Advancing Development & Manufacturing

Pharmaceutical Technology®

EUROPE

YOUR SOURCE FOR PRINT, DIGITAL, AND CONTENT MARKETING SOLUTIONS

PHARMTECH.COM
## The MJH life sciences® Advantage

<table>
<thead>
<tr>
<th>Metric</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>60+</td>
<td>Brands</td>
</tr>
<tr>
<td>3.9M+</td>
<td>Email Reach</td>
</tr>
<tr>
<td>7M+</td>
<td>Unique Visitors per Month</td>
</tr>
<tr>
<td>1.9M+</td>
<td>Print Circulation</td>
</tr>
<tr>
<td>1500+</td>
<td>Conferences &amp; Events</td>
</tr>
<tr>
<td>16M+</td>
<td>Average Page Views per Month</td>
</tr>
<tr>
<td>1000s</td>
<td>KOL &amp; SAP Relationships</td>
</tr>
<tr>
<td>1500+</td>
<td>Conferences &amp; Events</td>
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<tr>
<td>1500+</td>
<td>Conferences &amp; Events</td>
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</table>

As an MJH Life Sciences® brand you’ll be partnering with the largest privately held medical media company in North America.

### Speed to Market
Driven by our flexibility and entrepreneurial spirit

### Relationships
Ability to leverage the credibility and experience of our key opinion leaders (KOLs) and strategic alliance partners (SAPs)

### Audience
An unmatched active audience spanning 63 brands and 17 various specialties

*Partnering with us means you’ll reach your audience with the right message at the right time.*
MJH Life Sciences takes threats to the availability, integrity, and confidentiality of our clients’ information seriously. As such, MJH Life Sciences is an ISO/IEC 27001:2013 certified provider whose Information Security Management System (ISMS) has received third-party accreditation from the International Standards Organization.

- **ISO** *(International organization of Standardization)* takes a risk-based approach to information security and risk mitigation
- **ISO 27001 & ISO 27701** consist of 114 controls and 10 management system clauses
- MJH and their compliance partners conduct internal and external audits annually that test the efficiency and enforcement of all ISO controls
OUR BRAND

KEEPING PACE WITH PHARMA INNOVATION

*Pharmaceutical Technology Europe™* provides objective and reliable editorial coverage of bio/pharmaceutical manufacturing, process development, regulations, quality assurance (QA) and quality control (QC), formulation, drug delivery, API synthesis, analytical technology and testing, packaging, and outsourcing. Our mission is to report on current trends and key developments in the bio/pharmaceutical industry and publish high quality content, including peer-reviewed articles, case studies, roundtable discussions, and special features that will help our readers in their daily decision-making and in implementing best practices.

Audience: Circulation and Reach

*Pharmaceutical Technology Europe™* has a qualified audience in Europe of 19,778* monthly subscribers.

* December 2021 AAM audit. As filed with Alliance for Audited Media, subject to audit.
**OUR BRAND**

**PHARMACEUTICAL TECHNOLOGY EUROPE™**

*Pharmaceutical Technology Europe™* reports on key developments in bio/pharmaceutical formulation, process development, manufacturing, quality assurance (QA) and control, compliance, drug delivery, APIs, finished drugs, analytical technologies, packaging, and outsourcing.

The magazine addresses all dosage forms, including solid-dosage tablets, capsules, and softgels; semi-solid topical formulations, sterile and aseptic drug products, biologic-based drugs, combination drugs, inhalation drugs, transdermals, injectables, and all emerging drug forms.

By providing technically focused, peer-reviewed editorial, opinion, analysis, and news the *Pharmaceutical Technology Europe™* portfolio of products helps readers in their daily decision making and in implementing best practices.

**Top 10 Issues Reported by Pharmaceutical Technology Europe™ Readers**

- Analytical methods development and testing
- Data integrity
- Drug delivery
- Formulation development
- Good manufacturing practice
- Manufacturing
- Packaging
- Process controls/automation
- QA/QC/validation
- Quality-by-design implementation
OUR DATABASE

Meet your customers where they are—in print, online, e-newsletters, or webcasts.

CAST™ is the largest pharma/science global database in the market. This propriety tool contains more than 700,000 unduplicated decision-makers from global companies in the industry, allowing you to communicate with your target audience through the information channels they are using.

CAST™ Capabilities
- Contextual data based on specific article topics and content
- Behavioral data from email engagement metrics on every contact
- On-demand ad hoc filter options to select specific titles, companies, domains, and other contact information

CAST™ Flexibility
- Updated monthly, with unsubscribe list and any hard-bounce emails updated nightly
- Benefit from a unique list that is fine-tuned to your targeted audience
- Multidimensional targeting and segmentation
- Flexible enough to reach the most niche audience, based on your business needs

Publisher’s own data, July 2020
The largest independent circulation in Europe: 19,778* qualified subscribers receive PTE magazine every month.

**DECISION-MAKING**

Decision-makers or influencers in the purchasing of products/services on behalf of their organization comprise 82.48% of our audience.

*Source: August 2018 Readership Study*

**DISTRIBUTION BY JOB TITLE**

- Corporate Management: 26.50%
- Research Development Formulation: 25.80%
- QC/QA/Validation Regulatory Affairs: 20.40%
- Project/Purchasing/Procurement/Contract Management: 6%
- Manufacturing/Processing: 6.00%
- Information Technology: 5.60%
- Others Allied to the Field: 5%
- Engineering: 4.60%

**BUSINESS AND INDUSTRY DISTRIBUTION**

- Pharmaceutical/Biopharmaceutical, Including Manufacturing: 74.80%
- Drug delivery/Medical Products and Device Manufacturing: 4.60%
- Contract Services: 4.20%
- Ingredients: 3%
- University/Academia/Education: 7.90%
- Government: 5.10%
- Engineering/Facilities/Construction: 2%
- Others Allied to the Field: 1.70%
- Others Allied to the Field: 1%

Unless otherwise noted, data presented on this page is based on Pharmaceutical Technology Europe™.

*December 2021 AAM Audit Report
As filed with Alliance for Audited Media, subject to audit
### Audience

**Digital**

<table>
<thead>
<tr>
<th>Website*</th>
<th>PharmTech.com</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average Monthly Unique Browsers</td>
<td>93,654</td>
</tr>
<tr>
<td>Average Monthly Page Impressions</td>
<td>280,769</td>
</tr>
</tbody>
</table>

**E-newsletters**

- Pharmaceutical Technology Europe eAlert
  - Average Audited Distribution: **7,981**
- Pharmaceutical Technology North America ePT
  - Average Audited Distribution: **22,687**

**Equipment & Processing Report**

- Average Audited Distribution: **33,345**

**In the Lab**

- Average Audited Distribution: **36,545**

### Available Opportunities

**Website**

- PharmTech.com
  - Banner Ads
  - Expandable Video Banner Ads
  - Interstitials
  - Pre-roll videos
  - Page Push
  - Videos
  - Sponsored Content
  - Sponsored Link
  - Ad Retargeting
  - Geotargeting
  - Native Advertising

**E-newsletters**

- Banner Ads
- Text Ads
- Featured Products
- Featured Videos
- Featured Poster

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*AAM Audit, December 2021
As filed with Alliance for Audited Media, subject to audit
**Publisher’s own data
DIGITAL OFFERINGS

PharmTech.com

PharmTech.com is the online guide to the drug development and manufacturing market with content available by targeted category, keyword search or issue. The site features easy access to features such as Regulatory Watch, a white paper e-library and other site features to efficiently provide our visitors with the tools they need.

