



CELL & GENE THERAPY INSIGHTS

Your content marketing partner for life sciences

MEDIA KIT 2024





Your content
marketing
partner for life
sciences

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ABOUT

Cell & Gene Therapy Insights

Cell & Gene Therapy Insights is an online, peer-reviewed, open access journal with a translational focus. Key scientific, regulatory, business and manufacturing challenges and advances are addressed through publication of original research, reviews, commentary articles, clinical trial reports and much more.

All content is available free of charge, and the written material is complemented by engaging formats such as webinars, infographics, animations, video and podcasts.

An online,
peer-reviewed,
open access journal
with a translational
focus



Is it important for **your company to demonstrate its capabilities** to scientists and/or business leaders making key technology platform decisions at an early stage in a product's development?

Do you need to **generate qualified leads** from companies involved in viral vector manufacture?

Are you looking to **provide educational materials** to individuals focused on analytical, process or clinical development?

Cell & Gene Therapy Insights provides a unique online content marketing and lead-generation opportunity:

- ▶ **Active engagement of key stakeholders** from across the global community all year round
- ▶ The chance to **target organizations at varying stages of the R&D pipeline:** universities, spin-outs, biotechs, pharma, hospitals, investors and analysts
- ▶ An **alternative to the ever-more expensive conference market**
- ▶ A means by which you can **access the people making the key new discoveries**, those individuals driving the delivery of safe and effective therapies to patients, and those manufacturing the cell and gene therapies of the future



*Cell & Gene
Therapy Insights*
provides a unique online
content marketing and
lead-generation
opportunity

WHAT CAN WE DO FOR YOU?

We can:

- ▶ Provide support in the **development of your content marketing strategy** and tactics for this sector, partnering with you in the development of your annual marketing plans
- ▶ Work closely with you to **create quality written, video and audio content** of high value to your target audience
- ▶ Offer you opportunities to **re-purpose scientific and educational content** you have already developed and make it available to a global audience
- ▶ **Raise your company's profile**, demonstrate your capabilities, and enhance your reputation as a thought-leader in the sector
- ▶ Play a key role in your **lead-generation activities**
- ▶ Ensure your leading scientists are seen as **Subject Matter Experts** throughout your target market
- ▶ **Create written content from video or audio**, ideal for increasing the reach, longevity and searchability of your data and other technical information

We don't sell off-the-shelf solutions. All the packages we provide are tailored to your precise marketing, educational and business development objectives.

We can partner with you to develop high quality content to demonstrate your thought-leadership:

- ▶ Your own special focus issue or ebook on the topic of your choice
- ▶ Client case studies, interviews and co-presentations
- ▶ Peer reviewed articles, as well as editorials and commentaries
- ▶ Video presentations and roundtables
- ▶ Podcasts
- ▶ Infographics and animations
- ▶ Webinars, both live and on demand



USER DEMOGRAPHICS

Data by sector

- ▶ **Biotech companies**, including those at a relatively early stage of development. Our research shows that these earlier stage companies attend fewer industry conferences than those at a later stage, so *Cell & Gene Therapy Insights* offers an unparalleled opportunity to target this particular audience
- ▶ **Prolific academic institutions and research hospitals**, in particular those that generate spin-outs based on cell and gene therapy candidates and technologies
- ▶ **Pharmaceutical companies and large biotechs** with a major or growing focus on cell and gene therapies
- ▶ **Government-funded organizations** (such as NIH) and NGOs
- ▶ **Investors and analysts**
- ▶ **Solution and service providers**



