# 13TH INTERNATIONAL ONCOLYTIC VIRUS CONFERENCE





American Society of Gene + Cell Therapy

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Candel is a late clinical stage biopharmaceutical company focused on helping patients fight cancer with oncolytic viral immunotherapies.



Candel's engineered viruses are designed to induce immunogenic cell death through direct viral-mediated cytotoxicity in cancer cells, thus releasing tumor neo-antigens while creating a pro-inflammatory microenvironment at the site of injection.

Candel has established two oncolytic viral immunotherapy investigational medicines based on novel, genetically modified adenovirus and herpes simplex virus (HSV) constructs, respectively. CAN-2409 is the lead product candidate from the adenovirus platform and CAN-3110 is the lead product candidate from the HSV platform. New discovery programs are based on the HSV platform. Learn more about our innovative platform here.



7:30 – 9:30 P.M. WELCOME RECEPTION

PORCH PATIO

# FRIDAY, NOVEMBER 5

7:30 A.M. – 5 P.M. BADGE PICK-UP CANYON BALLROOM FOYER

### 7:30 – 8:30 A.M. BREAKFAST PROVIDED - CANYON BALLROOM FOYER

#### Scientific Session 1: Novel Payloads and Mechanisms of Action 1

Chairpersons: John Bell, PhD and Grant McFadden, PhD

#### 8:30 – 8:55 A.M. DAVID STOJDL, PHD

TURNSTONE BIOLOGICS Vaccinia with IL12, CTLA-4 blockage and FLT3

#### 8:55 – 9:20 A.M. LESLIE SHARP, PHD

ONCOMYX THERAPEUTICS Multi-armed myxoma virus demsonstrates activity in preclinical models

#### 9:20 – 9:32 A.M. DIVYA RAVIRALA, PHD

UNIVERSITY OF HOUSTON Oral Abstract 1 Co-delivery of Novel bi-Specific and tri-Specific Engagers by an Amplicon Vector Augments the Therapeutic Effect of a HSV-based Oncolytic Virotherapy

#### 9:32 – 9:44 A.M. NIKOLAS MARTIN, PHD

# OTTAWA HOSPITAL RESEARCH INSTITUTE Oral Abstract 2

An oncolytic vaccinia virus encoding virus-likeparticles and self-amplifying RNA replicons: Teaching new tricks to an old virus

#### Scientific Session 1: Novel Payloads and Mechanisms of Action 1

Chairpersons: John Bell, PhD and Grant McFadden, PhD

#### 9:44 – 9:56 A.M. BART SPIESSCHAE, DMV, PHD

 $\label{eq:strain} VIRATHERAPEUTICS GMBH \\ \textbf{Oral Abstract 3} \\ \mbox{Lymphotoxin- } \alpha\mbox{-armed oncolytic VSV-GP synergizes} \\ \mbox{with SMAC mimetics to induce enhanced tumor cell} \\ \mbox{death and regression} \\ \end{tabular}$ 

#### 9:56 – 10:08 A.M. JOHN CHRISTIE, MS

ARIZONA STATE UNIVERSITY SCHOOL OF LIFE SCIENCES **Oral Abstract 4** Delivery and Efficacy of LIGHT-armed Myxoma Virus in a Syngeneic Lung Metastatic Murine Osteosarcoma

#### 10:08 - 10:30 A.M. **COFFEE BREAK**

#### Scientific Session 2: Novel Payloads and Mechanisms of Action 2

Chairpersons: John Bell, PhD and Grant McFadden, PhD

#### 10:30 – 10:55 A.M. LEONARD SEYMOUR, PHD

UNIVERSITY OF OXFORD Arming oncolytic DNA viruses to improve their anticancer impact

### 10:55 – 11:20 A.M. BALVEEN KAUR, PHD

MCGOVERN MEDICAL SCHOOL Oncolytic Viral therapy signaling NOTCH

# Multiple Therapies, One Virus

Next-Generation Oncolytic Vaccinia Virus Immunotherapy Platform

KALIVIR is dedicated to developing systemically deliverable next-generation oncolytic virus immunotherapies. We have designed a new class of oncolytic virus that combines the natural ability of viruses to kill cancers with novel mechanisms to stimulate anti-tumor immunity and modulate the tumor microenvironment to maximize targeted tumor killing. Our oncolytic product candidates are designed to be safe, potent and systemically deliverable across different tumor types. We are now advancing multiple therapeutic candidates toward the clinic. KALIVIR has developed a novel, potent oncolytic platform called the Vaccinia Enhanced Template (VET<sup>M)</sup>. Our VET<sup>M</sup> Platform includes multiple proprietary genetic modifications that can be combined to generate unique oncolytic viruses optimized for systemic delivery and expression of therapeutic transgenes within target tumors.

Our proprietary VET<sup>IM</sup> modifications enhance vaccinia virus' systemic delivery capabilities, tumor-targeted replication, and spread within and between tumors.





KALIVIR's VET<sup>TM</sup> Platform is a versatile viral backbone that can be harnessed to create novel, best-in-class oncolytic immunotherapies.

Using the VET<sup>TM</sup> Platform, we design and construct oncolytic candidates through rigorous testing and scientific evaluation to tailor each virus for the payload and the target tumor. Genetic modifications derived from the VET<sup>TM</sup> Platform operate synergistically, rather than piecewise, to enable the most effective tumor killing and immune modulation.

