
If you have joined the waitlist, you will be notified if there are any openings.

1:45 PM – 2:30 PM

Diversity in Science and Excellence Award Lecture

NORFOLK BALLROOM

Chaired by
Victor Garcia-Martinez and **Luis Schang**

013. **Chasing an HIV Cure: The Intersection of Biological Sex and Latency Reversal**
Nancie Marie Archin, PhD, *The University of North Carolina UNC HIV Cure Center, Chapel Hill, North Carolina, United States*

2:30 PM – 3:30 PM

Coronaviruses, Influenza, RSV, and Other Respiratory Viruses

NORFOLK BALLROOM

Chaired by
Rhonda Cardin and **Tim Sheahan**

014. **Drug Discovery Efforts Towards Human Metapneumovirus**
Larissa Dirr, Ph.D., *Institute for Glycomics, Griffith University, Australia*

021. **Nanobodies Against COVID-19 and Other Emerging Viruses**
Fang Li, Ph.D., *University of Minnesota, Minneapolis, MN, United States*

016. **Activating the RIG-I Pathway by RNA Agonists or Small Molecule Drugs Triggers Innate Immune Programming to Control Infection by Influenza A virus and SARS-COV2**
Amina Negash, Ph.D, *Center for Innate Immunity and Immune Disease, Department of Immunology, University of Washington, Seattle, Washington, United States*

017. **Understanding and Inhibiting SARS-CoV-2 NiRAN Domain Catalytic Activities Through Structural Studies and Large-Scale Docking**
Gabriel Small, *Laboratory of Molecular Biophysics at The Rockefeller University, New York, NY, United States*

3:30 PM – 3:45 PM

Break

NORFOLK FOYER

3:45 PM – 5:00 PM

Coronaviruses, Influenza, RSV, and Other Respiratory Viruses *(continued)*

NORFOLK BALLROOM

Chaired by
Rhonda Cardin and **Tim Sheahan**

018. **Combating Emerging Henipaviruses**
Daniel Watterson, PhD, *University of Queensland, Brisbane, Australia*

019. **Design of SARS-CoV-2 Papain-like Protease Inhibitor with Antiviral Efficacy in a Mouse Model**
Jun Wang, *Rutgers, The State University of New Jersey, Piscataway, New Jersey, United States*

020. **Identification of Adenosine Analogues that Inhibit the N7 Methyltransferase Activity of SARS-CoV-2**
Adrien Delpal, Ph.D, *AFMB, Marseille, France*

015. **Identification of Novel Small-Molecule Inhibitors of SARS-CoV-2 by Chemical Genetics**
Shuofeng Yuan, *The University of Hong Kong, Hong Kong (SAR China)*

022. **Intranasal Administration of a Live Attenuated Vaccine Derived from NSP16-deficient SARS-CoV-2 Confers Sterilizing Immunity in Rodent Models**
Zi-Wei Ye, Ph.D., *The University of Hong Kong, Hong Kong, Hong Kong (SAR China)*

5:00 PM – 7:00 PM

Poster Session 1

MONACO AND SIFU

Light food and beverages provided.

5:00 PM – 6:00 PM
ODD numbered posters

6:00 PM – 7:00 PM
EVEN numbered posters

Wednesday, May 22, 2024

8:30 AM – 9:10 AM

Chronic, Latent, and Persistent Viruses - Retroviruses and Herpesviruses

NORFOLK BALLROOM

Chaired by
Joy Feng and **Zlatko Janeba**

023. **Development of Broad-Spectrum Antiviral Drugs**
Hong Liu, PhD, *Shanghai Institute of Materia Medica, Chinese Academy of Sciences, Shanghai, China*

024. **Some Capsid/Core Assembly Modulators (CAMs) Can Induce an Inhibition of HBV RNA Biogenesis**
David Durantel, Ph.D., *Equipe Hepvir, CIRI, Inserm U1111, CNRS UMR5308, ENS-Lyon, UCBL1, Lyon, France*