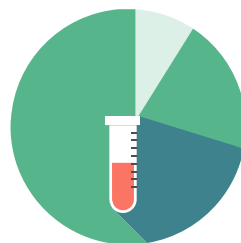
32%

Biotech



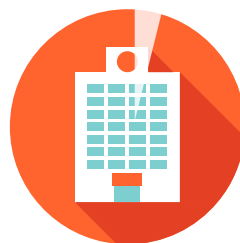
26%

Academic/
hospital



14%

Pharma/
large biotech



4%

Government/
NGO



1%

Investor/
analyst



23%

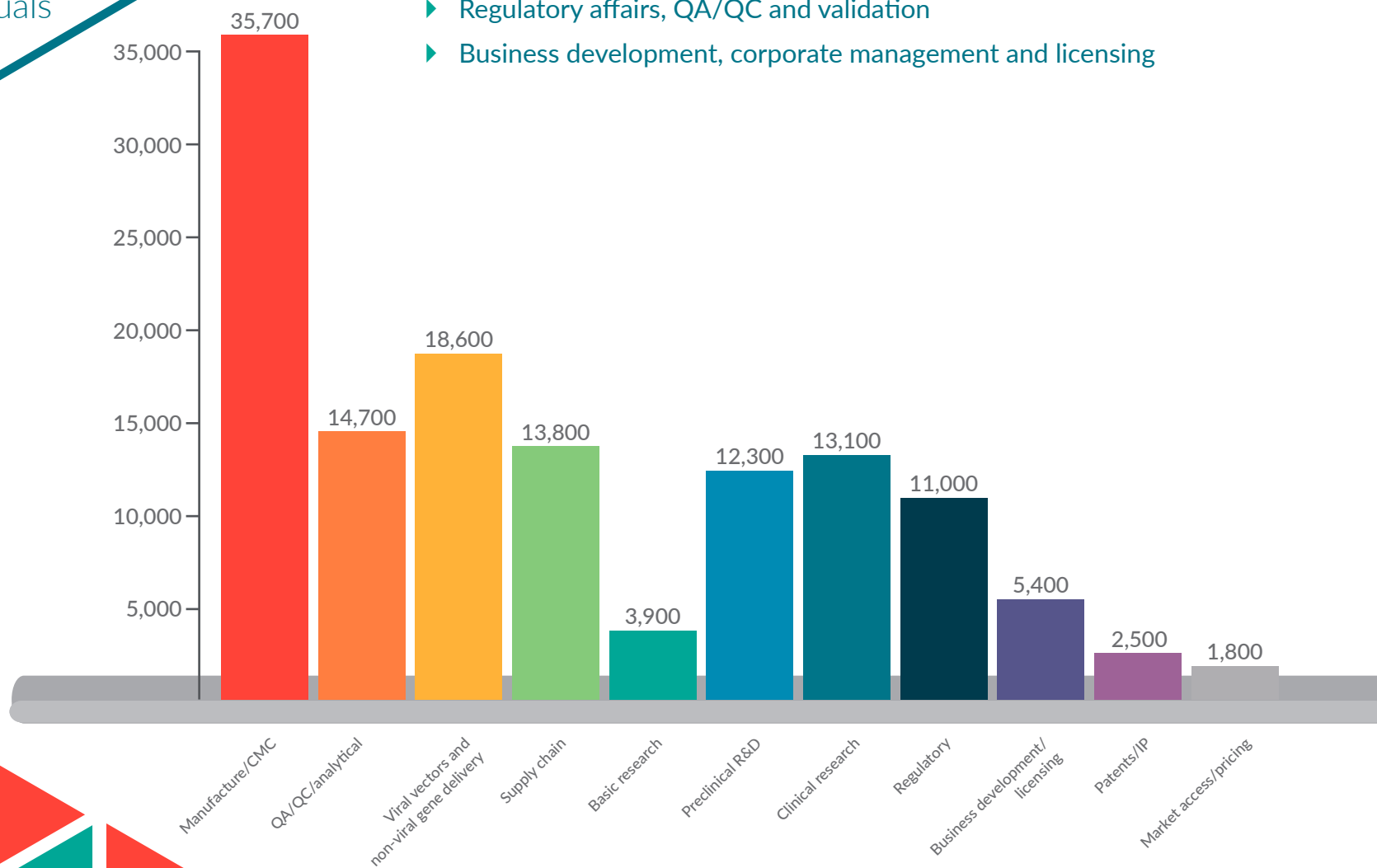
Solution/
service provider

We
currently
have 41,000
registered
users

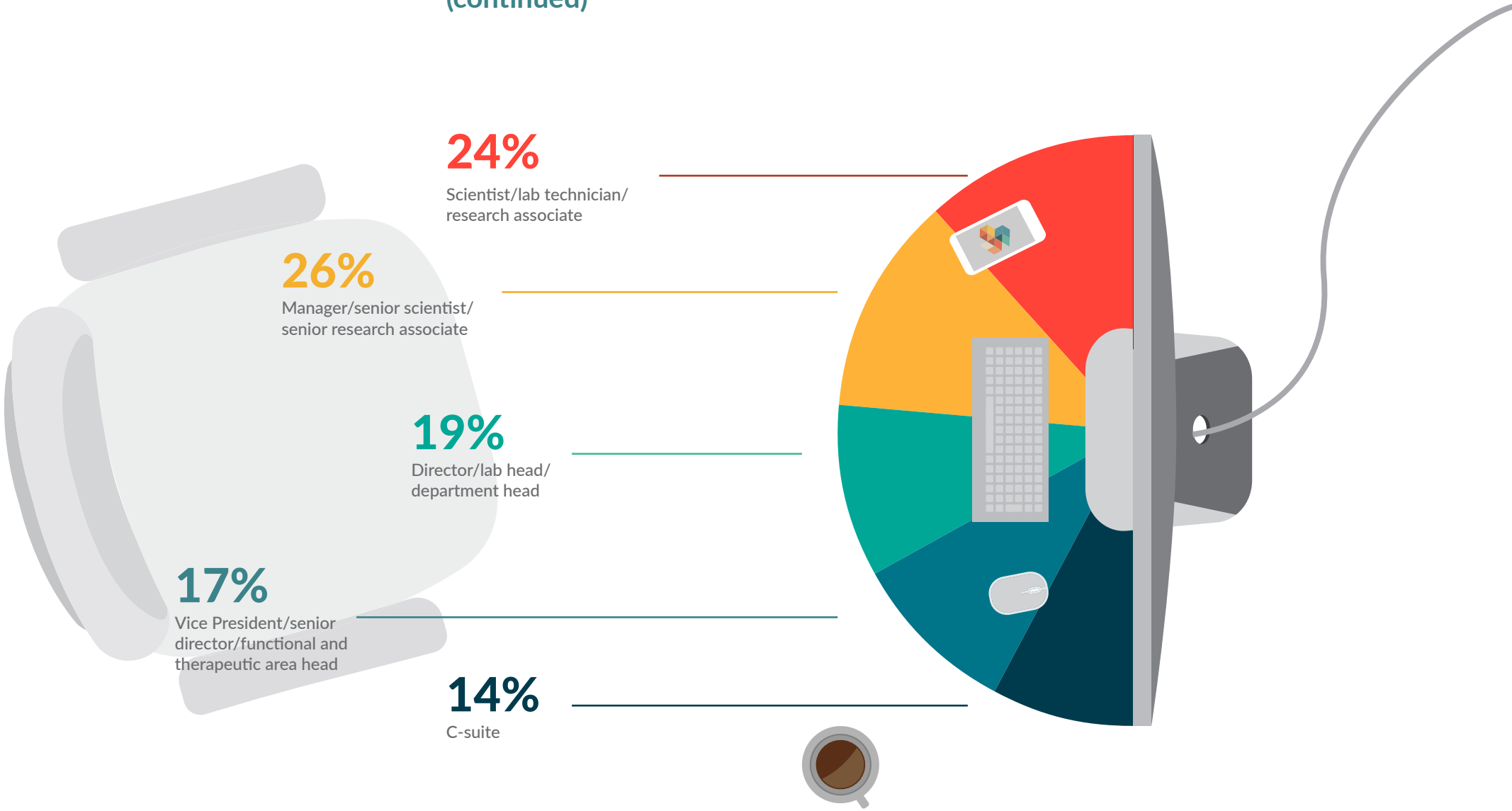
Data by interest area & seniority

- ▶ Discovery and basic research
- ▶ Preclinical development and translational R&D
- ▶ Clinical research
- ▶ Product development, process development, operations, logistics and manufacture
- ▶ Regulatory affairs, QA/QC and validation
- ▶ Business development, corporate management and licensing

*Cell & Gene
Therapy Insights*
has a translational
focus, featuring content
of value to individuals
along the R&D
pipeline.



Data by interest area & seniority (continued)



Data by location



EDITORIAL CALENDAR



Spotlights

Each monthly Spotlight focuses BioInsights members' attention on a particular topic or technology area. We leverage an array of formats to provide a comprehensive update on the key trends, challenges and breakthroughs in a given field: Independently peer reviewed Expert Insights, Opinion pieces, Interviews, Webinars, Podcasts, FastFacts videos, and more...



Channel Editions

Channels allow us to zoom right in on specific aspects that are of special interest to BioInsights members, including vector manufacture (viral and non-viral), analytics, and supply chain.



