

## Executive Summary

Hospital for Special Surgery (HSS) is a world leader in orthopaedic surgery, and the Hospital's expertise in joint replacement surgery is unsurpassed throughout the world. HSS surgeons perform more joint replacement and revision surgeries than any other hospital in the United States, and our implant retrieval program that evaluates failed implants is the largest and longest running – going back over 40 years. HSS is now building upon its considerable expertise in this area with a Complex Joint Reconstruction Center (CJRC) specializing in care and research of complex joint disorders and reconstruction surgery.

Under the direction of Thomas P. Sculco, M.D., the CJRC is the first of its kind in the world – providing the best in diagnosis and treatment for the most challenging cases in joint reconstruction and conducting leading-edge research on the causes and prevention of implant failure.

### **Expert Treatment for the Most Complex Cases**

The Center serves as a single point of access to medical care for patients with complex joint disorders. These patients, who may be seeking care for a complicated joint disorder or treatment of an infected or failed implant, are often referred to HSS by practitioners from around the world because of the difficulty of their cases. They require the expertise that only HSS and its team of specialists can deliver. The Center provides seamless coordination of care from renowned physicians and surgeons to achieve the best possible results for each patient and to make the care experience less stressful and more cost effective. Key features include:

- Team of 16 experienced and committed joint replacement surgeons
- Personalized plans for each patient's treatment and recovery
- Dedicated clinical manager to triage care and expedite appointments
- Complete care in one location

### **Research as a Catalyst for Improvements in Care**

The Center is the nexus of a highly collaborative basic and clinical research program that brings together experts in biomechanics, bone destruction secondary to reaction to debris (osteolysis), molecular biology, imaging, and genomics, as well as orthopedic surgeons specializing in joint replacement and revision surgery, to address key scientific questions related to success of joint replacement surgery and longevity of implants under the following themes:

- Causes of Implant Failure
- Genetic Contributors to Outcomes
- Populations with Increased Risk
- Targeted Therapies to Prevent Complications
- Precision Care
- Technology Aided Surgery

### **CJRC Fellowship**

The mission of the Complex Joint Reconstruction Center (CJRC) is to provide outstanding treatment for the most challenging cases in hip and knee joint reconstruction. The Center will improve evidence

based practice through multi-disciplinary Orthopedic research and education. We strive to provide the most innovative, comprehensive, and highest standard of quality of care through the integration of science and clinical practice.

**Reports to:** Directors of Complex Joint Reconstruction Center

- Thomas Sculco, MD
- Matthias Bostrom ,MD
- Douglas Padgett, MD

Director of Education/CJRC Fellowship:

Peter Sculco, MD

The following statements are intended to describe the general nature and level of work being performed. They are not intended to be construed as an exhaustive list of all responsibilities, duties and skills required of personnel so classified.

**Overview:**

The Complex Joint Reconstruction Fellowship program represents the continued commitment of Hospital for Special Surgery to train clinicians in the evaluation and management of patients in the musculoskeletal specialty of hip and knee arthroplasty. The one-year clinical fellowship is designed to provide the fellow with an ongoing, in-depth experience in the management of patients undergoing complex primary joint replacement and revision surgery. Emphasis is placed on the preoperative evaluation and operative management of these problems. The fellowship will accomplish these objectives through didactic clinical lectures, academic conferences, supervised patient care, in-depth surgical exposure, and research projects that support the concepts and skills learned in the clinical arena.

The CJRC Clinical Fellowship emphasizes the critical thinking needed to assess and care for complex cases. Candidates completing the fellowship will have developed sound principles and sufficient experience to manage these musculoskeletal disorders. A strong emphasis is on an apprenticeship surgical training model. Working closely with a small group of dedicated attendings with a high volume revision and complex primary practice over the course of the fellowship year. The expectation is that the clinical fellow will have the surgical ability and experience to create and execute an operative plan for a range of complex cases including a facility with revision exposure techniques, performing femoral and tibial osteotomies, and have the capability to use multiple implant systems. The goal is to provide highly motivated physicians with the clinical knowledge and research skills necessary for a successful academic and clinical career focused on challenging cases in joint reconstruction.

