Annual Meeting 2025 Program

Tuesday, May 13

Workshop (separate purchase required)

Navigating The Nonclinical Pathway To Clinical Trials For AAV Based Therapeutics

Location: NOLA Theater A 8:00 AM - 12:00 PM

- Nicholas Buss, PhD, Eli Lilly
 Biodistribution assessment not one size fits all/managing unique routes of administration and injection devices
- Basel Assaf, BVSc, PhD, DACVP, DABT, FIATP, Sanofi
 The design of nonclinical toxicity studies supporting AAV-based gene therapy products
- Joy Cavagnaro, PhD, Access BIO
 Translating data from efficacy and safety to clinical plan/FIH dose selection
- Danielle Brooks, US Food and Drug Administration

 Best practice in pre-IND and IND regulatory writing and interactions (Pre-recorded Presentation)
- SunJung Kim, PhD, DABT, Ultragenyx Pharmaceutical Inc. Nonclinical considerations for pregnancy and children
- Ali Nowrouzi, PhD, Spark Therapeutics
 Genomic integration when to assess and what happens when tumor occur in clinical trials
- Reena Patel, PhD, Janssen R&D
 Challenges with varying vector quality throughout development
- Steven Gray, PhD, University of Texas Southwestern Medical Center Experiences with developing streamlined regulatory paths for rare disease gene therapy.

Workshop (separate purchase required)

Current Advancements In The Development Of Cell Therapy For Cancer

Location: Room 278-282 8:00 AM - 12:00 PM

- Teresa Manzo, University of Turin
 Understanding how T cell metabolism affects cell therapy
- Melody Smith, Stanford University
 Delineating the role of microbiome for cell therapy
- Prasad Adusumilli, MSKCC
 Current advancements in combination therapy with immune checkpoint inhibitors and T cell therapy

- H. Trent Spencer, PhD, Emory University School of Medicine Cancer immunotherapy utilizing gamma delta t cells
- Ryan Larson, Umoja BioPharma
 Current advancements in in vivo CAR T-cell delivery
- Gabriel Kwong, PhD, Georgia Institute of Technology & Emory University Sonothermogenetic control of CAR T cells for brain tumor immunotherapy

Workshop (separate purchase required)

Regulation Ready: Key Compliance Updates and What They Mean for CGT Development

Location: Room 288-290 8:00 AM - 12:00 PM

- Thomas Finn, Center for Biologics Evaluation & Research
 High-Level Regulatory Overview: Human- and Animal-Derived Materials; Safety Testing Human
 Allogenic Cells; Genome Editing; Platform Technology Designation Program; Advanced
 Manufacturing Technologies Designation Program, Potency Assurance; and Manufacturing
 Changes and Comparability (Pre-recorded Presentation)
- Ezequiel Zylberberg, Akron Biotech
 Unpacking FDA's Guidance on Considerations for the Use of Human- and Animal-Derived
 Materials + Safety Testing of Human Allogenic Cells Considerations for Sponsors
- Ann Lee, Prime Medicine
 Primed for Regulatory Success: Translating FDA Genome Editing Guidance into Next-Generation
 Gene Therapies
- George Buchman, Catalent Pharma Solutions
 Unpacking FDA's Guidance on the Platform Technology Designation Program CDMO Perspective on Considerations for Sponsors
- John Tomtishen, PhD, Cellares Unpacking FDA's Guidance on the Advanced Manufacturing Technologies Designation Program – Considerations for Sponsors
- Mandy Xie, BMS
 Unpacking FDA's Guidance on Potency Assurance for CGT Products
- Houman Dehghani, Cabaletta Bio Unpacking FDA's Guidance on Manufacturing Changes and Comparability – Case Study on Cabaletta's Approach

Workshop (separate purchase required) The Business of Advocates Advancing CGTs

Location: Room 291-292 8:00 AM - 12:00 PM

> • Kim Nye, BA, TESS Research Foundation Introducing the business of advocacy

- Nasha Fitter, FOXG1 Research Foundation A model for an ultra-rare non-profit
- Allyson Berent, DVM, DACVIM, Foundation for Angelman Syndrome Therapeutics A model for a mature non-profit
- Michael Hund, MBA, EB Research Partnership
 A model for a larger organization doing venture philanthropy
- Terry Plrovolakis, Elpida Therapeutics SPC
 A model for an ultra-rare venture philanthropy and how to reinvest to advance the field
- Claire Booth, MBBS PhD, UCL Great Ormond Street Institute of Child Health A model for a non-profit institution to license and deliver gene therapy products
- Heidi Wallis, Association for Creatine Deficiencies Diversifying an organization's revenue streams
- Heidi Bjornson-Pennell, The Chan Zuckerburg Initiative
 CZI/Rare is One grant funding and support for capacity building
- Tiina Urv, National Institutes of Health Review of NIH grant funding and new ways to involve patient groups
- Carly Paterson, PhD, Patient-Centered Outcomes Research Institute Learning about PCORI: Funding Opportunities for Rare Disease Researc

Workshop (separate purchase required)

Implementing Prime Editing For In Vivo Therapeutic Development And Towards Better Analysis Of High Throughput Functional Screens

Location: Room 293-296 8:00 AM - 12:00 PM

- Alexander Sousa, The Broad Institute of MIT and Harvard Systematic Optimization of Prime Editing for the efficient correction of CFTR F508del
- Sangsu Bae, PhD, Seoul National University
 Improving PE outcomes by overcoming DNA repair hurdles (AI-generated small binder)
- Jellert Gaublomme, Columbia University
 CRISPRmap: Sequencing-free optical pooled screens mapping multi-omic phenotypes in cells and tissue
- Randall Platt, ETH Zurich, Basel

 Multimodal scanning of genetic variants with base and prime editing
- Marcello Maresca, AstraZeneca-Gothenburg
 Improving Prime Editing Repair Outcomes by DNA Repair Modulation and pegRNA Engineering

Workshop (separate purchase required)

Moving Lentiviral Vectors Through The Investigational New Drug (IND) Process

Location: Room 265-268 8:00 AM - 12:00 PM

- Joseph Lee, PhD, Bristol Myers Squibb

 AAV and Lentiviral vectors: overview of integration, safety, and immunity
- Jose Cancelas, PhD, MD, Dana-Farber Cancer Institute
 Lentivirus production for ex vivo vs in vivo applications (emphasis on safety package differences)
- David Williams, MD, Boston Children's Hospital
 Translating data from efficacy and safety to clinical plan/first in-human dose dose selection
- Erik Splinter, Cergentis
 Lentivirus integration and mechanisms; targeted locus amplification platform
- Lauren Gauthier, Takeda
 Lentivirus CMC Activities and Assessments
- Stephen Russell, MD, PhD, Vyriad In vivo cell engineering using targeted lentiviral vectors

Sponsored Symposium

10x Genomics: Behind the Breakthroughs: How Single Cell Omics Are Advancing Cell and Gene Therapies

Location: Room 383-385 12:15 PM - 1:15 PM

> • Lindsay Reagan, 10x Genomics Sponsor

Oral Abstract Session

AAV Biology and Mechanism

Location: NOLA Theater A 1:30 PM - 3:15 PM

Oral Abstract Session

AAV Vector Manufacturing: Process Development

Location: NOLA Theater B 1:30 PM - 3:15 PM

Oral Abstract Session

Advances in Gene Therapy of Neurological Diseases in Small Animal Models

Location: NOLA Theater C 1:30 PM - 3:15 PM

Oral Abstract Session

Gene and Cell Therapy for Ophthalmic and Auditory Diseases

Location: Room 265-268

Oral Abstract Session

Gene and Cell Therapy for Metabolic Diseases

Location: Room 278-282 1:30 PM - 3:15 PM

Oral Abstract Session

Physical Delivery Methods and DNA/RNA Drug Development

Location: Room 288-290 1:30 PM - 3:15 PM

Oral Abstract Session

Novel CAR-T Engineering Strategies for Hematological Malignancies

Location: Room 291-292 1:30 PM - 3:15 PM

Scientific Symposium

Who's Afraid Of Off-Target Editing? A Discussion Of Hypothetical Risks In The Context Of Known Genotoxic Medical Interventions

Location: Room 293-296 1:30 PM - 3:15 PM

- Claire Clelland, UCSF
 - Framework for assessing genomic off-targets of CRISPR gene editing therapies in a clinical context
- Petros Giannikopoulos

Case example: Ionizing radiation for childhood medulloblastoma

- Krishanu Saha, PhD, University of Wisconsin-Madison Patient perspectives on gene editing and off-target editing
- Kiran Musunuru, MD, PhD, MPH, ML, MRA, University of Pennsylvania Framework for Considering Which Off-target Edits are of Concern

