

COMPANY OF THE YEAR

Advanced Instruments Pushing the Boundaries of Biopharmaceutical Breakthroughs

The quest for transformative cell and gene therapies has ignited a wave of innovation in biopharmaceuticals.

As the industry races to unlock these treatments' full potential, the intricacies of therapy development present unprecedented challenges. From navigating a highly regulated environment to ensuring streamlined workflows for quality products within tight deadlines, the journey is fraught with complexities that demand novel solutions.

Advanced Instruments, a leading developer and manufacturer of analytical instruments and services, brings the much-needed novelty to the biopharmaceutical industry. It is keenly aware of the uncertainties faced by its cell and gene therapy customers and aims to assist them comprehensively with its range of offerings.

With a rich legacy in operating across the biopharmaceutical, clinical and food and beverages sectors since 1955, it plays a key role in supporting the industry players driven to advance and redefine cell and gene therapy. Expanding its direct presence, the company boasts a global footprint with its manufacturing and R&D facilities strategically located across the U.S. and Europe. This enhances its ability to deliver innovative solutions tailored to meet the evolving needs of its clientele worldwide.

Supporting clients while recognizing the intricate regulatory demands of the evolving cell and gene therapy landscape, Advanced Instruments provides tailored solutions, expertise, and advanced technological support



Andrea Gough,
Director,
Solentim Portfolio and Science Applications



Gernar Wittke,
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EMEA

to drive decision-making and simplify workflows in developing innovative therapeutics. Its emphasis on service, quality, and reliability has positioned the company as a leading developer and manufacturer of analytical instruments and services.

"From early-stage cell line development and bioprocessing to manufacturing and quality control, our solutions drive efficiencies, support drug development for biopharmaceutical and clinical industries and deliver timely and accurate results," says Andrea Gough, director of Solentim portfolio and science applications at Advanced Instruments.

Driving Innovation in Drug Development

Advanced Instruments' multifaceted portfolios continually evolve to meet the diverse needs of biopharma companies as they encounter increasingly regulated environments. Whether facilitating automation and throughput for smaller enterprises or providing high-throughput solutions for those navigating regulated areas, the company offers all-round support.

Advanced Instruments underscores the versatility and comprehensiveness of its multifaceted offerings. Its Solentim Cell Line Development

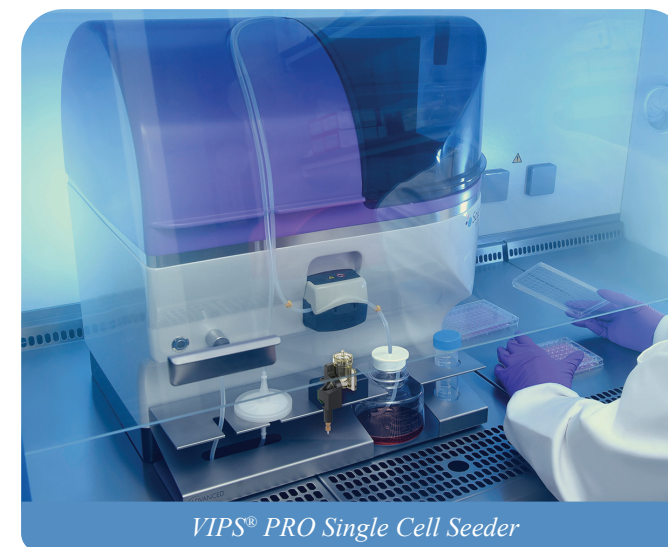
portfolio and OsmoTECH portfolio of osmometers revolutionise drug development processes. Lauded for their modularity and flexibility, they enhance efficiency across all stages of drug development acting in a cohesive manner.

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Its Solentim VIPS® PRO Single Cell Seeder, featuring optional whole well imaging, offers a comprehensive solution for high-efficiency single-cell seeding. It ensures precise monoclonality confirmation with high-resolution image-based clonality proof. The product's GMP compliant features provides added assurance in effectiveness and results for those requiring GMP-compliant products.

Complementing it is the Solentim Cell Metric® X Clonal Imager, which offers automated evidence of clonality driven by artificial intelligence. With pre-identified cell locations and walk-away automation, it streamlines high-throughput applications while providing automatic clonality reports for regulatory compliance. Launched in 2023, Cell Metric X builds on the legacy of Cell Metric, a name synonymous with excellence in biotech cell line development.