- Banner Ads
- Expandable Video Banner Ads
- Rich Media
- Geotargeting
- Native Advertising

Native Advertising

This programme gives you the opportunity to inject thought leadership, insight and brand awareness within the context of Pharmaceutical Technology Europe’s™ trusted editorial communities. You will receive a choice of topics, and in-article links to your gated content are served within relevant editorial content.

Sponsored Content Block

The Sponsored Content Block is an exclusive, sole-sponsored resource section on PharmTech.com where your company can disseminate collateral, videos, white papers, and research and drive website traffic, generate leads and more. Link up to four assets plus your company’s logo and website link, which will be visible 24/7 on every page of PharmTech.com. Each asset/link is tracked individually so you will know which assets are the most popular. For gated assets, all registration information will be provided.

CAST (Custom Audience Segmentation Tool)

CAST™ is the highly targeted, data-driven, tool the MJH Life Sciences™ Industry Science group. CAST™ contains over 700,000 unduplicated decision-makers from global companies involved in the pharmaceutical and scientific industries served by our leading publications and conference brands.

Sponsored Survey Package

Pharmaceutical Technology Europe’s™ sponsored web-based surveys can be used to better understand your client’s business issues. These survey projects include a written report of findings and can provide individual data on each survey respondent’s habits and preferences.

Ad Retargeting

Once a visitor leaves PharmTech.com, they see your retargeted display ad online, on any device, across the web. Your ad follows a targeted group of biopharma decision-makers long after they’ve left the PharmTech.com website.
**E-NEWSLETTERS**

**Pharmaceutical Technology Europe™ E-Alert**

*Pharmaceutical Technology Europe’s™* weekly electronic newsletter, *PTE e-Alert*, is delivered to the inboxes of industry professionals each week. It provides news, market developments, industry surveys, and information on industry activities. *Pharmaceutical Technology Europe’s™* e-Alerts present 51 opportunities a year to market your business to industry professionals and also provide a timely platform for exposure before and after trade shows and key industry events.

**Equipment & Processing Report**

*Equipment & Processing Report* focuses on pharmaceutical manufacturing process and technology, providing manufacturing news, related regulatory issues, and current trends.

**FirstLook**

*Pharmaceutical Technology Europe™ First Look* is a monthly electronic newsletter that is sent to subscribers in Europe. It previews the latest issue of *Pharmaceutical Technology Europe™* with links to online content and the digital edition of the magazine.

**ePT**

The *ePT* e-newsletter delivers critical information on industry trends, new technologies, the regulatory arena, recent contract awards, company mergers and acquisitions, and news of interest to a highly desired community of pharmaceutical development and manufacturing professionals. Readers keep abreast of industry, technical, and scientific developments, as well as the movements of colleagues. The e-newsletter also includes information on upcoming industry events and new product introductions.

**Pharma Knowledge Resources**

*PharmTech.com* invites subscribers to use the Knowledge Resources E-library at no charge each month. To download your white paper or application note, the viewer must complete a short response form including contact information and demographics. After the white paper is sent, you will receive an immediate email notification with the respondent’s information. In addition, you will have access to real-time data containing all the leads generated via a password-protected website.

**In the Lab**

*In the Lab* delivers articles and timely insights on the vital research and quality functions performed in bio/ pharmaceutical laboratories. It features on-method development, analytical techniques, instruments, equipment, and supplies. Other topics include services for the testing, characterization and analysis of raw materials, drug substances, and drug products. It also includes profiles of new instruments, equipment, and supplies used in the testing and analysis of raw materials, drug substances, and drug products.
VIDEO PROGRAMMES AND EVENTS

VIDEO PROGRAMMES
Extend your ROI at industry events with video content that can strengthen your brand reach post show with editorialized videos by Pharmaceutical Technology Europe™ and audience engagement with the Pharmaceutical Technology Europe™ community.

Presentation Showcase
Our Presentation Showcase programme is comprised of a series of short, topic driven videos that combine our editor’s interview with your speaker and outtakes from their presentation. Each package is promoted to your target audience – extending reach, expanding access and prolonging engagement well after the event has ended.

Thought Leadership Interview
Our internal Studios team will coordinate an interview conducted by our editors and your KOLs that provides insight and digs into the key issues affecting our industry. Each video includes questions of your choice and promotion to our audience.

Exhibit Booth Interview
Extend your ROI at industry trade shows with custom video content that can strengthen your brand reach post show. We’ll conduct an interview at your booth and edit it into a 3–5-minute video with promotions to the Pharmaceutical Technology Europe™ community.

Virtual Symposiums
Virtual Conferences offer an at-home alternative to in-person events, bringing critical information directly to the screens of industry professionals — without cutting corners on attendee experience. The virtual learning environment features many of the same amenities of a live trade show or meeting, including a lobby, auditorium, exhibit hall, networking lounge, and resource center.

LIVE EVENTS

Content Development:
The Pharmaceutical Technology Europe™ team works with your team to produce a programme based on your needs.

KOL Recruitment:
We find the speakers who will attract your target attendees at the event as well as post event.

Attendee Recruitment:
Pharmaceutical Technology Europe™ will find and attract the people you want to attend your live event.

Post-Event Content:
Our team will create video, audio and written content based on the program. And not only do we create the content, but we also provide marketing programs to get the content out to both attendees and non-attendees.

Turnkey Logistics:
Besides the expertise of Pharmaceutical Technology Europe™, you also get the meeting planning services of MJH Live Events to create a turnkey solution for your event.
Floating Video Player

Our Floating Video Player promotional programme offers significant exposure to our audience right as they enter our website. This premium space places your video on our homepage as users scroll through content.

The homepage video is expandable to a larger screen and a dedicated landing page that places your video next to additional relevant content from your company.

PROGRAMME FEATURES
• Your video featured on our website’s homepage
• Video expands to dedicated page with your branding and chosen related content
• Features your related content (whitepaper, additional videos, website, ebook, etc.)
• Exclusive branding, including your company’s display ads
**CONTENT MARKETING**

**Custom Content Creation**

**Demonstrate thought leadership**
Our dedicated content editor will develop and write thought-provoking, insightful content about your products and services such as but not limited to:

- White papers
- Webcast summaries
- Conference presentation overviews
- Case studies
- Technical articles
- Roundtable discussions
- Infographics
- Thought leadership interviews
- Digital primers
- Product profiles
- Market research reports
- Company profiles
- Pharma Talks
- Dedicated Dialogue
- Sponsored E-books

**Sponsored E-books**
A sponsored custom e-book or e-book series on topic(s) of your choice or a collaborative topic in conjunction with Pharmaceutical Technology Europe’s™ editorial team. This programme is designed to deliver high-quality leads.

**Lead Nurturing**
Topic-driven programmes that capture prospects and nurture them by deploying high-quality content via strategically timed communications. These programmes are designed to deliver sales-ready leads.

**Dedicated Dialogue**
Pharmaceutical Technology Europe™ will conduct an interview with an expert from your company (scientist, corporate manager, etc.). This interview will be marketed through a multimedia programme that includes a podcast and a two-page article in an issue of Pharmaceutical Technology Europe™.
WEBCASTS

*Pharmaceutical Technology Europe™* educational webcasts are led by credible moderators and offer exclusive sponsorship to a qualified audience while embracing digital engagement.