Sponsored Symposium

Parexel: When Safety Becomes a Value Proposition For CAR-T Trials

Location: Room 383-385 2:00 PM - 2:30 PM

> • Nancy Lunney, Parexel Sponsor

Sponsored Symposium

OXB: Accelerate Time to Clinic: A Process and Analytics Platform Approach

Location: Room 391-392 2:00 PM - 2:30 PM • Erin Cangiano

• Erin Cangiano Sponsor

General Session

Founders, Mendell, and Catalyst Award Symposium

Location: Hall F 3:45 PM - 5:30 PM

- Donald Kohn, Unversity of California, Los Angeles Founder's Keynote
- Anne-Virginie Eggimann, Tessera Therapeutics Catalyst Keynote
- Harry Malech, MD, National Institute of Health, National Institute of Allergy and Infectious Diseases
 Mendell Keynote

Reception

Welcome Reception

Location: Exhibit Hall 5:30 PM - 7:30 PM

Poster Abstract Session

Tuesday Poster Reception

Location: Poster Hall Hall I2

6:00 PM - 7:30 PM

Wednesday, May 14

Sponsored Symposium

MilliporeSigma: Optimizing AAV Gene Therapies: NGS applications to enhance development, manufacturing, and testing

Location: Room 271-273 8:00 AM - 8:30 AM

> McKenzie Landgraf, MS, MilliporeSigma Sponsor

Oral Abstract Session Insights from AAV Engineering

Location: NOLA Theater A 8:00 AM - 9:45 AM

Scientific Symposium

Advances In Genome Editing: Novel Large DNA Insertion Technologies And Their Potential Towards Curative Therapies (Organized by the Genome Editing Committee)

Location: NOLA Theater B 8:00 AM - 9:45 AM

- Frank Buchholz, PhD, TU Dresden Zinc finger recombinases
- Matthew Durrant, Arc Institute Bridge recombinases
- Gregoire Cullot, ETH Zurich HDR mechanisms
- Gabriel Cohn, MD, MBA, iECURE ARCUS in vivo OTC, large gene insertion (clinical stage program)

Scientific Symposium

Hot Topics in Molecular Therapy I: Gene Therapy Approaches for Immunotherapy

Location: NOLA Theater C 8:00 AM - 9:45 AM

- Maksim Mamonkin, PhD, Baylor College of Medicine Feasibility and preclinical efficacy of CD7-unedited CD7 CAR T cells for T cell malignancies
- Emily Daley, University of Pennsylvania

 Tailoring the adjuvanticity of lipid nanoparticles by PEG lipid ratio and phospholipid modifications
- Miranda Meeuwsen, LUMC: Leids Universitair Medisch Centrum
 A library of cancer testis specific T cell receptors for T cell receptor gene

Scientific Symposium

To Biomarker Or Not To Biomarker? Use Considerations For CGT Drug Development (Organized by the Patient Outreach Committee)

Location: Room 265-268 8:00 AM - 9:45 AM

- Cherie Fathy, Food and Drug Administration What are Biomarkers? A regulator's guide to using biomarkers in an approved therapy (Prerecorded Presentation)
- Rebecca Ahrens-Nicklas, PhD, MD, Children's Hospital of Philadelphia Investigators guide to identifying and validating biomarkers for clinical trials
- Cara O'Neill, MD, Cure Sanfilippo Foundation
 Case study of how CSF biomarkers were approved by the FDA in MPS
- Kevin Flanigan, MD, Center for Gene Therapy, Nationwide Children's Hospital Case study of how biomarkers may be limited in DMD

Scientific Symposium

CNS Gene Delivery for Metabolic Diseases: History and Challenges (Organized by the

Genetic and Metabolic Diseases Committee)

Location: Room 278-282 8:00 AM - 9:45 AM

- Ronald Crystal, Weill Cornell Medical College
 History of access to the CNS for genetic therapies for metabolic disorders
- Paul Orchard, MD, University of Minnesota, Blood and Marrow Transplant & Cellular Therapy HSCs targeting the CNS for ALD
- Bryan Simpson, PhD, Latus Bio AAV delivery to brain, peptide insertions, optimizing capsid delivery
- Olivier Danos, PhD, REGENXBIO Inc. RGX-121 (clemidsogene lanparvovec): an investigational AAV Gene Therapy for the Treatment of Neuronopathic Mucopolysaccharidosis Type II

Scientific Symposium

Clinical Applications of NK Effectors (Organized by the American Society for Transplantation and Cellular Therapy (ASTCT))

Location: Room 288-290 8:00 AM - 9:45 AM

- Jeffrey Miller, MD, University of Minnesota Developing NK Cell Therapeutics: Off-The-Shelf NK-CARs and Trispecific Killer Engagers (TriKEs) for Cancer and Autoimmune Disease
- Dan Kaufman, MD, PhD, University of California San Diego
 Engineered iPSC-derived NK cells with improved anti-tumor activity
- Amir Horowitz, Icahn School of Medicine at Mount Sinai
 Targeting the NKG2A and HLA-E axis to overcome treatment resistance in patients with solid tumors

Scientific Symposium

Interdisciplinary Approaches: Combining Gene Therapy with Other Fields (Organized by the New Investigator Committee)

Location: Room 291-292 8:00 AM - 9:45 AM

- James Dahlman, PhD, Georgia Tech
 Nanotechnology: Discussing how nanoparticles are being used for more efficient gene delivery systems
- Fyodor Urnov, PhD, University of California, Berkeley CRISPR Cures from N=1 to N-all: Building a vertically integrated nonclinical platform in pharm/tox, CMC, and regulatory
- Le Cong, PhD, Stanford University
 Artificial Intelligence: Exploring how machine learning algorithms are helping to predict off-target effects in gene editing or optimize vector designs

Shivani Srivastava, Fred Hutch
 Immunology: Investigating the integration of gene therapy with immunotherapy approaches for cancer treatment

Oral Abstract Session

Cell Therapy Product Engineering I

Location: Room 293-296 8:00 AM - 9:45 AM

Scientific Symposium

Past, Present, and Future of Genetic Testing (Organized by the Ethics Committee)

Location: Room 388-390 8:00 AM - 9:45 AM

- Terry Pirovolakis, Elpida Therapeutics SPC The diagnostic journey in rare disease
- Sharon Terry, MA, Genetic Alliance Genetic Testing in 202 – Rare Disease and preventative routine screening
- Tippi MacKenzie, MD, University of California San Francisco Interpretation of genetic test results
- Britt Johnson, GeneDx

 Broader Applications of Genetic Testing: Present, Future, and Data sharing

Fireside Chat

Fireside Chat: Global Regulatory Perspectives

Location: Room 393-396 8:00 AM - 9:45 AM

- Ian Alexander, PhD, MD, Sydney Children's Hospitals Network Australasian Perspective on Global Regulatory Convergence
- Yoshiaki Maruyama, PMDA
 PMDA Perspective on Global Regulatory Convergence

Sponsored Symposium

Bio-Techne: Protein Quantitation Applications to Advance Gene Therapy Development – From Discovery Through Analytical Development

Location: Room 383-385 8:30 AM - 9:30 AM

> Jaime Jacobson, Bio-Techne Sponsor

Sponsored Symposium

Lonza & Quell Therapeutics: Large-Scale T-Cell Engineering with Non-Viral Delivery

of Complex Cargos (Session 1) | Development of CAR-Treg Therapies for Transplantation and Autoimmunity (Session 2)

Location: Room 391-392 8:30 AM - 9:30 AM

> • Erin Brooks, Lonza Bioscience Sponsor

Networking Exhibit Hall

Location: Exhibit Hall 9:00 AM - 5:30 PM

General Session Presidential Symposium

Location: Hall F 10:15 AM - 12:00 PM

- Drew Weissman, MD PhD, University of Pennsylvania Nucleoside-modified mRNA-LNP Therapeutics
- MIKE Mccune, Bill & Melinda Gates Foundation Presidential Symposium Keynote

Networking

Post-General Session Networking

Location: ASGCT Central, Booth #837 12:00 PM - 1:00 PM

Poster Talk Session Wednesday Poster Talk

Location: Exhibit Theater 12:15 PM - 1:00 PM

Sponsored Symposium

Cytiva: Could cell line technologies bring disruptive changes to gene therapy manufacturing?