We have partnered with Astellas Pharma Inc. to develop our first lead candidate VET2-L2 and to generate a second novel product using the VET™ Platform. We continue to seek additional development partnerships and collaboration opportunities.

To learn more about working with us, please visit www.kalivir.com

fow We Create New Candidates



#### Scientific Session 2: Novel Payloads and Mechanisms of Action 2

Chairpersons: John Bell, PhD and Grant McFadden, PhD

#### 11:20 – 11:32 A.M. HAIFEI JIANG, PHD

MAYO CLINIC **Oral Abstract 5** Herpesviral Combination Therapy For Targeting Both Cancer Cells And Cancer Associated Stromal Cells

#### 11:32 – 11:44 A.M. FLURIN CAVIEZEL, MSC

UNIVERSITY OF OXFORD Oral Abstract 6 Targeting the Extracellular Matrix to Overcome Immunosuppression Using Bi-Specifics Delivered by Oncolytic Viruses

#### 11:44 – 11:56 A.M. EMANUELE SASSO, PHD

UNIVERSITY OF NAPLES FEDERICO **Oral Abstract 7** Arming Oncolytic Herpes Virus with Adenosine Deaminase Enzyme for Clearance of Immunosuppressive Tumor Adenosine

11:56 A.M. – 12:55 P.M.

#### LUNCH

Provided

#### Scientific Session 3: Novel Combinations and Mechanisms of Action 1

Chairpersons: Martine Lamfers, PhD and Samuel Rabkin, PhD

#### 12:55 – 1:20 P.M. KEVIN HARRINGTON, PHD

THE INSTITUTE OF CANCER RESEARCH, LONDON Mechanistic studies of drug-virus combinations reveal unexpected immunotherapeutic potential

#### 1:20 – 1:45 P.M. CHAE-OK YUN, PHD

GENEMEDICINE CO., LTD. Tumor-targeted systemic delivery of oncolytic adenoviruses using nanocarrier platform

#### 1:45 – 1:57 P.M. LORELLA TRIPODI

EUROPEAN SCHOOL OF MOLECULAR MEDICINE (SEMM)

#### **Oral Abstract 8**

Gut microbiome affects oncolytic adenovirusmediated immunogenic cell death in a melanoma mouse model

#### 1:57 – 2:09 P.M. MIRIAM VALENZUELA, MSC

UNMHSC

#### **Oral Abstract 9**

Tumor Necrosis Factor α plays multiple negative roles during oncolytic therapy both inhibiting systemic efficacy and exacerbating immune mediated toxicities

**Collaborations with** 











VYRIAD

Research & Development



Process Development



**ONCOLYTIC** 

VIRUSES

EFFECTIVE ANTICANCER DRUGS

GMP Manufacture



**Clinical Trials Execution** 

# **PLATFORMS**



Vesicular Stomatitis Virus



Measles Virus



Infectious Picornavirus mRNA

### www.vyriad.com

# **ABOUT US**

At Vyriad, we are developing the next generation of targeted cancer therapies using engineered viruses that selectively attack cancer cells and ignite robust immune responses to prevent cancer recurrence. We believe our oncolytic viruses have tremendous potential to improve the lives of patients, inspire hope and change the way cancer is treated.

Phase 1-2 trials with our oncolytic viruses, as monotherapies or in combination with immuno-oncology drugs, are underway in multiple cancer indications.

#### Scientific Session 3: Novel Combinations and Mechanisms of Action 1

Chairpersons: Martine Lamfers, PhD and Samuel Rabkin, PhD

#### 2:09 – 2:21 P.M. GUIDO WOLLMANN, MD

MEDICAL UNIVERSITY INNSBRUCK **Oral Abstract 10** A Modular Self-Adjuvanting Cancer Vaccine Combined With An Oncolytic Vaccine Induces Potent Antitumor Immunity

### 2:21 – 2:33 P.M. **ZAID TAHA, MSC**

OTTAWA HOSPITAL RESEARCH INSTITUTE, UNIVERSITY OF OTTAWA **Oral Abstract 11** Evaluation of Viral Sensitizing Antibody-Drug Conjugate (ADC) and Oncolytic Virus Combination Regimen in Novel Murine Models of HER2+ Cancer

#### 2:33 – 2:45 P.M. **COFFEE BREAK**

#### Scientific Session 4: Novel Combinations and Mechanisms of Action 2

Chairpersons: Martine Lamfers, PhD and Samuel Rabkin, PhD

#### 2:45 - 3:10 P.M. ALAN MELCHER, PHD

THE INSTITUTE OF CANCER RESEARCH, LONDON Oncolytic Herpes Virus and BRAF Inhibitor Therapy for Melanoma: The Role and Application of CD4 T Cell Signaling Dynamics

#### 3:10 – 3:35 P.M. RICHARD G. VILE, PHD

MAYO CLINIC Combining CAR T Cell Therapy with Oncolytic Viruses

#### 3:35 – 3:47 P.M. JAHANARA RAJWANI

UNIVERSITY OF CALGARY Oral Abstract 12

Oncolytic Virus Infection of Non Cancer Cells Improves Antitumour Immunity by Increasing Tumour-Antigen Specific T Cell Generation in