**Experience** — More than 500 educational webcasts produced by MJH Life Sciences™ each year

**Credibility** — Over 40 years of industry experience

**Talent** — Respected speakers, producers, and moderators from our editorial team

**Audience/Reach** — 700,000+ qualified pharma/science professionals

**Marketing & Promotion** — Targeted audience development: print, digital, and social media

**Analytics** — Comprehensive lead capture and data reporting for every event

**Turnkey** — Full-service management, marketing, training, production, and hosting

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**Enhanced Webcasts**

Cross-platform solutions that can convert a standalone educational webcast into an integrated content programme

Utilizes social media, print, and online marketing to amplify the content across *Pharmaceutical Technology Europe™* community

- Repurposes webcast content cross-platform
- Delivers the content across multiple channels
- Extends reach, duration, and brand visibility
- Increases access and engagement

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**Turn your webcast into short-form easily digestible videos**

- Post trailer on registration page
- Embed clips into email marketing and social media posts
- Unpack long-form content into consumable moments to drive interest
- On-demand viewing

Data obtained from past MJH Life Sciences™ webcasts
Drug Solutions is Pharmaceutical Technology®’s new podcast series where editors will chat with industry experts across the pharmaceutical and biopharmaceutical supply chain.

Each month, Pharmaceutical Technology® will release a series of editorial episodes. Listeners will join subject matter experts as they share insights into their biggest questions—from the technologies, to strategies, to regulations related to the development and manufacture of drug products.

Become a sponsor of this special podcast series to build your brand’s awareness and thought leadership amongst pharmaceutical and biopharmaceutical professionals.

**DRUG SOLUTIONS SPONSORSHIP INCLUDES:**
- Your company recognized as an exclusive sponsor by editorial team in each episode
- Your logo placement on all marketing materials promoting that month’s programming
- Podcast hosted in Pharm Tech’s podcast channel and on PharmTech.com for 1 year
- Promoted through dedicated email blasts, eNewsletters, social media and on the PharmTech.com website
- Podcasts accessible from SoundCloud, Apple Podcasts, Google Podcasts, and Spotify

<table>
<thead>
<tr>
<th>Month</th>
<th>Podcast Topic</th>
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<tbody>
<tr>
<td>Jan. - Ep. 1</td>
<td>2023 Trends</td>
</tr>
<tr>
<td>Jan. - Ep. 2</td>
<td>Flex Episode</td>
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<tr>
<td>Feb. - Ep. 1</td>
<td>Drug Delivery</td>
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<td>Feb. - Ep. 2</td>
<td>Flex Episode</td>
</tr>
<tr>
<td>March - Ep. 1</td>
<td>Outsourcing</td>
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<tr>
<td>March - Ep. 2</td>
<td>Point of Care</td>
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<tr>
<td>April - Ep. 1</td>
<td>Drug Packaging</td>
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<tr>
<td>April - Ep. 2</td>
<td>Flex Episode</td>
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<tr>
<td>May - Ep. 1</td>
<td>Biologic Drug Development and Manufacturing</td>
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<td>May - Ep. 1</td>
<td>Quality and Inspections</td>
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<tr>
<td>June – Ep. 1</td>
<td>Investments &amp; Partnerships</td>
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<td>June - Ep. 2</td>
<td>Flex Episode</td>
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<tr>
<td>July - Ep. 1</td>
<td>Manufacturing Trends</td>
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<td>Aug. - Ep. 1</td>
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<td>Aug. - Ep. 2</td>
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<td>Nov. - Ep. 1</td>
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<td>Nov. - Ep. 2</td>
<td>Flex Episode</td>
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<tr>
<td>Dec. - Ep. 1</td>
<td>Formulation</td>
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<tr>
<td>Dec. - Ep. 2</td>
<td>Flex Episode</td>
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</table>
Join our editorial team in educating and engaging with our audience of bio/pharmaceutical professionals as we dive into the core topics most important to them.

- **January: Pivotal Industry Trends** - The editors speak with several key opinion leaders about the upcoming leading trends for 2023 that will impact the bio/pharma industry.
- **February: Data Integrity** - The editors assess the accuracy and integrity of the management of data in development and manufacturing.
- **March: High-Titre Vector Producing Cells** - The editors highlight a fundamental constriction point in emerging therapies.
- **April: Continuous Manufacturing** - The editors provide a round up on continuous manufacturing advances.
- **May: Updates in Outsourcing** - The editors present some of the drivers for strategic partnerships and whether sponsors should outsource or insource services.
- **June: Analytics and Assays** - The editors review the newest techniques and approaches in analytical testing services, bringing traditional and novel products forward.
- **July: Biopharmaceutical Drug Development and Manufacturing** - The editors report on novel technologies for the formulation, manufacture, purification, and delivery biologic-based drugs.
- **August: Aseptic Processing and Manufacturing** - The editors review regulatory requirements, quality challenges, and new processes and technologies produce sterile drugs safely and economically.
- **September: Small-Molecule APIs, Excipients, and Formulation Advances** - The editors analyse recent new drug approvals and trends in API synthesis, formulation strategies, and excipient and process development.
- **October: Emerging Therapies and Targeted Delivery** - The editors examine challenges associated with developing, formulating, and manufacturing new drug modalities and dosage forms.
- **November: Automating Process Development** - The editors review how artificial intelligence, robotics, virtual reality, remote monitoring, and other automation strategies are impacting bio/pharma process development and manufacturing.
- **December: Solid Dosage Drug Development and Manufacturing** - The editors share expert insight and report on trends in the development of solid-dosage drug forms, including excipients, APIs, formulation, and new manufacturing processes and equipment.
PHARMA INSIGHTS

Your opportunity to share a point of view

Pharma Insights is a native marketing programme that gives you the platform to introduce thought leadership and insights within the context of our trusted editorial. This is content marketing at its best with articles by your subject experts, integrated alongside valued content in Pharmaceutical Technology Europe™.

A native, branded content opportunity:
• Articles, press releases, videos and more included within the digital content feed and/or the print edition of Pharmaceutical Technology Europe™
• An expandable offering from one article to a complete content center with your branding
• An integrated promotional programme providing significant exposure to our audience

CONTENT ENGAGEMENT HUB

Showcase a key topic and promote your brand.

Package your valuable content marketing assets into a user-friendly digital hub where users can self-educate themselves. The hub is driven by a multitouch marketing campaign and single-sign-on access to generate quality leads. The always-on nurturing lets prospects choose the time and place in which they engage – leading users to spend more time consuming your content.

A turnkey, content hub opportunity:
• End-to-end project management including setup of a branded environment, creative design of all materials, turnkey promotion, and reporting
• Six to 12 related assets, including white papers, app notes, videos, webcasts, research, and web links
• Hosted and promoted for three months
• Promotion of your assets to a relevant audience through a turnkey solution for content syndication and lead nurturing.

Need help developing content?
Our expert content marketing team can work with you to develop engaging content that resonates with your target audience.
THE BEST PLACE TO MEET BUYERS.

Pharm Tech Buyers Resource is an online directory that connects buyers to pharma manufacturing suppliers around the world.

Feature your company’s information along with content such as webcast links, videos, downloadable documents, and more! Visitors browse the online directory by company name, product, category, or search by keyword. Information about each supplier includes a company description and detailed contact information.