Location: Room 271-273 12:15 PM - 1:15 PM

 Alice Giraud, Cytiva Sponsor

Sponsored Symposium

BioAgilytix: Overcoming Challenges for Advanced Therapeutics: Case Studies on Navigating the Unique Bioanalytical and CMC Characterization Landscape of Cell and Gene Therapies

Location: Room 383-385 12:15 PM - 1:15 PM Jessica Weaver, BioAgilytix Sponsor

Sponsored Symposium

Sarepta Therapeutics, Inc.: Targeting the Root Cause: Evaluating Protein Expression in Limb-Girdle Muscular Dystrophies

Location: Room 388-390 12:15 PM - 1:15 PM

> Dwipi Patel, Sarepta Therapeutics, Inc. Sponsor

Sponsored Symposium

Dyno Therapeutics: Leveling Up Genetic Medicine with Frontier AI and AAV Vectors for CNS, Eye, and Muscle

Location: Room 391-392 12:15 PM - 1:15 PM

• Alice Tirard, Dyno Therapeutics Sponsor

Oral Abstract Session

Neurologic Diseases - Vectorology and Gene Therapy

Location: NOLA Theater A 1:30 PM - 3:15 PM

Oral Abstract Session

Gene Therapy Clinical Trials

Location: NOLA Theater B 1:30 PM - 3:15 PM

Oral Abstract Session

AAV Gene Transfer (A): Crossing the Blood-Brain Barrier

Location: NOLA Theater C 1:30 PM - 3:15 PM

Oral Abstract Session

Translational Applications of Base and Prime Editors

Location: Room 265-268 1:30 PM - 3:15 PM

Scientific Symposium

Targeted Delivery Of Oligonucleotides (Organized by the Oligonucleotide and RNAi Therapeutics Committee)

Location: Room 278-282 1:30 PM - 3:15 PM

Marcin Kortylewski, PhD, City of Hope Comprehensive Cancer Center
 Challenges of different types of oligonucleotide therapeutics/approaches and how to address

- Annalisa Di Ruscio, Beth Israel Deaconess Medical Center Harvard Medical School AptaDiR: A New Frontier in Epigenetic Precision Medicine
- Ethan Lippmann, Vanderbilt University
 Lipid-siRNA conjugates for targeted delivery to CNS
- Chuong Hoang, National Cancer Institute (NIH)

 Localized miRNA delivery for mesothelioma therapy
- Oxana Beskrovnaya, PhD, Dyne Therapeutics
 TfR1-mediated delivery of oligonucleotides for the treatment of neuromuscular diseases: translating research into clinic

Oral Abstract Session CAR T-Cells for Solid Tumors

Location: Room 291-292 1:30 PM - 3:15 PM

Education Session

Preclinical Models for Cell and Gene Therapies: From Rodents to Pigs and Non-Human Primates (Organized by the Education Committee)

Location: Room 293-296 1:30 PM - 3:15 PM

- Daniel Carlson, Recombinetics Gene-edited pigs for human diseases
- Dmitry Shayakhmetov, PhD, Emory University

 Addressing the viral vector safety in advanced preclinical models
- Melanie Graham, University of Minnesota Non-human primates (Stem cell therapies, diabetes, transplantation, regulatory guidance for preclinical models)

Fireside Chat

Fireside Chat: The Regulatory Landscape with Dr. Nicole Verdun (Virtual)

Location: Room 393-396 1:30 PM - 3:15 PM

Tools & Technology Session Tools and Technology Forum 1

Location: Exhibit Theater 1:30 PM - 3:15 PM

 Abhilasha Gupta, Vector BioLabs
 Vector Biolabs: Novel Applications of Viral-Mediated Gene Delivery: Case Studies on Cost-Effective Strategies to Accelerate Discovery to Clinic

- Adam Brooks, Wyatt Technology
 Waters | Wyatt Technology: Rapid, Automated Zeta Potential and Multi-Attribute Intact Analysis:
 Advanced Characterization with Wyatt Light Scattering Tools
- Megan Del Greco, MilliporeSigma
 MilliporeSigma: Harnessing Innovative Technologies for Enhance AAV Production
- Pouria Motevalian, Thermo Fisher Scientific
 Thermo Fisher Scientific: Transforming Lentiviral Production: Enhancing Titers, Infectivity and
 Yield for Breakthrough Gene Therapies
- Brian Tomkowicz, PhD, SK Pharmteco US
 QIAGEN & SK Pharmteco: Leveraging the Qiagen Qiacuity dPCR Platform for Enhanced Viral
 Quantification, Genome Integrity Analysis, and In-Process Analytics in Gene Therapy and
 Biomanufacturing
- Vasileios Georgakakos, Clean Cells
 Clean Cells: Karyotyping and FISH for the characterization of cell & gene therapy products. A decade of GMP experience
- Natalia Elizalde, PhD, VIVEbiotech
 VIVEbiotech: Pioneering Excellence in Lentiviral Vector Development and Manufacturing for In
 Vivo and Ex Vivo Administration

Sponsored Symposium

Terumo Blood and Cell Technologies: It Takes Two: How Industry Collaboration Can Unlock CAR-T at Scale

Location: Room 383-385 2:00 PM - 2:30 PM • Alexa Bryant Sponsor

Sponsored Symposium

Bio-Rad Laboratories: Beyond Genomic Titer: Leveraging the VeriCheck Empty/Full AAV ddPCR Kit by BioRad for rAAV Genomic Titer, Capsid Concentration and Empty/Full Ratio in a Single Reaction

Location: Room 391-392 2:30 PM - 3:00 PM

> Marisol Gabriel, CMP, DES, Bio-Rad Laboratories Sponsor

Sponsored Symposium

Forge Biologics: Great Science Needs Innovative Manufacturing Technology

Location: Room 271-273 3:45 PM - 4:15 PM

> Hannah Munizza, BS, Forge Biologics Sponsor

Tools & Technology Session

Tools and Technology Forum 2

Location: Exhibit Theater 3:45 PM - 5:15 PM

Norbert Makori, Altasciences

Altasciences: Nonhuman Primate Research Models in Gene and Cell Therapy: Fetal, Infant to Mature Animal Utility

Oleg Shinkazh, Chromatan

ChromaTan: ChromaTan's Kascade BioRMB system - Introducing process intensification of rAAV purification through a continuous column-free chromatography platform.

Daozhan Yu, PhD, AAVnergene Inc

AAVnerGene Inc.: AAVone®-A Single Plasmid Solution for Efficient AAV Production and ATHENA-AAV Capsid Engineered Platform

• Ram Shankar, PlasmidFactory GmbH

PlasmidFactory GmbH: New transfer vectors for your rAAV production

• Stanley Prince, PathoQuest

PathoQuest: NGS Applications for Gene Therapies Quality Control: Regulatory Considerations

Oral Abstract Session

Gene Editing: New Tools and Technology Advances

Location: NOLA Theater A

3:45 PM - 5:30 PM

Oral Abstract Session

Viral Vectors in Large Animal Models

Location: NOLA Theater B

3:45 PM - 5:30 PM

Oral Abstract Session

Novel Neurological Disease Models and Therapeutic Approaches

Location: NOLA Theater C

3:45 PM - 5:30 PM

Oral Abstract Session

Pharmacology/Toxicology Studies and Analytics/Assay Development Session I

Location: Room 265-268

3:45 PM - 5:30 PM

Oral Abstract Session

Molecular and Cellular Methodology

Location: Room 278-282 3:45 PM - 5:30 PM

Oral Abstract Session

Innovations in in vivo Targeting of HSPCs and Immune Cells

Location: Room 288-290 3:45 PM - 5:30 PM

Oral Abstract Session Oligonucleotide Therapeutics I

Location: Room 291-292 3:45 PM - 5:30 PM

Education Session

Bridging Research and Medicine: The Path to Becoming a Translational-Scientist (Organized by the Education Committee)

Location: Room 293-296 3:45 PM - 5:30 PM

- Allyson Berent, DVM, DACVIM, Foundation for Angelman Syndrome Therapeutics Understanding patients' and caregivers' lives and needs
- Michael Deininger, Versiti Blood Research Institute
 Maintaining an applied and translational research lab in academics
- Mary Eapen, Medical College of Wisconsin
 Academia and industry collaboration to advance patient care through early clinical trials

Scientific Symposium CDA/DEI Awards 1

Location: Room 383-385 3:45 PM - 5:30 PM

- Leonid Cherkassky, MD, Roswell Park Comprehensive Cancer Center Inducible negative feedback expression circuits to generate self-tuning, exhaustion resistant CAR T cells
- Ashley Cooney, PhD, University of Iowa Increasing saline tonicity enhances viral gene transfer in airway epithelia
- Lukas Landegger, MD, PhD, MBA, Stanford University
 AAV-mediated gene therapy to target vestibular schwannoma