Reports

Our Reports provide up-to-the-minute news and opinion on the stories and breakthroughs of the day from right across the cell and gene therapy field. Covering everything from R&D innovation to regulatory affairs, and from business/commercial strategy to clinical trends.



Podcast series

We select a key issue or challenge, then invite a range of stakeholders to proffer their opinions and share related learnings via the ever-popular, easy-to-consume podcast format.

You are able to sponsor any of the Spotlights and/or select an issue for the content we develop together.

We also feature a number of topic-specific channels on our website:

Vectors; manufacturing; supply chain; analytical; regulatory; translational & clinical research

	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE
 Journal Spotlights		Induced pluripotent stem cells (iPSCs)	Non-clinical/translational tools & technologies	Vector processing & materials	Cell therapy upstream processing & materials	Viral and non-viral vector platform evolution
Channel Editions Published quarterly: Vector Supply Chain		SUPPLY CHAIN: Cryopreservation & cold chain	VECTOR: Scalability	SUPPLY CHAIN: Scaling the supply chain		VECTOR: Upstream processing
 Channel Newsletters		Manufacturing Supply chain	Manufacturing Vector Analytics	Manufacturing	Manufacturing Supply chain	Manufacturing Vector Analytics
Cell and Gene Therapy Updates		Cell and gene therapy update		Cell and gene therapy update		Cell and gene therapy update
	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER
 Journal Spotlights	Gene therapy analytics & CMC	Innovation in cellular immunotherapy: how to reach more patients?	Scale-up/scale-out of cell & gene therapy manufacturing	Gene editing	Cell therapy downstream processing & analytics	Review of 2024 & previewing 2025
Channel Editions Published quarterly: Vector Supply Chain		SUPPLY CHAIN: Supply chain digitization		VECTOR: Downstream processing	SUPPLY CHAIN: Securing the supply chain	VECTOR: Characterization & validation
 Channel Newsletters	Manufacturing Analytics	Manufacturing Supply chain	Manufacturing Vector Analytics	Manufacturing	Manufacturing Supply chain	Manufacturing Vector Analytics
Cell and Gene Therapy Updates		Cell and gene therapy update		Cell and gene therapy update		Cell and gene therapy update

WHO WE WORK WITH



Our client list includes:

- ▶ AGC Biologics
- ▶ Aldevron
- ▶ Alfa Wassermann
- ▶ Alphalyse
- ▶ AmerisourceBergen
- ▶ Aseptic Technologies SA
- ▶ Batavia Biosciences
- ▶ Be The Match BioTherapies
- ▶ Beckman Coulter
- ▶ Berkeley Lights
- ▶ BIA Separations
- ▶ BioIVT
- ▶ BioLife Solutions
- ▶ bioMerieux
- ▶ BioQuell
- ▶ Bio-Rad
- ▶ Bio-Techne
- ▶ CARR Biosystems
- ▶ CellGenix GmbH
- ▶ Cellular Highways
- ▶ Center for Breakthrough Medicines
- ▶ Cevec Pharmaceuticals
- ▶ Charles River Laboratories
- ▶ Charter Medical
- ▶ Corning Life Sciences
- ▶ CPC
- ▶ Curate Biosciences
- ▶ Cytiva
- ▶ Eppendorf
- ▶ Eureka Biotechnology
- ▶ Eurofins Panlabs
- ▶ Eurofins VRL
- ▶ Fresenius Kabi
- ▶ FUJIFILM Irvine Scientific
- ▶ Gyros Protein Technologies
- ▶ Horizon Discovery
- ▶ Invetech
- ▶ Isolere Bio
- ▶ Lonza
- ▶ Malvern Panalytical
- ▶ Maxcyte
- ▶ Microfluidx
- ▶ MilliporeSigma
- ▶ Miltenyi Biotec
- ▶ Mirus Bio
- ▶ Mogrify Ltd
- ▶ Ncardia
- ▶ Nexcelom Biosciences
- ▶ Oxford BioMedica
- ▶ OXGENE
- ▶ Pall Biotech
- ▶ Perkin Elmer
- ▶ Polyplus-transfection
- ▶ Precision Nanosystems
- ▶ Protagene
- ▶ Qiagen
- ▶ Quick Pharma Logistics
- ▶ Reading Scientific Services
- ▶ Repligen
- ▶ Roche Custom Biotech
- ▶ RoosterBio
- ▶ Sartorius
- ▶ SCIEX
- ▶ Sexton Biotechnologies
- ▶ Single Use Support
- ▶ Sony Biotechnology
- ▶ STEMCELL Technologies
- ▶ Terumo BCT
- ▶ Thermo Fisher Scientific
- ▶ TouchLight
- ▶ Vineti, Inc
- ▶ Virica Biotech
- ▶ Vironova AB
- ▶ VivaBioCell SpA
- ▶ VIVEbiotech

OPPORTUNITIES

We offer a broad range of options to help you reach your target audience, any of which can be tailored to match your current marketing and business development priorities. These include interviews, expert roundtables, podcasts, webinars, articles, video presentations, infographics, eblasts and more.

Any of our options can be tailored to match your current marketing and business development priorities.



WEBINARS

Presenting a webinar with *Cell & Gene Therapy Insights* gives you an efficient and cost-effective way to:

- ▶ Generate qualified leads from amongst the global cell and gene therapy community
- ▶ Demonstrate your company's expertise and capabilities
- ▶ Stimulate discussion around a topic of significant importance to your customers
- ▶ Educate individuals on crucial regulatory, scientific or technical issues
- ▶ Make a noise around a new product or service offering launch

Webinars can stand alone or can be included in a Spotlight, depending on the topic and timing fit.

Our
2024
webinar
schedule is
filling up fast.

Contact n.mccall@insights.bio to
discuss options & availability.



Presenting a webinar with us is an efficient and cost-effective way to generate qualified leads.

Our webinar packages include:

- ▶ As much support as you need in terms of topic selection and agenda development, format selection, and speaker panel identification and invitation
- ▶ Full hosting and technical support, including planning calls with panellists and rehearsals as needed
- ▶ A comprehensive promotional plan, including multiple email shots to our database, website and newsletter marketing, and social media
- ▶ A moderator from our editorial team to ensure the webinar runs smoothly on the day
- ▶ Registration and attendee lists for the webinar
- ▶ A report on the questions submitted during the live webinar so you can follow up directly with individuals afterwards and continue the discussion
- ▶ Hosting of the webinar recording on an indefinite basis with ongoing lead generation
- ▶ Webinar recording provided to you for hosting on your own site
- ▶ The option for us to publish an article based on the transcript of the webinar, repurposing your presentation into written format and making it search engine friendly

We don't sell off-the-shelf solutions. All the packages we provide are tailored to your precise marketing, educational and business development objectives.

