Welcome to Columbia Orthopedics

The Department of Orthopedic Surgery at Columbia University Vagelos College of Physicians and Surgeons has earned a reputation as one of the leading academic orthopedic departments in the nation. Our rich tradition in orthopedic surgery dates back to 1866 when the New York Orthopaedic Dispensary—later named the New York Orthopaedic Hospital—opened its doors. Since that time, the department has grown into a preeminent center for quality patient care, research, and education.

The training of residents is one of our most important missions—and we are very proud that many of today's leading orthopedic surgeons throughout the United States and abroad have trained here at Columbia. The excellence of our training program reflects the dedication of our 41 faculty members, who combine their commitment to educating future leaders in the field of orthopedic surgery and their recognized expertise as clinicians and scientists. It is also an enormous advantage for all our residents to be trained in one of the nation’s leading academic medical centers, which was recently ranked as a top five hospital in the nation by U.S. News & World Report and continues to be recognized as the best hospital in New York City.

Our one-year fellowship program in hip and knee reconstruction participates with the American Association of Hip and Knee Surgeons and in the San Francisco Matching Program. The fellows will spend a majority of their time at NewYork-Presbyterian/Columbia University Irving Medical Center in northern Manhattan and at NewYork-Presbyterian/Lawrence Hospital in Bronxville, NY. The purpose of the fellowship is to train surgeons in all areas of hip and knee reconstruction surgery.

While public health and safety necessitates virtual interviews this year, we invite you to learn more about our outstanding fellowship program and we encourage you to ask questions and discuss the program with our current fellows.

We look forward to meeting and interviewing you today!

Roshan P. Shah, MD
Russell A. Hibbs Associate Professor of Orthopedic Surgery
Director, Hip & Knee Reconstruction Fellowship

William N. Levine, MD
Frank E. Stinchfield Professor & Chair, Department of Orthopedic Surgery
Chief, Shoulder Service
Co-Director, Center for Shoulder, Elbow & Sports Medicine
Head Team Physician, Columbia University Athletics
Editor-in-Chief, Journal of the American Academy of Orthopedic Surgeons (JAAOS)

Jeffrey A. Geller, MD
Nas S. Eftekhari Professor of Orthopedic Surgery
Chief, Division of Hip & Knee Reconstruction
About the Division of Hip & Knee Reconstruction

The Division of Hip & Knee Reconstruction at Columbia Orthopedics delivers advanced treatments to relieve hip and knee pain and, as a result, is a major referral center for patients from this country and abroad. In addition to providing state-of-the-art diagnostic and treatment approaches for hip and knee disorders, its physician-scientists remain on the cutting-edge of translational and clinical research.

Columbia has a storied tradition and illustrious history of leadership and excellence in hip and knee arthroplasty. Giants like Frank Stinchfield (at left) shaped the future of arthroplasty forever; he co-founded the Hip Society in 1969 and the International Hip Society in 1975. In 1968, Stinchfield and Nas Eftekhar brought Charnley’s total hip replacement technique to New York City and created one of the first THA Centers in the United States.

In 1969, Eftekhar implanted the first knee replacements to use a metal-backed tibial component and modular polyethylene inserts (the Eftekhar Mark I Knee), which spawned later total condylar designs by Eftekhar (the Eftekhar Mark II, at right) and others in New York City.
**Hip & Knee Division Faculty**

**Jeffrey A. Geller, MD**
Fellowship: MGH/Harvard University

Nas S. Eftekhar Professor of Orthopedic Surgery, CUMC  
Chief of Orthopedic Surgery, NewYork-Presbyterian/Lawrence Hospital  
Chief, Division of Hip & Knee Reconstruction  
Vice Chair, Finance, Department of Orthopedic Surgery  
Director of Research, Center for Hip & Knee Replacement

Dr. Geller specializes in the treatment of arthritic disorders of the hip and knee, utilizing the latest and most advanced minimally invasive and technology to help patients regain mobility and improve their quality of life. These procedures include partial knee replacements, anterior hip replacements, ACL sparing knee replacements, robotic surgical tools, and sensor-based balancing techniques. Dr. Geller performs both primary joint replacement surgery and revisions of failed or painful joint replacements, but only after considering all non-operative treatment options.