Scientific Symposium

Targeting Myocardium: To The Heart Of The Matter (Organized by the Cardiovascular CGT Committee)

Location: Room 388-390 3:45 PM - 5:30 PM

• Tamir Mohammed, Baylor

Human heart tissue slices, utilizing as model system to evaluate efficacy of viral vectors for diff

cardiac diseases

- Camila Hochman-Mendez, PhD, Texas Heart Institute Reengineering the heart using iPSCs
- Daniel Blessing, HAYA Therapeutics
 Targeting Fibrosis with ASO in CV disease and Heart Failure, large and small animal models
- Dirk Grimm, PhD, Heidelberg University Hospital Cardiac targeting by viral vectors

Overcoming Challenges in Efficient Delivery of Gene Therapy to Muscle and Bone (Organized by the Musculoskeletal Cell and Gene Therapy Committee)

Location: Room 391-392 3:45 PM - 5:30 PM

- Christopher Evans, PhD, DSc, Mayo Clinic Gene delivery to chondrocytes (including systemic aspect)
- Hichem Tasfaout, PhD, University of Washington
 Split intein-mediated protein trans-splicing to express large dystrophins
- Patricia Lam, PhD, Nationwide Children's Hospital Dual FKRP/FST gene therapy LGMDR9 mice
- Mahasweta Girgenrath, Entrada Therapeutics Inc Clinical Trial of ENTR-601-44, an Endosomal Escape Vehicle (EEV)-conjugated PMO, for the Treatment of Duchenne Muscular Dystrophy

Fireside Chat

Fireside Chat: Reviving Hope in Deprioritized Cell and Gene Therapy Programs

Location: Room 393-396 3:45 PM - 5:30 PM

- Oralea Marquardt, National Tay-Sachs & Allied Diseases Association
 Patient Advocate Perspective on Dropped Gene Therapies: Challenges and Pathways Forward
- Donald Kohn, Unversity of California, Los Angeles
 Academic Researcher Perspective on Dropped Gene Therapies: Challenges and Pathways
 Forward
- Claire Booth, MBBS PhD, UCL Great Ormond Street Institute of Child Health
 Picking Up Dropped Gene Therapies for Further Development: Challenges and Pathways
 Forward
- Rachel McMinn, PhD, Neurogene
 Industry Perspective on Dropped Gene Therapies: Challenges and Pathways Forward

Sponsored Symposium

Sartorius: Optimizing AAV Production: A Holistic Approach to Upstream,

Downstream, and Cost Per Dose Enhancement

Location: Room 271-273 4:45 PM - 5:15 PM

> Ales Strancar, Sartorius BIAA Separations Sponsor

Poster Abstract Session
Wednesday Poster Reception

Location: Poster Hall Hall I2

5:30 PM - 7:00 PM

Thursday, May 15

Sponsored Symposium

GenScript USA Inc: Multiplex Base-Edited CAR-T Cells Overcome Glioblastoma's Multifaceted Suppression using GenScript's sgRNA Solutions

Location: Room 271-273 8:00 AM - 8:30 AM

> • Joyce Tung, GenScript USA Inc. Sponsor

Scientific Symposium

Improved Therapeutic Delivery of Nanoparticles (Organized by the Nonviral Therapeutic Delivery Committee)

Location: NOLA Theater A 8:00 AM - 9:45 AM

- Anna Blakney, University of British Columbia Vancouver Self amplifying RNA and polymeric NPs; strategies to reduce immunogenicity of LNPs
- Bowen Li, University of Toronto
 Al-Driven Development of Lipid Nanoparticles for mRNA an Gene Editor Delivery
- Richard Price, PhD, University of Virginia
 Focused Ultrasound Delivery of Non-Viral Gene Therapies to the Blood-Tumor Barrier.....and
 Beyond

Scientific Symposium

Novel Approaches To Overcome Limits Of Therapeutic Transgene Delivery And Durability (Organized by the Viral Gene Transfer Vectors Committee)

Location: NOLA Theater B 8:00 AM - 9:45 AM

• Sidi Chen, PhD, Yale University

AAV-transposon combination for CAR T and CAR NK development

- Zheng-Yi Chen, D.Phil., Massachusetts Eye & Ear Infirmary Dual AAV vectors, clinical trial data for hearing loss
- Isabelle Richard, PhD, GENETHON Dual AAV for muscular dystrophy
- Mansuo Shannon, AskBio
 Al use for promotor and transgene design

Oral Abstract Session

HSC Transplantation and Gene Therapy

Location: NOLA Theater C 8:00 AM - 9:45 AM

Scientific Symposium

Challenges and Opportunities for Developing Cell and Gene Therapies in LMICs (Organized by the Global Outreach Committee)

Location: Room 265-268 8:00 AM - 9:45 AM

- Carlos Javier Alméciga-Díaz, BPharm, Ph.D., Pontificia Universidad Javeriana LMIC manufacturing considerations
- Martín Bonamino, PhD, INCA
 Academic collaboration for rapid deployment of genetic therapy
- John Tisdale, MD, NIH, NHLBI Running clinical trials in LMICs

Scientific Symposium

Publishing 101

Location: Room 278-282 8:00 AM - 9:45 AM

- Daniel Stone, PhD, Fred Hutchinson Cancer Center *Title To Come*
- Timothy Cripe, MD, PhD, Nationwide Children's Hospital *Title To Come*
- Paloma Giangrande, Eleven Therapeutics, Inc. *Title To Come*

Member-Submitted Proposal

Harnessing Cell and Gene Therapies: New Frontiers in Kidney Treatment

Location: Room 288-290 8:00 AM - 9:45 AM

Poulami Chaudhuri, Helex
 Non-Viral Gene Editing for Autosomal Dominant Polycystic Kidney Disease1

- Alice Brown, Purespring

 Gene Therapies targeting the podocyte
- Leif Oxburgh
 Regenerative Kidneys: Harnessing Nephron Progenitors and Developmental Pathways for Next Generation Cell & Gene Therapies

Oral Abstract Session

Disease Models and Pre-Clinical Applications for Lysosomal Storage Diseases

Location: Room 291-292 8:00 AM - 9:45 AM

Scientific Symposium

Comparing Treatment Modalities for Neurologic Diseases: Insights and Preliminary Clinical Observations (Organized by the Neurologic and Opthalmic Committee)

Location: Room 293-296 8:00 AM - 9:45 AM

- Fyodor Urnov, PhD, University of California, Berkeley
 Leveraging the Platform Nature of CRISPR Gene Editing to Enable Neurologic Disease Therapies
- Holly Brothers, Biogen
 BIIB080: the development of a tau-targeting antisense oligonucleotide in early AD
- Rajeev Sivasankaran, Voyager Therapeutics, Inc.
 IV-delivered AAV gene therapy targeting tau for the treatment of Alzheimer's disease: preclinical safety and pharmacology with translational considerations
- Bruno Godhino, Atalanta Tx
 IT di-siRNA for the treatment of Huntington's disease: preclinical safety and pharmacology with clinical dose projections

Scientific Symposium

Cellular and Gene Therapies for Autoimmune Disease (Organized by the Hematologic and Immunologic Cell and Gene Therapy Committee)

Location: Room 388-390 8:00 AM - 9:45 AM

- Lili Yang, PhD, University of California Los Angeles
 Overview of different gene and cell therapy approaches to auto-immunity, considerations around for immune reset
- Jenell Volkov, PhD, Cabaletta Bio Clinical & Translational Findings Following Resecabtagene Autoleucel Anti-CD19 CAR T Cell Therapy in Autoimmune Disease
- Laurie Kenney, Moderna Therapeutics in vivo mRNA delivery of IDO1 for autoimmunity and aGVHD

Fireside Chat

Funding the Future of Cell and Gene Therapy Development

Location: Room 393-396 8:00 AM - 9:45 AM

- Mimi Lee, ARPA-H
 - Reimagining CGT Development in ARPA-H's Novel Funding Models for High-Impact Solutions
- Philip Brooks, PhD, NIH / NCATS
 How NIH and Federally-funded Research Support Innovative CGT Approaches
- Olivia Zetter, ARCH Venture Partners
 Beyond Traditional Metrics: A Venture Perspective on Valuing and Funding Next-Generation
 CGTs

Sponsored Symposium

FUJIFILM Irvine Scientific: Scalable Solutions for Gene Therapy and Cell Therapy Workflows