Visitors browse global suppliers and resources for:

- Analytical Instruments
- Chemicals, Excipients, Ingredients, and APIs
- Contract Services
- Facility Design and Operations
- Laboratory Instruments, Equipment, and Supplies
- Manufacturing, Processing Equipment, and Supplies
- Aseptic/Sterile Processing
- Drug Delivery Technology
- Packaging Equipment and Accessories
- Information Technology
- Compliance and Validation
- Cleaning, Sterilization, and Radiation treatments
- Cleanroom Facilities
- Protective Equipment and Clothing, Including Supplies
- Legal, Intellectual Property, and Business Services
- Consulting and Scale Up Advice
Advancing Development & Manufacturing

Pharmaceutical Technology®

EUROPE

2023

EDITORIAL CALENDAR

pharmtech.com
EDITORIAL COVERAGE

EXPERT INSIGHT AND ANALYSIS

Pharmaceutical Technology Europe™ sets the standard for publishing independent, industry-leading information on the technologies, strategies, and regulations crucial to professionals developing and manufacturing pharmaceuticals and biopharmaceuticals. The editorial mix of peer-reviewed papers, technical articles, technology reports, regulatory and business columns, and expert commentary provides comprehensive coverage of process and formulation development, manufacturing operations, drug delivery, packaging, labelling, and distribution.

Expert contributors from bio/pharmaceutical companies and industry supplier companies, as well as regular columnists and editorial staff, provide specialized knowledge and a wealth of experience to the publication’s content coverage.

EDITORIAL FOCUS

Each issue of Pharmaceutical Technology Europe™ addresses a key trend in drug development and manufacturing, including advances in equipment, instruments and processes; drug formulation and manufacturing strategies; drug delivery trends; emerging dosage forms; vaccines and biologic drug development; drug ingredient quality; and processing equipment.

Through expert interviews, roundtable discussions, literature reviews, and survey analysis, the editors report on emerging trends, strategies, and best practices in these key areas.

PEER-REVIEWED RESEARCH

Pharmaceutical Technology Europe™ publishes peer-reviewed papers in the form of data-driven research papers, literature and patent reviews, application and technical notes, and position papers on drug development topics. All papers undergo a double-blind peer-review process by the Pharmaceutical Technology Europe™ Editorial Advisory Board, which comprises leading scientists, managers, directors, and consultants.

KEY TOPICS

DRUG DEVELOPMENT

Features address advances in API synthesis of small- and large-molecule drug substances and excipients, as well as formulation and drug delivery challenges. Topics including early development strategies, solubility enhancement, particle characterization, excipients, and stability are covered for traditional and emerging dosage forms.

MANUFACTURING

The editors examine problems and solutions for solid dosage, sterile, biopharmaceutical, and other drug forms. Experts share insights on manufacturing equipment, process controls, scale-up, packaging, tech transfer, supply chain, and facility and laboratory operations.

ANALYTICAL TESTING

Feature articles and case studies address vital quality and analytical practices including contamination control, dissolution, extractables and leachables, stability testing, protein characterization, cleaning validation, and more.

OUTSOURCING

Trends, partnerships, and business activities in the contract services market are described by expert columnists. Other features examine best practices for working with contract service providers for drug development, manufacturing, and laboratory studies.

QUALITY/REGULATIONS

Experts review current regulatory authority initiatives and offer insight on regulatory authority activities, good manufacturing practices, good laboratory practices, statistical analysis and more.

Ask the Compliance Expert answers reader questions about good manufacturing practices and other regulatory issues.

CONTRIBUTION GUIDELINES

SPECIAL EDITORIAL COVERAGE

Key Monthly Highlights

January 2023
Focus: European Pharma Industry Outlook
The editors will provide a roundup of important trends influencing European and UK manufacturing, with special coverage on market performance and results from the annual employment survey.

Multimedia: Drug Digest Video Series
The editors will convene with experts over video on the leading trends for 2023 impacting the bio/pharma industry.

February 2023
Focus: Vaccine Development and Novel Delivery Methods
The editors will cover mRNA and other innovations in the field of vaccine development, with an emphasis on delivery systems.

Interactive eBook: Bio/Pharma Outsourcing Innovation
Contract research, development, and manufacturing organizations share details on manufacturing advances, innovative processes, and shortcuts, testing innovations and formulations for delivery that optimize and accelerate drug development, manufacturing, packaging, and quality control.

Multimedia: Drug Digest Video Series
This month the editors will evaluate data integrity with KOLs, discussing the accuracy and integrity of data management in development and manufacturing.

March 2023
Focus: Scaling Up Pharmacovigilance/Drug Safety
The editors will discuss passive versus active surveillance and how this differs from drug safety, cohort event monitoring, and targeted clinical investigations.

Interactive eBook: Quality and Regulatory Sourcebook
A compilation of resources for businesses on the latest regulations, guidance documents, and compendial publications guiding drug development and manufacturing.

Multimedia: Drug Digest Video Series
The editors will highlight a fundamental constriction point in emerging therapies, high-titre vector-producing cells.

April 2023
Focus: Balancing Manufacturing Trends
The editors will evaluate the changing manufacturing requirements from the industry and the approaches being employed to meet demand.

Multimedia: Drug Digest Video Series
The editors will provide a round up on continuous manufacturing advances with industry KOLs.

May 2023
Focus: Smart Drug Development
The editors will delve into how advanced technologies, such as artificial intelligence, are impacting drug development, including targeted delivery and early development.

Interactive eBook: Trends in Manufacturing
This eBook will cover new strategies from process development through commercial manufacturing for a range of dosage forms.

Multimedia: Drug Digest Video Series
In May’s instalment, the editors will present some of the updates in outsourcing, including unique conversations on drivers for strategic partnerships and whether sponsors should outsource or insource.

June 2023
Focus: Strategic Outsourcing Relationships
The editors will highlight the strengthening role of outsourcing partners and how the relationship between sponsor and service provider is adapting.

Multimedia: Drug Digest Video Series
The editors will review analytics and assays this month, talking about the newest techniques and approaches in analytical testing services, bringing traditional and novel products forward.
SPECIAL EDITORIAL COVERAGE

July 2023
Focus: Understanding Aseptic Needs
The editors will evaluate the depth and breadth of aseptic manufacturing requirements within a modern bio/pharma environment.
Multimedia: Drug Digest Video Series
Focusing on biopharmaceutical drug development and manufacturing, the editors will report on novel technologies for the formulation, manufacture, purification, and delivery of biologic-based drugs.

August 2023
Focus: Top Trends in Testing Services
The editors will provide an overview of trends in analytical testing services.
Multimedia: Drug Digest Video Series
Aseptic processing and manufacturing are set to be the topic of conversation in August, with the editors reviewing regulatory requirements, quality challenges, and new processes and technologies to produce sterile drugs safely and economically.

September 2023
Focus: Managing Ingredients Quality
The editors will review regulatory requirements around pharmaceutical ingredients quality and the associated demands on the industry, including generics.
Multimedia: Drug Digest Video Series
This month, the editors will focus on small-molecule APIs, excipients, and formulation advances, analysing recent trends in API synthesis, formulation strategies, coprocessing, and solubility solutions with KOLs.