9:10 AM – 10:30 AM

Late-breaking Oral Presentations and Hepatotropic and GI Viruses

NORFOLK BALLROOM

Chaired by
Kara Carter and **David Durantel**

080. **Design and Synthesis of Clickable Photoaffinity Probes for Binding Site Identification on Yellow Fever Virus NS4B Target Built upon a Benzodiazepine Antiviral**
Yanming Du, *Baruch S. Blumberg Institute, Doylestown, PA, United States*

081. **Establishment of the First High-Throughput Screening Assay for Rhinovirus C Antiviral Drug Discovery**
Erion Lyoo, Ph.D., *KU Leuven, Leuven, Belgium*

082. **Suppression of Hepatitis B Virus Replication and Protein Expression Using CRISPR-Cas13b – Pre-clinical Investigations of a New Antiviral Approach**
Margaret Littlejohn, Ph.D, VIDRL, *Royal Melbourne Hospital at the Peter Doherty Institute for Infection and Immunity, Australia*

083. **The CD8+T Cells Response is Sufficient for Protection with a CCHFV M-segment Based DNA Vaccine and GP38 Enhances Vaccine Immunogenicity**
Aura Garrison, Ph.D., *USAMRIID, Frederick, United States*

084. **Unveiling Host-cell Glycosylation Changes Upon Parainfluenza Virus Infection**
Plabon Kumar Das, M. S., *Institute for Glycomics, Griffith University, Gold Coast Campus, Qld, Australia, Gold Coast Australia, Queensland, Australia*

029. **Advances Toward HBV Cure**
Margaret Littlejohn, Ph.D, VIDRL, *Royal Melbourne Hospital at the Peter Doherty Institute for Infection and Immunity, Australia*

10:30 AM – 10:45 AM

Break

NORFOLK FOYER

10:45 AM – 12:15 PM

Arboviruses

NORFOLK BALLROOM

Chaired by
Lara Herrero and **Dahai Luo**

030. **Beyond Retroviruses: Restriction of Flavivirus Replication by TRIM5α**
Sonja Marie Best, PhD, *National Institute of Allergy and Infectious Diseases, National Institutes of Health, Hamilton, Montana, United States*

031. **Liver-targeted Therapeutic siRNAs Against Highly Conserved Yellow Fever Virus Genomic Sequences Effectively Limit Infection and Mortality in a Hamster Model**
Justin G. Julander, Ph.D., *Institute for Antiviral Research, Utah State University, Logan, Utah, United States*

032. **Ingestion of the Antiviral Drug JNJ-A07 by Mosquitoes During Blood-feeding Significantly Reduced Dengue Virus Transmission**
Ana Lucia Rosales Rosas, *KU Leuven, Leuven, Belgium*

033. **Structural Basis of Dengue and Zika Virus NS1 Multimerization and Antibody Recognition**
Alvin Bing Liang Chew, *Nanyang Technological University, Singapore*

034. **Identification of mRNA Processing Machinery as Druggable Host Factor Targets for Dengue Virus Infection**
Min Jie Alvin Tan, Ph. D., *Duke-NUS Medical School, Singapore*

035. **Discovery of Pan-flavivirus Protease Inhibitors**
Christoph Nitsche, *Australian National University, Canberra, ACT, Australia*

036. **Combination Therapy of Approved Drugs Potentiates Broad-spectrum Antiviral Activity Against Alphaviruses in Human Skin Fibroblasts And Mice**
Leen Delang, PhD, *KU Leuven, Leuven, Belgium*

12:15 PM – 2:15 PM

Poster Session 2

MONACO AND SIFU

Lunch provided.

12:15 PM – 1:15 PM
EVEN numbered posters

1:15 PM – 2:15 PM
ODD numbered posters

Thursday, May 23, 2024

8:30 AM – 9:20 AM

Machine Learning and Computational Approaches for Antiviral Research

NORFOLK BALLROOM

Chaired by
Alpha Lee and **Joshua Schiffer**

037. **Accelerating Antiviral Discovery with Artificial Intelligence**
Alpha Lee, *PostEra, Cambridge, MA, United States*

038. **Atomistic Model of the Coronavirus nsp3/nsp4 Double Membrane Vesicle Pore**
Jason K. Perry, Ph.D, *Gilead Sciences, Inc., Foster City, CA, United States*