Location: Room 383-385 8:30 AM - 9:30 AM

> • Pinar Boyar, FUJIFILM Irvine Scientific Sponsor

Sponsored Symposium

Danaher Life Sciences: A Platform Approach to Designing, De-risking, and Manufacturing a Gene Editing-Based Therapeutic: the IGI-Danaher "CRISPR Cures Cookbook"

Location: Room 391-392 8:30 AM - 9:30 AM

> • Jeanine DuBois-Bracey, Danaher Life Sciences Sponsor

Networking Exhibit Hall

Location: Exhibit Hall 9:00 AM - 5:30 PM

General Session

George Stamatoyannopoulos Memorial Lecture

Location: Hall F 10:15 AM - 12:00 PM

> • Kiran Musunuru, MD, PhD, MPH, ML, MRA, University of Pennsylvania Therapeutic Gene Editing for Cardiovascular and Metabolic Diseases: From the Leading Cause of Death to N-of-1 Disorders

• Tippi MacKenzie, MD, University of California San Francisco *Prenatal Gene Therapy*

Networking

Post-General Session Networking

Location: ASGCT Central, Booth #837

12:00 PM - 1:00 PM

Poster Talk Session

Thursday Poster Talk

Location: Exhibit Theater 12:15 PM - 1:00 PM

Sponsored Symposium

MaxCyte: How to Mitigate Gene Editing Program Risk Through Comprehensive Offtarget Safety Profiling and Characterization

Location: Room 271-273 12:15 PM - 1:15 PM

 Marissa Johnson Sponsor

Sponsored Symposium

Advanced Cell Diagnostics - A Bio-Techne Brand: NextGen RNAscope Multiomics Solutions for Spatial Precision: AAV, small RNA, CAR-T, and Beyond

Location: Room 383-385 12:15 PM - 1:15 PM

> • Sunita Gopalan, Bio-Techne Sponsor

Sponsored Symposium

Biogen: Biogen Gene Therapy

Location: Room 388-390 12:15 PM - 1:15 PM • Catherine Zheng Sponsor

Sponsored Symposium

Thermo Fisher Scientific: Advancements in AAV Manufacturing: Scale up from Preclinical to GMP Readiness

Location: Room 391-392 12:15 PM - 1:15 PM • Darwin Asa Sponsor

Oral Abstract Session

Epigenetic Editing and RNA Editing

Location: NOLA Theater A 1:30 PM - 3:15 PM

Oral Abstract Session

Novel Approaches to Gene Targeting and Gene Correction

Location: NOLA Theater B 1:30 PM - 3:15 PM

Oral Abstract Session

Downstream Manufacturing for AAV Vectors

Location: NOLA Theater C 1:30 PM - 3:15 PM

Oral Abstract Session

Late-Breaking Abstracts I

Location: Room 265-268 1:30 PM - 3:15 PM

Oral Abstract Session

Viral Vector and Transgene Biology

Location: Room 278-282 1:30 PM - 3:15 PM

Oral Abstract Session

Novel Genetic Approaches for Muscle and Skeletal Diseases

Location: Room 288-290 1:30 PM - 3:15 PM

Scientific Symposium

The Basics of Building Your Own Biotech Company (Organized by the Trainee Committee)

Location: Room 291-292 1:30 PM - 3:15 PM

- Margaret Barkett, PhD, Nationwide Children's Hospital Intellectual property from an academic perspective, define what IP is, what you need in taking your tech out of Academia, technology transfer
- Michael Poisel, Independent Venture Studio/Incubator
- Hyo Min Park, PhD, GenEdit Young Founder, How they pitched their ideas and built their team

Oral Abstract Session Lipid Nanoparticles I

Location: Room 293-296 1:30 PM - 3:15 PM

Tools & Technology Session

Tools and Technology Forum 3

Location: Exhibit Theater 1:30 PM - 3:15 PM

• Hannah Munizza, BS, Forge Biologics Forge Biologics: Great Science Needs Innovative Manufacturing Technology

Kendra Alley, Andelyn Biosciences Andelyn Biosciences: A Client-CDMO Partnership Pathway to Successful Gene Therapy Process Performance Qualification and BLA filing: An Ultragenyx and Andelyn Biosciences Journey to a Commercial-Ready Platform

- Jana Merx, C-LEcta GmbH
 c-LEcta GmbH: Advancing AAV Production: Engineered Endonucleases for Highly Efficient DNA
 Removal Across Broad Salt Concentrations
- Jing Zhu, ReciBioPharm ReciBioPharm: Advancing the future of gene therapies: ReciBioPharm's new cost-effective AAV solutions
- Jill Makin, Touchlight DNA Services Hampton

 Touchlight: Simply Scaling DNA from R&D to GMP with dbDNA™ (doggybone DNA) technology
- Amy Lamperti, Minaris Advanced Therapies
 Minaris Advanced Therapies: Meet Minaris Advanced Therapies: A Game-Changing Force in Cell Therapy
- Eugenia Jones, FUJIFILM Cellular Dynamics Inc
 FUJIFILM Cellular Dynamics, Inc.: Advancing Gene Therapy: Harnessing Human iPSC-Derived
 Models for Discovery and Potency Assays

Sponsored Symposium

Catalent: Partnerships to Enhance Development and Intensification of Viral Vector Production

Location: Room 383-385 2:00 PM - 2:30 PM • Swati Roy Sponsor

Sponsored Symposium

Sartorius BIA Separations: Manufacturing Platform - From pDNA and mRNA to LNP With Multiple Nucleic Acids Loads

Location: Room 391-392 2:30 PM - 3:00 PM • David Ede Sponsor

Networking

Patient Advocate Meet-Up

Location: TBD 3:15 PM - 4:15 PM

Networking

Trainee and New Investigator Meet-up

Location: ASGCT Central, Booth #837

3:15 PM - 4:15 PM

Sponsored Symposium

STEMCELL Technologies Inc: Cutting-Edge Tools for Hematopoietic Stem & Progenitor Cell Research

Location: Room 271-273 3:45 PM - 4:15 PM

• Christen McDonald, STEMCELL Technologies, Inc. Sponsor

Tools & Technology Session Tools and Technology Forum 4

Location: Exhibit Theater 3:45 PM - 5:15 PM

- Emilie Claire Schneider, Takara Bio
 Takara Bio USA: Streamlined Ex vivo Engineering of Human T cells with a Single-Step Approach
 to Activation and Lentiviral Transduction
- Sarah Rains, KACTUS
 KACTUS: Revolutionize Viral Vector Manufacturing with Cost-Effective S. marcescens Nuclease: MaxNuclease™
- Jennifer Hamilton, ArcticZymes Technologies

 ArcticZymes Technologies: Clearing DNA from Viral Vectors with Salt Active Nucleases: Why Salt is the Hidden Catalyst to Bioprocessing Optimization
- Randy Dyer, Elegen
 Elegen: Accelerating mRNA Vaccine Development with Rapid, Cell-Free Synthesis of High-Accuracy Template DNA
- Shawn Sternisha, PhD, Beckman Coulter Life Sciences

 Beckman Coulter Life Sciences: Streamlining AAV Purification: Automated and Precise Density

 Gradients with the OptiMATE Gradient Maker
- Vanessa Kelchner, Akadeum Life Sciences
 Akadeum Life Sciences: Next Generation Cell Separation for CAR-T Manufacturing: Unlocking
 More Doses in a Smaller Footprint with Seamless Integration of Microbubbles

Oral Abstract Session Novel Therapeutic Gene Editing Applications

Location: NOLA Theater A

3:45 PM - 5:30 PM

Oral Abstract Session

Manufacturing and Transduction for Viral Vectors

Location: NOLA Theater B

3:45 PM - 5:30 PM

Oral Abstract Session

AAV Vector Manufacturing: Experimental Design & Analytics

Location: NOLA Theater C

3:45 PM - 5:30 PM

Scientific Symposium

The Coalition of International Gene Therapy Societies Showcases: Moving from Ex Vivo Cell Therapies to In Vivo

Location: Room 265-268 3:45 PM - 5:30 PM

Adi Barzel, Tel Aviv University
 In vivo targeting, include work on B cells

- Philip Johnson, MD, Interius Biotherapeutics, Inc Investigational in vivo CAR-T therapy designed to treat B-cell malignancies
- Michela Milani, PhD, SR-TIGET
 In Vivo Lentiviral Vector Gene Transfer Into Hematopoietic Stem And Progenitor Cells
- Muhammed Burak Demircan, Postdoc, DKFZ In vivo CAR T Cell applications