Examples of previous webinars for our clients:

Feb 3 2022

ON DEMAND

The digital revolution: Technological innovations to enable automation in cell therapy manufacturing

Sponsor

Thermo Fisher SCIENTIFIC

CELL & GENE THERAPY INSIGHTS

INNOVATOR INSIGHT

The digital revolution: technological innovations to enable automation in cell therapy manufacturing

Sean Chang, Bruce Greenwald & Kish Roy

355

Panel-style webinar with accompanying transcript-based article for Thermo Fisher Scientific

May 5 2022

ON DEMAND

Process development excellence to de-risk and accelerate commercialization of cell and gene therapies

Sponsor

Lonza Cell & Gene

Watch now

SPEAKERS

Behnam Baghbaderani
Global Head, Process Development,
Emerging Technologies at Lonza Pharma & Biotech

356

Presentation-style webinar with Q&A for Lonza

Feb 10 2022

ON DEMAND

TESSA technology: A new era for AAV manufacture

Sponsor

OXGENE
A VIAL Associated Company

Watch now

SPEAKERS

Ryan Cawood
Chief Scientific Officer at OXGENE

357

Live30 webinar: a 30 minute webinar focused on new technologies and their applications for OXGENE

You can view all of our on-demand webinars here.

EXPERT ROUNDTABLES

On-demand video expert roundtables provide powerful tools for you to generate qualified leads and/or position your thought-leader(s) at the heart of the debate around a topic of key importance to your company.

Our editorial team works closely with you to identify over-arching topics and discussion points, and to convene a panel of KOLs. We then liaise with the panel to define the final list of questions for discussion, video and edit the roundtable itself, and then produce a full article based on the transcript.

Video roundtable examples:



Video

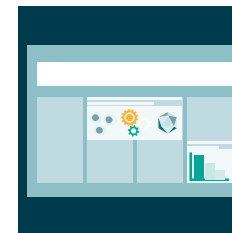


Article

Embracing transformation: how big data, AI and digitization are changing cell and gene therapy manufacture (for **Cytiva**)



Video and article



Poster summarising key learning points

Strategies for scaling up and out in gene therapy manufacturing: addressing AAV's growing pains (for **Corning**)

ARTICLES

Free access publication of submitted articles remains the gold standard for sharing data with scientists across the sector.

Our sponsored article publication package includes full peer review, a license for you to reproduce the article on your own website, and a comprehensive two-month promotional package to maximise readership.

Examples of articles for our clients:

VECTOR BIOPROCESSING

Clarification of recombinant adeno-associated virus (rAAV) & lentivirus from adherent culture for Pall Biotech

Cell & Gene Therapy Insights 2022; 8(2), 483–493
DOI: 10.18609/cgti.2022.070
PUBLISHED: 30 APRIL 2022
RESEARCH ARTICLE
Rajeshwar Chinmawar, Nicholas Marchand

In recent years the cell and gene therapy industries have been rapidly expanding, with the adeno-associated virus (AAV) and lentivirus. With clinical success comes the need to develop processes. As both of these vectors are produced in cells, the first step in their purification is many technologies traditionally used for cell culture clarification but given the projected consumables a combination of depth and membrane filtration is a logical fit for batch pro-

CELL & GENE THERAPY INSIGHTS

FIGURE 2
Clarification process outcomes against AAV content

TABLE 1
Clarification process outcomes against AAV content

488 | DOI: 10.18609/cgti.2022.070

Clarification of recombinant adeno-associated virus (rAAV) & lentivirus from adherent culture for Pall Biotech

ANALYTICS : Enhancing accuracy & throughput

Accelerating AAV capsid analysis using a new multi-capillary electrophoresis platform for SCIEX

Cell & Gene Therapy Insights 2022; 8(2), 231–240
DOI: 10.18609/cgti.2022.039
PUBLISHED: 16 MARCH 2022
INNOVATOR INSIGHT
Susan Darling

Adeno-associated viral (AAV) vectors, while offering numerous advantages over other viruses (non-pathogenic, low immunogenicity, and can readily enter a variety of cell types), are highly complex molecules that present significant manufacturing challenges. There are a large number of serotypes to choose from, and the need to implement transfection processes that afford high yields of capsids containing the gene of interest and purification hurdles to overcome. From an analytical perspective, samples are getting more complex, more numerous, and require more complex analytical methods that involve complex method set ups, but results are needed in less time. Despite these challenges, developers of gene therapies must be able to understand the molecular liabilities of AAV vectors as soon as possible in the

Accelerating AAV capsid analysis using a new multi-capillary electrophoresis platform

Cell & Gene Therapy Insights 2022; 8(2), 231–240
DOI: 10.18609/cgti.2022.039
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440 | DOI: 10.18609/cgti.2022.039

Accelerating AAV capsid analysis using a new multi-capillary electrophoresis platform for SCIEX

CELL THERAPY CMC AND QUALITY CONTROL

Characterization of a novel high-throughput, high-speed plate-based image cytometric cell counting method for Nexcelom

Cell & Gene Therapy Insights 2023; 7(4), 427–447
DOI: 10.18609/cgti.2023.070
PUBLISHED: 14 MAY 2023
RESEARCH ARTICLE
Jordan Bell, Yongyang Huang, Henry Qazi, Dmitry Kuksin, Jean Qiu, Bo Lin, Leo Li

Bioprocessing applications for cells and biologics have dramatically increased the number of immunotherapy. The cell counting time is a major bottleneck for traditional counting methods. Here we characterize and demonstrate a novel high-throughput, high-speed, and high-precision system. Here we characterize and demonstrate a novel high-throughput, high-speed, and high-precision system. Here we characterize and demonstrate a novel high-throughput, high-speed, and high-precision system. Here we characterize and demonstrate a novel high-throughput, high-speed, and high-precision system.

CELL & GENE THERAPY INSIGHTS

FIGURE 4
Experimental design and results comparing 5600i™ and 5600i™ systems for high-throughput cell counting

(a) Experimental design and results comparing 5600i™ and 5600i™ systems for high-throughput cell counting. (b) Bar chart showing cell counting results for 5600i™ and 5600i™ systems. (c) Bar chart showing cell counting results for 5600i™ and 5600i™ systems.