**Roshan P. Shah, MD**
Fellowship: Rush University

Russell A. Hibbs Associate Professor of Orthopedic Surgery, CUMC  
Director, Adult Hip & Knee Reconstruction Fellowship

Dr. Shah specializes in minimally invasive anterior hip replacements and minimally invasive total knee replacements. Fellows will learn tissue sparing techniques that optimize instrumentation and leg positioning to accomplish true MIS reconstructions. These are valuable skills when facing complex revisions with difficult exposures. Dr. Shah has a research focus on pain minimization after total joint reconstruction. You will get exposure to custom-made primary knee replacements, limb salvage for complex failed reconstructions, and ortho-plastics based soft tissue management. In the office setting, you will learn how to cultivate a customer service based practice to grow in a competitive city. Fellows can count on mentorship throughout their careers.

**H. John Cooper, MD**
Fellowship: Rush University

Associate Professor of Orthopedic Surgery, CUMC

Dr. Cooper is a high-volume adult reconstructive orthopedic surgeon, focusing on both primary and revision hip and knee replacements. He is skilled in direct anterior primary and revision hip arthroplasty, performed without a special table, and regularly teaches these techniques to surgeons from across the country through both continuing medical education courses as well as industry relationships. Fellows will be exposed to a variety of surgical approaches to knee arthroplasty with Dr. Cooper, including conventional cruciate-retaining and posterior-stabilized designs, robotic techniques, custom implants, and cemented and cementless fixation. Dr. Cooper also maintains a robust revision practice allowing exposure to the full range of revision arthroplasty. Preoperative risk stratification, quality metrics, coding and billing, and bundled care programs will be part of the informal curriculum while on service.
Hip & Knee Division Faculty

**Jakub Tatka, MD**  
Assistant Professor of Orthopedic Surgery, CUMC  
NewYork-Presbyterian Lawrence Hospital

Dr. Jakub Tatka specializes in complex adult hip and knee reconstruction and hip preservation. His practice is focused on operative and non-operative management of athletic, arthritic, post-traumatic and developmental disorders of the pelvis, hip and knee. Dr. Tatka has a particular interest in hip preservation, leveraging special surgical techniques, including pelvic osteotomies and surgical hip dislocation, to address complex labral and femoroacetabular injuries and deformities.

**Thomas R. Hickernell, MD**  
Fellowship: Columbia University  
Assistant Professor of Orthopedic Surgery, CUMC  
NewYork-Presbyterian Hudson Valley Hospital

Dr. Hickernell specializes in advanced operative and non-operative care for hip and knee arthritis, utilizing the latest minimally invasive surgical techniques, including anterior approach hip replacement, custom knee replacements, and complex revision surgeries for failed joint replacements. He also cares for hip, knee, and femur fractures, as well as traumatic injuries to existing joint replacements. Dr. Hickernell has a particular research focus studying methods of maintaining pain control while reducing opioid consumption.

*Dr. Hickernell participates in academic conferences with the fellows. Fellows will not have responsibilities at Hudson Valley Hospital.*

**Alexander L. Neuwirth, MD**  
Fellowship: Columbia University  
Assistant Professor of Orthopedic Surgery, CUMC

Dr. Neuwirth specializing in advanced hip and knee reconstruction, with a focus on non-operative and surgical treatment of early, middle, and late-stage arthritic conditions of the hip and knee – with particular interests in anterior approach hip replacement, knee replacements, and complex revision surgeries. His research interests are focused on the eradication of infection following hip and knee replacements.
Fellowship Program Overview

The Hip & Knee Fellowship at Columbia Orthopedics and NewYork-Presbyterian produces technically skilled and academically capable surgeons of the hip and knee. Trainees are positioned to be leaders in academia or the community and are groomed to support and participate in our society of specialists.

Our fellows train under five surgeons, exposed to high volumes and a full spectrum of case types, implants, technologies, and surgical exposures. A diverse patient population leads to varying pathology, while access to innovative technology encourages a wide spectrum of surgical solutions. Opportunities for teaching and research round out the complete fellowship experience. Fellows are expected to engage in resident education both in the operative, clinic, and academic settings.