Scientific Symposium

FDA's START Pilot Program in Action: Insights from Year One (Organized by the Regulatory Affairs Committee)

Location: Room 278-282 3:45 PM - 5:30 PM

- Rachel McMinn, PhD, Neurogene
 Neurogene's experience with the START Pilot Program in advancing their NGN-401 product for Rett Syndrome
- Susan Telliard, Moderna Therapeutics
 Moderna's experience with the START Pilot Program in advancing their mRNA-3705 product for
 Isolated methylmalonic acidemia due to complete or partial methylmalonyl-coenzyme A mutase
 deficiency
- Adrian Stecyk
 Myrtelle's experience with the START Pilot Program in advancing their rAAV-Olig001-ASPA product for Canavan Disease

Wei Liang, PhD, FDA
 FDA introduction into the CBER START Pilot Program (Pre-recorded Presentation)

Oral Abstract Session Vaccines and Immunotherapy for Cancer

Location: Room 288-290 3:45 PM - 5:30 PM

Oral Abstract Session

Organoids and iPSC Disease Modeling for Drug Discovery

Location: Room 291-292 3:45 PM - 5:30 PM

Education Session

Advanced Clinical Trials and Long-Term Follow-Up: Striking the Balance Between Safety and Efficacy (Organized by the Education Committee)

Location: Room 293-296 3:45 PM - 5:30 PM

- David Wilcox, PhD, Medical College of Wisconsin Follow-up on Platelet-Targeted Gene Therapy for Hemophilia A
- Yuman Fong, MD, City of Hope Oncolytic Viruses: Balancing Between Safety and Efficacy (Clinical Perspective)
- Shyam Nyati, Associate Scientist, Henry Ford Health System Utilizing Inhouse Developed Adenoviral Vectors in Clinical Trials

Scientific Symposium CDA/DEI Awards 2

Location: Room 383-385 3:45 PM - 5:30 PM

- Tomas Gonzalez Fernandez, Lehigh University
 Novel Cell Penetrating Peptide for Multimodal CRISPR Gene Editing of Primary Mesenchymal Stromal Cells
- Pradip Bajgain, PhD, National Cancer Institute (NIH)

 Engineering chimeric antigen receptors to alleviate tonic signaling
- Ngoc Tam Tran, PhD, University of Massachusetts Medical School
 Analyzing the Integration of AAV Vectors Carrying Truncated Inverted Terminal Repeats in the Genomes of Transduced Cells

Member-Submitted Proposal

Defining the Neurological Outcome Limits in Gene Therapy Trials

Location: Room 388-390 3:45 PM - 5:30 PM

- Jerry Mendell, MD, Sarepta Therapeutics Clinical conditions for which clinical trials are underway with non-neurologic neurodegenerative components and the likelihood of treating both components with current strategies
- Kyle Brothers
 Neuro ethic decisions in patient care
- Alison Bateman-House, NYU Grossman School of Medicine *Title To Come*

Unique Biologic Opportunities to Treat Monogenic Blood Disorders Prenatally (Organized by the Prenatal Cell and Gene Therapy Committee)

Location: Room 391-392 3:45 PM - 5:30 PM

- Christopher Porada, PhD, Wake Forest Institute for Regenerative Medicine Introduction talk regarding successes in the field and clinical trials
- Agnieszka Czechowicz, MD, PhD, Stanford University, School of Medicine Cell Therapy - Learnings from SCID/Alpha Thal towards Fanconi Anemia
- Panicos Shangaris, Department of Women and Children's Health
 Non-Viral and Lipid Nanoparticle (LNP)-Based Delivery Systems for Prenatal Applications and
 Ethical Considerations.
- R. Alta Charo, University of Wisconsin Law School Short presentation regarding ethics (~10 minutes)

Oral Abstract Session

CAR T Innovations in Autoimmune and Infectious Disease and Allergy

Location: Room 393-396 3:45 PM - 5:30 PM

Sponsored Symposium

Catalent Cell and Gene Therapy: From GMP-grade iPSCs to Scalable NK Cell Production: A Feeder-Free Approach

Location: Room 271-273 4:45 PM - 5:15 PM • Swati Roy Sponsor

Reception

Women in Cell and Gene Therapy Reception

Location: Rusty Nail + Sidecar 6:00 PM - 7:00 PM

Friday, May 16

Sponsored Symposium

Cytiva: Enhancing non-viral delivery: Advancing LNP technology for vaccine and cell therapies

Location: Room 271-273 8:00 AM - 8:30 AM

> Alice Giraud, Cytiva Sponsor

Scientific Symposium

Tissue-Specific Insights in AAV Vector Immunogenicity (Organized by the Immune Responses to Cell and Gene Therapy Committee)

Location: NOLA Theater A 8:00 AM - 9:45 AM

- Mark Brimble, PhD, St. Jude Children's Research Hospital Introduction to immunogenicity of AAV vectors
- Carsten Bonnemann, MD, NINDS/NIH
 Liver toxicities in AAV trials in particular MTM1, focusing on immune responses
- Alison Clare, PhD, University of Bristol Age and sex impact on ocular toxicity, intravitreal
- Anna Kajaste-Rudnitski, PhD, University of Pavia Innate immune sensing of AAV in CNS cells

Scientific Symposium

Reprogramming Immune Cells To Improve Therapeutic Responses And Indications For Cancer (Organized by the Cancer CGT Committee)

Location: NOLA Theater B 8:00 AM - 9:45 AM

- Franziska Blaeschke, German Cancer Research Center Advanced T cell engineering using non-viral CRISPR screens
- Luca Gattinoni, Leibniz Institute for Immunotherapy Stem t cells improving responses, CD8, clinical trial
- Michael Klichinsky, PharmD, Carisma Therapeutics CAR Macrophages
- Angel Corria Osorio, LICR University of Lausanne Next generation TIL therapies

Hot Topics in Molecular Therapy II: Gene Therapy and Gene Editing Approaches for Human Disease

Location: NOLA Theater C 8:00 AM - 9:45 AM

- Toni Cathomen, PhD, Medical Center University of Freiburg
 On- and off-target effects of paired CRISPR-Cas nickase in primary human cells
- Miffy Hok Yan Cheng, The University of British Columbia
 Lipid nanoparticle mRNA systems containing high levels of sphingomyelin engender higher protein expression in hepatic and extra-hepatic tissues
- Megan Keiser, PhD, Ohio State University
 APOE2 gene therapy reduces amyloid deposition and improves markers of neuroinflammation and neurodegeneration in a mouse model of Alzheimer disease

Oral Abstract Session Immune Cell Therapies

Location: Room 265-268 8:00 AM - 9:45 AM

Oral Abstract Session

Emerging Delivery Platforms for In Vivo Gene Editing

Location: Room 278-282 8:00 AM - 9:45 AM

Scientific Symposium

Ensuring Diversity and Inclusion in Later Stage Cell and Gene Therapy Development (Organized by the Diversity, Equity, and Inclusion Committee)

Location: Room 288-290 8:00 AM - 9:45 AM

- Pat Furlong, Parent Project Muscular Dystrophy (PPMD)
 The Patient's Role in Expanding the Reach of Advanced Therapies in the Post-Approval Period
- Elizabeth Cohn, Northwell Health
 Bridging Gaps: Ensuring/advancing/fostering Equity and Inclusion in the Post-Approval
 Landscape of Cell and Gene Therapies
- Olajide Williams, Columbia University
 Access and globalization of GCTs; how approved therapies are reaching patients in leading
 markets {the US, Europe} (evaluated through a DEI lens); The promise of one and done therapies
 in developing countries and the significant challenges to bring them there

Member-Submitted Proposal

Translational Strategies for Cell and Gene Therapies in Inherited Neurotransmitter Disorders

Location: Room 291-292 8:00 AM - 9:45 AM

- Steven Gray, PhD, University of Texas Southwestern Medical Center Transgene regulation strategies for dose-sensitive genes involved with neurodevelopmental disorders
- Brad Elder, MD, The Ohio State University College of Medicine Gene Therapy for AADC
- Dimitri Kullmann, University College London
 Self-regulated closed-loop gene therapy for disorders of circuit excitability
- Cory Nicholas, Neurona Therapeutics
 First-in-human clinical investigation of GABAergic inhibitory interneuron cell therapy for drug resistant epilepsy

The Coalition of International Gene Therapy Societies Showcases: Clinical Trials Around the Globe

Location: Room 293-296 8:00 AM - 9:45 AM

> Ryuichi Morishita, MD, PhD, Center of Medical Innovation & Translational Research, University of Osaka

