

Program



Advancing Manufacture of Cell and Gene Therapies IX

ECI CONFERENCE SERIES

**February 1 - 5, 2026
Hilton Head, South Carolina**

Conference Chairs:

Corinne Hoesli, McGill University, Canada

John Moscariello, Neuvogen, USA

Bruno Marques, Century Therapeutics, USA



**Engineering
Conferences
International**

Engineering Conferences International

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Engineering Conferences International (ECI) is a not-for-profit global engineering conferences program, originally established in 1962, that provides opportunities for the exploration of problems and issues of concern to engineers and scientists from many disciplines.

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Michael S. Kallos, University of Calgary

Previous conferences in this series:

Scale-Up and Manufacturing of Cell-Based Therapies

January 11-13, 2012

San Diego, California

Conference Chairs:

Chris Mason, University College London, UK

Lars Nielsen, University of Queensland, Australia

Greg Russotti, Celgene, USA

Scale-Up and Manufacturing of Cell-Based Therapies II

January 21-23, 2013

San Diego, California

Conference Chairs:

Chris Mason, University College London, UK

Lars Nielsen, University of Queensland, Australia

Greg Russotti, Celgene, USA

Scale-Up and Manufacturing of Cell-Based Therapies III

January 5-9, 2014

San Diego, California

Conference Chairs:

Chris Mason, University College London, UK

Greg Russotti, Celgene, USA

Peter Zandstra, University of Toronto, Canada

Scale-Up and Manufacturing of Cell-Based Therapies IV

January 18-22, 2015

San Diego, CA USA

Conference Chairs:

Chris Mason, University College London, UK

Greg Russotti, Celgene Cellular Therapeutics, USA

Peter Zandstra, University of Toronto, Canada

Thomas Brieva, Celgene Cellular Therapeutics, USA

Scale-Up and Manufacturing of Cell-Based Therapies V

January 15-19, 2017

San Diego, California

Conference Chairs:

Thomas Brieva, Celgene Cellular Therapeutics, USA

Chris Mason, University College London, UK

William Miller, Northwestern University, USA

Scale-Up and Manufacturing of Cell-Based Therapies VI

January 27-31, 2019

San Diego, California

Conference Chairs:

Dolores Baksh, GE Healthcare

Ivan Wall, Aston University

Rod Rietze, Novartis

Previous conferences in this series:

Scale-Up and Manufacturing of Cell-Based Therapies VII

Feb 6-10, 2022

San Diego, CA

Conference Chairs:

Sean Palecek, University of Wisconsin, USA

Damian Marshall, Achilles Therapeutics, UK

Fernanda Masri, Cell & Gene Therapy Catapult, UK

Scale-Up and Manufacturing of Cell-Based Therapies VIII

February 4 – 8, 2024

San Diego, CA

Conference Chairs:

Fernanda Masri, Cytomos, UK

Gargi Maheshwari, BMS, USA

John Moscariello, BMS, USA

Carolyn Yeago, CY Solutions LLC, USA

2026 Cell Therapies Award Recipient

Chris Ramsborg



The National Institute for Innovation in Manufacturing Biopharmaceuticals (NIIMBL) and Engineering Conferences International are pleased to announce that **Chris Ramsborg of Flagship Pioneering** is the recipient of the 2026 Award for Advancing Manufacture of Cell and Gene Therapy.

Few individuals have shaped the practical reality of cell therapy manufacturing and delivery as profoundly as Chris. From one of the first CD34+ cell separation devices (CliniMACS), to the 2nd FDA-approved autologous cell therapy (Provenge) to the transformative CAR-T medicines Breyanzi and Abecma, and now to the next generation of cell therapies and other advanced therapeutics, Chris has been a driving force behind many of the industry's most important breakthroughs in advanced therapeutics in the last 30 years.

Elected in 2020 as a Fellow of the American Institute for Medical and Biological Engineering, Dr. Ramsborg's contributions are rooted in the applied sciences: a B.S. in Chemical Engineering from Stanford, a Fulbright scholarship in bioprocess engineering at the Technical University of Berlin, and a Ph.D. from Northwestern under Professor Terry Papoutsakis that uncovered fundamental insights into large scale T-cell expansion still used in today's CAR-T platforms.