October 2023
Focus: The Future of Dosage Forms
The editors will walk through the emerging trends in drug dosage forms and how technology is having an impact.
Interactive eBook: Trends in Formulation
Experts will share new processes, novel excipients, and new methodologies to address formulation challenges associated with complex molecules, particle engineering, bioavailability limits, and demands for safer dosage forms for patients.
Multimedia: Drug Digest Video Series
The editors will examine challenges associated with development, formulating, and manufacturing new drug modalities and dosage forms with KOLs in this instalment on emerging therapies and targeted delivery.

November 2023
Focus: Point-of-Use Manufacturing
The editors will analyze ‘wheel and spoke’ manufacturing for autologous and allogenic cell therapy, CAR-T, gene editing, and more.
Multimedia: Drug Digest Video Series
Concentrating on automating process development, the editors will review how AI, robotics, virtual reality, remote monitoring, and other automation strategies are impacting bio/pharma process development and manufacturing with KOLs.

December 2023
Focus: Operational Efficiencies
The editors will offer insights into operating models, capacity issues, and ‘talent’ in the bio/pharma industry.
Multimedia: Drug Digest Video Series
In the last video instalment of the year, the editors will focus on solid dosage drug development and manufacturing, sharing expert insight and reporting on trends in the development of solid-dosage drug forms.

Regular Special Coverage
Bimonthly throughout 2023
Emerging European Frontrunners
This new column will detail exciting new companies working on certain manufacturing advances or bottlenecks in the region.

April–September 2023
ICH Q9 Revision Insider Commentary
Starting in April 2023 for a six-month period, there will be monthly special coverage on the ICH Q9 revision provided by those who helped originate the guidelines. There will also be a companion eBook of all the articles in the series.

Monthly throughout 2023
Drug Solutions Podcast
The editors will host two podcasts each month, interviewing KOLs and scientists in an informal setting on a variety of topics. Please reach out to the editorial and sales teams for further details on these opportunities.
2023 EDITORIAL CALENDAR

JANUARY
Ad Close: 6 January
FOCUS
European Pharma Industry Outlook
Special Coverage: Annual Employment Survey
Special Coverage: Market Performance Measurements
Special Coverage: Emerging European Frontrunners

PEER-REVIEWED RESEARCH/TECHNICAL PAPERS
Bio/Pharma Research and Technical Advances

EMERGING TOPICS IN BIO/PHARMA
TECHNICAL TOPICS
Development
Inhalation Drug Formulation
Drug Delivery Trends
Manufacturing
Solid and SemiSolid Drug Manufacturing
Drug Packaging Trends
Quality/Regulations
Sustainability Concerns
European Regulatory Watch
Ask the Compliance Expert
Analytics
Cleaning Validation
Outsourcing
State of Outsourcing Industry

SHOWS
Pharmapack, 1-2 February, Paris
The J.P. Morgan 41st Annual Healthcare Conference will take place 9-12 January 2023 in San Francisco

VALUE-ADDED
FREE Whitepaper Pharma Knowledge Resources eNewsletter

EDITORS’ DRUG DIGEST VIDEO SERIES
2023 Pivotal Industry Trends

FEBRUARY
Ad Close: 3 February
FOCUS
Vaccine Development and Novel Delivery Methods

PEER-REVIEWED RESEARCH/TECHNICAL PAPERS
Bio/Pharma Research and Technical Advances

EMERGING TOPICS IN BIO/PHARMA
TECHNICAL TOPICS
Development
Topical Drug Development
Patient-Centricity/Patient Compliance
Manufacturing
European Comounded Drug Manufacturing
Cold Chain
Quality/Regulations
Computer Validation
European Regulatory Watch
Ask the Compliance Expert
Analytics
Automated Analytical Workflows
Statistical Solutions
Outsourcing
Method Development

SHOWS
33rd Annual European Pharma Congress, 13-14 March, Frankfurt
Pittcon, 18-22 March, Philadelphia

VALUE-ADDED
FREE Direct eResponse Ad Leads

INTERACTIVE EBOOK
Bio/Pharma Outsourcing Innovation

EDITOR’S DRUG DIGEST VIDEO SERIES
Data Integrity

MARCH
Ad Close: 3 March
FOCUS
Scaling Up Pharmacovigilance/Drug Safety
Introduction to ICH Q9 Revision Insider Commentary
Special Coverage: Emerging European Frontrunners

PEER-REVIEWED RESEARCH/TECHNICAL PAPERS
Bio/Pharma Research and Technical Advances

EMERGING TOPICS IN BIO/PHARMA
TECHNICAL TOPICS
Development
Excipients in Bioformulation
Alternative Drug Delivery Formulation
Manufacturing
Fill/Finish
Process Analytical Technology
Supply Chain Continuity
Quality/Regulations
Good Distribution Practices
European Regulatory Watch
Ask the Compliance Expert
Analytics
Protein Characterization
Outsourcing
Clinical Trial Materials

SHOWS
DCAT Week, 20-23 March, New York
BIO-Europe Spring, 20-22 March, Basel

VALUE-ADDED
Ad Retargeting: 25,000 Impressions

INTERACTIVE EBOOK
Quality and Regulatory Sourcebook

EDITOR’S DRUG DIGEST VIDEO SERIES
High-Titre Vector Producing Cells

Trade show dates listed are as of 2022 August. Trade show dates and topics are subject to change. For further detail on topics covered in the special sections as well as information on the Drug Solutions Podcast, refer to pages 19–21.
# 2023 EDITORIAL CALENDAR

## APRIL
**Ad Close:** 31 March

**FOCUS**
Balancing Manufacturing Trends
ICH Q9 Revision Insider Commentary

**PEER-REVIEWED RESEARCH/TECHNICAL PAPERS**
Bio/Pharma Research and Technical Advances

**TECHNICAL TOPICS**
Development
Excipient Quality
Formulation Considerations for Intensified Processes

**Manufacturing**
Biologics Drug Continuous Manufacturing
Lyophilization
Packaging and Drug Delivery Advances

**Quality/Regulations**
GMPs for Sterile/Aseptic Manufacturing
European Regulatory Watch
Ask the Compliance Expert

**Analytics**
Extractables and Leachables (raw materials)

**Outsourcing**
Contract Testing Services

**SHOWS**
Global Pharma & Drug Delivery Summit, 24-26 April, Frankfurt
Making Pharmaceuticals, 25-26 April, Coventry
CPHI North America, 25-27 April, Philadelphia
Interpakk, 25-27 April, New York
Interpack, 4-10 May, Dusseldorf

**VALUE-ADDED**
Product Service Profile in eNewsletter

**INTERACTIVE EBOOK**
ICH Q9 Revision Insider Commentary and Harmonization regulation overview by expert contributors.

**EDITOR’S DRUG DIGEST VIDEO SERIES**
Continuous Manufacturing

## MAY
**Ad Close:** 28 April

**FOCUS**
Smart Drug Development
ICH Q9 Revision Insider Commentary
Special Coverage: Emerging European Frontrunners

**PEER-REVIEWED RESEARCH/TECHNICAL PAPERS**
Bio/Pharma Research and Technical Advances

**TECHNICAL TOPICS**
Development
Cell Therapy Development
Solubility/Bioavailability
Manufacturing
Digitalization in Manufacturing
Quality/Regulations
Quality Culture (QMM)
European Regulatory Watch
Ask the Compliance Expert

**Analytics**
Dissolution Testing

**Outsourcing**
Formulation

**SHOWS**
ChemSpec Europe, 24-25 May, Basel
BIO International Convention, June 5-8 San Diego

**VALUE-ADDED**
FREE Whitepaper Pharma Knowledge Resources eNewsletter

**INTERACTIVE EBOOK**
Trends in Manufacturing

## JUNE
**Ad Close:** 26 May

**FOCUS**
Strategic Outsourcing Relationships
ICH Q9 Revision Insider Commentary

**PEER-REVIEWED RESEARCH/TECHNICAL PAPERS**
Bio/Pharma Research and Technical Advances

**TECHNICAL TOPICS**
Development
Cannabinoid-based Drugs
Particle Engineering and Materials Science

**Manufacturing**
Aseptic/Sterile Drug Manufacturing
Raw Materials Traceability
Logistics/Shipping

**Quality/Regulations**
Role of Real-World Evidence
European Regulatory Watch
Ask the Compliance Expert

**Analytics**
Elemental Impurities

**Outsourcing**
Contract Packaging

**SHOWS**
Connect In Pharma, Dates TBD (likely June), Geneva

**VALUE-ADDED**
One-Page Case Study on an Industry Topic of Choice (for Full-Page Advertisers)

For further detail on topics covered in the special sections as well as information on the Drug Solutions Podcast, refer to pages 19-21.