Tumour-Antigen Specific T Cell Generation in the Lymph Node

### 3:47 – 3:59 P.M. MATTHEW MULLARKEY, MD

MCGOVERN MEDICAL SCHOOL, UTHSC **Oral Abstract 13** Oncolytic HSV-P10 and Targeting of Glycolysis and Oxidative Phosphorylation as a Potential Therapy in the Treatment of Glioblastoma

### Scientific Session 4: Novel Combinations and Mechanisms of Action 2

Chairpersons: Martine Lamfers, PhD and Samuel Rabkin, PhD

#### 3:59 – 4:11 P.M.: **MOLLY HOLBROOK**

UNIVERSITY OF NORTH CAROLINA-CHARLOTTE **Oral Abstract 14** Screening of FDA-Approved Drug Library for Combinatorial Treatment of Pancreatic Cancer Cells with Oncolytic Vesicular Stomatitis Virus



# Surpassing Limitations, Exceeding Expectations

Global Healthcare Leader Developing and Supplying Innovative, Trustworthy Oncolytic Virus

GeneMedicine specializes in the development of tumor-targeted and systemically deliverable oncolytic adenovirus for the treatment of intractable cancer patients. Our pioneering technologies are the achievement of 25 years of rigorous R&D. GeneMedicine reached two licensing-out agreements with two U.S. biotech companies and received 43 million USD in investment. Our viruses induce potent systemic antitumor immune response, which can be further improved by applying tumortargeted systemic delivery platform technology to enhance virus accumulation and therapeutic efficacy in both primary and metastatic tumors. Excellent safety, therapeutic efficacy, and tumor-specific systemic deliverability of our viruses differentiate GeneMedicine from the competitors in the global oncolytic virus market.

#### **Scientific Session 5: Clinical Trials**

Chairpersons: E. Antonio Chiocca, MD, PhD, FAANS and Chae-Ok Yun, PhD

#### 4:11 – 4:36 P.M. E. ANTONIO CHIOCCA, MD, PHD, FAANS

HARVARD MEDICAL SCHOOL First In Human Clinical Trials of New Oncolytic Virus Expressing ICP34.5 for Glioblastoma

#### 4:36 – 5:01 P.M. **JOSELLE COOK, MD**

MAYO CLINIC Clinical Activity of Systemic VSV-IFNβ-NIS Oncolytic Virotherapy in Patients with Hematologic Malignancies

#### 5:01 – 5:26 P.M. TOMOKI TODO, PHD

THE UNIVERSITY OF TOKYO Clinical development and approval of oncolytic herpes virus G47  $\Delta$ 

#### 6 – 9:45 P.M. **DINNER**

SHUTTLES PROVIDED (PICKUP AT 6 P.M., RETURN AT 9:45 P.M.) Steakhouse 89 2620 W State Rte 89A Sedona, AZ 86336



7:30 A.M. – 5 P.M. BADGE PICK-UP CANYON BALLROOM FOYER

7:30 – 8:30 A.M. BREAKFAST PROVIDED - CANYON BALLROOM FOYER



#### **Scientific Session 6: Novel Platforms 1**

Chairperson: Noriyuki Kasahara, MD, PhD

#### 8:30 – 8:55 A.M. STEPHEN J. RUSSELL, MD, PHD

MAYO CLINIC Measles Virus, Stealthed and Retargeted

#### 8:55–9:07 A.M. **SARA FEOLA**

UNIVERSITY OF HELSINKI **Oral Abstract 15** A Novel Immunopeptidomic-Based Pipeline for the Generation of Personalized Oncolytic Cancer Vaccines

#### 9:07-9:19 A.M. KAROL BUDZIK, PHD

MAYO CLINIC **Oral Abstract 16** Development and Characterization of a Foamy Virus-Based Oncolytic Replicating Retroviral Vector

#### Scientific Session 6: Novel Platforms 1

Chairperson: Noriyuki Kasahara, MD, PhD

#### 9:19–9:31 A.M. LIANG DENG, MD, PHD

MEMORIAL SLOAN KETTERING CANCER CENTER **Oral Abstract 17** Targeting Regulatory T Cells and Exhausted T Cells by a Second-Generation Recombinant Modified Vaccinai Virus Ankara

### 9:31 – 9:56 A.M. YUMAN FONG, MD

CITY OF HOPE MEDICAL CENTER Redesigning the Pox Virus for Oncolytic Therapy

# 9:56 – 10:15 A.M. **COFFEE BREAK**

#### **Scientific Session 7: Novel Platforms 2**

Chairperson: Stephen J. Russell, MD, PhD

#### 10:15 – 10:40 A.M. AUTUMN SCHULZE, PHD

MAYO CLINIC Synthetic Infectious RNA-Based Oncolytic Immunotherapy

### 10:40 – 10:52 A.M. SHAUN XIALIU ZHANG, MD, PHD

UNIVERSITY OF HOUSTON Oral Abstract 18 Novel Strategies to Modify an Oncolytic HSV for Systemic Delivery