At Dendreon he led the CMC submission for Provenge and then engineered controls that enabled an autologous cell therapy to manufactured globally. As one of the earliest scientific leaders at Juno Therapeutics, he built the technical development and technology functions, shaped the global CMC strategy that delivered global approvals for Breyanzi and Abecma, and led the team that invented the NEX-T manufacturing platform, which is currently in clinical development in multiple auto-immune indications.

Across Juno Therapeutics, Celgene, and Bristol Myers Squibb, he built and led organizations of hundreds of scientists and engineers and filed 58 patent applications – 34 of which are now published – covering breakthroughs in the manufacturing of autologous and allogeneic cell therapies, process automation equipment, gene editing, lipid nanoparticles, and advanced analytics.

Today at Flagship Pioneering, Chris continues to scale advanced therapeutics companies from ideas to products, building company structures, embedding cultures of innovation and relentless execution to create important medicines.

Chris' impact extends to the hundreds of people he has collaborated with, hired, mentored, and coached along the way. Many are at this meeting this week. Chris is always available for a quick phone call to give leadership advice or discuss different development strategies.

Through interdisciplinary collaboration, innovative engineering, and steadfast leadership, Chris Ramsborg has repeatedly turned "impossible" manufacturing challenges into routine, life-saving reality for tens of thousands of patients worldwide.

Throughout his career, he has continued to push the boundaries of what regenerative medicine can achieve. Please join us in congratulating Chris Ramsborg, the recipient of the 2026 Award for Advancing Manufacture of Cell and Gene Therapy.

This award, sponsored by NIIMBL and Engineering Conferences International, recognizes outstanding contributors to the development and commercialization of cell-based therapies. Past recipients include Bob Nerem, Kim Warren, Peter Zandstra, Greg Russotti and Paula Alves.

Christopher Hewitt Outstanding Young Investigator Award



Priye Iworima, PBS Biotech, Inc.

ECI is pleased to announce that Priye Iworima is the winner of the Christopher Hewitt Outstanding Young Investigator Award.

Diepiriye (Priye) Georgina Iworima, PhD, is a biomedical and bioprocess scientist focused on translating regenerative medicine innovations into clinically relevant cell therapies. Her work brings together developmental biology, bioprocess engineering, and translational cell therapy manufacturing, with an emphasis on generating functional pancreatic endocrine cells for the treatment of Type 1 diabetes.

Priye completed a BSc (Hons) and MSc in Cell Biology at Simon Fraser University, where her research examined mitochondrial movement and function in rat primary cortical neurons and astrocytes. She later earned her PhD in Biomedical Engineering from the University of British Columbia under the mentorship of Drs. Timothy Kieffer and James Piret. Her doctoral research moved beyond differentiation protocol optimization, providing insights into metabolic switching, growth kinetics, hydrodynamic environments, and quality attributes that govern the scalable manufacture of human pluripotent stem cell-derived insulin-producing cells. Her work utilized adherent culture vessels, AggreWell™ systems, spinner cultures, and Vertical Wheel bioreactors to identify and characterize stage-specific process parameters and quality target product profiles in multistage directed differentiation workflows.

Priye is also an active scientific communicator and has presented internationally and authored peer-reviewed manuscripts. Her contributions have been recognized through several distinctions, including the International Society for Cell and Gene Therapy Canadian Early Stage Professionals Abstract Award, features in The Scientist and UBC's international campaign The Potential Is Yours, the SAS William F. Meggers Award, multiple conference poster awards, and national fellowships such as the NSERC Alexander Graham Bell Canada Doctoral Graduate Scholarship and the Canadian Institutes of Health Research Gold Award.

Outside the lab, Priye is known for her commitment to empowering the next generation of scientists, particularly women, immigrants, and underrepresented communities navigating STEM careers. Her

leadership reflects a blend of scientific rigor, translational focus, and a belief in the collaborative “village” required to bring curative therapies to patients, as exemplified during her tenure as Chair of the Stem Cell Network’s Trainee Communications Committee.

