Special Issue

Spine Biomechanics

Message from the Guest Editor

The spine represents the central musculoskeletal element of the human body, simultaneously enabling trunk movement, upright posture, and load transfer from the upper to the lower body. Consequently, the spine must withstand a variety of forces and moments and exhibit unique material properties and kinematics. However, the fundamental importance of the spine for human biomechanics is also accompanied by multiple musculoskeletal spinal pathologies, and spine-related pain is one of the main causes of disability worldwide. A more detailed knowledge of spinal biomechanics is therefore essential with regard to the prevention and treatment of musculoskeletal spinal diseases. This Special Issue of *Bioengineering* aims to collate new findings and developments in biomechanical research of the spine. This comprises, but is not limited to, the following areas:

- In vivo (clinical) trials, in vitro studies, and numerical modeling studies on the spine.
- Biomechanical investigation of novel technologies and devices for the orthopedic and traumatological treatment of the spine.
- Studies on the effects of influencing factors on spinal biomechanics, such as aging, degeneration, and trauma.

Guest Editor

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Message from the Editor-in-Chief

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Editor-in-Chief

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