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Scientific**

ABOUT

Thermo Fisher Scientific Inc. (NYSE: TMO) is the world leader in serving science, with annual revenue of over \$40 billion. Our Mission is to enable our customers to make the world healthier, cleaner and safer. Whether our customers are accelerating life sciences research, solving complex analytical challenges, increasing productivity in their laboratories, improving patient health through diagnostics or the development and manufacture of life-changing therapies, we are here to support them. Our global team delivers an unrivaled combination of innovative technologies, purchasing convenience and pharmaceutical services through our industry-leading brands, including Thermo Scientific, Applied Biosystems, Invitrogen, Fisher Scientific, Unity Lab Services, Patheon and PPD.

Key Technology: Thermo Fisher Scientific specializes in providing advanced technologies and solutions for scientific research and analysis. Our key technology areas include life sciences, analytical instruments, specialty diagnostics, and laboratory products and services. We offer a wide range of innovative products and solutions that enable researchers and scientists to advance their work and make significant contributions to various industries.

Main Users: Our products and services cater to a diverse range of customers and industries. Our main users include academic and research institutions, pharmaceutical and biotechnology companies, hospitals and healthcare providers, government agencies, and industrial laboratories. We are committed to supporting our customers in their pursuit of scientific discovery, improving patient outcomes, and driving innovation across various sectors.

Booth Theme: Explore Our Solutions in Protein & Cell Biology

Visit the Thermo Fisher Scientific booth and discover innovative solutions designed to support your research across qPCR, Protein Biology, and Cell Culture Biology.

Meet our application and product specialists, discuss your research needs, and explore technologies that can help streamline and advance your workflows.

At our booth, you'll have the opportunity to see instruments including the EVOS™ M3000 Imaging System, Countess 3 FL, Minilab and our Western Blotting workflow.



Dr. Arturo Castro Nava, Cell Biology Product Specialist

3D Cell Culture: Building Physiologically Relevant Models from Culture to Analysis

Three-dimensional cell culture is transforming how researchers model human biology by providing experimental systems that more closely reproduce tissue architecture, cellular interactions, and physiological responses than conventional 2D cultures. This talk provides a practical overview of the 3D cell culture workflow, from selecting appropriate cells and culture systems to model generation, engineering, and downstream analysis.

We will introduce the key differences between spheroids, organoids, and patient-derived tumoroids and discuss how the choice of starting cell type influences model complexity, biological relevance, and culture requirements.

The session will examine critical components required for reproducible 3D model development, including extracellular matrices, culture vessels, specialized media, supplements, and growth factors. Examples will illustrate workflows for lung organoids, hepatic spheroids, cancer spheroids, and patient-derived tumoroids.

Finally, we will explore how 3D models can be engineered using CRISPR/Cas9, electroporation, and lentiviral approaches, and applied to downstream studies including high-content imaging, drug screening, co-culture systems, NK-cell cytotoxicity, and CAR T-cell assays.

Attendees will leave with an integrated view of how to design, build, modify, and analyze physiologically relevant 3D cell models for disease modeling, drug discovery, and translational research.