Priye currently works as a Bioprocess Research and Development Scientist at PBS Biotech Inc., where she serves as an internal and client-facing subject matter expert in pancreatic endocrine differentiation, process optimization, and IND-enabling strategies.

About This Award

This award is in honor of Christopher Hewitt. He was a leading biological engineer, distinguished for his research using flow cytometry and cell sorting to understand the interaction of the cell with the bioreactor environment within such diverse areas as microbial fermentation, bio-remediation, bio-transformation, brewing and cell culture. He was also the co-founder of the Centre for Biological Engineering at Loughborough University, where he developed a world-leading team in regenerative medicine bioprocessing. In particular, his team made a significant contribution to the literature on the culture and recovery of fully functional human mesenchymal stem cells in stirred bioreactors based on sound biochemical engineering and fluid dynamic considerations essential to scale-up for commercialization. In recognition of his achievements, he was elected Fellow of the Royal Academy of Engineering in 2018. Chris Hewett was an active contributor to the ECI conference series “Advancing Manufacturing for Cell based and Gene Based Therapies”.

The award is given to a promising young scientist whose work shows exceptional promise in the field of process development of cell based and gene-based therapies. The award includes the opportunity to make a presentation at the conference.

Conference Sponsors

Adverum Biotechnologies, Inc., a wholly owned subsidiary of Eli Lilly and Company

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Schedule



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Locations and Notes

- *Technical sessions will be in the Calibogue/Danner rooms.*
- *Poster Sessions will be in the Archer/Barnwell rooms.*
- *Breakfasts will be in the Grand Ocean Terrace.*
- *Lunches on Monday and Tuesday will be in the Elliot/Drayton/Heyward rooms. Lunch on Wednesday will be in the Grand Ocean Terrace.*
- *Dinners will be in the Grand Ocean Terrace.*
- *The ECI on site office is the Azalea Boardroom.*
- *The Lady Davis room is available for ad hoc meetings. See ECI staff to reserve the room.*
- *Audio, still photo and video recording by any device (e.g., cameras, cell phones, laptops, PDAs, watches) is strictly prohibited during the technical sessions, unless the author and ECI have granted prior permission.*
- *Speakers – Please have your presentation loaded onto the conference computer prior to the session start (preferably the day before).*
- *Speakers – Please leave at least 3 minutes for questions and discussion.*
- *Please do not smoke at any conference functions.*
- *Turn your mobile telephones to vibrate or off during technical sessions.*
- *After the conference, ECI will send an updated participant list to all participants. Please check your listing now and if it needs updating, you may correct it at any time by logging into your ECI account.*
- *Emergency Contact Information: Because of privacy concerns, ECI does not collect or maintain emergency contact information for conference participants. If you would like to have this information available in case of emergency, please use the reverse side of your name badge.*

Sunday, February 1, 2026

14:00 - 16:30	Conference Check-in (Advantage Foyer)
16:30 - 17:00	<u>Conference opening</u> Co-chairs: Bruno Marques, Century Therapeutics; Corinne Hoesli, McGill; John Moscariello, Neuvogen
16:30 - 16:55	Opening Remarks
16:55 - 17:00	ECI Conference Liaison Introduction Barry C. Buckland, NIIMBL, USA
17:00 - 18:30	<u>Plenary Presentation: Denis-Claude Roy, with Ludovic Tamaro</u> <i>Sponsored by ThéCell</i> Co-chairs: Corinne Hoesli, McGill; Jiyu (Jessica) Tian, McGill University
17:00 - 18:30	Advanced therapeutics biomanufacturing in the academic-hospital setting and patient impact Denis-Claude Roy, University of Montreal, Canada
18:30 - 19:30	Welcome Reception
19:30 - 21:30	Dinner

