Clinical gait analysis applies motion capture technology and dynamic electromyography to guide operative and non-operative treatment planning for patients with movement disorders such as cerebral palsy. While this testing provides quantitative 3D data that cannot be obtained through standard clinical evaluation, the use of gait analysis as a clinical test remains controversial. This seminar will examine how gait analysis fits into the patient care process and the barriers preventing more widespread adoption of this medical technology. Many of the lessons learned from gait analysis apply to medical technologies in general and more particularly to technology-based diagnostic tests.

Dr. Wren is a biomechanical engineer working in clinical environment. As Director of Research for the Motion Analysis Laboratory at Children's Hospital Los Angeles (CHLA), Dr. Wren conducts clinical and basic research in several different areas of orthopaedics. Two of the primary areas are (1) evaluation and treatment of gait abnormalities in children with neurologic deficits and (2) assessment of bone density and fractures in children. This research is carried out in collaboration with colleagues in the Childrens Othopaedic Center as well as faculty in the Childrens Imaging Research Program.