TABLE 1
Cell counting results for 5600i™ and 5600i™ systems

Parameter	5600i™	5600i™
Throughput	1.0%	1.0%
Accuracy	1.0%	1.0%
Precision	1.0%	1.0%

440 | DOI: 10.18609/cgti.2023.070

Characterization of a novel high-throughput, high-speed and high-precision plate-based image cytometric cell counting method for Nexcelom

INTERVIEWS & PODCASTS

Interviews are a great way to raise awareness within the cell and gene therapy community, with minimal resource requirements from your team.

We can interview up to three of your scientists, executives, partners or clients, with the resulting video, podcast and/or written version included in an issue of the online journal.

Examples of previous interviews for our clients:

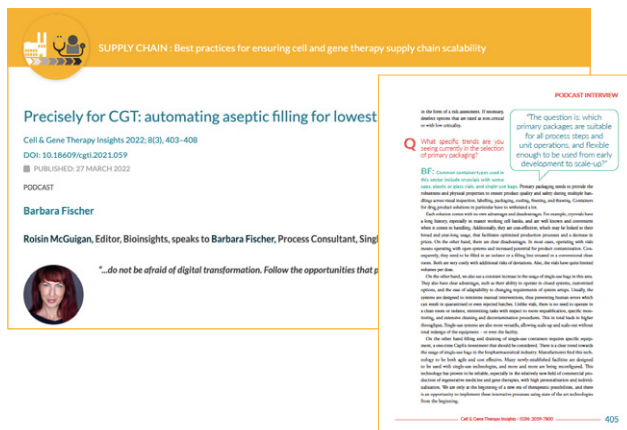
Video and written

[Stepping foot into a successful partnership to support your viral vector therapy through commercialization for Merck](#)



Podcast and written

[Precisely for CGT: automating aseptic filling for lowest volumes for Single Use Support](#)



Podcasts
in a variety
of formats and
lengths can also be
produced, either in
series or as
one-offs



The screenshot shows a scientific article titled "Key factors to consider for successful cell therapy manufacturing: a case study" from Cell & Gene Therapy Insights. The authors are Valentina Becherucci, Øystein Åmellem, and Xavier de Mollerat du Jeu. A "PODCAST INTERVIEW" overlay is positioned on the right side of the article, containing a Q&A transcript. The transcript includes questions from DH, VB, and XMJ, and answers from VB and XMJ regarding manufacturing processes, sterility, and flask types.

Key factors to consider for successful cell therapy manufacturing: a case study
Cell & Gene Therapy Insights 2022; 8(2): 241-249
10.18609/cgti.2022.039
PUBLISHED: 2 MARCH 2022
Valentina Becherucci, Øystein Åmellem, Xavier de Mollerat du Jeu

You can listen to the **podcast at the bottom of this page** or read the interview below

[View pdf](#)

PODCAST INTERVIEW

DH: That makes sense. When you have a four-week manufacturing time, that means that the cells are undergoing several passages. Do you have criteria for how many passages you run in your manufacturing process, in order to not lose the cells' characteristics? Do you count the number of passages or the time you get to the desired end point of your drug?

VB: The data of all cultures comes out after process validation. The goal is to reach the therapeutic design. The culture can be shorter - you can stop it at three weeks and use four weeks. It can be longer than four weeks because, according to the literature, if you culture for more than that or five weeks, you can get some unwanted effects on cells. For example, you can get genetic variation that is not good for the patient. The four weeks come from our process validation, where we produced five batches of MSCs, and in four batches we saw that the variability was low in terms of the number of cells after four weeks of culture. We also checked other parameters of MSCs, for example the antigen expression of specific markers that must be positive or negative according to International Society of Cell Therapy.

XMJ: Valentina, in this four-week process, how do you ensure you maintain sterility? Do you do weekly QC monitoring on your process?

VB: In our process, we perform initial sterility before starting the culture directly on the bioreactor. Then, we perform an in-process control of sterility after two weeks of culture, and at the end of the culture, before freezing. In our process, cells will be frozen after four weeks of culture and then stored in liquid nitrogen until you get the patient. In this case, the sterility is performed both on cells and on the cell culture media, on the equipment.

DH: What are the QC or analytical tests you implement in your process to ensure the safety and quality of the product?

VB: According to the regulatory specification, the testing methods must be validated, and mandatory regular testing includes testing of the sterility, endotoxin, mycoplasmas, and hermesites, and in our case we also perform cell identification with flow cytometry. All these tests are performed as in-process control at different steps of the process, and also for the final release or the end of the process.

ØA: Valentina - as you are using flasks, you operate in Class A cell culture conditions. I see you used bags, or a more closed system that you could operate in a hood?

VB: We have tested different kinds of flasks with more surface for culture. However, we do not use bags. Bags are only used in the final step for freezing and storage in liquid nitrogen. We only use open systems and flasks.

XMJ: You mentioned it is a Phase 2 process. As you move to Phase 3 and commercial, you will need to scale this process. How are you thinking about doing that?

Cell & Gene Therapy Insights | ISSN 2029-7900 | 243

For example:

Key factors to consider for successful cell therapy manufacturing: a case study for Thermo Fisher Scientific

VIDEO PRESENTATIONS

Our FastFacts videos are 10–15 minute edited presentations, accompanied by a poster summarising the key learning points. They are designed for the presentation of app notes, validation data, case studies, scientific posters or product demonstrations, and work well both for educational purposes and for lead generation.



Here are some examples:

FASTFACTS

A demonstration of the Cocoon® platform: a bespoke solution to minimize manual touchpoints in cell therapy manufacturing

Cell & Gene Therapy Insights 2021; 7(10), 389
 10.18609/igti.2021.064
 PUBLISHED: 21 APRIL 2021

FASTFACTS

Joseph O'Connor

Watch the demonstration video or read the poster to see how the Cocoon platform can minimize manual touchpoints in cell therapy manufacturing by minimizing manual touchpoints.