Monday, February 2, 2026

06:30 - 08:00	<u>Breakfast</u>
08:00 - 11:00	<u>Session 1: Innovations in Upstream Engineering for Viral Vector Production</u> Co-chairs: Lavanya Peddada, CIC; Sven Markert, Roche Diagnostics GmbH
08:00 - 08:10	Session Introduction
08:10 - 08:35	Engineering scalable platforms for viral and non-viral delivery systems in cell and gene therapy Amine Kamen, McGill University, Canada
08:35 - 09:00	Macroscale microfluidic bioreactors: Mitigating scale up risk for viral vectors Colin Cook, XDemics Corporation, USA
09:00 - 09:25	Scalable upstream design: Case studies on scale-up/-down platform development enabling robust and scalable rAAV production Huize Yan, Genentech, USA
09:25 - 10:10	Coffee Break (<i>Sponsored by Sanofi</i>)
10:10 - 10:35	Development of an inducible stable producer cell line for RAAV production Zhen Qin, University of Massachusetts Lowell, USA
10:35 - 11:00	Transcriptomic studies coupled with medium optimization to address the bottleneck in the cellular physiology for rAAV production Yongdan Wang, University of Massachusetts Lowell, USA
11:00 - 12:00	<u>Keynote Presentation</u> (Chair: Bruno Marques, Century Therapeutics) From rare diseases to common conditions: Advancing cell & gene therapy for the next era of medicine Chris Stevens, Rocket Pharmaceuticals, USA
12:00 - 13:30	Lunch
12:15 - 14:30	<u>Poster Session I</u> Co-chairs: Vanessa Strings-Ufombah, Adverum Biotechnologies, Inc., a wholly owned subsidiary of Eli Lilly and Company; Michael S. Kallos, University of Calgary; Aaron Simmons, Procella (<i>Authors of odd numbered posters are asked to stay with their presentations.</i>)
14:30 - 17:30	<u>Session 2: Advanced Downstream Processing and Emerging Platforms for Gene Editing Therapeutics</u> Co-chairs: David Hsiung, Prime Medicine; Joseph Sieling, Legend Biotech
14:30 - 14:40	Introductions
14:40 - 15:05	How bioprocess engineering can shape viral vector manufacturing Antonio Roldao, iBET, Portugal
15:05 - 15:30	Downstream processing of viral gene therapy vehicles: Towards platform processes Alois Jungbauer, BOKU University, Austria
15:30 - 15:55	Multimodal chromatography for separation of empty and full AAV Caryn Heldt, Michigan Technological University, USA
15:55 - 16:40	Coffee Break
16:40 - 17:05	A nonviral CRISPR platform for <i>in vivo</i> retinal gene editing: Manufacturing and analytical considerations Apoorva Ramamurthy, UW-Madison, USA

Monday, February 2, 2026 (continued)

17:05 - 17:30 **Nanoparticle-mediated intratumoral gene editing for improved cancer immunotherapy**
Guojun Chen, McGill University, Canada

17:30 - 18:30 **Advancing Manufacture of Cell & Gene Therapies Award Lecture**
Chair: John Moscariello, Neuvogen

18:30 **Dinner on your own / Free evening**

Shuttle transportation will be provided. Information on restaurants can be found in the conference app.

Monday, February 2, 2026 - Pre-Conference Workshop - Rescheduled from Sunday

18:30 – 19:30 **Dinner for workshop attendees** (Jasmine Room)

19:30 - 22:30 **Workshop: Improving Cost-Effectiveness and Patient Access for Cell and Gene Therapies** (Hibiscus Room)
Co-chairs: Fabien Moncaubeig (Treefrog Therapeutics), Suzanne Farid (University College London, Decisional Point Limited), Patrícia Gomes-Alves (iBET, Instituto de Tecnologia Química e Biológica António Xavier)

19:30 **Welcome and Introductions**

19:40 - 20:00 **Cell & gene therapy process economics for successful commercialisation**
Suzanne Farid, University College London, UK

20:00 - 21:15 **WORKSHOP: Cost of Goods and Process Change Economics of Viral Vector Manufacture**
Suzanne Farid & Agnes Aparte, University College London, UK

21:15 - 21:45 **Workshop Readouts: Group Presentations and Expert Feedback**

21:45 - 22:25 **Navigating the unique manufacturing and supply chain challenges in cell and gene therapy**
Andrew Ramelmeier, Adverum Biotechnologies, Inc., a wholly owned subsidiary of Eli Lilly and Company, USA