#### 10:52 – 11:04 A.M. ALEXANDER HADDAD, MD

UCSF

**Oral Abstract 19** A Synthetic Novel Replicating Retroviral Gene Therapy Platform for the Treatment of Glioblastoma

#### **Scientific Session 7: Novel Platforms 2**

Chairperson: Stephen J. Russell, MD, PhD

#### 11:04 – 11:16 A.M. VELIA PENZA, MS

MAYO CLINIC Deletion of the polycytidine (polyC) tract in oncolytic miRNA-detargeted Mengovirus increases its therapeutic efficacy in a murine multiple myeloma model

**11:16 – 11:40 A.M. LUNCH** BOXED PICK-UP

# LEADING THE FIGHT AGAINST SOLID TUMORS

Turnstone Biologics is a clinical stage biotech company developing new generations of viral and cell-based immunotherapies to provide benefit to the millions of cancer patients underserved by current treatment options.



DISCOVER MORE AT WWW.TURNSTONEBIO.COM

#### **Keynote Speaker Session**

Chairperson: Stephen J. Russell, MD, PhD

# 11:40 A.M. – 12 P.M. ANNOUNCEMENT OF THE GOLDEN VIRUS AWARD

### 12 – 12:05 P.M. INTRODUCTION TO KEYNOTE SPEAKER STEPHEN J. RUSSELL, MD, PHD

12:05 – 1:05 P.M. LARRY COREY, MD

FRED HUTCHINSON CANCER RESEARCH CENTER The Trek Toward COVID-19 Vaccines: How We Got There and What's Left to Accomplish

### 1:05 – 6 P.M. FREE AFTERNOON

ACTIVITIES INCLUDE Jeep Ride, Hike, Golf

#### **Special Session**

Chairperson: Kah Whye Peng, PhD and David Stojdl, PhD

6:30 – 7:00 P.M. WORKING DINNER PROVIDED

#### **Special Session**

Chairperson: Kah Whye Peng, PhD and David Stojdl, PhD

#### 7 – 7:20 P.M. PAUL PETER TAK, MD, PHD

CANDEL THERAPEUTICS Leveraging Viral Oncolytic Immunotherapy Platform To Tip The Balance In Favor Of The Immune System

#### 7:20 – 7:40 P.M. **DAVID KRIGE, PHD**

PSIOXUS

Dose-dependent and Persistent Increases in Inflammatory Cytokines in Patients with Metastatic/Advanced Epithelial Cancer Following Treatment with Novel T-SIGn Vectors

#### 7:40 PM – 8 P.M. STEVE THORNE, PHD

KALIVIR THERAPEUTICS The VET platform; re-targeting oncolytic vaccinia virus to tumors through expression of chemokine receptors

#### 8 – 8:20 P.M. JAMES BURKE, MD

CG ONCOLOGY CG0070 a GM-CSF expression, tumor selective oncolytic adenovirus : Clinical Program Review

#### **Special Session**

#### 8:20 – 8:32 P.M. RIANNA VANDERGAAST

IMANIS LIFE SCIENCES Using the IMMUNO-COV Clinical Assay for SARS-CoV-2-Neutralizing Antibodies to Track Titer Declines in Individuals Following Vaccination

#### 8:32 – 8:44 P.M. EDWARD KENNEDY, PHD

ONCORUS INC. Systemic Intravenous Synthetic RNA Virus Immunotherapy for the Repeat Treatment of Cancer. Edward Kennedy

#### 8:44 – 8:56 P.M. **STEVE POTTS, PHD, MBA**

ONCOMYX THERAPEUTICS Benefits of a systemic-delivered, multi-armed non-human pathogen, myxoma virus, against solid and heme cancers

#### 8:56 – 9:08 P.M. ZANE YANG, MD

DENOVO BIOPHARMA Late -stage clinical development of Toca 511

# BETTER TOGETHER Welcome IOVC

# **Conference Attendees**

We Are A Proud Diamond Sponsor.

Our myxoma platform is designed for best-in-class oncolytic immunotherapies. We want to make cancer immunotherapy and targeted treatments help more patients.

# Our Team Will Be Here.





Steve Potts, PhD, MBA Cofounder, CEO & Director





Leslie Sharp, PhD Chief Scientific Officer

Grant McFadden, PhD Cofounder, Research Advisor, & Director

# Talk and Poster Info

# Session 1: Novel Payloads and Mechanisms of Action 1

Friday, Nov. 5th from 8:55am - 9:20am MST with Leslie Sharp, PhD

### **Poster Presentation (Virtual)**

Friday, Nov. 5th - Sunday, Nov. 7th with Lina Franco, PhD, Scientist II, OncoMyx is available on demand

#### **Special Session**

Saturday, Nov. 6th from 8:44pm - 8:56pm MST with Steve Potts, PhD, MBA

# Live Q&A for Poster Presentation

Sunday, Nov. 7th from 1:00pm - 3:30pm MST with Lina Franco, PhD



Learn more at www.oncomyx.com

7:30 A.M. – 5 P.M. REGISTRATION CANYON BALLROOM FOYER

7:30 – 8:30 A.M. BREAKFAST PROVIDED - CANYON BALLROOM FOYER

# CG ONCOLOGY

# Developing the Next Evolution of Oncolytic Immunotherapy

**CG Oncology** is a clinical-stage biotechnology company focused on developing the next evolution of oncolytic immunotherapy for patients with urothelial cancer. Our lead candidate, CG0070, is a selective oncolytic immunotherapy in a Phase 3 trial with CG0070 as a monotherapy for the treatment of BCG-unresponsive NMIBC, and a combination Phase 2 study of CG0070 with KEYTRUDA® (pembrolizumab) in the same indication. Other types of bladder cancer are being evaluated with CG0070 in combination with OPDIVO® (nivolumab) for the treatment of MIBC in a Phase 1b investigator-initiated trial with Moffitt Cancer Center, and a Phase 1/2 trial for the treatment of metastatic urothelial cancer.

