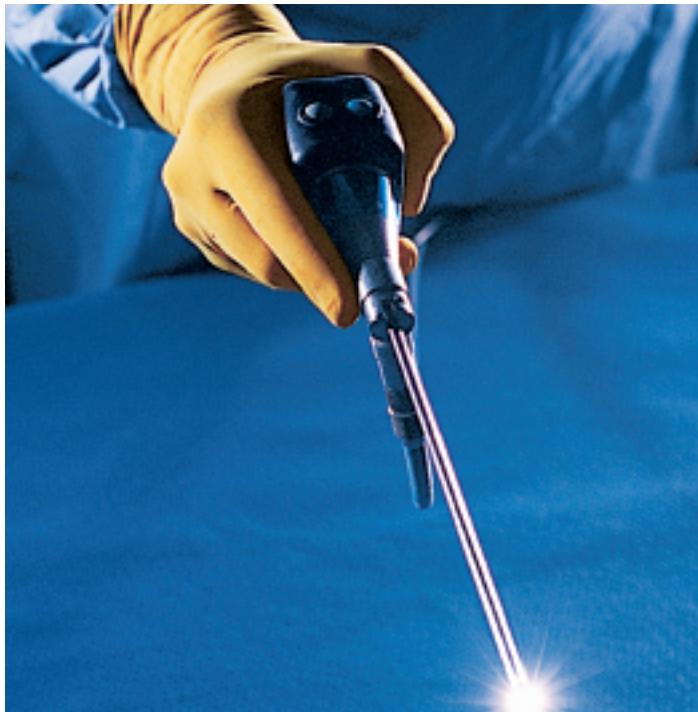




The Hip Preservation Fellowship Program at Hospital for Special Surgery

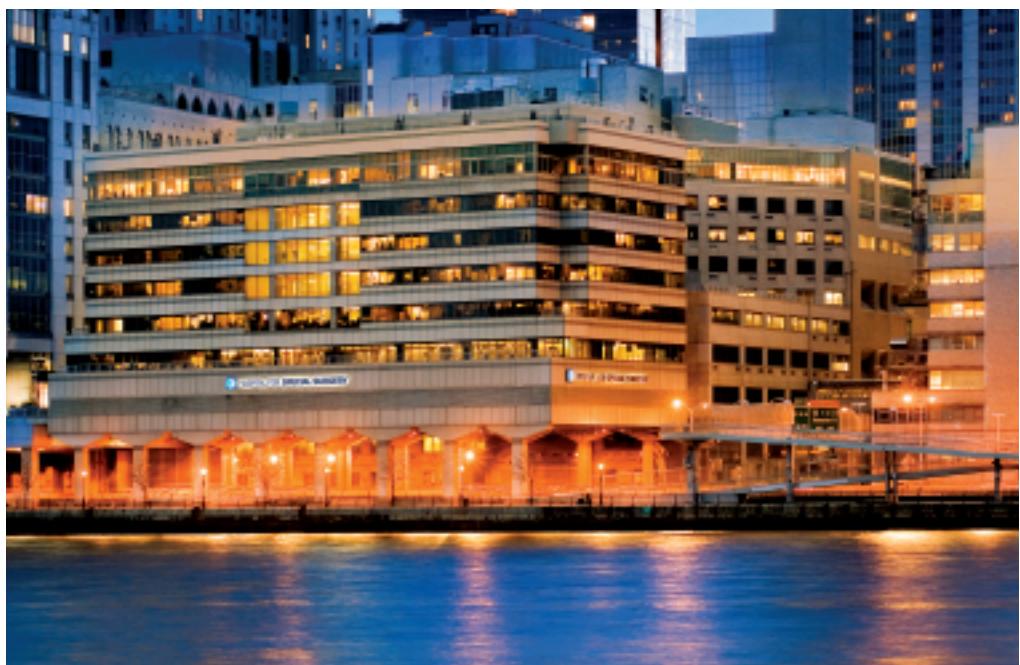


Institutional and Program History

Founded in 1863 by Dr. James Knight, Hospital for Special Surgery (HSS) is an academic medical center specializing in musculoskeletal medicine – including orthopedic surgery, rheumatology, and rehabilitation – and is affiliated with New York-Presbyterian Healthcare System and Weill Cornell Medical College. For more than a century, Hospital for Special Surgery has trained the minds, hearts, and hands of some of the finest orthopedic surgeons in the nation. A steadfast commitment to excellence in education dates back to the Hospital's earliest traditions and continues to influence our present-day mission: To improve the mobility and enhance the quality of life of patients, while advancing the science of orthopedic surgery, rheumatology, and their related disciplines through research and education.

