

# ASTM INTERNATIONAL CONFERENCE ON ADVANCED MANUFACTURING

## Research to Application through Standardization

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### Industrial Sector: Medical

The medical industry continues to be a key sector to take advantage of additive manufacturing (AM) technology. AM's unique capability to design and rapidly fabricate complex geometries economically using a diverse array of materials has enabled the ever-growing adoption of this technology in biomedical applications. Hence, the availability of patient-specific biomedical devices with custom and complex designs are continuing to grow in the market. However, despite these tremendous opportunities that AM offers, the full potential of utilizing AM in the medical industry has yet to be fully explored. Advancements in regenerative medicine, medical device fabrication, medical education, health monitoring, diagnostic tools, and surgical planning are enabling the broader adoption of AM in the medical industry. In addition, special attention is required for the standardization, qualification, and certification protocols of these products.

#### Topics of interest include but are not limited to:

- New materials for biomedical applications
- Design and manufacturing of medical models, prosthetics, and implants
- Performance of additively manufactured biomedical parts
- Post-processing of AM medical devices
- Porous Structure/Lattice Design and Performance
- Advancements in 3D bioprinting
- Role of AM in Medical Education
- AM at the Point-of-Care
- Clinical case study on application of AM - Original research
- Qualification and certification challenges
- Need for standards and regulations
- Role of AM in Surgical Planning



### Symposium Organizers

- David Dean, The Ohio State University, USA
- Matthew Di Prima, U.S. Food and Drug Administration (FDA), USA
- Laura Gilmour, LG Strategies, USA
- Ryan Kircher, rms Company, USA
- Guhaprasanna (Guha) Manogharan, Pennsylvania State University, USA
- Sean McEligot, Mayo Clinic, USA



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Research to Standards

ADDITIVE MANUFACTURING