In additional indications beyond uro-oncology, CG Oncology will evaluate the combination of CG0070 with Roche's atezolizumab in a Phase 1/2 clinical trial in patients with various advanced solid tumors. At CG Oncology, we aim to take the next evolutionary step in delivering innovative cancer care to patients worldwide.

Learn more at www.cgoncology.com

#### **Scientific Session 8: Clinical Trials 2**

Chairpersons: Robert Coffin, PhD and Evanthia Galanis, MD

#### 8:30 – 8:55 A.M. ROBERT COFFIN, PHD

REPLIMUNE INC. Next Generation Oncolytic HSV

#### 8:55 – 9:20 A.M. HELEN GOGAS, MD, PHD

NATIONAL AND KAPODISTRIAN UNIVERSITY OF ATHENS Amgen Phase 3 T-Vec Melanoma Trial

#### 9:20-9:32 A.M. PRAVEEN BOMMAREDY, PHD

REPLIMUNE, INC. **Oral Abstract 21** Clinical biomarker studies with two fusionenhanced versions of oncolytic HSV (RP1 and RP2) alone and in combination with nivolumab in cancer patients indicate potent immune activation

#### 9:32–9:44 A.M. SHRUTHI NAIK, PHD

MAYO CLINIC **Oral Abstract 22** Safety and Efficacy of Neoadjuvant Intravesical Oncolytic MV-NIS in Patients with Urothelial Carcinoma

### Scientific Session 8: Clinical Trials 2

Chairpersons: Robert Coffin, PhD and Evanthia Galanis, MD

#### 9:44-9:56 A.M. GUY UNGERECHTS, MD, PHD

NATIONAL CENTER FOR TUMOR DISEASES HEIDELBERG **Oral Abstract 23** Phase 2 Trial of Oncolytic H-1 Parvovirus Therapy Shows Safety and Immune Cell Activity in Patients with Metastatic Pancreatic Ductal Adenocarcinoma

# $10-10{:}30 \text{ A.M.} \quad \textbf{COFFEE BREAK}$



www.sillajen.com/eng



#### **Scientific Session 9: Clinical Trials 3**

Chairpersons: Robert Coffin, PhD and Evanthia Galanis, MD

#### 10:30 – 10:55 A.M. MACIEJ LESNIAK, MD

NORTHWESTERN FEINBERG SCHOOL OF MEDICINE Neural Stem Cell Delivery of Oncolytic Virotherapy for Glioma

#### 10:55 – 11:20 A.M. EVANTHIA GALANIS, MD

MAYO CLINIC First in human Testing of Measles Virus Infected Mesenchymal Stem Cells

#### 11:20 – 11:32 A.M. ADEL SAMSON, PHD

UNIVERSITY OF LEEDS **Oral Abstract 24** Neoadjuvant Oncolytic Pexa Vec for Patients with Colorectal Cancer Liver Metastases

#### 11:32 – 11:44 A.M. **PARKER DRYJA**

UNMHSC

#### Oral Abstract 25

Altered Arginine Metabolism within the Tumor Microenvironment Inhibits Oncolytic Myxoma Virus Replication Preventing Effective Therapy

#### **Scientific Session 9: Clinical Trials 3**

Chairpersons: Robert Coffin, PhD and Evanthia Galanis, MD

#### 11:44 – 11:56 A.M. MIRIAM BAZAN-PEREGRINO, DPHIL

VCN BIOSCIENCES **Oral Abstract 26** Oncolytic Adenovirus VCN-01 Targeting the Dysfunctional Rb Pathway Is an Encouraging Therapy Against Retinoblastoma

#### 11:56 A.M. – 12:08 P.M. **JAMES BURKE, MD**

MOFFIT CANCER CENTER **Oral Abstract 27** CORE1: Phase 2, Single Arm Study of CG0070 Combined with Pembrolizumab in Patients with Non Muscle Invasive Bladder Cancer (NMIBC) Unresponsive to Bacillus Calmette-Guerin (BCG)

#### 12:08 – 1:08 P.M. LUNCH

PROVIDED

#### **Poster Session**

#### 1 – 3:30 P.M. VIRTUAL POSTER PRESENTATIONS

#### 3:30 – 3:55 P.M. **COFFEE BREAK**

#### The Great Debate

#### 3:55 – 4 P.M. ANNOUNCEMENT OF CONRAD AWARD WINNERS

### 4 – 5:30 P.M. JOHN BELL VS. NORIYUKI KASHARA

MODERATOR: STEPHEN J. RUSSELL, MD, PHD Complex large viruses are superior to small elegant viruses

#### 7 – 9:30 P.M. FAREWELL DINNER

CANYON BALLROOM

#### E. ANTONIO CHIOCCA, M.D., PH.D., FAANS

Harvey W. Cushing Professor of Neurosurgery, Harvard Medical School. Established by the Daniel E. Ponton Fund. Neurosurgeon-in-Chief and Chairman, Department of Neurosurgery, Brigham and Women's Hospital

#### Neural Stem Cell Delivery of Oncolytic Virotherapy for Glioma

I will be discussing the use of stem cells for virotherapy of cancer.