Case Type and Volume

You will participate in primary and revision hip and knee reconstruction, periprosthetic fracture and infection treatment, and general lower extremity trauma. For those interested, you have access to hip and knee arthroscopy at Columbia as well. Outpatient joint surgery is performed successfully, with state of the art pain management and pathways to ensure safety.

In the first six months of 2019-2020, our two fellows will have logged 240 and 200 cases. They are on pace for between 400 - 480 cases for the year. Historically the case mix has been 55% knee and 45% hip, with approximately 21% revisions. 80% of cases are typically performed in Manhattan and 20% in Westchester.

Our fellowship stands out for the autonomy offered by “independent practice” during the year. As fellows get comfortable (and as OR time becomes available), they book their own elective patients for surgery and safely guide their patients through all aspects of the preop, surgery, and recovery. These are opportunities to make critical decisions, develop the feel of balancing, and hone newly learned techniques.

Technologies

Fellows are trained in traditional, non-technologically enhanced techniques in order to provide a solid foundation in adult reconstruction. On top of this foundation, robotics, image-based navigation, imageless navigation, and custom implants are regularly used and taught. Functional anteversion and other paradigm shifting ideas are developed, cultivated, and acted upon with cutting edge technology. These technologies may shape the future of arthroplasty and this exposure will help you determine the role, if any, these will play in your future practice.
**Fellowship Program Overview**

**Surgical Exposures of the Hip**

Columbia’s program showcases all approaches to the hip, including direct anterior, Watson-Jones MIS anterolateral, and posterior approach hip replacement and resurfacing. Fellows will become facile with anterior approaches for primary and revision hip reconstructions. Minimally invasive exposures are performed and taught with an emphasis on safety and implantation fidelity. Traditional exposures are used in certain more complex circumstances.

**Learning Environments and Locations**

Learning occurs in the operating room, on rounds, in the office setting, and in conferences. There is access to a fresh tissue laboratory to practice approaches and device implantation, as well as a multitude of local industry and society sponsored courses.

The majority of surgical cases are performed at the main hospital, NYP/Columbia in northern Manhattan, and NYP/Lawrence Hospital in Westchester County. Other surgical locations include NYP/Allen Hospital at 220th street, and the Englewood NJ Surgi-center for outpatient joint replacements. Office sites are at the main hospital, midtown Manhattan, Englewood, NJ, Bronxville, NY, and Tarrytown, NY. The lower extremity clinic for indigent patients is located at the main campus.

After the Fellowship Year, newly minted arthroplasty surgeons have the option to travel to Europe to visit surgeons in Wrightington, England (Charnley’s home), Hamburg, Germany, or other major arthroplasty institutions. This experience is fluid and malleable to the interests of the surgeon, and arrangements for the visit will be facilitated by the attendings.

**Research**

Extensive research opportunities exist, with the support of an active research coordinator and research fellow. A comprehensive electronic hip and knee patient database has been in place since 2004. Fellows are required to produce at least two research projects of sufficient quality for publication. There are opportunities to write book chapters and review articles as well.
Fellowship Program Overview

Sample Weekly Operative Schedule

The current fellow's schedule emphasizes operative education, with clinical office hours when the surgical attending is away.

Monday
Fellow A: Dr. Cooper, Milstein OR
Fellow B: Dr. Geller, office hours

Tuesday
Fellow A: Dr. Shah, Milstein OR
Fellow B: Dr. Geller, Milstein OR

Wednesday
Fellow A: Dr. Cooper, Milstein OR
Fellow B: Independent Clinic / Dr. Tatka, Milstein OR

Thursday
Fellow A: Dr. Shah, Milstein OR
Fellow B: Dr. Geller, Lawrence OR

Friday
Fellow A: Drs. Cooper/Shah Office hours
Fellow B: Dr. Neuwirth, Milstein OR

Conference Schedule

Wednesday 6:00 am to 7:00 am – Core Arthroplasty Conference: Indications and topic review
8:00 am to 9:00 am – Arthroplasty Quality and CJR Bundle Meeting, once monthly

Thursday 7:00 am to 8:00 am – Orthopedic Grand Rounds

Reading List

A compilation of key papers will be made available to you and should be read and studied throughout the year. Recommended texts include Revision Hip and Knee Arthroplasty by Berry et al, and OKU: Hip and Knee Reconstruction 5.
Fellowship Program Goals & Objectives

The goals and objectives of the service are to educate the fellows in all areas of adult hip and knee reconstruction surgery. This will be achieved through didactic sessions, literature review, oral presentations, patient examination, and surgical treatment. Research and teaching will round out the fellowship training to prepare future community and professional leaders.