- ▶ Sample loading
- ▶ Activation
- ▶ Transduction or transfection
- ▶ Expansion
- ▶ Harvest

Lonza

A demonstration of the Cocoon® platform: a bespoke solution to minimize manual touchpoints in cell therapy manufacturing for Lonza

FASTFACTS

Accelerating downstream analytical testing for gene therapy

Cell & Gene Therapy Insights 2022; 8(1), 33
 10.18609/igti.2022.025
 PUBLISHED: 8 FEBRUARY 2022

FASTFACTS

Harald Ehlen

Watch the video or read the poster to learn:

- ▶ The benefits of rapid, reliable in-process testing for gene therapy
- ▶ How utilizing Slope Spectroscopy can remove or reduce manual touchpoints
- ▶ Gene therapy case studies demonstrating use of the Slope Spectroscopy platform

Harald Ehlen has been with Repligen for 15 years, where he has been instrumental in the validation of Slope Spectroscopy for gene therapy. He has 4 years of experience as Senior Pharmacist, Biopharmaceuticals, and Analytical Development, Physiological Chemistry and then Specialized in Gene Therapy before moving to the US.

Repligen

Accelerating downstream analytical testing for gene therapy for Repligen

FASTFACTS

Rapid Quantitation of Viral Vectors with Simple Plex Microfluidic Immunoassays

Cell & Gene Therapy Insights 2021; 7(12), 1725
 10.18609/igti.2021.267
 PUBLISHED: 20 DECEMBER 2021

FASTFACTS

Nathan Steere

Watch the video or read the poster to learn:

- ▶ Traditional immunoassays offer excellent specificity for gene therapy but can be a significant source of variability
- ▶ Simple Plex viral titration assays, run on the Ella platform, microfluidic circuits perform all reagent additions and washes
- ▶ Simple Plex assays utilize antibody reagents from industry

Nathan Steere is a Commercial Product Manager with more than a decade of experience in the innovative laboratory technologies that facilitate cell and gene therapy manufacturing.

bioTECHNE

Rapid quantitation of viral vectors with Simple Plex microfluidic immunoassays for Bio-Techne

FASTFACTS

Cell and gene manufacturing: a case study approach to overcoming challenges

Cell & Gene Therapy Insights 2021; 7(12), 393
 10.18609/igti.2021.045
 PUBLISHED: 19 APRIL 2021

FASTFACTS

Sean Werner

As cell therapy manufacturing moves from translational customers, and collaborators to better understand the challenges of cell and gene therapy manufacturing, it is important to understand the biggest hurdles and the biggest pain points of solving these problems.

Watch the video or read the poster to learn:

- ▶ What are the biggest hurdles for cell and gene therapy manufacturing?
- ▶ What are the challenges with current technologies?
- ▶ What are the biggest pain points of solving these problems?

About the speaker
 Sean Werner, President, Sexton Biotech, is the founder and CEO of Sexton Biotech, a cell and gene therapy manufacturer.

Sexton Biotechnologies

Cell and gene manufacturing: a case study approach to overcoming challenges for Sexton Biotechnologies

Our FastFacts work well for educational and lead-generation purposes

INFOGRAPHICS

Our team are experts in communicating complex scientific information via visual formats, including infographics (static, voiced and animated), PPT presentations and illustrations. They work closely with your team to define contents and style, and the resulting content can be published in *Cell & Gene Therapy Insights* or simply provided to you for your own use.



Examples include:

Voiced infographic

[Manufacturing and analytics for lentivirus and AAV vectors: a visual and audio guide for Thermo Fisher Scientific](#)

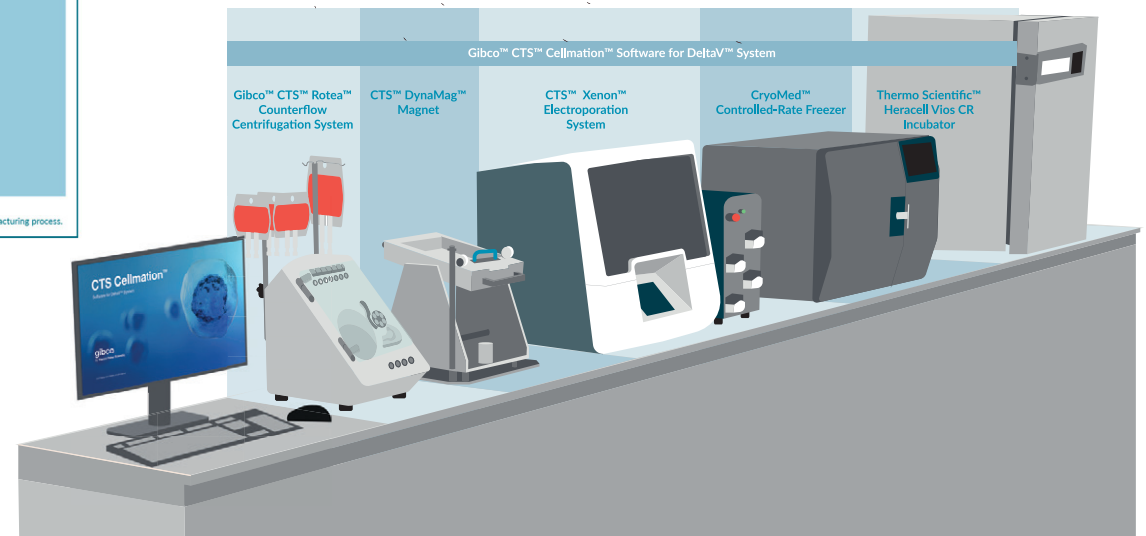
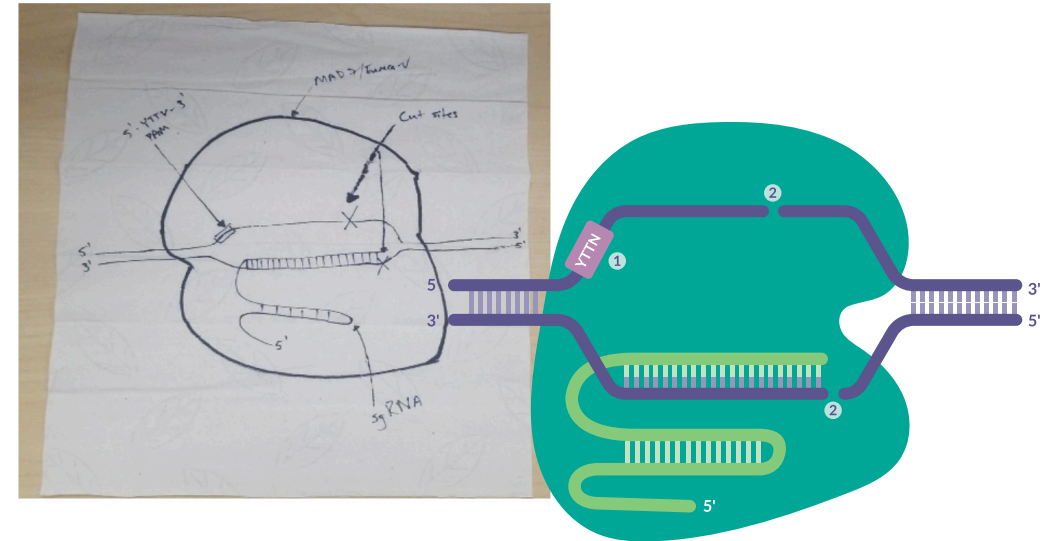
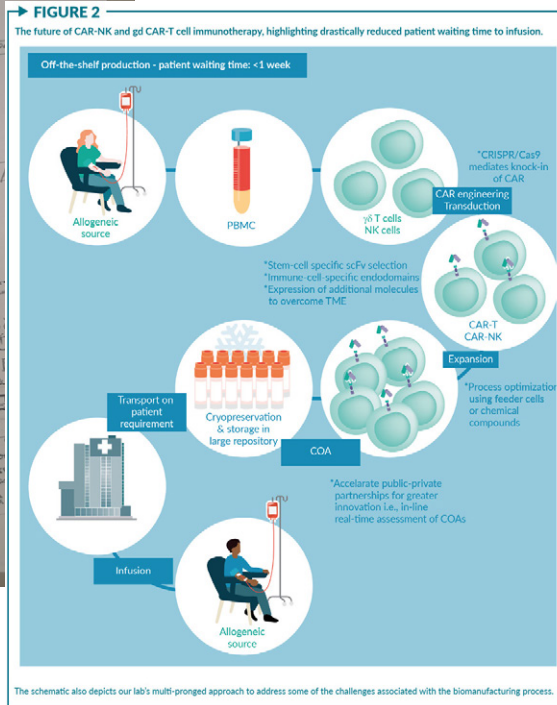
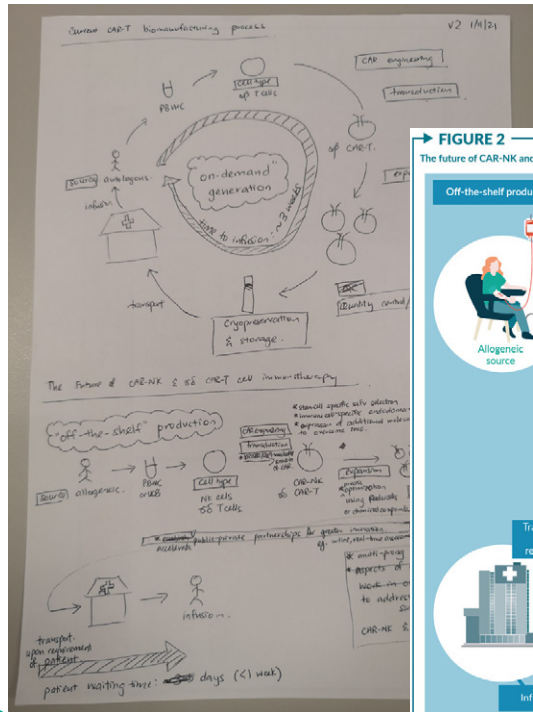


