EDITORIAL CALENDAR 2025





APRIL JUNE JULY

Special launch issue Evolving ADCs: expanding horizons

Targeting precision: bioconjugates in diagnostics and imaging

SEPTEMBER OCTOBER NOVEMBER

New frontiers:
how are oligonucleotide,
peptide, and other emerging
conjugates extending the
reach of the field?

Driving improvements in the delivery and stability of next-generation bioconjugates, including oligo, polymer, and enzyme Overcoming challenges in the ADC manufacturing and R&D ecosystems

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JOURNAL SPOTLIGHTS

Special launch issue



Evolving ADCs: expanding horizons



- Diversifying the therapeutic uses of ADCs—what will follow the example of drugs such as Kadcyla and Adcetris?
 - Addressing the limitations of ADCs in non-cancer disease areas and identifying viable targets
 - ▶ Minimizing systemic toxicity in ADCs for chronic and autoimmune diseases
- ▶ Enhancing site-specific conjugation to minimize heterogeneity in ADCs
- Navigating IP challenges to open up opportunities in the ADC landscape
- Adoption of bi/multifunctional payloads and innovative linker chemistries for precise drug release and stability
 - Integration of bispecific approaches to target multiple pathways or diseases simultaneously
- Designing rapidly clearable ADCs and leveraging structure-activity relationships (SAR) to minimize off-target effects
- Managing geopolitical risk and harnessing dual-sourcing strategies for ADC supply chains

Targeting precision: bioconjugates in diagnostics and imaging



- ▶ Enhancing sensitivity and specificity in bioconjugates for imaging applications
- Overcoming challenges in scaling production of PET and SPECT imaging agents
- Developing more robust conjugation methods for fluorescent and luminescent probes
- ▶ Addressing biocompatibility and immune response risks in diagnostic bioconjugates
- > Solving issues of cross-reactivity and false positives in biomarker detection assays
- ▶ Troubleshooting the integration of bioconjugates into theranostics applications
- Success factors in scaling up production of radioconjugates and ensuring stability during manufacturing
- ▶ Addressing gaps in the analytical toolkit for the characterization of radioconjugates and imaging agents
- Enhancing linker chemistries in nanoparticle conjugates to allow for controlled release of imaging agents

New frontiers: how are oligonucleotide, peptide, and other emerging conjugates extending the reach of the field?



- Identifying and addressing key gaps in regulatory/CMC guidance for oligonucleotide and peptide conjugates
- Enabling accurate characterization of non-ADC bioconjugates through standardized analytical tools (HPLC, mass spectrometry)
- Will advancing these tools improve real-time monitoring of conjugate efficiency and degradation kinetics?
- Realizing the therapeutic potential of oligonucleotide-based conjugates in targeted medicine
- ▶ Advances in peptide-based drug delivery to overcome endosomal escape barriers
- How and where is PEGylation being incorporated, and to what effect? (e.g., to decrease immunogenicity)
- Quantifying the clinical potential of bioconjugates for regenerative medicines and vaccine development
- Exploring the application of conjugated peptides in vaccines and chronic disease treatments to enhance immune response
- Solving regulatory hurdles for next-generation vaccine conjugates

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Driving improvements in the delivery and stability of next-generation bioconjugates, including oligo, polymer and enzyme



- ▶ Enhancing stability and delivery of oligonucleotide conjugates in vivo
 - Maintaining the structural and functional integrity of the bioconjugate components during the manufacturing process
- ▶ Ensuring biocompatibility and controlled release in polymer-drug conjugates
- ▶ Addressing stability challenges in nanoparticle-based conjugates
- Tackling immunogenicity in polymer- and enzyme-conjugated therapeutics through sustained drug release
- Developing robust analytical tools for assessing stability and characterizing increasingly complex bioconjugates
- ▶ Improving cell targeting and endosomal escape mechanisms for nanoparticle-drug conjugates

Overcoming challenges in the ADC manufacturing and R&D ecosystems



- Addressing in vivo challenges related to ADC stability to maintain therapeutic activity until reaching the target
 - ▶ Stabilizing ADCs in physiological environments while ensuring efficient payload release
- Overcoming endosomal escape inefficiencies for improved cytosolic access
- Innovating linker design to address stability, biocompatibility, and release kinetics
 - Assessing the pros and cons of traditional versus emerging ADC manufacturing processes and technologies
- ▶ How to successfully apply click chemistry and enzymatic approaches in bioconjugate manufacturing?
- Leveraging next-generation analytical tools for enhanced ADC characterization
- ▶ Breaking new ground in antigen targeting and validation
- > Optimizing drug-antibody ratio (DAR) to maximize efficacy while minimizing toxicity
- Improving dosing regimens—assessing the available tools and strategies (e.g., ADME profiling)