HGF gene therapy- Phase II data in USA, and FDA approved Breakthrough therapy

- Alberto Auricchio, PhD, MD, TIGEM, Telethon Institute of Genetics and Medicine Clinical Trials of AAV gene therapy directed to liver and retina
- Michelle Lorentzos, Sydney Children's Hospitals Network Australia based clinical trials
- Gloria Gonzalez-Aseguinolaza, PhD, Center for Applied Medical Research (CIMA) of the University of Navarra
 GATEWAY clinical trial for Wilson Disease

Scientific Symposium

Bringing Scientific Communications from the Bench to the Bedside (Organized by the Communications Committee)

Location: Room 388-390 8:00 AM - 9:45 AM

- Kimberly Haugstad, MBA, RareRising
 Engaging in Patient-Centered Scientific Communication
- Allyson Berent, DVM, DACVIM, Foundation for Angelman Syndrome Therapeutics Translating Clinical Developments for Families and Patients with Rare Diseases
- Benjamin McLeod, Convey Bio
 Communicating Complex Science on Social Media

Perspectives on Successful Translation from Bench to Bedside (Organized by the Bio-Industry Committee)

Location: Room 393-396 8:00 AM - 9:45 AM

- Uta Griesenbach, Imperial College Faculty of Medicine
 The pathway from bridging gene therapies from bench to bedside-An academic perspective
- Leslie Meltzer, PhD, Orchard Therapeutics
 Developing and delivering hematopoietic stem cell gene therapies to patients with rare
 neurometabolic diseases
- David Schaffer, University of California Berkeley
 The pathway to bringing gene and cell therapies from bench to bedside
- J. Fraser Wright, Kriya Therapeutics
 The pathway to bringing gene and cell therapies from bench to bedside

Sponsored Symposium

MilliporeSigma: To 1000L and Beyond: Introducing the first-and-only transfection complex stabilizer for simple AAV manufacturing scale-up

Location: Room 383-385 8:30 AM - 9:00 AM

> • Laura Juckem, PhD, Mirus Bio Sponsor

Sponsored Symposium

Waters Corporation & Lexeo Therapeutics: "Breakthroughs in Gene Therapy Analytics: Potency and Purity-Indicating Assays Using Advanced Size Exclusion Chromatography (SEC) and Charge Detection Mass Spectrometry (CDMS)"

Location: Room 391-392 8:30 AM - 9:00 AM

- Matthew Lauber, PhD, Waters Corporation Sponsor
- Noah Miller-Medzon, LEXEO Therapeutics Sponsor

Networking Exhibit Hall

Location: Exhibit Hall 9:00 AM - 5:30 PM

General Session

Outstanding New Investigator Symposium

Location: Hall F 10:15 AM - 12:00 PM

- Rebecca Ahrens-Nicklas, PhD, MD, Children's Hospital of Philadelphia
 Transforming the Care of Patients with Rare Metabolic Diseases Through Gene Therapy
- Eric Smith, MD, PhD, Dana Farber Cancer Institute
 Pushing the Boundaries of CAR T-Cell Therapy for Immunotherapy of Cancer
- Xavier Anguela, Nava Therapeutics Talk Title Forthcoming
- Benjamin Deverman, Broad Institute of MIT and Harvard Talk Title Forthcoming

Scientific Symposium Citeline Presentation

Location: Exhibit Theater 12:15 PM - 12:45 PM

Sponsored Symposium

Pacira Biosciences: High-Capacity Adenoviral Vectors: Advancing Gene Therapy Beyond AAV to Deliver Cost-effective Therapies for Common Diseases

Location: Room 383-385 12:15 PM - 1:15 PM • Derek Jackson Sponsor

Oral Abstract Session

AAV Gene Transfer (B): Ocular, Neurological & Immune Cell Systems

Location: NOLA Theater A 1:30 PM - 3:15 PM

Scientific Symposium

CMC Harmonization for Advanced Therapies (Organized by the Chemistry, Manufacturing, Controls (CMC) Committee)

Location: NOLA Theater B 1:30 PM - 3:15 PM

- Yoko Momonoi, Takeda Introductory overview of some of the key differences across global jurisdictions (e.g. raw materials, donor eligibility, facility design)
- Mitchell Tai, Ph.D., Bristol Myers Squibb Navigating the Curves: Global Lifecycle Management Experiences in a Commercial Cell Therapy Product

Oral Abstract Session
Clinical Trial Spotlight Symposium

Location: NOLA Theater C 1:30 PM - 3:15 PM

Next Generation Strategies For Evading Immunity In Stem Cell Therapies (Organized by the Stem Cell Committee)

Location: Room 278-282 1:30 PM - 3:15 PM

- Sonja Schrepfer, Sana Biotechnology Hypo-Immune cells
- Deepta Bhattacharya, University of Arizona
 Engineering pluripotent stem cells to evade and promote immunity
- Andras Nagy, Lunenfeld-Tanenbaum Research Institute Immune privileged/immune cloaking
- Xiaokoui Zhang, PhD, Aspen Neuroscience, Inc. Autologous iPSC-Derived Neuron Replacement for Parkinson's Disease

Oral Abstract Session

Novel Models and Advances for Heart, Lung, and Kidney Gene Therapy

Location: Room 288-290 1:30 PM - 3:15 PM

Oral Abstract Session

Modulation of Humoral Immune Responses in AAV Gene Transfer

Location: Room 291-292 1:30 PM - 3:15 PM

Education Session

Development of Al Technologies for Cell and Gene Therapies (Organized by the Education Committee)

Location: Room 293-296 1:30 PM - 3:15 PM

- Benjamin Deverman, PhD, Broad Institute *Utilizing AI in Academic Labs*
- Michelle Lee, PhD, Medra Embodied AI for Biology Labs

Oral Abstract Session Lipid Nanoparticles II

Location: Room 393-396 1:30 PM - 3:15 PM

Tools & Technology Session Tools and Technology Forum 5

Location: Exhibit Theater 1:30 PM - 3:15 PM

- Maria Gonzalez, Viralgen Vector Core San Sebastian
 Viralgen Vector Core: A Rock in a Storm: Using Data as Your Foundation to Speed and De-risk AAV Manufacturing
- Laura Griffin, Taconic Biosciences
 Taconic Biosciences: Strategies for Improved Engraftment and Data Reproducibility in Humanized Immune System (HIS) Mice
- Irene Song, Packgene Biotech
 PackGene Biotech: Driving Down Costs: Advancing AAV Manufacturing for Affordable Gene Therapy
- Roy Liu, Shenzhen Eureka Biotechnology Co., Limited
 EurekaBio: Next Generation Lentiviral Vector Production System Intergrated Packaging System
 and Stable Producer System
- Glenda Dickson, ViroCell Biologics, 12-18 Theobalds Road, London, WC1X 8SL, UK
 ViroCell Biologics: Rethinking lentiviral stable producer cells lines: VSVg or not VSVg. That is the
 question.
- Hiroki Hasegawa, Mitsubishi Gas Chemical Company, Inc.
 Mitsubishi Gas Chemical: OXYCAPT™ Multilayer Plastic Vial contributes to optimal risk managements on deep-cold supply chain for cell gene therapy products
- Kerri McWeeny, Stilla Technologies
 Stilla Technologies: Maximizing Throughput, Minimizing Complexity: The Nio® dPCR Advantage in CGT

Annual meeting of the Accelerating Medicines Partnership® Bespoke Gene Therapy Consortium (AMP® BGTC)

Location: Room 265-268 1:30 PM - 5:30 PM

- Carmen Sivakumaren, IQVIA BGTC Coordination Center Rep
- James Noll, IQVIA BGTC Coordination Center Rep
- Sharon King, Aldevron BGTC/FNIH Partner
- Sarah Cortell Vandersypen, United MSD Foundation Biloxi, MS Patient Advocacy Rep for BGTC disease
- Jill Chertow, Propionic Acidemia Foundation Patient Advocacy Rep for BGTC disease
- Leah Byrne, UC Berkeley BGTC AAV Biology Awardee

- Fred Bunz, Johns Hopkins University School of Medicine BGTC AAV Biology Awardee
- Courtney Coates, Hope in Focus Hope in Focus

Targeted Nanosystems For Gene Transfer And Editing: Beyond Delivery To The Liver (Organized by the Nanoagents and Synthetic Formulations Committee)

