Special Issue

Current Challenges and Innovations in Spine Deformity: Biomechanics, Imaging and Al-Driven Analysis

Message from the Guest Editor

Spinal and cervical deformities remain complex challenges in modern spine surgery. However, recent developments in artificial intelligence (AI) and medical imaging offer new opportunities for refining spinal deformity assessment and enhancing surgical planning. This Special Issue aims to explore the intersection of biomechanics, imaging, and Al-driven analysis in spinal deformity research, with a particular focus on both spinal and cervical deformities. Topics of interest include, but are not limited to, posture-related spinal and cervical alignment changes, the role of imaging modalities in deformity classification, Al-based phenotyping and prediction models, and novel surgical approaches guided by computational analysis. Contributions integrating clinical, radiographic, and computational methodologies are particularly encouraged. By bringing together multidisciplinary research efforts, this Special Issue seeks to address key challenges in spinal and cervical deformity management, improve diagnostic accuracy, and advance personalized treatment strategies.

Guest Editor

Dr. Dong-Ho Kang

Department of Orthopedic Surgery, Spine Center, Samsung Medical Center, Sungkyunkwan University School of Medicine, Seoul 06351, Republic of Korea

Deadline for manuscript submissions

20 April 2026



Journal of Clinical <u>Medici</u>ne

an Open Access Journal by MDPI

Impact Factor 2.9
CiteScore 5.2
Indexed in PubMed



mdpi.com/si/230928

Journal of Clinical Medicine Editorial Office MDPI, Grosspeteranlage 5 4052 Basel, Switzerland Tel: +41 61 683 77 34 jcm@mdpi.com

mdpi.com/journal/

jcm





Journal of Clinical Medicine

an Open Access Journal by MDPI

Impact Factor 2.9 CiteScore 5.2 Indexed in PubMed





About the Journal

Message from the Editorial Board

There has been an explosion of gene and target based research and therapeutics in the multitude of fields that compose clinical medicine. The *Journal of Clinical Medicine*'s (*JCM*) staff and editorial board are dedicated to providing cutting edge, timely, and peer-reviewed articles covering the diverse subspecialties of clinical medicine. The journal publishes concise, innovative, and exciting research articles as well as clinically significant articles and reviews that are pertinent to the myriad of disciplines within medicine. The articles published are relevant to both primary care physicians and specialists. The journal's full-texts are archived in PubMed Central and indexed in PubMed. Please consider submitting your manuscripts for publication to our journal and check us out on-line!

Editors-in-Chief

Prof. Dr. Emmanuel Andrès

Internal Medicine Department, University Hospital Strasbourg, 67000 Strasbourg, France

Prof. Dr. Kent Doi

Department of Acute Care Medicine, University of Tokyo, Tokyo, Japan

Author Benefits

High Visibility:

indexed within Scopus, SCIE (Web of Science), PubMed, PMC, Embase, CAPlus / SciFinder, and other databases.

Journal Rank:

JCR - Q1 (Medicine, General and Internal) / CiteScore - Q1 (General Medicine)

Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 17.7 days after submission; acceptance to publication is undertaken in 2.7 days (median values for papers published in this journal in the first half of 2025).