The Hip Preservation Fellowship Program at HSS was established to train the future world leaders in hip preservation, a rapidly growing and highly specialized field of orthopedic surgery. This unique program offers an in-depth

concentration in both the arthroscopic and open surgical treatment of pain in the young, active adult hip. Led by members of the Hospital's Center for Hip Preservation, specialty-trained in hip preservation techniques, the Program provides an opportunity for Fellows to gain focused knowledge in hip preservation over the course of the year.



Center for Hip Preservation

Established in 2009, the Center for Hip Preservation at Hospital for Special Surgery uses a multidisciplinary approach to treat a broad range of hip conditions by combining the expertise of a wide variety of health care professionals – including orthopedic surgeons, radiologists, physiatrists, physical therapists, and researchers.

The goal of the Center is to provide joint-preserving treatment options to young, active adult patients suffering from hip pain in order to restore a high level of function. Historically, these younger patients might have been previously misdiagnosed or tolerated unrecognized symptoms, resulting in the further deterioration of the hip joint. As our understanding of structural abnormalities in the

hip has increased, our specialists have been able to better identify underlying conditions in earlier stages, providing patients with more treatment options that help to preserve the integrity of the joint, including both arthroscopic and open surgical techniques.

The Center's vision is three-fold: (1) To be the world leader in the diagnosis and treatment of hip pain; (2) To be recognized by the medical community and patients worldwide as the most trusted source of information to address hip pain and preservation among younger patients; (3) To be recognized for its innovative research in hip pain and preservation.

Our Faculty

Bryan T. Kelly, MD

Dr. Kelly is a specialist in the arthroscopic and open surgical management of non-arthritis disorders around the hip. He currently serves as the Co-Director for the [Center for Hip Preservation](#) and the Program Director for the Hip Preservation Fellowship Program. He has a broad range of both clinical and basic science research interests, including the development of a clinical outcomes registry; biomechanical studies evaluating conflict patterns in femoroacetabular impingement and techniques in labral refixation; development of synthetic scaffolds for labral reconstruction and cartilage injuries in the hip; and the development of novel surgical techniques for managing soft tissue injuries around the hip joint.

Dr. Kelly completed his medical degree at the Duke University School of Medicine and his orthopedic surgery residency and fellowship training in Sports Medicine at Hospital for Special Surgery. He also completed the Hip Sports Injuries Fellowship at the University of Pittsburgh Medical Center and the AO Trauma Fellowship at Landeskliniken in Salzburg, Austria.

Dr. Kelly currently cares for several sports teams, serving as the Associate Team Physician for the New York Giants (NFL) and New York Red Bulls (MLS), as well as the Team Consultant for hip injuries for the New Jersey Nets (NBA) and several collegiate teams in the tri-state region.

For more information, including a list of publications, please visit Dr. Kelly's [online bio](#).

Ernest L. Sink, MD

Dr. Sink specializes in the treatment of hip disorders in patients ranging from newborns to young adults. He is the Co-Director of Hospital for Special Surgery's [Center for Hip Preservation](#). Dr. Sink performs hip procedures in infants, adolescents and young adults, including periacetabular osteotomies (PAO) and surgical hip dislocations. Dr. Sink has authored over 17 peer reviewed articles and six book chapters, and has particular academic and research interest in the areas of pediatric trauma and hip disorders.

Dr. Sink graduated from Texas Southwestern Medical School, where he went on to complete his orthopedic residency training. He completed his fellowship training at Rady Children's Hospital in San Diego, and pursued post-fellowship study of innovative hip procedures in both the United States and Europe. Dr. Sink is involved in teaching other surgeons on a national level and collaborates with several other specialized hip surgeons in the country.

For more information, including a list of publications, please visit Dr. Sink's [online bio](#).

Struan H. Coleman, MD, PhD

Dr. Coleman specializes in Sports Medicine at Hospital for Special Surgery, where he treats orthopedic conditions of the hip, shoulder, and knee. Dr. Coleman holds a PhD in Molecular Biology from Oxford University in England and combines a clinical practice in sports medicine with basic science research in the injury and repair of musculoskeletal tissues. Dr. Coleman was an assistant doctor to the New York Giants football team during his fellowship and is currently the Head Team Physician for the New York Mets.

