

Special Issue on
**Patient Specific and Individualized Knee and Hip
Arthroplasty: Where Are We Now and What Lies Ahead?**

CALL FOR PAPERS

Within the last few years, standard concepts that are widely accepted for the positioning of knee and hip prostheses in orthopaedic surgery are increasingly being challenged and more adapted to the individual biomechanics of the patient. In this context, patient specific instrumentation (PSI) has become a brand name for a group of devices, mainly introduced in total knee arthroplasty (TKA). The idea is to use custom made cutting blocks or jigs that are matched to the patients' bony anatomy with the help of a preoperative MRI or CT scan. So far, there is conflicting evidence about the potential benefit of these systems. More and more surgeons believe nowadays that true individualized TKA includes a variety of different solutions, such as PSI, patient individualized surgical procedures, navigation technology or customized implant systems with different radius, femoral step-off, or inlay heights. The same is evident for THA, where surgeons might choose patient individual stem geometries with different offset and adjustable neck systems, bearing surfaces, navigation systems, or novel anchorage systems to reconstruct the patients' individual hip anatomy.

We invite authors to submit original research and review articles that seek to define the role for true individual knee and hip arthroplasty. We are therefore interested in articles that explore aspects of patient specific or individualized knee and hip arthroplasty.

Potential topics include but are not limited to the following:

- ▶ Development and testing of patient-specific instrumentation for implantation of conventional total knee or hip arthroplasty
- ▶ Development and testing of patient-specific instrumentation for individualized (total) knee or hip arthroplasty
- ▶ Identification of potential arthroplasty systems for patients with hypersensitivity to metals
- ▶ Development and testing of short-stems versus conventional stems in total hip arthroplasty
- ▶ Elucidating the role of different bearing materials in total hip arthroplasty for the individual patients' needs
- ▶ Elucidating the role of different anchoring strategies with respect to patients' age and activity
- ▶ Implantation with respect to the individual biomechanics of the patient
- ▶ Use of navigation technology in total knee and hip arthroplasty
- ▶ Biomechanical concepts and surgical strategies within patient individual TKA and THA
- ▶ Material improvements in modern TKA and THA

Authors can submit their manuscripts through the Manuscript Tracking System at <https://mts.hindawi.com/submit/journals/bmri/orthopedics/psik/>.

Papers are published upon acceptance, regardless of the Special Issue publication date.

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