Special Issue

Advanced Technologies in Spine Surgery and Spinal Biomechanics

Message from the Guest Editors

The field of spinal surgery is currently experiencing a revolutionary transformation, largely driven by the integration of advanced technologies such as spinal endoscopy, robotics, and artificial intelligence. Among these advances, spinal endoscopy has emerged as a particularly impactful technique, offering minimally invasive solutions that significantly improve patient outcomes and reduce recovery times. In addition to the advancements in endoscopic techniques, the incorporation of robotics and AI is further expanding the boundaries of what is possible in spinal surgery. These technologies are enabling more precise, personalized, and effective interventions, reshaping the landscape of spinal care. This Special Issue is dedicated to exploring these cutting-edge technologies, with a focus on their clinical applications and the biomechanical insights they provide. We aim to present research and innovations that not only enhance our understanding of spinal biomechanics but also drive the future of spine surgery towards safer, more effective, and more patient-centered care.

Guest Editors

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Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal *Applied Sciences* has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

Editor-in-Chief

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