039. **Antiviral Therapy Optimization for SARS-CoV2: A Mathematical Modeling Approach**
Shadi Sadat Esmaeili-Wellman, Ph.D., *Fred Hutch Cancer Center, Seattle, WA, United States*

9:20 AM – 10:20 AM

Coronaviruses, Influenza, RSV, and Other Respiratory Viruses

NORFOLK BALLROOM

Chaired by
Larissa Dirr and **Mark von Itzstein**

040. **Click Chemistry-based Rapid Identification and Crystallographic Studies of Novel 1,2,3-Triazole-bearing Diazabicyclooctane Derivatives as Non-Covalent SARS-CoV-2 Mpro Inhibitors with Potent Antiviral Activity and Improved Drug-resistance Profile**
Peng Zhan, Ph.D., *Shandong University, Jinan, China*

041. **Identification of Small-Molecule Inhibitors of Coronaviruses by Targeting Protein-Protein Interactions in RNA-Dependent RNA Polymerase Complex**
Jeremy Blavier, MS, *Viral Interactomes Laboratory, GIGA Institute, University of Liege, Liege, Belgium*

042. **A CRISPR/Cas9 Genetically Engineered Organoid Biobank To Study Coronavirus Host Factors**
Mart Matthias Lamers, *Duke-NUS, Singapore*

10:20 AM – 10:35 AM

Break

NORFOLK FOYER

10:35 AM – 11:25 AM

Coronaviruses, Influenza, RSV, and Other Respiratory Viruses *(continued)*

NORFOLK BALLROOM

Chaired by
Larissa Dirr and **Mark von Itzstein**

043. **Identification of Novel Host Proteins that are Associated with Macrophage Control of Influenza A Virus Replication**
Sarah L. Londrigan, PhD, *Department of Microbiology and Immunology, The University of Melbourne, Peter Doherty Institute, Melbourne, Victoria, Australia*

044. **A Mouse Model of Human Parainfluenza Virus Type 3 Infection to Study Prophylactic and Therapeutic Modalities**
Yuxia Lin, Ph.D, *KU Leuven, Leuven, Belgium*

045. **Engineering Protease-resistant Peptides to Inhibit Human Parainfluenza Viral Respiratory Infection**
Anne Moscona, M.D., *Columbia University Vagelos College of Physicians and Surgeons, New York, NY, United States*

046. **Aptamer-based Glycoprotein Broad-spectrum Blocking Strategy Inhibits Respiratory Syncytial Virus Infection**
Ge Yang, *Institute of Medicinal Biotechnology, Chinese Academy of Medical Sciences and Peking Union Medical, Beijing, China*

047. **Inhibition of Rhinovirus Infection in Differentiated Primary Human Bronchial Epithelial Cells by Nanoparticle-Encapsulated Small Interfering RNA**
Nathan Bryant, *University of Newcastle, Newcastle, NSW, Australia*

048. **Development of Small Molecule Entry Inhibitors as Novel Therapeutics against Influenza Viruses**
Lijun Rong, Ph.D., *University of Illinois Chicago, Chicago, Illinois, United States; Chicago BioSolutions, Inc., Chicago, Illinois, United States*

11:25 AM – 12:00 PM

Chronic, Latent, and Persistent Viruses – Retroviruses and Herpesviruses

NORFOLK BALLROOM

Chaired by
Gerald Kleymann and **Jennifer Moffat**

050. **The B Cell Repertoire in Multiple Sclerosis Reveals Molecular Mimicry between EBV EBNA1 and GlialCAM**
Tobias V. Lanz, MD, *Stanford University, Stanford, CA, United States*

12:00 PM – 12:15 PM

ISAR Annual Business Meeting

NORFOLK BALLROOM

PRESIDENT: **Kathie Seley-Radtke**

TREASURER: **Brian Gowen**

SECRETARY: **Brian Gowen** on behalf of **Jinhong Chang**

12:15 PM – 1:45 PM

Lunch

(included for all conference registrants)