#### Disclosures

Patent, Stocks, and Consulting in Calidi Pharmaceuticals

#### **ROBERT COFFIN, PHD**

President and Chief R&D Officer Replimune Inc

#### Next Generation Oncolytic HSV

An overview of the HSV-based platform being developed by Replimune will be presented, including the clinical strategy and clinical data to date

#### Disclosures

Shareholder & employee of Replimune Inc.

#### **JOSELLE COOK, MD**

Oncology and Hematology Fellow Mayo Clinic, Division of Hematology

#### Clinical Activity of Systemic VSV-IFNβ-NIS Oncolytic Virotherapy in Patients with Hematologic Malignancies

In this talk, I will discuss preliminary results and clinical activity of the Phase 1 clinical trial of systemic VSV-IFNb-NIS administered to patients with relapsed and refractory hematologic malignancies

#### Disclosures

I have nothing to disclose

#### LARRY COREY, MD

PI, COVID-19 Prevention Network (CoVPN) Operations Center / Fred Hutchinson Cancer Research Center

# The Trek Toward COVID-19 Vaccines: How We Got There and What's Left to Accomplish

Dr. Corey will provide insight on the publicprivate partnerships utilized in the US Government program for COVID-19 vaccine development. He will overview the status of COVID-19 vaccine research, outline the conceptual framework for COVID-19 vaccine development, and offer some personal reflections. Dr. Corey will also provide interpretation on the emergence of SARS-CoV-2 variants and their impact on vaccine effectiveness.

**Disclosures** I have nothing to disclose

All speaker titles, descriptions, and disclosures are provided by the speakers and details are not confirmed by ASGCT, IOVC, or the organizing committee. Some talk descriptions have been edited for length.



#### YUMAN FONG, MD

Sangiacomo Chair and Chairman, Dept of Surgery City of Hope Medical Center

# Redesigning the Pox Virus for Oncolytic Therapy

This talk will discuss development of a new family of Chimeric pox viruses for use as oncolytic therapies.

#### Disclosures

Scientific Advisor: Imugene, XDemics, Eureka, PhageNova Bio, Salary and Stock; Boehringer Ingelheim, PhageNova Bio, Salary; Safety Monitor: Sangamo Royalties: Imugene, XDemics, Merck

#### **EVANTHIA GALANIS, MD**

Sandra J. Schulze Professor of Novel Therapeutics, Professor of Oncology Mayo Clinic

#### First in human Testing of Measles Virus Infected Mesenchymal Stem Cells

#### Disclosures

Advisory Board Gradalis, Inc. (personal compensation) Kiyatec, Inc. (personal compensation) Grant/Research/Clinical Trial Funding (to Mayo) Servier Pharmaceuticals LLC (formerly Agios Pharmaceuticals, Inc.) Celgene MedImmune, Inc. Tracon Pharmaceuticals

#### **HELEN GOGAS, MD, PHD**

Professor in Medical Oncology, National and Kapodistrian University of Athens, Head of the 1st Department of Medicine, Laikon General Hospital

#### Amgen Phase 3 T-Vec Melanoma Trial

The scientific rationale of the combination with early phase 1b results and results of the dual primary endpoint in the phase 3 study

#### Disclosures

BMS, Advisory Board, Personal; BMS, Invited Speaker, Personal; MSD, Advisory Board, Personal; MSD, Invited Speaker, Personal; NOVARTIS, Invited Speaker, Personal; PIERRE FABRE, Advisory Board, Personal; PIERRE FABRE, Invited Speaker, Personal; AMGEN, Steering Committee Member, No financial interest; AMGEN, Local PI, Institutional, Financial interest; BMS, Research Grant, Institutional, Financial interest; MSD, Local PI, Institutional, Financial interest; PFIZER, Research Grant, Institutional, Financial interest

All speaker titles, descriptions, and disclosures are provided by the speakers and details are not confirmed by ASGCT, IOVC, or the organizing committee. Some talk descriptions have been edited for length.



#### **KEVIN HARRINGTON, PHD**

Professor in Biological Cancer Therapies The Institute of Cancer Research, London

Mechanistic studies of drug-virus combinations reveal unexpected immunotherapeutic potential

As part of a drug screen for synthetic lethal partners with oncolytic reovirus (doublestranded RNA virus), we uncovered unexpected hits related to cdk4/6 inhibition and PARP inhibition.

#### Disclosures

Amgen (Consultancy), Arch Oncology (Advisory Board), AstraZeneca (Research grant), Boehringer-Ingelheim (Research grant, Advisory Board), BMS (Advisory Board), Codiak (Advisory Board), Inzen (Advisory Board), Merck-Serono (Advisory Board), Merck-Sharp-Dohme (Advisory Board, Research grant), Replimune (Advisory Board, Research grant), Oncolys (Advisory Board).

