

FELLOWSHIP REPORT

Missouri Orthopaedic Institute, Columbia, Missouri, USA

October 13 – November 10, 2025

I am pleased to present this report summarizing my clinical and academic experience during my fellowship at the Missouri Orthopaedic Institute, Columbia, Missouri, USA. This four-week program provided invaluable exposure to advanced concepts and contemporary practices in hip preservation, primary and complex hip and knee arthroplasty, revision arthroplasty, robotic assisted joint replacement, and reverse shoulder arthroplasty.

Under the primary supervision of Dr. Ajai Aggarwal, I gained comprehensive insight into decision-making, surgical planning, and postoperative management for a wide spectrum of hip and knee disorders. I observed and assisted in complex primary and revision arthroplasty cases, learning refined approaches to acetabular and femoral reconstruction, implant selection, and management of bone loss and periprosthetic complications. My exposure to hip preservation included the evaluation of femoroacetabular impingement, labral pathology, hip arthroscopy, labral repairs and peri-acetabular osteotomies, with emphasis on clinical assessment, indications, and evolving techniques.

A significant highlight of the fellowship was my experience with robotic hip and knee replacement systems, where I learned preoperative planning using robotic software, registration techniques, and precision execution of component positioning. This training enhanced my understanding of how robotic technology improves component positioning, optimizes limb alignment, and contributes to more reproducible surgical outcomes.

I am also grateful for the opportunity to learn from Dr. Matthew Smith, Dr. DaFroda, Dr. Ghanam, and Dr. Nuelle, each of whom provided unique clinical perspectives and allowed meaningful participation in their subspecialty practices. Additionally, exposure to reverse shoulder arthroplasty broadened my understanding of shoulder biomechanics, indications, and technical nuances.

This fellowship has significantly strengthened my clinical acumen, broadened my surgical perspective, and enhanced my confidence in managing complex reconstructive problems. I extend my sincere gratitude to Dr. Pushpinder Bajaj and ISKSAA for granting me this prestigious fellowship opportunity and

supporting my professional growth.

Dr. Varkey S Kulangara.