RELISH GRILL AND BAR

1:45 PM – 2:30 PM

Women in Science and Excellence Award Lecture

NORFOLK BALLROOM

Chaired by
Rhonda Cardin and **Kathie Seley-Radtke**

051. **From Target to Treatment**
Judith Breuer, MD, FRCPath, FMedSci, *University College London and Great Ormond Street Hospitals, London, England, United Kingdom*

2:30 PM – 3:30 PM

Arboviruses

NORFOLK BALLROOM

Chaired by
Lara Herrero and **Dahai Luo**

052. **Medicinal Chemistry Optimization and Therapeutic Efficacy of 2-Pyrrolidinoquinazolinones in Lethal Murine Models of Venezuelan and Eastern Equine Encephalitis Viruses**
Jennifer E. Golden, Ph.D., *Division of Pharmaceutical Sciences, School of Pharmacy, University of Wisconsin-Madison, Madison, Wisconsin, United States*

053. **Design, Synthesis, and Lead Optimisation of Piperazinyl-Pyrimidine Analogues as Potent Small Molecules Inhibitors of Chikungunya Virus**
Verena Battisti, Ph.D, *University of Vienna, Vienna, Vienna, Austria*

054. **Suicidal Capsid Protease from O'nyong'nyong Virus: Unveiling the Inhibitory Potential of Indole Derivatives**
Yuliya Chykunova, *Virogenetics Laboratory of Virology, Malopolska Centre of Biotechnology, Jagiellonian University, Krakow, Poland*

055. **Treatment with 6MMPr Potentiates the Activity of Favipiravir in a Hamster Model of Yellow Fever**
Justin G. Julander, Ph.D., *Institute for Antiviral Research, Utah State University, Logan, Utah, United States*

3:30 PM – 3:45 PM

Break

NORFOLK FOYER

3:45 PM – 4:45 PM

Broad Spectrum Antiviral Drugs, Non-respiratory Biothreat Viruses, and Pandemic Preparedness

NORFOLK BALLROOM

Chaired by
John Bilello and **Subash Vasudevan**

056. **Cellular and Molecular Mechanisms of Arboviral Immunity**
Lisa Ng, Ph.D., *A*STAR Infectious Diseases Labs, Singapore*

057. **Development and Mechanism of Novel Diphyllin Derivatives Against Ebola Virus Infection**
Patrick Keiser, PhD Candidate, *NEIDL, Department of Virology, Immunology, and Microbiology, Boston University, Boston, MA, United States*

058. **Identification and Evaluation of Novel Lassa Virus Entry Inhibitors Using Computational Counter Screening And Chemical Informatics**
Brianna Close, *Boston University, Boston, Massachusetts, United States*

059. **Identification of a Macrocyclic Compound Targeting the Lassa Virus Polymerase**
Mike J. Flint, Ph.D., *Centers for Disease Control and Prevention, Atlanta, GA, United States*

4:45 PM – 5:00 PM

Break

NORFOLK FOYER

5:00 PM – 6:00 PM

Broad Spectrum Antiviral Drugs, Non-respiratory Biothreat Viruses, and Pandemic Preparedness *(continued)*

NORFOLK BALLROOM

Chaired by
John Bilello and **Subash Vasudevan**

060. **Tribbles Pseudokinase 3 Promotes Enterovirus A71 Infection via Dual Mechanisms**
Huiqiang Wang, *Institute of Medicinal Biotechnology, Chinese Academy of Medical Sciences, Beijing, China*

061. **Generation and Optimization of Bangladesh and Malaysian Recombinant Reporter Nipah Viruses for Antiviral Screening in vitro and Disease Modeling in vivo**
Michael K. Lo, Ph.D, *US Centers for Disease Control and Prevention, Atlanta, GA, United States*

062. **Intranasal Route to Immunity: Single Dose Mucosal Delivery of Viral Replicon Particle Vaccine Protects Uniformly Against Lethal Nipah Virus Challenge In African Green Monkeys**
Stephen R. Welch, *US Centers for Disease Control and Prevention, Atlanta, United States*