Trade show dates listed are as of 2022 August. Trade show dates and topics are subject to change.
## 2023 EDITORIAL CALENDAR

### JULY
**Ad Close: 23 June**

**FOCUS**
- Understanding Aseptic Needs
- ICH Q9 Revision Insider Commentary

**PEER-REVIEWED RESEARCH/TECHNICAL PAPERS**
- Bio/Pharma Research and Technical Advances

**TECHNICAL TOPICS**
- Development
  - High-Potency Drug Formulation
  - OSD Formulation Advances
- Manufacturing
  - Automation
- Quality/Regulations
  - Corrective and Preventive Actions
  - European Regulatory Watch
  - Ask the Compliance Expert
- Analytics
  - Environmental Monitoring
  - Lab Data Integrity
- Outsourcing
  - Impurity Testing

**VALUE-ADDED**
- FREE Direct eResponse Ad Leads (Ask your rep for details)

**EDITOR’S DRUG DIGEST VIDEO SERIES**
- Biopharmaceutical Drug Development and Manufacturing

### AUGUST
**Ad Close: 21 July**

**FOCUS**
- Top Trends in Testing Services
- E-Book Release and ICH Q9 Revision Insider Commentary

**PEER-REVIEWED RESEARCH/TECHNICAL PAPERS**
- Bio/Pharma Research and Technical Advances

**TECHNICAL TOPICS**
- Development
  - Drug Appearance and Taste
  - Biopharmaceutical Formulation
- Manufacturing
  - Vaccine Manufacturing
- Quality/Regulations
  - Digitalization/Al Considerations
  - European Regulatory Watch
  - Ask the Compliance Expert
- Analytics
  - Automated Finished Product Inspection
- Outsourcing
  - Bioprocessing Contract Services

**VALUE-ADDED**
- Discount Ad Programme with *Pharmaceutical Technology* (Ask your rep for details)

**EDITOR’S DRUG DIGEST VIDEO SERIES**
- Aseptic Processing and Manufacturing

### SEPTEMBER
**Ad Close: 18 August**

**FOCUS**
- Managing Ingredients Quality
  - Special Coverage: Emerging European Frontrunners

**PEER-REVIEWED RESEARCH/TECHNICAL PAPERS**
- Bio/Pharma Research and Technical Advances

**TECHNICAL TOPICS**
- Development
  - Coprocessed Excipients
  - Novel Drug Forms
- Manufacturing
  - Modular and Continuous Drug Manufacturing
  - Equipment Cleaning
- Quality/Regulations
  - GMPs for Solid-Dose Drugs
  - European Regulatory Watch
  - Ask the Compliance Expert
- Analytics
  - Drug Substance Testing
- Outsourcing
  - Qualifying Materials Suppliers

**SHOWS**
- CPhI Worldwide, 24-26 October, Barcelona

**VALUE-ADDED**
- FREE Whitepaper Pharma Knowledge Resources eNewsletter

**EDITOR’S DRUG DIGEST VIDEO SERIES**
- Small-molecule APIs, Excipients, and Formulation Advances

*Trade show dates listed are as of 2022 August. Trade show dates and topics are subject to change. For further detail on topics covered in the special sections as well as information on the Drug Solutions Podcast, refer to pages 19–21.*
# 2023 EDITORIAL CALENDAR

## OCTOBER
**Ad Close:** 15 September

**FOCUS**
The Future of Dosage Forms

**PEER-REVIEWED RESEARCH/TECHNICAL PAPERS**
Bio/Pharma Research and Technical Advances

**EMERGING TOPICS IN BIO/PHARMA**
Development
Advances in Small-Molecule API Synthesis

**TECHNICAL TOPICS**
Manufacturing
Oral Solid Dose Drug Manufacturing
Contamination Control

Quality/Regulations
Compendial Compliance Update
European Regulatory Watch
Ask the Compliance Expert

Analytics
Extractables and Leachables (processing and packaging)

Outsourcing
State of Outsourcing Industry

**SHOWS**
CPHI Worldwide, 24-26 October, Barcelona
Meeting on the Mesa, TBD October, California

**VALUE-ADDED**
Half-Page Exhibitor Profile in eBook (for Full-Page Advertisers)

**INTERACTIVE EBOOK**
Trends in Formulation

**EDITOR’S DRUG DIGEST VIDEO SERIES**
Emerging Therapies and Targeted Delivery

## NOVEMBER
**Ad Close:** 13 October

**FOCUS**
Point-of-Use Manufacturing
Special Coverage: Emerging European Frontrunners

**PEER-REVIEWED RESEARCH/TECHNICAL PAPERS**
Bio/Pharma Research and Technical Advances

**EMERGING TOPICS IN BIO/PHARMA**
Development
Molecular Modelling in Drug Formulation
Solubility/Bioavailability

Manufacturing
Gene Therapy Manufacturing
Packaging Trends

Quality/Regulations
Supplier Oversight
European Regulatory Watch
Ask the Compliance Expert

Analytics
Particle Analysis

Outsourcing
Tech Transfer and Training

**SHOWS**
ISPE Annual Meeting and Expo, 30 Oct-2 Nov, Florida

**VALUE-ADDED**
Ad Retargeting: 25,000 Impressions

**EDITOR’S DRUG DIGEST VIDEO SERIES**
Automating Process Development

## DECEMBER
**Ad Close:** 17 November

**FOCUS**
Operational Efficiencies and Training

**PEER-REVIEWED RESEARCH/TECHNICAL PAPERS**
Bio/Pharma Research and Technical Advances

**EMERGING TOPICS IN BIO/PHARMA**
Development
Excipients for Solubility

Manufacturing
mRNA and Lipid Nanoparticle Manufacturing

Quality/Regulations
Audits and Inspections
European Regulatory Watch
Ask the Compliance Expert