Location: NOLA Theater B

3:45 PM - 5:30 PM

- Kerry Benenato, PhD, Sail Biomedicines
 Pioneering the design and deployment of fully programmable RNA medicines
- Priya Karmali, Capstan Therapeutics
 In vivo immune cell engineering using targeted nanoparticles
- David Oupicky, PhD, University of Nebraska Medical Center
 Targeted Renal Delivery: Polysaccharide RNA Carriers to Treat Acute Kidney Injury
- Yizhou Dong, Icahn School of Medicine at Mount Sinai Lipid nanoparticles enabled mRNA therapeutics

Scientific Symposium

CDA/DEI Awards 3

Location: Room 383-385 3:45 PM - 5:30 PM

- Denise Klatt, PhD
 - Engineering alpha-retroviral-like particles for safe and efficient in vivo hematopoietic stem cell gene therapy
 - Gabriele Casirati, MD, PhD, Boston Children's Hospital Base Editors with Single-Base Selectivity to Minimize Bystander and Off-target Effects
 - Minsun Song, PhD, City of Hope
 Transferrin receptor-targeted RNA aptamer enhanced blood-brain barrier penetration in brain metastases occurring from Triple-negative breast cancer
 - Sandhiya Ravi, PostDoctoral Fellow, Umass Medical School Enhancing Truncation Event Prediction in AAV Vector Genome Designs through Advanced Deep Learning Techniques
 - Jose Martinez-Navio, PhD, University of Miami
 Preventing humoral responses to AAV-delivered anti-HIV antibodies in rhesus macaques

Scientific Symposium

U.S. Private Payment Challenges for CGTs (Organized by the Government Relations Committee)

Location: Room 388-390 3:45 PM - 5:30 PM

Luke Prettol, AT&T

How Employers Consider CGT Coverage in Private Plans

- Kelly Maynard, Little Hercules Foundation
 Centering the Patient Voice in CGT Coverage Decisions
- Kevin Faber, Sanford Health Plan Payer Coverage Challenges with Emerging CGT Products

Oral Abstract Session

AAV Preclinical and Proof-of-Concept Studies for Neurological Diseases

Location: NOLA Theater A 3:45 PM - 5:40 PM

Oral Abstract Session

AAV Vector Manufacturing: Plasmids & Cell Line Development

Location: NOLA Theater C 3:45 PM - 5:40 PM

Oral Abstract Session

Challenges in Immunological Responses to Therapeutic Interventions

Location: Room 278-282 3:45 PM - 5:40 PM

Oral Abstract Session

CMC for AAV Vectors

Location: Room 288-290 3:45 PM - 5:40 PM

Oral Abstract Session

Oligonucleotide Therapeutics II

Location: Room 291-292 3:45 PM - 5:40 PM

Oral Abstract Session

Cell Therapy Product Engineering II

Location: Room 293-296 3:45 PM - 5:40 PM

Oral Abstract Session

Across Platforms for Hematopoietic Disorders

Location: Room 391-392 3:45 PM - 5:40 PM

Oral Abstract Session

Gene Therapy Trials - In-Vivo Gene Therapy Modification

Location: Room 393-396 3:45 PM - 5:40 PM

Reception

Closing Night Reception (Separate Purchase Required)

Location: Mardi Gras World 7:00 PM - 10:00 PM

Saturday, May 17

Business Meeting

ASGCT Business Meeting

Location: Exhibit Hall 7:00 AM - 8:00 AM

Oral Abstract Session

AAV Preclinical and Proof-of-Concept Studies

Location: NOLA Theater A 8:00 AM - 9:45 AM

Oral Abstract Session

Translational Approaches: Gene Therapy of Neurological Diseases in Large Animal Models

Location: NOLA Theater B 8:00 AM - 9:45 AM

Oral Abstract Session

Upstream Manufacturing for AAV Vectors 1

Location: NOLA Theater C 8:00 AM - 9:45 AM

Oral Abstract Session

On and Off-Target Method Development

Location: Room 278-282 8:00 AM - 9:45 AM

Oral Abstract Session

Pharmacology/Toxicology Studies and Analytics/Assay Development Session II

Location: Room 288-290 8:00 AM - 9:45 AM

Oral Abstract Session

Targeted Gene and Cell Therapy for Cancer

Location: Room 291-292 8:00 AM - 9:45 AM

Expanding Modalities Beyond Their Initial Use: Discussions on Translating Immune Cell Therapies into Non-Oncology Indications and AAV Gene Therapies into Oncology Indications (Organized by the Translational Science Committee)

Location: Room 293-296 8:00 AM - 9:45 AM

- Gwendolyn Binder, Cabaletta Bio CD19 CAR-T for several non-oncology indications: systemic lupus erythematous, myositis, systemic sclerosis and generalized myasthenia gravis
- Jeff Bluestone, PhD, Sonoma Biotherapeutics Engineered Treg therapies to treat Rheumatoid Arthritis - early Phase 1b results
- Vijay Bhoj, MD PhD, University of Pennsylvania CAR-T for alloantibodies prior to organ transplant
- Nicole Paulk, PhD, Siren Biotechnology SRN-101 universal AAV gene therapy for solid tumors

Scientific Symposium

Overcoming Barriers in the Lung and GI Tract: Advances in Gene Delivery, Stem Cells, and Therapeutic Targeting (Organized by the Respiratory and GI Tract Committee)

Location: Room 383-385 8:00 AM - 9:45 AM

- Alexandra Piotrowski-Daspit, PhD, University of Michigan Multi-organ nucleic acid delivery/ overcoming macrophage phagocytosis
- Marianne Carlon, KU Leuven Base and prime editing mutant CFTR in patient-derived cell model to treat cystic fibrosis
- Trevor Parry, PhD, Krystal Biotech

 HSV-1 as a vector system for targeting respiratory tissues in genetic pulmonary disease
- Stephen Hyde, PhD, University of Oxford Lentiviral gene transfer for CF and SP-B deficiency

Oral Abstract Session

Chemistry, Manufacturing, and Controls

Location: Room 388-390 8:00 AM - 9:45 AM

Oral Abstract Session

Late-Breaking Abstracts II

Location: Room 391-392 8:00 AM - 9:45 AM

Scientific Symposium

Advances in RNA and DNA Vaccines for Infectious Diseases (Organized by the Infectious Diseases and Vaccines Committee)

Location: Room 393-396 8:00 AM - 9:45 AM

- Richard Roden, PhD, Johns Hopkins University
 Phase I clinical trial results for DNA vaccine for HPV16-associated cervical intraepithelial neoplasia (CIN-2/3)
- Ye Zhang, MD, PhD, Arcturus Therapeutics Self-Amplifying mRNA Vaccines: Pioneering a New Era in Infectious Disease Prevention
- Matthias Schnell, Thomas Jefferson University
 Rabies virus (RABV) based vaccines for emerging infectious diseases

Oral Abstract Session

AAV Gene Transfer (C): Antibody Evasion, Cardiac & Neuromuscular Targets

Location: NOLA Theater A 10:15 AM - 12:00 PM

Oral Abstract Session

Molecular and Cellular Methods - Applications

Location: NOLA Theater B 10:15 AM - 12:00 PM

Oral Abstract Session

Upstream Manufacturing for AAV Vectors 2

Location: NOLA Theater C 10:15 AM - 12:00 PM

Oral Abstract Session

B-cell and Solid Organ Therapies

Location: Room 278-282 10:15 AM - 12:00 PM

Oral Abstract Session

Gene Therapy for Muscle Diseases

Location: Room 288-290 10:15 AM - 12:00 PM

Oral Abstract Session

Engineered Immune Effector Cells for Solid Tumors

Location: Room 291-292 10:15 AM - 12:00 PM

Oral Abstract Session

Lipid Nanoparticles III

Location: Room 293-296 10:15 AM - 12:00 PM

Oral Abstract Session

Vector Product Engineering, Development and Manufacturing (excluding AAV)

Location: Room 383-385 10:15 AM - 12:00 PM

Oral Abstract Session Oncolytic Virus Therapies

Location: Room 388-390 10:15 AM - 12:00 PM

Oral Abstract Session

Innovation in Alternative Cell Therapy Sources

Location: Room 391-392 10:15 AM - 12:00 PM

Member-Submitted Proposal

Crosstalk Between DNA Repair Mechanisms and Gene Therapy

Location: Room 393-396 10:15 AM - 12:00 PM

- Toni Cathomen, PhD, Medical Center University of Freiburg Pharmacological Strategies to Shift DNA Repair Pathway Choice in Gene Editing
- Ayal Hendel, PhD, Bar Ilan University
 Fine-Tuning DNA Repair in Stem Cells for Safer CRISPR Therapeutics
- Alberto Ciccia, Columbia University
 Guiding DNA Repair to Reduce Unwanted Mutations in Gene Editing