In addition, the goals of the rotation are to:

• Guide the fellow to develop the interpersonal skills needed to effectively engage patients and family members to enhance communication and education.

• Develop competency in the skill sets required to manage orthopedic inpatients – including administration, quality improvement, and leadership – through the use of effective verbal and written communication skills.

• Acquire medical knowledge about established and evolving biomedical, clinical, cognitive sciences and demonstrate the competent application of this knowledge to patient care.

• Encourage practice-based learning and improvement that involves investigation and evaluation of patient care, appraisal and assimilation of scientific evidence, and improvements in patient care.

• Demonstrate interpersonal and communication skills that result in effective information exchange and teaming with patients, their families, and other health professionals.

• Exhibit professionalism through a commitment to carrying out professional responsibilities, adherence to ethical principles, and sensitivity to a diverse patient population.

• Utilize system-based practice, as manifested by actions that demonstrate an awareness of and responsiveness to the larger context and system of health care and ability to effectively call on system resources to provide care that is of optimal value.

Supervision Policy

The Department of Orthopedic Surgery at Columbia University Irving Medical Center is committed to residency education and to advanced graduate training of fellows in the sub-specialty of adult hip and knee reconstruction.

Residents rotate on clinical rotations starting in the PGY-1 year and progress in independence and autonomy through the course of the residency. As mandated by New York State and New York Presbyterian Policy, however, all resident related activity is under the supervision of the Attending Staff of the Department of Orthopedic Surgery.

In addition, the Fellows also will have increasing responsibility, autonomy and independence during their 1-year experience. However, all fellow-related activity is also under the supervision of the Attending Staff on their respective services as mandated by New York State and NewYork-Presbyterian Policy.
Columbia Orthopedics Locations

**Hospital Locations**

**NewYork-Presbyterian**
**Columbia University Irving Medical Center**
Millstein Hospital
177 Fort Washington Ave
New York, NY 10032

**NewYork-Presbyterian**
**Morgan Stanley Children’s Hospital**
3959 Broadway, 8 North
New York, NY 10032

**NewYork-Presbyterian Allen Hospital**
5141 Broadway, 3 Field West @ 220th Street
New York, NY 10034

**NewYork-Presbyterian Lawrence Hospital**
55 Palmer Avenue
Bronxville, NY 10708

**Office Locations**

**CUIMC Herbert Irving Pavilion**
161 Fort Washington Ave, 2nd Floor
New York, NY 10032

**ColumbiaDoctors | Midtown**
51 West 51st Street, Suite 370
New York, NY 10019

**ColumbiaDoctors | Morningside**
601 West 113th Street, Suite 1A
New York, NY 10024

**ColumbiaDoctors | Tarrytown**
155 White Plains Road, Suite 105
Tarrytown, NY 10591

**Columbia Orthopedics**
500 Grand Avenue, 1st Floor
Englewood, NJ 07631

**Columbia Orthopedics**
590 5th Avenue, 5th Floor
New York, NY 10036

**Columbia Orthopedics**
One Pondfield Road
Bronxville, NY 10708

**NYP Sports Performance Institute**
693 White Plains Road
Scarsdale, NY 10709

Administrative Offices
Department of Orthopedic Surgery
622 West 168th Street, PH-11
New York, NY 10032
2020 – 2021 Graduate Staff Salaries

Graduate Staff Level 1 $73,489
Graduate Staff Level 2 $79,359
Graduate Staff Level 3 $85,864
Graduate Staff Level 4 $88,277
Graduate Staff Level 5 $91,276
Graduate Staff Level 6 $92,915
Graduate Staff Level 7 $95,713

NewYork-Presbyterian Office of Graduate Medical Education

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New York, NY 10021
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For more information on NYP GME policies and procedures, please review the information in the USB drive provided when checking in for your interview.
Adult Reconstruction Fellowship

Fellowship Interviews
January 2021

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