22:25 - 22:30 **Wrap-up and Closing Remarks**

Tuesday, February 3, 2026

06:30 - 08:00	<u>Mentoring Breakfast</u>
08:00 - 11:30	<u>Session 3: Enabling Equitable Patient Access to Cell & Gene Therapies Through Intelligent Automation and Data-Driven Manufacturing Process Control</u> Co-chairs: Neil Blackburn, OmniaBio; Daria Marsh, Cell and Gene Therapy Catapult; John Tomtishen, Strategic Advisor
08:00 - 08:10	Session Introduction
08:10 - 08:35	Flexible Integrated Toolkit for Biomanufacturing Infrastructure Technology (FITBIT) Stephen Balakirsky, Georgia Tech, USA
08:35 - 09:00	Towards industry 4.0: Development of a smart bioprocessing platform integrating real-time monitoring and advanced process control for autologous cell therapy Vincenzo Di Cerbo, Cell and Gene Therapy Catapult, UK
09:00 - 09:25	Real-time control of rAAV bioreactors: Implementing PAT for enhanced gene therapy manufacturing Adriluz Sanchez Paternina, Genentech, USA
09:25 - 09:50	An end-to-end automated manufacturing platform for supervised & scalable organoid-based tissue-ATMP production Ioannis Papantoniou, KU Leuven, Belgium
09:50 - 10:40	Coffee Break (<i>Sponsored by BlueWhale Bio</i>)
10:40 - 11:05	Future-ready cell Therapy manufacturing: Lessons from automation and robotics Daniel Strange, Cellular Origins, UK
11:05 - 11:30	Application of an AI-driven autonomous robotic platform to enable cost-effective, scalable, and infrastructure-agnostic manufacturing of cell and gene therapies Rodney Rietze, Streamline Bio, USA
11:30 - 12:30	<u>Keynote Presentation</u> (Chair: John Moscariello, Neuvogen) Intensification of cell and gene therapy manufacturing: Modeling, design, and control Richard Braatz, Massachusetts Institute of Technology, USA
12:30 - 14:00	Lunch
12:45 - 15:00	<u>Poster Session II</u> Co-chairs: Vanessa Strings-Ufombah, Adverum Biotechnologies, Inc., a wholly owned subsidiary of Eli Lilly and Company; Michael S. Kallos, University of Calgary; Aaron Simmons, Procella (<i>Authors of even numbered posters are asked to stay with their presentations.</i>)
15:00 - 15:30	<u>Christopher Hewitt Outstanding Young Investigator Award Lecture</u> Chair: Corinne Hoesli, McGill Defining and characterizing stem cell-derived endocrine cell therapy products: Protocol optimization, raman spectroscopy biomarkers, and analytical strategy for product identity and potency Diepiriye Iworima, University of British Columbia, Canada
15:30 - 18:30	<u>Session 4: The Product is the Product: Considerations and Tools for Analytical Strategy Development</u> Co-chairs: Fernanda Masri, Minaris Advanced Therapies; Chris Wiwi, Dispatch Biotherapeutics

Tuesday, February 3, 2026 (continued)

15:30 - 15:40	Session Introduction
15:40 - 16:05	Building product-centric control strategies: Integrating product knowledge and analytical capabilities to achieve product quality Jaymes Fuller, Dispatch Bio, USA
16:05 - 16:30	Off-target testing for gene-edited allogeneic CAR T cells Fuxin Shi, Legend Biotech, USA
16:30 - 17:15	Coffee Break
17:15 - 17:40	Advancing lentiviral vector characterization using nano flow cytometry for particle-level resolution Joseph Sieling, Legend Biotech, USA
17:40 - 18:05	Intelligent analytics for intelligent cells: Pioneering the future of iPSC therapies Lindsay Fraser, Cytomos Ltd, UK
18:05 - 18:30	Multiomics platform enabling 2-day QC release and characterization of cell therapy products Dwight Baker, Cellanome, Inc., USA
18:30 - 19:30	Reception
19:30 - 22:00	Dinner