Animated infographic

[Regulatory FAQs & common concerns for cell & gene therapy raw and starting materials for Thermo Fisher Scientific](#)



SCIENTIFIC ILLUSTRATIONS



We work from your sketch or concept to create schematics or illustrations of your products or services

eBLASTS

We offer a strictly limited number of third-party eblasts to our registered users.

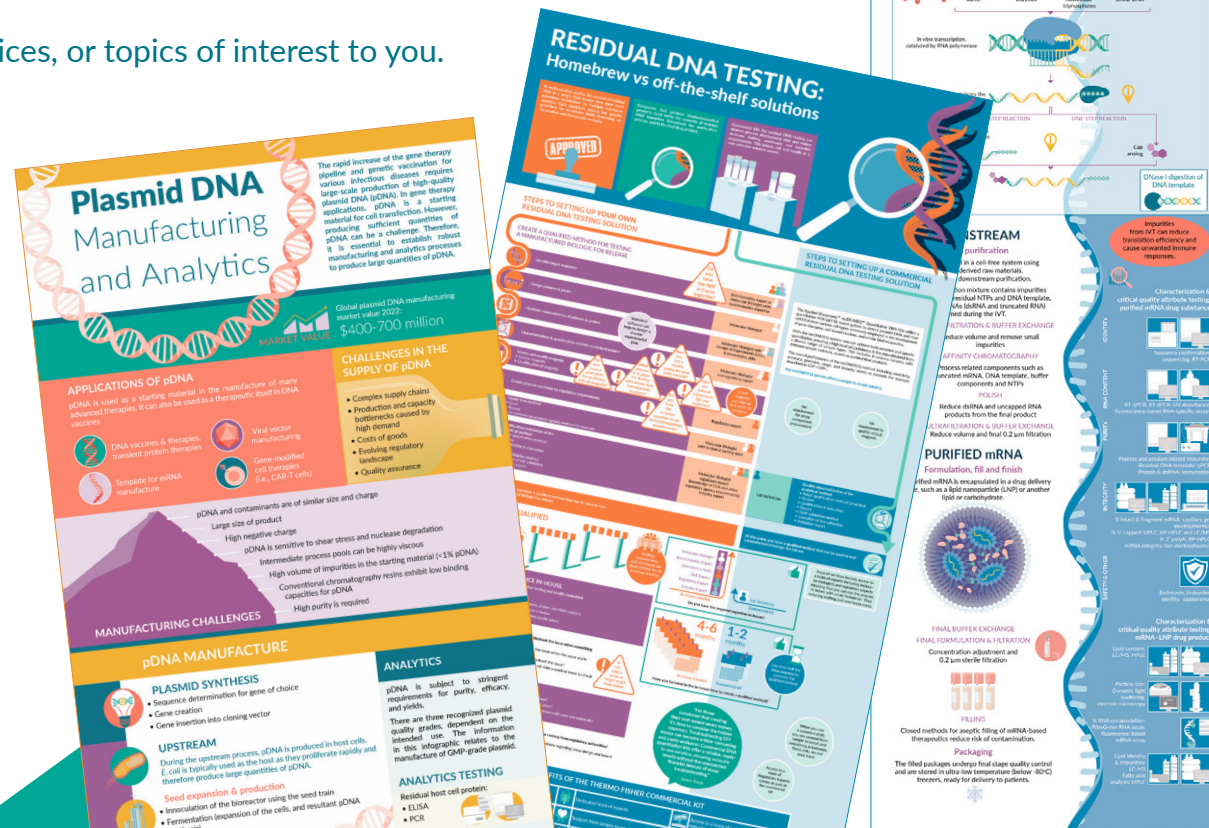
Our 2024 schedule is open for bookings. Please contact **Nicola McCall** at n.mccall@insights.bio.



