

2024



VACCINE INSIGHTS

EDITORIAL CALENDAR

JANUARY	FEBRUARY	MARCH	APRIL	MAY
	Respiratory diseases		Manufacturing: upstream & raw materials	RNA vaccines: research directions
JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER
Understanding & enhancing immune responses	CMC & analytics		Preclinical & clinical research	RNA vaccines: formulation & production
NOVEMBER	DECEMBER	 Contact Nicola McCall +44 1732 463215 n.mccall@insights.bio to discuss thought leadership and lead generation opportunities		
Manufacturing: downstream, fill/finish, & delivery				
		Spotlights comprise: <ul style="list-style-type: none">▶ Peer-reviewed Expert Insight articles written by leading experts in the field▶ Webinars, featuring industry speakers and sponsors discussing key topics specific to the Spotlight▶ Podcast, written and video interviews with key opinion leaders▶ On demand roundtable discussions		<i>Vaccine Insights provide you with fantastic opportunities to:</i> <ul style="list-style-type: none">▶ Educate your target market about your company's expertise, capabilities, and experience▶ Share your latest data with organizations looking for partners and service providers in your field▶ Profile your executives and scientists as thought-leaders and KOLs▶ Generate qualified leads from across the global sector▶ Increase awareness of your company's role in vaccines R&D

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EDITORIAL CALENDAR

Spotlight details

JANUARY

FEBRUARY

MARCH

Respiratory diseases

- ▶ What's next for COVID vaccines?
 - ▶ Prospects for developing next-gen vaccines capable of generating durable, broad-based antibody and T cell immunity
- ▶ Respiratory syncytial virus (RSV):
 - ▶ What will be the impact of newly approved RSV vaccines?
 - ▶ Determining the most appropriate schedule of RSV and other respiratory vaccines to maximize uptake and effectiveness
- ▶ Invasive pneumococcal disease:
 - ▶ the impact of new low-cost vaccines in a competitive market
 - ▶ the race for higher valency—where is the limit?
 - ▶ harmonizing pneumococcal vaccine schedules
- ▶ Quantifying the risk from avian influenza and developing vaccines

APRIL

MAY

JUNE

Manufacturing: upstream & raw materials

- ▶ How can manufacturers mitigate supply chain disruption?
- ▶ Localized vs centralized manufacturing
- ▶ Optimizing manufacturing footprint
 - ▶ In-house manufacturing vs CMO
 - ▶ Could combined/flexible facilities improve efficiency?
- ▶ Scaling up vaccine manufacturing
- ▶ Novel expression systems for vaccine production
- ▶ Toward 100% chemically defined media, and easier generation of chemically defined media for individual processes
- ▶ Stainless steel vs single-use bioreactors for vaccine manufacture
- ▶ Maintaining “warm base” capacity for pandemic preparedness
- ▶ Challenges for training and tech transfer in vaccine manufacturing

RNA vaccines: research directions

- ▶ What will be the next testing ground for RNA vaccines? Where, when, and how will it prove its capabilities, and how much optimization will be needed on a case-by-case basis?
- ▶ Will RNA be broadly applicable or only suited to narrow applications such as pandemic vaccines?
- ▶ Evolving knowledge on mechanisms of action—decreasing reactogenicity while retaining potency
- ▶ Modifying mRNA vaccines to induce mucosal immune responses
- ▶ Adapting mRNA for use in personalized cancer vaccines
- ▶ How will the drive towards cancer vaccines impact infectious disease applications?
- ▶ Latest on next-gen RNA vaccine platforms
- ▶ Regulatory expectations for RNA vaccines—a platform technology?

Understanding & enhancing immune responses

- ▶ Addressing immune imprinting/original antigenic sin for COVID-19 and other circulating RNA viruses
- ▶ Advances in immune profiling and understanding mechanisms of action
 - ▶ Profiling immune cells with single-cell analysis tools
 - ▶ Applying tools such as NGS, flow cytometry, CyTOF
- ▶ Systems serology to decode vaccine-induced immune responses
- ▶ Understanding individual immune response to vaccination
- ▶ Standardizing data recording, storage, and sharing
- ▶ Embracing AI and machine learning for resolving immunological data and antigen design
- ▶ Understanding and targeting mucosal immunity
- ▶ Novel adjuvants, adjuvant platforms, and combinations

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JULY

CMC & analytics

- ▶ Greater connection of CMC with clinical design and understanding quality expectations to avoid bottlenecks
- ▶ How will control strategy evolve with digital twin and digitalization?
- ▶ Patient-centric specifications
- ▶ What is needed from a CMC perspective to achieve CEPI's 100 days goal for pandemic vaccines? Risk-based approaches and innovations
- ▶ Advances in process analytical technology
 - ▶ Monitoring online in real-time
 - ▶ Overcoming limitations of current technology (e.g., sensitivity)
 - ▶ Lowering barriers for implementation
 - ▶ Increased automation
- ▶ High-throughput tools for process development and analytics—forward-looking methods while remaining QC-compliant

AUGUST

SEPTEMBER

Preclinical & clinical research

- ▶ Closing the gap between preclinical and clinical results: better animal and in vitro models
- ▶ Measuring a wider range of immune markers
- ▶ Could evidence from human infection models support approvals?
- ▶ Clinical trials in populations with varied levels of immune competence
- ▶ Correlates of protection—regulators and licensure criteria
- ▶ Vaccine development for special populations
- ▶ Use of AI to clean up clinical data sets and reduce protocol deviations
- ▶ Making the most of real-world vaccine efficacy data
- ▶ Safety—understanding adverse events after vaccination
- ▶ What is a platform technology and how will they be regulated?
- ▶ Regulatory harmonization between regions

OCTOBER

RNA vaccines: formulation & production

- ▶ Sourcing and supply of raw materials—addressing the cost of goods
- ▶ Addressing expense, manufacturing complexity, and IP hurdles of LNPs with next-gen delivery particles
- ▶ Toward temperature-stable formulations
- ▶ Overcoming hurdles in production
 - ▶ Traditional vs cell-free plasmid DNA production
 - ▶ Streamlining IVT and capping
 - ▶ Optimizing purification, especially of larger RNA constructs—chromatography, TFF
- ▶ Analytical methods and control strategy for mRNA-LNPs
 - ▶ Evolving tools (e.g., NGS & mass spectrometry) for characterization
 - ▶ Moving to next-gen assay panels, specific to RNA products
 - ▶ Improved methods for detecting residual dsRNA (e.g., dPCR)

NOVEMBER

Manufacturing: downstream, fill/finish, & delivery

- ▶ Exploring the need for better purification solutions across platforms
- ▶ The environmental sustainability of vaccine manufacturing operations
- ▶ Shared challenges and solutions for vaccines, biologics, and advanced therapy manufacturers
- ▶ Addressing extremes of volume
 - ▶ Challenges of small-scale cancer vaccine production
 - ▶ Efficient scale-up to meet pandemic preparedness needs
- ▶ Challenges and solutions in cold chain/controlled temperature chain:
 - ▶ Routine and corrective maintenance
 - ▶ Sustainability
 - ▶ Role of automation and AI

DECEMBER

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