Wednesday, February 4, 2026

06:30 - 08:00	Breakfast
08:00 - 11:30	<u>Session 5: Advances in Manufacturing of Cell Therapies</u> Co-chairs: Calvin Chan, BMS; Nayyereh Rajaei, Century Therapeutics
08:00 - 08:10	Session Introduction
08:10 - 08:35	Bridging engineering and biology to accelerate the manufacture of allogeneic cell therapy products Margarida Serra, iBET, Portugal
08:35 - 09:00	Novel protocol to differentiate human pluripotent stem cell-derived epicardial cells to cardiac pericytes Fathima Shabnam, University of Wisconsin-Madison, USA
09:00 - 09:25	From bench to bioreactor: Navigating scale-up in iPSC-derived hepatocyte production Oliver Kraemer, Victus, USA
09:25 - 10:15	Coffee Break (<i>Sponsored by Akron Bio</i>)
10:15 - 10:40	Applying advanced processing technologies across the iPSC development lifecycle Lise Munsie, BlueRock Therapeutics, Canada
10:40 - 11:05	Addressing economic challenges in autologous cell therapy via automated and multiplexed closed systems Behnam Partopour, Sartorius, USA
11:05 - 11:30	Bifunctional antibody-peptide microcarriers enable selective capture and expansion of endothelial colony-forming cells in a vertical-wheel bioreactor Hugo Level, McGill University, Canada
11:30 - 12:30	<u>Keynote Presentation</u> (Chair: Julie Murrell, CMAI, Georgia Tech) Engineering the future of CGT manufacturing: Insights from clinical development and commercialization of advanced therapies for oncology and rare disease Susan Abu-Absi, Be Bio, USA
12:30 - 14:30	Lunch
14:30 - 18:00	<u>Session 5 (continued): Advances in Manufacturing of Cell Therapies</u> Co-chairs: Calvin Chan, BMS; Nayyereh Rajaei, Century Therapeutics
14:30 - 14:40	Introductions
14:40 - 15:05	Cost modelling to drive CAR-T cell manufacturing decisions: Cell source and gene transfer approaches Agnes Julia Aparte, University College London, UK
15:05 - 15:30	Hypoxia-driven modulation of CAR T cell culture in stirred-tank bioreactors maximizes cell expansion and killing efficacy in a solid tumor model Margarida Costa, iBET - Instituto de Biologia Experimental e Tecnológica, Portugal
15:30 - 15:55	AI-driven innovation in cell therapy: Celmo And Chemplify™ transforming T Cell manufacturing Ling Wu, ChemT Biotechnology Pte. Ltd., Singapore
15:55 - 16:40	Coffee Break

Wednesday, February 4, 2026 (continued)

16:40 - 17:05	Characterizing the impact of hydrodynamic environments on the expansion of human induced pluripotent stem cell aggregates in computer controlled, clinically relevant-scaled bioreactors Tiffany Dang, University of Calgary, Canada
17:05 - 17:30	Overcoming the challenge of scalable fill/finish strategies for cryopreserved allogeneic cell therapies Katie Pollock, Bristol Myers Squibb, USA
17:30 - 17:55	Cell harvest process parameter optimization improves post-thaw quality and functionality in iPSC-derived ab CAR-T cells Victoria Karakis, Century Therapeutics, USA
18:00 - 18:30	Stretch Break
18:30 - 19:30	Reception (<i>Sponsored by FUJIFILM Cellular Dynamics, Inc.</i>)
19:30 - 22:00	Conference Banquet