Dr. Coleman completed his residency in orthopedic surgery and his fellowship in Sports Medicine at Hospital for Special Surgery. Dr. Coleman has trained using the latest arthroscopic techniques, including all-arthroscopic rotator cuff repairs, multi-ligament knee reconstructions, and arthroscopy of the hip for younger patients with hip pathology. For more information, including a list of publications, please visit Dr. Coleman's [online bio](#).

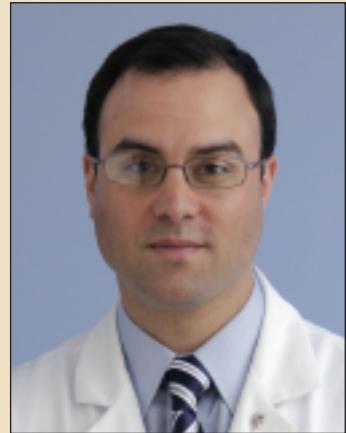
Anil S. Ranawat, MD

Dr. Ranawat specializes in hip, knee, and shoulder arthroscopy, femoroacetabular impingement (FAI) surgery, osteotomies, partial and total joint surgery, and fracture surgery. He is an Assistant Team Physician for the New York Mets.

Dr. Ranawat earned his medical degree at Weill Medical College of Cornell University and completed his residency in orthopedic surgery at Hospital for Special Surgery. He then completed the Sports Medicine Fellowship Program at the University of Pittsburgh Medical Center and the Maurice Müller Traveling Hip Fellowship at the Schulthess Klinik in Switzerland, focusing on joint preservation surgery of the hip and knee.

Dr. Ranawat has received the T. Campbell Thompson Award for Excellence in Orthopedic Surgery, the Jean C. McDaniel Resident Teaching Award at Hospital for Special Surgery, and the AAOS Washington Health Policy Fellowship.

For more information, including a list of publications, please visit Dr. Ranawat's [online bio](#).



Clinical Training Components

The Center for Hip Preservation at Hospital for Special Surgery aims to apply the best available evidence gained from the scientific method to clinical decision making in order to provide the best possible clinical care.

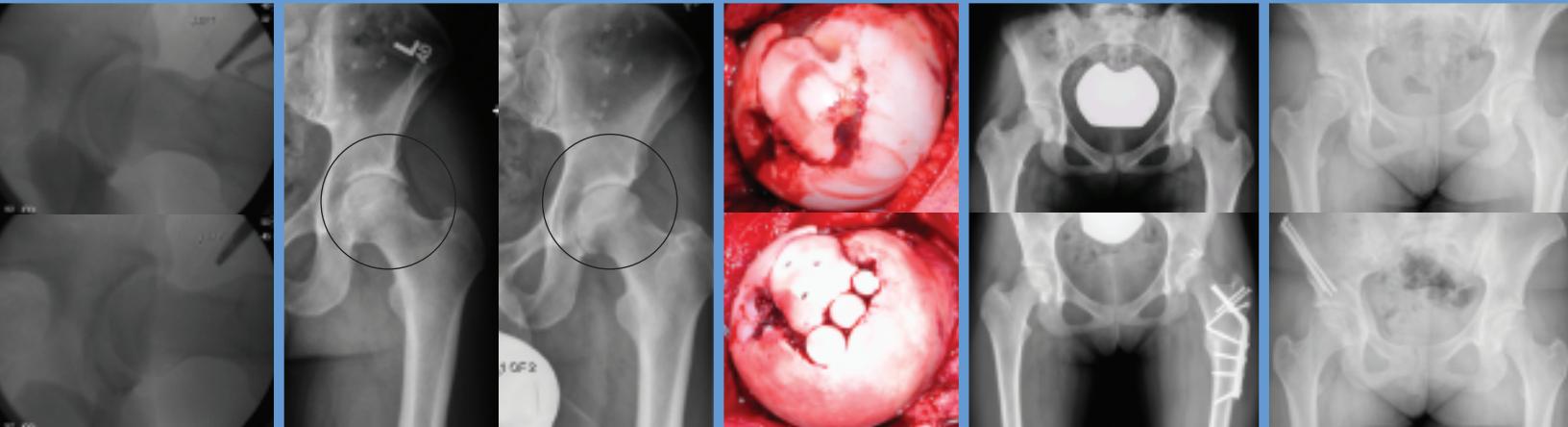
In an outpatient setting, the Fellow will see 75-100 patients per week, where he or she will evaluate complex patient cases, develop rational approaches to their care, and organize and effect a superior management to their clinical care. At the conclusion of his/her year, the Fellow is expected to demonstrate an advanced level of expertise in the treatment of young, active adult patients with hip pain.