PREMIUM SERVICES

We offer a number of premium options, both for content creation and for market research. These include:

- ▶ Bringing together KOL panels to discuss the topics of your choice, publishing the output as an ebook, video, and written roundtable, or other suitable content format
- ▶ Designing infographics, which can be animated and/or voiced, ideal for communicating complex technical or scientific information in an easily digestible format
- ▶ Inviting industry or academic Subject Matter Experts to join your live webinars to add their opinions to the discussion
- ▶ Building and deploying surveys amongst our users, providing detailed reports on the responses
- ▶ Bringing together focus groups to discuss your products/services, or topics of interest to you.



mRNA manufacturing and analytics

With the recent surge in use of mRNA as a vaccine and therapeutic modality, optimizing and understanding the development and manufacturing of mRNA for biopharmaceuticals has never been of greater importance.

Current value of the global mRNA market is projected to reach **US\$ 53 billion** by 2025.

Use this infographic to gain you through the upstream and downstream steps in mRNA manufacture, along with the associated analytics.

DNA TEMPLATE PREPARATION

Template design & plasmid production

TARGET GENE DISCOVERY: Target genes are discovered using techniques such as next-generation sequencing.

REVERSE CREATION: Once a gene of interest has been identified, the target sequence can be integrated into a plasmid.

PLASMIDIFICATION: Plasmid DNA (pDNA) is amplified in host bacteria, typically E. coli, which grows in a single-use fermenter.

Plasmid purification: To achieve a high level of supercoiled plasmid.

LINEARIZATION: With restriction enzymes that cleave DNA at specific sequences.

PURIFICATION: Recovery of the linearized plasmid.

ANALYTICS

Targeted analytics to identify and quantify specific mRNA sequences.

Crack solutions in progress and measure this to support their technology scale-up.

Assess gel electrophoresis and other quality control methods.

UV absorbance of DNA template.

Process-related impurities: RNAse, protein, and other contaminants.

qPCR and RT-qPCR for plasmid DNA and RNA.

SPR for real-time monitoring of plasmid production.

mRNA SYNTHESIS

mRNA in vitro transcription and capping

mRNA is synthesized through the process of in vitro transcription (IVT) using linearized pDNA template.

Buffer • Enzymes • Nucleoside triphosphates • Linear DNA

In vitro transcription catalyzes the RNA synthesis.

UPSTREAM

In a cell-free system using derived raw materials, downstream purification.

Inclusion of various impurities: residual NTPs and DNA template, protein, salt and unreacted RNAi during the IVT.

RETENTION & BUFFER EXCHANGE: reduce volume and remove small impurities.

AFFINITY CHROMATOGRAPHY: remove related components such as unreacted mRNA, DNA template, buffer components and NTPs.

POLISH: Reduce dsRNA and uncapped DNA products from the final product.

ULTRAFILTRATION & BUFFER EXCHANGE: Reduce volume and final 0.2 µm filtration.

PURIFIED mRNA

Formulation, fill and finish

filled mRNA is encapsulated in a drug delivery system such as a lipid nanoparticle (LNP) or another lipid or carbohydrate.

FINAL BUFFER EXCHANGE

FINAL FORMULATION & FILTRATION: Concentration adjustment and 0.2 µm sterile filtration.

FILLING: Closed methods for specific filling of mRNA-based therapeutics reduce risk of contamination.

PACKAGING

The filled packages undergo final release quality control and are stored in ultra-low temperature (below -80°C) freezers, ready for delivery to patients.

Characterisation & critical quality attribute testing: mRNA, LNP and other components.

Process-related impurities: RNAse, protein, and other contaminants.

UV absorbance of DNA template.

qPCR and RT-qPCR for plasmid DNA and RNA.

SPR for real-time monitoring of plasmid production.

Process-related impurities: RNAse, protein, and other contaminants.

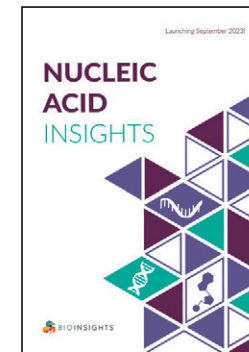
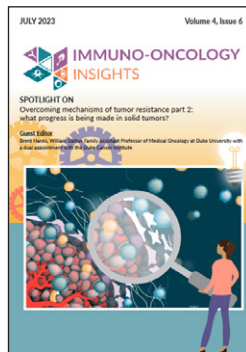
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OUR OTHER PUBLICATIONS

In addition to *Cell & Gene Therapy Insights*, BioInsights also publishes:



Immuno-Oncology Insights

Immuno-Oncology Insights is an open access, independently peer reviewed publication specifically designed to fill a number of clear and important gaps in the current slate of journals for the industrial and academic immuno-oncology communities.

Guided by an editorial board lead by Jon Wigginton and Renier J. Brentjens, *Immuno-Oncology Insights* places R&D challenges and progress across a wide variety of technology fields in context.

Vaccine Insights

Launched in 2022, *Vaccine Insights* is a peer-reviewed, open-access journal providing insights into development and manufacture of prophylactic and therapeutic vaccines. The journal brings together leading experts from pharma, biotech, academia and other key stakeholders to address critical issues and put the latest developments into context. Guided by an expert advisory board, the journal covers the most important advances in vaccine development and manufacture across all disease areas.

If you would like to distribute content to more than one of the cell & gene therapy, immuno-oncology and vaccine communities, we can promote it across multiple journals and market it to more than one set of users.

Nucleic Acid Insights

The latest addition to our publication portfolio, *Nucleic Acid Insights* provides online, peer-reviewed, open access content with a translational focus.

Nucleic Acid Insights is specifically designed to provide the need-to-know information required to successfully navigate this rapidly evolving space, covering all the major RNA and DNA technologies and modalities, including but not limited to: messenger RNA (mRNA); plasmid DNA; antisense oligonucleotides (ASO); phosphorodiamidate morpholino oligonucleotides (PMO); RNA interference (RNAi); small interfering RNA (siRNA); aptamers; micro RNA (miRNA); and guide RNA (gRNA).