**Clinical Goals & Objectives**

Each Clinical fellow is expected to participate in approximately 250-300 primary and revision cases per year (e.g. patients who need custom implants, those with multiple failed surgeries, patients with infections and multiple comorbidities or medical concerns).

Clinical fellows participate in the overall patient care including but not limited to clinical rounds, operative notes, preoperative evaluation, and post-operative care.

The Clinical fellow spends approximately two-three days per week in the operating room as a first assistant for complex primary and revision arthroplasty cases.

The fellow participates in the post-operative care and rounding for all his/her operative cases in consultation with the attending staff.

The fellow evaluates pre- and post-operative patients in the private outpatient settings with the attending surgeon to which they are assigned.

The fellow may occasionally be asked to provide coverage for patients in other programs or services to meet patient care needs.

All coverage is in accordance with the privileges outlined in the delineation of privileges. Whatever the clinical setting, fellows are expected to provide clinical care at the highest possible level, and make treatment decisions in accordance with their clinical training, and scope of practice.

### **Research Objectives and Responsibilities:**

The Clinical fellow spends two – three days per week performing clinical or basic or biomechanical research in the area of complex arthroplasty with the goal of completing at least three research projects (preferably one in clinical research, one in basic science research and one in biomechanics) leading to publication/conference presentation. At least two manuscripts are to be submitted and peer reviewed prior to the conclusion of the fellowship term.

The fellow independently performs literature reviews, develops study hypotheses and methods for experiments, performs preliminary statistical analysis, interprets study results and prepares the final manuscript.

The fellow will attend weekly research meetings and supervises medical students, interns, and undergraduate research students on research protocols.

The fellow attends one career development workshop dedicated to becoming a surgeon scientist.

The fellow completes a research protocol for incoming fellows. This protocol must be reviewed by the ARJR Clinical Review Panel as well as Hospital for Special Surgery's Investigational Review Board. The protocol must be fully executed and approved at the conclusion of the fellowship

### **Educational objectives and Responsibilities**

The Clinical fellow attends weekly case conferences, select core lectures, and biomechanics laboratory sessions.

The fellow participates in case presentations for the Adult Reconstruction and Joint Replacement Division as well as the Complex Joint Reconstruction Center conferences.

The fellow leads residents, medical students and ancillary staff in teaching conferences, in the OR, and in clinics. The CJRC Fellow will be specifically responsible for a monthly case review panel that evaluates complex cases. The fellow will be required to collate the presentation and dictate recommendation letters based on the conference discussion.

The fellow participates in the development of a video-based curriculum (through HSS E-Academy) for future orthopedic surgeons and trainees.

## **Supervision and Evaluation:**

The clinical fellow is under the supervision of an attending for all clinical activities as specified in their Delineation of Privileges. The Service Chiefs and attending staff are always available for in-person or phone consultation on any matter of patient care. It is expected that the fellow will promptly inform the attending of any significant change in a patient's status, as well as any emergency admission or impending emergency surgery.

## **MINIMUM JOB REQUIREMENTS:**

### **Education/Training:**

Applicants to an HSS Fellowship program must complete a US ACGME Accredited Residency or a Canadian Royal College of Physicians and Surgeons Canada (RCPSC) or College of Family Physicians of Canada (CFPC) accredited Program.

Exceptionally qualified applicants may request an exemption to the eligibility requirement stated above, as outlined in the policy on Fellow Eligibility/Selection/Appointment/Promotion (policy available at <http://intranet.hss.edu/departments/academictraining/files/AT%20Res%20Fellow%2036.pdf>).

Candidates applying for an exception must complete the following:

- United States Medical Licensing Examination (USMLE) Steps 1, 2, and, preferably, Step 3.
- For an international graduate, verification of Educational Commission for Foreign Medical Graduates (ECFMG) certification.
- Letter of commitment from their native country guaranteeing a job upon completion of fellowship.