In addition to providing clinical opportunities in outpatient settings, the program is also designed so that the Fellow will have an active and broad surgical experience, including arthroscopic procedures of the hip, complex hip and pelvis osteotomies, and open surgical dislocations of the hip. The Fellow will participate in an average of 350-450 cases over the year, training in state-of-the-art operating rooms, custom-designed by HSS surgeons with a single purpose in mind – to advance orthopedic surgery.



The Fellow will also interact with other members of the care team, including radiologists, physiatrists, physical therapists, and researchers. It is expected, for example, that the Fellow will develop experience in advanced imaging techniques of non-arthritis conditions of the hip through close collaboration with the HSS MRI Division. This multi-disciplinary approach allows the Fellow to broaden his or her knowledge base in a wide range of hip conditions and their respective treatment protocols. Participation in outpatient visits and intense operating room experience described above provides the Fellow with extensive practice in the diagnosis, treatment, and follow-up of a diverse patient population.

Techniques



Academic Conferences

The Center for Hip Preservation holds weekly academic conferences with subject matters that include case studies, journal clubs, research topics, and non-operative techniques, providing didactic and Socratic instruction to complement the hands-on skills obtained in clinics and in the operating room. Members of the Center, including the Fellowship Program faculty, attend these conferences where Fellows are required to participate and often lead discussions.

Global Perspective on Education

The Center for Hip Preservation has established a strong collaborative relationship with the renowned Schulthess Klinik in Zurich, Switzerland. Schulthess is one of the leading orthopedic institutions in Europe and a pioneer in many hip preservation procedures used today. The Fellow will have the opportunity to pursue a clinical rotation at the distinguished Schulthess Klinik during the academic year, allowing the Fellow to broaden his or her perspectives and stimulate a sense of global engagement.

Research Components

In addition to a robust clinical experience, the Hip Preservation Fellowship Program offers a range of research opportunities, including clinical, basic science, and motion analysis laboratory research. By attending weekly research conferences, complex case studies, and journal club meetings, the Fellow gains experience and knowledge in evaluating and assimilating scientific evidence and in systematically analyzing data with the intent of improving quality of care.

The Fellow develops formal research skills by receiving extensive exposure to research methodology, study design, and critical data review, so that he/she may carry out formal research in a future practice setting. The Fellow is required to participate in and publish at least one clinical and one non-clinical research project during the course of the year, in addition to publishing one review article.

The Fellow will also complete an assigned reading list and participate in bi-weekly cadaver lab sessions. These sessions are held in the Computer Assisted Surgery (CAS) Center and will focus on surgical technique, human anatomy, computer assisted surgery, and ongoing research studies.

Hospital for Special Surgery scientists and clinicians are studying the various stages of hip disease to understand their underlying causes and translate this knowledge into improved patient care. Members of the Center for Hip Preservation have identified four major research areas to help meet this goal:

- 1. Clinical Outcomes:** Establish a clinical registry to evaluate diagnoses and treatment options that will enable our clinicians to analyze clinical, radiographic and imaging data on patients to document outcomes for two, five, ten and twenty years following treatment.



- 2. Biomechanics:** Collaborate with the Biomechanics Department, the Radiology and Imaging Department, and the CAS Center to embark on research to identify the factors that contribute to the development of osteoarthritis. Using sound engineering principles and materials sciences, our research studies include computer-simulated impingement studies and a total hip wear simulator as a model of early cartilage degradation.
- 3. Biology:** Study the biomolecular cause of early cartilage failure, as well as means to modulate cartilage repair strategies. Our most exciting frontier is using synthetic scaffolds to provide an optimal environment for cartilage to heal itself.
- 4. Neuromuscular Kinetic Chain:** Develop functional testing that offers strong objective measures to better assess each patient's hip pain to include measuring the articular mobility of the spine, hips and lower kinetic chain, strength measures, neurological assessments, and functional movement patterning.