#### **BALVEEN KAUR, PHD**

Professor McGovern Medical School

#### **Oncolytic Viral therapy signaling NOTCH**

Effect of oncolytic HSV-1 on NOTCH signaling will be presented. The effect of oHSV induced NOTCH activation on tumor extracellular environment and its impact on immunotherapy will be discussed.

#### Disclosures

N/A

#### MACIEJ S. LESNIAK, MD

Professor and Chair, Department of Neurological Surgery Northwestern Feinberg School of Medicine

#### Neural Stem Cell Delivery of Oncolytic Virotherapy for Glioma

I will be discussing the use of stem cells for virotherapy of cancer.

#### Disclosures

Patent, Stocks, and Consulting in Calidi Pharmaceuticals

#### **ALAN MELCHER, PHD**

Professor of Translational Immunotherapy The Institute of Cancer Research, London

**Oncolytic herpes virus and BRAF inhibitor therapy for melanoma: the role and application of CD4 T cell signalling dynamics** Combination herpes simplex virus (HSV) oncolytic virotherapy and BRAF inhibitors (BRAFi) represents a promising immunotherapy for the treatment of BRAF mutant cancers, and can be improved by the further addition of immune checkpoint inhibitor (ICI) antibodies.

#### Disclosures

Grant/Research support from Oncolytics Biotech Inc, AZ, BMS Honoraria from: Amgen, BMS, Merck Serono, Turnstone Biologics

All speaker titles, descriptions, and disclosures are provided by the speakers and details are not confirmed by ASGCT, IOVC, or the organizing committee. Some talk descriptions have been edited for length.



#### **STEPHEN RUSSELL, MD, PHD**

Richard O. Jacobson, Professor of Molecular Medicine Mayo Clinic

#### Measles Virus, Stealthed and Retargeted

Clinical development of measles as a systemic oncolytic platform has been limited by high population seroprevalence. The MV-STAR (Stealthed Targeted Armed) platform addresses this limitation.

#### Disclosures

Cofounder and CEO of Vyriad and Imanis Life Sciences

#### **AUTUMN J. SCHULZE, PHD**

Assistant Professor of Molecular Medicine Mayo Clinic

# Synthetic Infectious RNA-Based Oncolytic Immunotherapy

This talk will discuss the formulation of targeted oncolytic picornaviruses as infectious RNA, the ability to scale manufacturing, therapeutic efficacy, immune activation, and the capacity to be packaged within lipid nanoparticles.

#### Disclosures

Vyriad; Sponsored Research Agreement Funding and Technology Intellectual Property Royalty

#### LEN SEYMOUR, PHD

Professor of Gene Therapies University of Oxford

# Arming oncolytic DNA viruses to improve their anticancer impact

Bispecific antibodies provide tremendous opportunity for HLA-independent killing of cancer cells by endogenous T cells, a strategy that complements direct oncolysis well, particularly if two distinct mechanisms of cancer selectivity are used.

#### Disclosures

I am a paid consultant to Psioxus Therapeutics

#### LESLIE SHARP, PHD

CSO OncoMyx Therapeutics

# Multi-armed myxoma virus demsonstrates activity in preclinical models

Multi-armed myxoma virus is under investigation as a novel immunomodulatory cancer therapeutic. Oncolytic activity and transgene production capability were examined in multiple cancer cell lines. In vivo efficacy following intratumoral and intravenous administration of multi-armed myxoma virus, both alone and with immune checkpoint inhibitors is demonstrated.

#### Disclosures

OncoMyx Therapeutics; Salary and Stock Options

All speaker titles, descriptions, and disclosures are provided by the speakers and details are not confirmed by ASGCT, IOVC, or the organizing committee. Some talk descriptions have been edited for length.



#### DAVID STOJDL, PHD

Senior Vice President Research Turnstone Biologics

Vaccinia with IL12, CTLA-4 blockage and FLT3

#### Disclosures

I am the co-founder of Turnstone Biologics

# TOMOKI TODO, PHD

Professor

Division of Innovative Cancer Therapy and Department of Surgical Neuro-Oncology, The Institute of Medical Science, The University of Tokyo

# Clinical development and approval of oncolytic herpes virus G47 $\!\Delta$

G47 $\Delta$  is a triple-mutated, third-generation oncolytic HSV-1 that exhibits enhanced replication capability in a variety of cancer, efficient induction of specific antitumor immunity, and high safety features.

#### Disclosures

I own the patent right for  $G47\Delta$  in multiple countries including Japan.

# **RICHARD G. VILE, PHD**

Professor of Immunology Mayo Clinic

# Combining CAR T Cell Therapy with Oncolytic Viruses

Oncolytic viruses are excellent candidates to combine with adoptive T cell therapies due their potential inflammatory properties which can convert immune cold tumors into immune hot, inflamed tumors. However, we have shown that not all heat is equal, especially for activated T cells. In this presentation we will present our studies on how the combination of CAR T cells and OV needs to be carefully timed and structured for optimal synergy between the two modalities.

#### Disclosures

RGV has received research funding for projects from Vyriad, and Oncolytics Biotech.