Thursday, February 5, 2026

06:30 - 08:30	Breakfast
	Departures

Posters



Advancing Manufacture of Cell and Gene Therapies IX

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Poster Presentations

1. **Towards non-invasive quality monitoring in the production of stem cell-derived pancreatic islets**
Corinne Hoesli, McGill University, Canada
2. **Remediation of an adenovirus infectious titer release assay to enable reliable QC support for cell and gene therapy products**
Adam Haines, Dispatch Bio, USA
3. **Development of complex functional methods to measure and identify virally delivered payloads for Cell and Gene Therapy Products**
Henri Estanbouli, Dispatch Bio, USA
4. **PAINT: Targeted high-resolution gene therapy using electrospray and cold plasma**
Julia Nelson, Georgia Institute of Technology, USA
5. **Plasma-induced transient poration enables biomolecule delivery to adherent cells**
Yongsong Huang, Georgia Institute of Technology, USA
6. **Development of a stable cell manufacturing process based on a novel risk assessment method considering control difficulty**
Masahiro Kino-oka, Osaka University, Japan
7. **Engineering immunocompetent 3D brain cultures for AAV-based gene therapy development**
Margarida Serra, iBET, Portugal
8. **Defining and characterizing stem cell-derived endocrine cell therapy products: Protocol optimization, Raman spectroscopy biomarkers, and analytical strategy for product identity and potency**
Diepiriye Iworima, University of British Columbia, Canada
9. **Alternative flow cytometry assay controls for autologous CAR-T drug products assessment**
Wen Xie, Legend Biotech, USA
10. **Optimization of isolation and cryopreservation of B cells and impact to cell culture process performance**
Kohana Leuba, Be Bio, USA
11. **Innovative and GMP-friendly manufacturing process for production of off the shelf allogeneic cell therapy**
Joseph Sherba, Legend Biotech, USA
12. **Bridging development and GMP: Leveraging pilot-scale viral vector production to advance cell therapies**
Andrew Gates, BMS, USA
13. **AAV purification using a next-generation monolithic QA IEX chromatography media**
Chervee Ho, BioChromatographix International, Singapore
14. **Control of aggregation and agglomeration during the differentiation of induced pluripotent stem cells**
Randall Learish, Fujifilm Cellular Dynamics, Inc., USA
15. **Functional interrogation of human T cells using the Beacon Discovery™ optofluidic system**
Joseph Valdez, Bruker Cellular Analysis, USA
16. **Enzymatically-degradable hydrogel microcarriers modulate effects of pro-inflammatory cytokine licensing of MSCs**
Keshav Shah, Georgia Institute of Technology, USA

- 17. Standardizing cryopreservation of leukapheresis material to enhance cell therapy quality and supply chain resilience**
Schuyler Mesen, Cabaletta Bio, USA
- 18. Advancing allogeneic cancer therapies through integrated manufacturing of $\gamma\delta$ T Cells in scalable bioreactors**
Margarida Costa, iBET, Portugal
- 19. Dynamics and heterogeneity of cell killing in engineered T-cells revealed by CellCage Enclosures™**
Shawn Levy, Cellanome, Inc, USA
- 20. Directing human pluripotent stem cells to endothelial cells using ETV2-mRNA loaded ionizable lipid nanoparticles**
James Rolland, University of Wisconsin-Madison, USA
- 21. Scale-up strategies for iPSC-derived T-Cell manufacturing: Influence of vessel size and culture volume on cell phenotype and function**
Arina Perez, Century Therapeutics, USA
- 22. Alignment of processes across clinical trials in different geographies**
Zhaohui Zheng, Legend Biotech, USA
- 23. In-depth cell characterization for advancing cell therapies and manufacturing**
Shivaram Selvam, Georgia Institute of Technology, USA
- 24. Optimizing closed-system iPSC processes using a scaled-down, computer-controlled parallel bioreactor platform and high-density cell banking**
Breanna Borys, PBS Biotech, USA
- 25. Development of scalable, versatile, and cost-effective processes for iPSC-derived cell therapy manufacturing via linear scale-up (up to 80L) and high-density cell banking approaches**
Omokhowa Agbojo, PBS Biotech Inc., USA
- 26. Investigation of spatial heterogeneity, gene expression and expansion kinetics in pluripotent stem cell aggregates expanded in bioreactors**
Erin Roberts, University of Calgary, Canada
- 27. Towards scalable cell therapy manufacturing: Differentiation of iPSCs into natural killer cells under shaking conditions**
Gauri Anil Wali, Technical University of Denmark, Denmark
- 28. Bioprocess development and intensification for billion-scale production of hiPSC-based cell products**
Antonio Roldao, iBET, Portugal
- 29. GMP-compatible fluoropolymer closed culture systems for manufacturing and controlled aggregation of stem cell-derived pancreatic progenitors for diabetes cell therapy**
Praveen Pedabaliyarasimhuni, McGill University, Canada
- 30. Developing a product knowledge strategy to support accelerated drug development for cell and gene therapies**
Alyse Frisbee, Dispatch Biotherapeutics, USA
- 31. Novel sensor and bioreactor technologies for cell culture**
Venkatesh Srinivasan, University of Maryland Baltimore County, USA

