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Innovative Medical Technology and Surgical Techniques: Focus on Joint Arthroplasty

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Message from the Guest Editors

Innovation is at the heart of improving outcomes for patients suffering from osteoarthritis. Recent developments in biomaterials and additive manufacturing have led to improvements in implant fixation, durability, and infection resistance. Enhancement of implant designs continue to address common failure modes like instability, dislocation, and pain. Advancements in surgical technology, including pre-operative planning, robotics, and augmented reality provide surgeons with tools to reliably execute surgical plans. The introduction of wearables and smart implants promises early identification of complications and improved patient rehabilitation. Together, these innovations bolster outcomes and improve the lives of millions of arthroplasty patients worldwide every year.

This special issue of Bioengineering, "Innovative Medical Technology and Surgical Techniques: Focus on Joint Arthroplasty," will highlight cutting-edge collaborative work between surgeons, scientists, and engineers that drives this innovation.



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Special Issue



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