Analytics
Stability Testing

Outsourcing
Biocatalytic Studies

**VALUE-ADDED**
FREE Direct eResponse Ad Leads (Ask your rep for details)

**EDITOR’S DRUG DIGEST VIDEO SERIES**
Solid Dosage Drug Development and Manufacturing

Trade show dates listed are as of 2022 August. Trade show dates and topics are subject to change. For further detail on topics covered in the special sections as well as information on the Drug Solutions Podcast, refer to pages 19–21.
<table>
<thead>
<tr>
<th>Creative Unit Name</th>
<th>Initial Dimensions (WxH in pixels)</th>
<th>Maximum Expanded Dimensions (WxH in pixels)</th>
<th>Max Initial File Load Size</th>
<th>Host-initiated Subload</th>
<th>Animation/Video Guidelines</th>
<th>Unit-Specific Notes (See General Ad Requirements)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leaderboard - Desktop</td>
<td>728 x 90</td>
<td>728x270</td>
<td>200 KB</td>
<td>300 KB</td>
<td>15 sec max animation / 30 sec max video. Scrolling ISI animation must be less than 60 sec.</td>
<td>Expansion must be user-initiated by click</td>
</tr>
<tr>
<td>Leaderboard - Mobile</td>
<td>320 x 50 or 300 x 50</td>
<td>320x460 (full-screen)</td>
<td>50 KB</td>
<td>100 KB</td>
<td>15 sec max animation / 30 sec max video. Scrolling ISI animation must be less than 60 sec.</td>
<td>Expansion must be user-initiated by tap</td>
</tr>
<tr>
<td>Medium Banner</td>
<td>300 x 250</td>
<td>600 x 250</td>
<td>150 KB</td>
<td>300 KB</td>
<td>15 sec max animation / 30 sec max video. Scrolling ISI animation must be less than 60 sec.</td>
<td>Expansion must be user-initiated by click</td>
</tr>
<tr>
<td>Small Banner</td>
<td>300 x 100</td>
<td>Expansion not allow ed for these units</td>
<td>100 KB</td>
<td>Not allow ed for this ad unit</td>
<td>15 sec max animation length/Video not allow ed for this unit. (If using animation, expansion is not allow ed.)</td>
<td></td>
</tr>
<tr>
<td>Half Page</td>
<td>300 x 600 (desktop only)</td>
<td>600 x 600</td>
<td>200 KB</td>
<td>300 KB</td>
<td>15 sec max animation / 30 sec max video. Scrolling ISI animation must be less than 60 sec.</td>
<td>Expansion must be user-initiated by click</td>
</tr>
<tr>
<td>Welcome Ad</td>
<td>640 x 480 or 300 x 250 (desktop only)</td>
<td>Expansion not allow ed for these units</td>
<td>200 KB</td>
<td>300 KB</td>
<td>15 sec max animation length/Video not allow ed for this unit. (If using animation, expansion is not allow ed.)</td>
<td></td>
</tr>
<tr>
<td>Super Leaderboard</td>
<td>970 x 90</td>
<td>970x300</td>
<td>200 KB</td>
<td>400 KB</td>
<td>15 sec max animation / 30 sec max video. Scrolling ISI animation must be less than 60 sec.</td>
<td>Expansion must be user-initiated by click</td>
</tr>
<tr>
<td>Floating Footer</td>
<td>1025 x 100, 970 x 90 or 728 x 90</td>
<td>970x300</td>
<td>150 KB</td>
<td>300 KB</td>
<td>15 sec max animation length/Video not allow ed for this unit. (If using animation, expansion is not allow ed.)</td>
<td>Expansion must be user-initiated by click</td>
</tr>
<tr>
<td>In-Article Display Ad</td>
<td>300x100</td>
<td>Expansion not allow ed for these units</td>
<td>100 KB</td>
<td>Not allow ed for this ad unit</td>
<td>15 sec max animation length/Video not allow ed for this unit. (If using animation, expansion is not allow ed.)</td>
<td>Expansion must be user-initiated</td>
</tr>
<tr>
<td>Wallpaper/Gutter Ads</td>
<td>150x1050, 160x600, 120x600</td>
<td>Expansion not allow ed for these units</td>
<td>200 KB</td>
<td>300 KB</td>
<td>Animation or video is not allow ed for this unit.</td>
<td>Must be built by third party vendor, Spotible at an additional cost</td>
</tr>
<tr>
<td>In-Banner Video</td>
<td>300x250, 728x90, 300x600</td>
<td>300x250 &gt; 600x250 728x90 &gt; 728x270 300x600 &gt; 600x250</td>
<td>200 KB</td>
<td>2.2MB Total load w ith video</td>
<td>Minimum 24 fps for video / 15 sec max length / 1.1 MB additional file size allow ed for host-initiated video / Unlimited file size for user-initiated video</td>
<td>Audio and video must be user initiated.</td>
</tr>
<tr>
<td>Video Pre-Roll Ad</td>
<td>16:9 preferred 4:3 accepted</td>
<td>N/A</td>
<td>10 MB</td>
<td>N/A</td>
<td>Length: 15 seconds for non-skip ad, 15-60 seconds for skippable ads</td>
<td>n/a</td>
</tr>
<tr>
<td>Creative Unit Name</td>
<td>Initial Dimensions (WxH in pixels)</td>
<td>Maximum Expanded Dimensions (WxH in pixels)</td>
<td>File Format</td>
<td>Max Initial File Load Size</td>
<td>Host-initiated Subload</td>
<td>Animation/Video Guidelines</td>
</tr>
<tr>
<td>------------------------</td>
<td>-----------------------------------</td>
<td>---------------------------------------------</td>
<td>-------------</td>
<td>---------------------------</td>
<td>------------------------</td>
<td>---------------------------</td>
</tr>
<tr>
<td>Medium Rectangle</td>
<td>300x250</td>
<td>Expansion not allowed for this unit</td>
<td>Jpg, gif, png</td>
<td>50 KB</td>
<td>Not allowed for this unit</td>
<td>Gif animation : 15 second max</td>
</tr>
<tr>
<td>Leaderboard</td>
<td>728x90</td>
<td>Expansion not allowed for this unit</td>
<td>Jpg, gif, png</td>
<td>50 KB</td>
<td>Not allowed for this unit</td>
<td>Gif animation : 15 second max</td>
</tr>
<tr>
<td>Banner</td>
<td>468x60</td>
<td>Expansion not allowed for this unit</td>
<td>Jpg, gif, png</td>
<td>50 KB</td>
<td>Not allowed for this unit</td>
<td>Gif animation : 15 second max</td>
</tr>
<tr>
<td>Product Profile</td>
<td>200 words, 1 x image, 1 x logo, contact details including email and web address. 30 word summary of product profile</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**DIGITAL SPECIFICATIONS**
## Digital Specifications