#### **CHAE-OK YUN, PHD**

Professor, Hanyang University & CEO, GeneMedicine Co., Ltd.

# Tumor-targeted systemic delivery of oncolytic adenoviruses using nanocarrier platform

Despite rapid growth in the number of oncolytic viruses (OV)s entering clinical trials recently, there are several inherent limitations that are critical barriers to maximizing their therapeutic potential in cancer therapy applications.

#### Disclosures

I am CEO of GeneMedicine Co., Ltd.

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# S P O N S O R S



Candel is a late clinical stage biopharmaceutical company focused on helping patients fight cancer with oncolytic viral immunotherapies. Candel's engineered viruses are designed to induce immunogenic cell death through direct viral-mediated cytotoxicity in cancer cells, thus releasing tumor neo-antigens while creating a pro-inflammatory microenvironment at the site of injection. Candel has established two oncolytic viral immunotherapy platforms. New discovery programs are based on the HSV platform.

CAN-2409, Candel's most advanced oncolytic viral immunotherapy candidate, is a replicationdeficient adenovirus that delivers the herpes simplex virus thymidine kinase (HSV-tk) gene to cancer cells. HSV-tk is an enzyme that locally converts orally administered valacyclovir into a toxic metabolite that kills nearby cancer cells.

CAN-3110 is an HSV replication-competent oncolytic virus that selectively expresses ICP34.5, a key gene in HSV replication, in tumor cells that overexpress nestin, a cytoskeletal protein. Nestin is highly expressed in high-grade glioma cells.



GeneMedicine Co., Ltd. is a research-based biotechnology company focused on developing and commercializing tumor-targeted and systemically deliverable oncolytic adenovirus for the treatment of intractable cancers. These state-of-the-art technologies are the achievement of 25 years of extensive and rigorous R&D. Since the establishment in 2014, GeneMedicine has reached two licensing-out agreements with two U.S. biotech companies and received investment of 43 million dollar (USD) to date. Our oncolytic viruses replicate and selectively destroy cancer cells. Oncolytic virus-mediated destruction of cancer cells induces a systemic antitumor immune response, which can destroy metastases at the distal sites. This makes oncolytic viruses promising next-generation cancer therapeutics. Importantly, we have developed a tumor-targeted systemic delivery platform for oncolytic viruses that avoids rapid blood clearance and inactivation by the immune system. These technologies differentiate GeneMedicine from any competitors in the global oncolytic virus therapy market.

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KaliVir is a pioneering and science-driven company dedicated to developing novel, next-generation oncolytic virus immunotherapies. Our proprietary Vaccinia Enhanced Template (VETTM) platform employs multiple proprietary genetic modifications that can be combined to generate unique oncolytic viruses that are optimized for systemic delivery and expression of therapeutic transgenes within target tumors. In 2020, we have partnered with Astellas Pharma Inc. to develop our first lead candidate VET2-L2 and to generate a second novel product using the VETTM platform. We continue to expand our product pipeline using the VETTM platform, and are now advancing multiple therapeutic candidates toward the clinic. KaliVir is located in Pittsburgh, Pennsylvania. <u>www.kalivir.com</u>



OncoMyx Therapeutics is advancing oncolytic immunotherapies with the goal of achieving the greatest therapeutic benefit for more cancer patients. Successful immuno-oncology cancer treatment generally requires combination therapy, and oncolytic viruses have the potential to be a safe and effective complement to immunotherapies. OncoMyx has assembled the top immuno-oncology team to develop oncolytic immunotherapies based on the myxoma virus platform to orchestrate an immune response with the goal of better treating a wide range of cancers. The company's myxoma virus platform is poised to be a best-in-class oncolytic virus approach and was developed based on breakthrough research from Dr. Grant McFadden's lab that was exclusively licensed from Arizona State University. For more info, visit <u>www.oncomyx.com</u>.

**#IOVC** 

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Replimune is pioneering a new class of oncolytic immunotherapies (OI) designed to ignite a powerful patient-specific immune response to treat cancer and vaccinate against future relapse. The company's Immulytic<sup>™</sup> platform is intended to achieve the holy grail of personalized anticancer treatments — combining multiple mechanisms of action to deliver therapies with the ability to directly kill tumors and generate systemic anti-cancer immune responses. Replimune has built a portfolio of product candidates with three programs currently in the clinic. Its lead program, RP1, is in two registration directed clinical trials — in cutaneous squamous cell carcinoma and anti-PD1 failed melanoma— and is also being tested in other tumor types, including anti-PD1 failed non-small cell lung cancer. Two further product candidates, RP2 and RP3, are currently in Phase 1 clinical development. Replimune has completed buildout of its state-of-the-art GMP manufacturing facility which will support later-stage development and full commercialization of all of its products.



Established in 2015, Vyriad is an oncolytic virotherapy powerhouse with a proven track record in the execution of multicenter OV clinical trials and in the creation and translational advancement of highly novel viral platforms and designs. Our in-house GMP manufacturing capability in Rochester Minnesota allows us to rapidly translate our exciting pipeline of products. We are driven by our mission to make a long-standing positive impact on the future of cancer treatment using engineered viruses. Join our dynamic team today! Contact us at <u>https://vyriad.com/careers</u> to learn more.

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