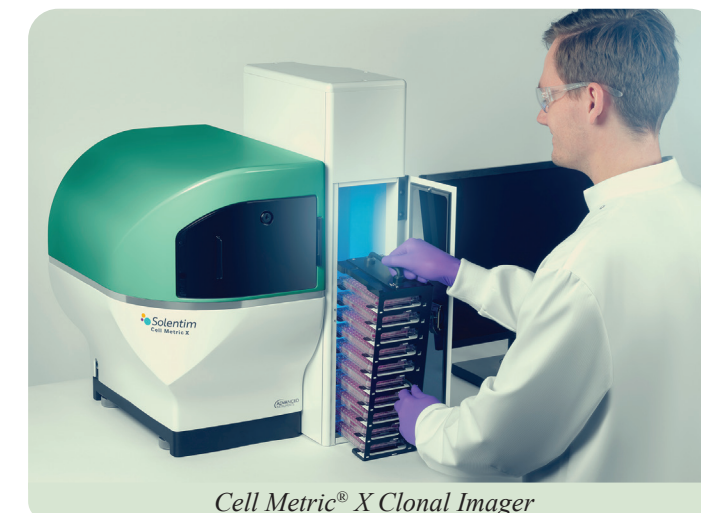
Next in the portfolio is the Solentim ICON™ Productivity Analyzer that simplifies clone selection using productivity metrics such as titer and VCD that are combined for normalised titer and specific productivity (QP) analysis. Its single-instrument measurement of key parameters accelerates decision-making, supported by low volume assays for optimized resource utilization.



VIPS® PRO Single Cell Seeder

A differentiating aspect of the Solentim portfolio is its ability to connect all the three instruments through the STUDIUS™ Data Management Platform. It facilitates seamless data management across the workflow, leading to more effective clone selection, comprehensive sample tracking and dynamic clonality report for streamlined investigational new drugs (IND) submission.

In osmolality testing, Advanced Instruments' OsmoTECH portfolio offers precision and reliability. Its micro-osmometers are recognised as the gold standard for osmolality testing worldwide, supporting global lab workflows while ensuring precise and timely results.



Cell Metric® X Clonal Imager

Advanced Instruments leads the global market in osmolality testing solutions, catering to industries like biotech, pharmaceuticals, clinical, and food and beverage. Its comprehensive osmometer solutions address diverse industry needs and are crucial for assessing water balance, investigating sodium levels, detecting toxins, and monitoring electrolyte balance in patients undergoing osmotically active drug therapies like mannitol for cerebral edema treatment.

In the biopharma sector, Advanced Instruments' osmometers are integral across development and manufacturing workflows, ensuring consistent production of biopharmaceutical products with predetermined yield, purity and quality.

The OsmoTECH® XT Single-Sample Micro-Osmometer delivers best-in-class performance with intelligent freezing technology and minimal sample volume requirements. For scalability and automation, the OsmoTECH® PRO Multi-Sample Micro-Osmometer provides walk-away testing with robust data integrity features.

Completing the portfolio is the OsmoTECH® HT Automated Micro-Osmometer. It optimizes high-throughput testing workflows with automation-friendly plate-based format and powerful data management features.

With these cutting-edge instruments that stand out for their adaptability and versatility, Advanced

Instruments empowers researchers to advance biopharmaceutical breakthroughs confidently.

The specialized team at Advanced Instruments collaborates with clients throughout their pre- and post-purchase journey, leveraging insights from sales, field application scientists, and technicians to provide comprehensive support and expertise. Post-purchase, customers receive active after-sales support. These endeavours contribute to an enriched and personalised customer experience that has defined Advanced Instruments' reputation throughout its years of customer support.

Central to this experience is Advanced Instruments' commitment to understanding customer needs. Its specialized team, including salespeople, field application scientists, and technicians, possesses the scientific expertise necessary to offer tailored solutions.

In the highly regulated field of cell line development, Advanced Instruments' technology plays a pivotal role, especially for developing monoclonal antibodies. It supports clients navigating the complex requirements for IND submissions by proving the clonality of cell lines—a critical step for the approval and future production of biotherapeutics. The company's sophisticated imaging and seeding technologies accelerate this process while upholding the confidentiality of customer-specific data.

Building Lasting Partnerships

Beyond exceptional technologies, Advanced Instruments ensures clients benefit from its lasting and supportive relationships. This commitment is evident through the collective dedication of every team member, who passionately works towards collaborative problem-solving and prioritizes customer satisfaction over product sales.

Committed to aiding good manufacturing practices (GMP) compliance, Advanced Instruments ensures its systems align with stringent regulations. It addresses instrument safety, cleanliness and compliance within cleanroom environments. Its instruments support 21 CFR Part 11 data security and compliance norms.

Close collaborations with top biotech companies and the majority of global gene therapy contract development and manufacturing organizations (CDMOs) cement Advanced Instruments' position as a trusted partner in the industry.

Embedded within the company's mission is a

dedication to providing tailored solutions that optimize customers' processes through advanced technologies and unparalleled expertise. This commitment to delivering comprehensive solutions underscores Advanced Instruments' mission to instill confidence among clients in their R&D projects.

Advanced Instruments prioritizes long-term relationships over short-term gains, setting it apart from competitors in the bio-life sciences market. The company ensures sustained support for its customers with its market-leading products and unwavering commitment to serve customers.

"Our enduring presence over the decades ensures stability and reliability for our customers," says Germar Wittke, biopharma sales director, EMEA at Advanced Instruments.

Providing market-leading instruments and ongoing client support, Advanced Instruments stands firm in the industry as a long-term, reliable partner propelling cell and gene therapy development. As the company expands its direct presence in Europe and Asia, its commitment to growth and global support remains steadfast. [**LS**](#)



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