### Preroll Ad

<table>
<thead>
<tr>
<th>Video Setting</th>
<th>Specifications</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>File Format</strong></td>
<td>H.264 (mp4)</td>
</tr>
<tr>
<td><strong>Audio Format</strong></td>
<td>MP3 or ACC (Preferred)</td>
</tr>
<tr>
<td><strong>Aspect Ratio</strong></td>
<td>H.264</td>
</tr>
<tr>
<td><strong>Frame Rate</strong></td>
<td>24 or 30</td>
</tr>
<tr>
<td><strong>Length</strong></td>
<td>6 - 15 seconds for non-skippable&lt;br&gt;15 - 30 seconds for skippable</td>
</tr>
<tr>
<td><strong>Max File Size</strong></td>
<td>Low Resolution&lt;br&gt;10MB&lt;br&gt;Medium Resolution&lt;br&gt;10MB&lt;br&gt;High Resolution&lt;br&gt;10MB</td>
</tr>
<tr>
<td><strong>Max File Size</strong></td>
<td>10MB&lt;br&gt;10MB&lt;br&gt;10MB</td>
</tr>
<tr>
<td><strong>16:9 Aspect Ratio</strong></td>
<td>360p or less&lt;br&gt;576p - 1080p&lt;br&gt;n/a</td>
</tr>
<tr>
<td><strong>4:3 Aspect Ratio</strong></td>
<td>480p or less&lt;br&gt;576p - 1500 kbps&lt;br&gt;n/a</td>
</tr>
<tr>
<td><strong>Video Target Bitrate</strong></td>
<td>500 kbps - 700 kbps&lt;br&gt;700 kbps - 1500 kbps&lt;br&gt;1500 kbps - 2500 kbps for 720p&lt;br&gt;2500 kbps - 3500 kbps for 1080p</td>
</tr>
<tr>
<td><strong>Site Served</strong></td>
<td>Must be uploaded to YouTube (send video URL, shortened URL not allowed)&lt;br&gt;Must allow embedding&lt;br&gt;Must be public or unlisted&lt;br&gt;True streaming in not allowed</td>
</tr>
<tr>
<td><strong>Third-party Served</strong></td>
<td>Must be SSL-compliant&lt;br&gt;VAST 2.0, Vast 3.0 or VPAID (VAST 2.0 will not be accepted for skippable ads)</td>
</tr>
</tbody>
</table>

### Sponsored E-blast Guidelines

<table>
<thead>
<tr>
<th>Requirements</th>
<th>HTML creative from client&lt;br&gt;Text back up from client&lt;br&gt;(optional) Subject line and preheader&lt;br&gt;Test and final seed list*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Additional Needs for UNBRANDED e-blasts</td>
<td>Opt Out link on clients creative&lt;br&gt;Suppression file from within the last 10 business days from the client From line</td>
</tr>
<tr>
<td>Please send the following 5 business days prior to the send date</td>
<td>The HTML (saved as an attachment, with images hosted to your server)&lt;br&gt;Text only file (saved in Notepad, with full URLs listed for all links. The text should mirror the words in the HTML and not include coding)&lt;br&gt;Your suppression file in excel (only if sending from your company name)&lt;br&gt;Subject line: (limit to under 50 characters including spacing)&lt;br&gt;Test seed list: email address of those to receive the test to review&lt;br&gt;Final seed list: any additional email addresses that are not on the test list but need to receive the final deployment (up to 10)</td>
</tr>
<tr>
<td>Timeline</td>
<td>MJH Life Sciences™ will follow up with a proof of the e-blast at least one business day prior to the scheduled deployment to the test seed list&lt;br&gt;Please review the proof and reply back to the email with approval or changes marked in a PDF. If another proof is required, a revised test will be sent MJH Life Sciences™ will confirm that the e-blast is scheduled to deploy on the specified date&lt;br&gt;By the 15th of the following month, MJH Life Sciences™ will provide delivery metrics for all that deployed within the month</td>
</tr>
</tbody>
</table>
**DIGITAL SPECIFICATIONS**

**GENERAL NOTES**

**File weight calculation:** All files for the ad (.html, .js, .css, images, etc.) must be included as part of the maximum file weight calculation for all file load limits. Shared libraries are also included as part of the file weight calculation unless otherwise exempted. File weights are calculated after files have been compressed into gzip format. You can use this site to check if your creative is within our specs guidelines: [http://html5.iabtechlab.com/needauth?redir](http://html5.iabtechlab.com/needauth?redir).

**Initial file load:** Includes all assets and files necessary for completing first visual display of the ad.

**Host-initiated subload:** Where allowed, additional files may load one second after the browser `domContentLoadedEventEnd` event. The ad should be able to “listen” for the `domContentLoadedEventEnd` event before subsequent files beyond the initial max file size may be loaded.

**User-initiated file size:** Ads that allow additional file size for host-initiated subload also allows for unlimited file load after user-initiated interaction. User initiation is the willful act of a user to engage with an ad. Users may interact by clicking or tapping the ad.

**VIDEO REQUIREMENTS:**

- File Format: H.264 (mp4)
- Audio Format: MP3 or ACC (Preferred).
- Aspect Ratio: 16:9 preferred, 4:3 accepted
- Frame Rate: 24 or 30
- Max File Size: 10MB
- Tags Accepted: VAST 2.0, VAST 3.0, or VPAID (VAST 2.0 will not be accepted for skippable ads). Must be SSL-Compliant.
- Video length: 15/30 sec

**HTML5 NOTES:**

HTML5 provides/introduces new options for developing ads. The IAB has developed “HTML5 for Digital Advertising” ([http://www.iab.com/html5](http://www.iab.com/html5)) to help ad designers provide ads in HTML5 unit that will perform more successfully across the display advertising ecosystem. Please review this document and adopt its recommendations to help improve HTML5 ad performance in the industry.

**HTML5 DESIGN INDUSTRY STANDARDS INFO:**


**HTML5 REQUIREMENTS FOR GOOGLE AD MANAGER: GENERAL AD REQUIREMENTS (APPLY TO ALL DISPLAY ADS):**

**File Format** - JPG, GIF, PNG, HTML5 (must be 3rd-party hosted)

**Audio** - Must be user-initiated. To allow for audio initiation in videos without player controls, a control may be included for user to initiate audio.

**Expansion** - Must be user-initiated by click and served through a 3rd Party tag.

**Hotspot** - Not to exceed 1/4 size of ad. Initiated when cursor rests on hotspot for at least 1 sec. Must NOT initiate audio

**Defining ad space** - Ad unit content must be clearly distinguishable from normal webpage content (ad unit must have clearly defined borders and not be confused with normal page content).

**Max CPU** - Ad not to exceed 30% CPU usage during host-initiated execution

**Submission Lead Time** - Minimum lead time for ad file submission is 5-7 business days before campaign start.

**Max number of host-initiated file requests** - Ad not to exceed 15 file requests during initial file load and host-initiated subload. Unlimited file requests allowed after user-interaction
DIGITAL AD REQUIREMENTS

1. Digital data is required for all ad submissions. Preferred format is PDF/X-1a. Note that a standard PDF is not a preferred format, files should be a PDF/X-1a which is a PDF subset specific to printing. Publisher shall have no obligation or liability to Advertiser of any kind (including, without limitation, the obligation to offer Advertiser makegoods or any other form of compensation) if an ad is supplied to Publisher by Advertiser in any format other than our preferred formats. Non-preferred or non-acceptable formats will be charged a $150 processing fee. All files should be built to exact ad space dimensions purchased.

2. Publisher will not supply a faxed or soft proof for Advertiser-supplied files. Advertiser is solely responsible for preflighting and proofing all advertisements prior to submission to publisher. If publisher detects an error before going to press, publisher will make a reasonable effort to contact advertiser to give advertiser an opportunity to correct and resubmit advertiser’s file before publication.

3. Ad Proofs: To insure that advertiser’s ad is reproduced correctly, a SWOP-certified color proof that has been made from the same file that advertiser supplies to publisher must be provided. Publisher cannot provide advertiser any assurances regarding the accuracy of reproduction of any ad submitted without a SWOP proof. Publisher shall have no obligation or liability to advertiser of any kind (including, without limitation, the obligation to offer advertiser makegoods or any other form of compensation) for any ad supplied to publisher by advertiser without a SWOP proof.

PRINT SPECIFICATIONS

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<th>ALL PRINT PRODUCTS. KEEP LIVE MATTER 10 MM FROM ALL SIDES</th>
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