- 32. Demonstration of nanofiltration-based virus safety for AAV manufacturing using Model viruses**
Brian Buesing, Asahi Kasei Bioprocess America, Inc, USA
- 33. T Cell engineering via serial delivery of mRNA using lipid nanoparticles**
Apoorva Ramamurthy, University of Wisconsin-Madison, USA
- 34. Navigating current standards for cell and gene therapy storage containers**
Sean Werner, BioLife Solutions, USA
- 35. Tailored cell cycle intervention to enhance AAV manufacturing**
Noam Greenshtein, Johns Hopkins University, USA
- 36. Highly multiplexed allogeneic CAR T-cell engineering using in process DNA-PK inhibition**
Marielle Summers, Bristol Myers Squibb, USA
- 37. Enhancing AAV production using tunable molecular dials in engineered HEK-293 packaging cell lines**
Larry Forman, CHO Plus, USA
- 38. Evolution of an ex vivo lentiviral vector manufacturing platform for in vivo applications**
Neil Blackburn, OmniaBio, Canada
- 39. *Withdrawn***
- 40. Genome-wide CRISPRa screen identifies CEBPA as a novel modulator of high rAAV production**
Filipa Moura, iBET, Portugal
- 41. A novel application of GS-based selection for rapid generation of high-titer rAAV producer cell lines**
Filipa Moura, iBET, Portugal
- 42. Development of high-performing stable producer cell lines for therapeutic AAV vector manufacturing**
Gang Li, Lonza Houston, USA
- 43. Beta-dispersion parameter applications in process characterization and optimization for rAAV production**
Stephanie Klaubert, Solid Biosciences, USA
- 44. Robust biomanufacturing of insulin-producing cells in controlled and automated bioreactors for Type 1 diabetes treatment**
Jessica Jiyu Tian, McGill University, Canada
- 45. Upskilling the sector in process economics for cell and gene therapies**
Christos Stamatis, Decisional Point Limited, USA
- 46. Advancing automated manufacturing for cell and gene therapies: Deployment and evaluation of the Constellation Robotic System at the digital and automation testbeds**
Daria Marsh, Cell and Gene Therapy Catapult, UK
- 47. Large-scale manufacturing of hBM-MSC using dissolvable microcarriers in a closed-system bioreactor**
Takashi Adachi, Minaris Advanced Therapies Co., Ltd., Japan
- 48. Mapping dynamic evolution of therapeutic cell metabolism via in situ microfluidic mass spectrometry**
Gianna Slusher, Georgia Institute of Technology, USA
- 49. Next generation rAAV manufacturing: Continuous, intensified and smart by design**
Daria Marsh, Cell and Gene Therapy Catapult, UK

- 50. High fidelity cell culture process for AAV production demonstrates scalability, improved productivity and reduced partial and empty capsids**
Madhuresh Sumit, Sanofi, USA
- 51. AI-driven innovation in cell therapy: Celmo and Chemplify™ transforming T Cell manufacturing**
Ling Wu, ChemT Biotechnology Pte. Ltd., Singapore
- 52. Development of omics analysis and digital twins to better understand and optimise CAR-T manufacturing**
Stephen Goldrick, University College London, UK
- 53. Comparative study of forecasting models for predictive feed control in real-time monitored bioreactor cell cultures**
Giuseppe Adriano Asaro, KU Leuven, Belgium
- 54. MS-based workflow for PTM profiling of AAV capsid proteins to support bioprocess monitoring and development**
Patricia Alves, iBET, Portugal
- 55. Collagen hydrogel tube microbioreactors for cell manufacturing**
Yuguo Lei, Penn State University, USA