Facilities

HSS is currently undergoing an exciting period of physical expansion. In order to enhance the Fellow's clinical, educational, and research experience, the Fellow will have access to the Hospital's state-of-the-art facilities including the following:

- **Leon Root, MD Motion Analysis Laboratory:** This laboratory incorporates force sensors for gait evaluation, as well as multiple high-speed video cameras, to conduct formal video analysis of human motion. In addition, the laboratory also allows telemetered electromyographic evaluation of muscle function.
- **Bioskills Education Laboratory (BSEL):** Established in 2000, the BSEL simulates surgical procedures with equipment that is, in many instances, identical to that in the HSS operating rooms, allowing Fellows to become more familiar with the myriad devices currently used in surgery. The procedures in the lab can be performed on cadaver specimens or sawbones.
- **Computer Assisted Surgery (CAS) Center:** The CAS Center was created to investigate innovative methods of utilizing computer technology to assist orthopedic surgery. HSS is uniquely positioned to pioneer CAS technologies with the integration of important assets which are exclusive to the hospital.
- **Biomechanics Laboratory:** The mission of the Department of Biomechanics at HSS is to apply the principles of engineering and material science to solve orthopedic problems by conducting basic and applied research that translates to the development of orthopedic devices and instrumentation aimed at improved patient care. The Biomechanics Laboratory houses a robotics system that allows sophisticated testing of joint mechanics.
- **Core Research Facilities:** The HSS Core Research Facilities include Epidemiology and Biostatistics, Flow Cytometry, Musculoskeletal Repair and Regeneration, Analytical Microscopy, Imaging, and Mechanical and Material assessment.
- **Kim Barrett Memorial Library:** Open 24/7, the Kim Barrett Memorial Library is a technology-driven medical library with emphasis on musculoskeletal medicine. The library's collection includes over 425 active electronic journals, 250 electronic textbooks and 2,000 monographs. Through cooperative agreements with Memorial Sloan-Kettering, Rockefeller University, and Weill Medical College of Cornell University, our Fellows have full access to these additional world-class biomedical research libraries, all located within a three-block radius of HSS.
- **Department of Radiology & Imaging:** At HSS, the Department of Radiology & Imaging is nationally and internationally recognized as the premier center for leading edge musculoskeletal clinical and research imaging. Hip Center researchers work closely with the Radiology Department to conduct research studies to pinpoint earlier signs of hip problems in patients to advance hip pain diagnostics and – by extension – aid in the selection of optimal treatment options.

Living in NYC

Our program is situated in New York City's Upper East Side, which consists of both commercial and residential areas, many of which are populated by families with school-aged children. The New York City setting is among one of the most economically and culturally diverse metropolitan areas in the world. The Fellow will not only have the opportunity to work with patients from a variety of religious, ethnic, and socio-economic backgrounds, but will also be able to take advantage of all of the recreational and cultural activities that New York City has to offer.



Academic Training Department at HSS

The vision of HSS Academic Training is to educate innovative and outstanding physicians through graduate medical education training programs to be the academic leaders in musculoskeletal clinical care, research, and teaching. Overall support for the administrative and educational conduct of all of the clinical training programs is provided by the Academic Training Department, which is a part of the Education Division of Hospital for Special Surgery. The Academic Training Department works closely with the Fellowship Program Director to ensure that each program meets its mission, as well as maintains a periodic evaluation process that includes all of the program stakeholders. The Academic Training Department is also responsible for ensuring that each fellowship program is held to the universal policies and procedures established by the multidisciplinary Fellowship and Graduate Medical Education (GME) committees.



Compensation (Stipend, Housing, etc.)

The Fellow is provided a stipend and benefits based on the cost of living in New York City, competitive with those of other institutions. In addition, the Fellow will be put in touch with a Housing and Parking Coordinator, who is available to assist Fellows who are interested in obtaining housing through the Hospital. HSS does not guarantee housing for Fellows; however, to date, all interested Fellows have been accommodated.

Participation in the rotation at Schulthess is dependent upon the Fellow's personal interest, logistical planning, and the ability for the Fellow to obtain a visa.

Evaluations

The Fellow will receive regular and timely feedback on performance throughout and at the conclusion of each rotation that will include evaluation by faculty, peers, self, and other professional staff. The Program Director will meet with each fellow no fewer than two times per academic year with a final evaluation by the Program Director at the conclusion of the program. In addition, both fellows and faculty members will evaluate the program at the end of the year.

How to Apply

To apply for the Hip Preservation Fellowship Program at Hospital for Special Surgery, please visit the HSS Academic Training webpage at www.hss.edu/academic-training.asp and follow the application instructions. For more information, please contact the Department of Academic Training by phone at 212.606.1466, by fax at 212.606.1477, or via email at academictraining@hss.edu.

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