063. **Evaluation of Small Molecules as Promising Broad-Spectrum Anti-Filoviral Agents**
Jazmin Galvan Achi, *University of Illinois Chicago, Chicago, Illinois, United States*

064. **Small Molecule Antiviral Candidates for Rift Valley Fever**
Wenjun Ma, *University of Missouri, Columbia, Missouri, United States*

065. **In Silico Tools for Antiviral Research and Future Pandemic Forecasting**
Eugene Muratov, Ph.D., *University of North Carolina, Chapel Hill, North Carolina, United States*

7:00 PM – 10:00 PM

Closing Event

NORFOLK BALLROOM & POOLSIDE

Friday, May 24, 2024

9:00 AM – 10:20 AM

Hepatotropic and GI Viruses

NORFOLK BALLROOM

Chaired by
Kara Carter and **David Durantel**

066. **Hepatitis B Virus cccDNA Biosynthesis, Epigenetics, and Antiviral Development**
Haitao Guo, Ph.D, *University of Pittsburgh, Pittsburgh, Pennsylvania, United States*

067. **Discovery of a Pan-genotype Hepatitis E Virus Replication Inhibitor Exerting Potent in vivo Efficacy**
Suzanne Kaptein, Ph.D., *Rega Institute for Medical Research, KU Leuven, Leuven, Belgium*

068. **Functional Evaluation and Mode of Action of a Novel Non-nucleoside Drug Inhibiting the Replication of Hepatitis Delta Virus**
David Durantel, Ph.D., *Equipe Hepvir, CIRI, Inserm U1111, CNRS UMR5308, ENS-Lyon, UCBL1, Lyon, France*

069. **Discovery of First-in-Class Hydrophobic Tagging (HyT)-based Degraders of HBV Core Protein**
Shujing Xu, Ph.D., *Department of Medicinal Chemistry, Key Laboratory of Chemical Biology (Ministry of Education), Jinan, Shandong Province, China*

070. **Proof of Concept: Exploring the Therapeutic Potential of G3BP1 Targeted Degradation Against Norovirus Infection**
Liliana Echavarria Consuegra, Dr., *University of Cambridge, Cambridge, United Kingdom*

071. **Protease Inhibitor Activity Varies Between Genogroup I and Genogroup II Noroviruses**
Alice M. McSweeney, *Otago University, New Zealand*

10:20 AM – 10:45 AM

Break

NORFOLK FOYER

10:45 AM – 11:15 AM

Shotgun Presentations

NORFOLK BALLROOM

Chaired by
Two Trainees TBD

11:15 AM – 12:30 PM

Chronic, Latent, and Persistent Viruses – Retroviruses and Herpesviruses

NORFOLK BALLROOM

Chaired by
Joy Feng, Zlatko Janeba, Jennifer Moffat, and **Gerald Kleymann**

072. **Towards an HIV Cure: Novel Approaches to Reduce and Control the Reservoir**
Sharon R. Lewin, Ph.D., *Department of Infectious Diseases, University of Melbourne, Doherty Institute, Melbourne, VIC, Australia*

073. **Antivirals Targeting the Conserved HIV-1 TIM-TAM Riboswitch Specifically Reactivate HIV-1 from Latency through Modulating Viral RNA-biology**
Damian FJ Purcell, Ph.D., *Department of Microbiology and Immunology, University of Melbourne, Doherty Institute, Melbourne, VIC, Australia*

074. **Mechanisms of HIV-1 Hypersensitivity to Islatravir (4'-ethynyl-2-fluoro-2'-deoxyadeonsine (EFdA))**
Alexa A. Snyder, *Emory University School of Medicine, Atlanta, Georgia, United States*

075. **HSV-1 Latency is Established in Human Neurons in which Viral Genes are Expressed and Viral DNA is Replicated during the Acute Infection**
Arryn Owens, *Cornell University, Ithaca, NY, United States*

076. **Evaluation and Pharmacokinetics of the POM-L-BHDU-MP Prodrug Against Varicella Zoster Virus and Herpes Simplex Virus 1 in vivo**
Jennifer F. Moffat, PhD, *SUNY Upstate Medical University, Syracuse, NY, United States*