University of New Mexico Orthopaedics

Hand and Upper Extremity Fellowship

UNM ORTHOPAEDIC HAND and UPPER EXTREMITY FELLOWSHIP

Thank you for your interest in the Orthopaedic Hand and Upper Extremity Fellowship Program at the University of New Mexico.

UNM's division of hand surgery was founded in 1970 by one of the nation's most accomplished orthopaedic surgeons, Dr. George Omer, becoming the first academic division of hand surgery in the nation. In 1976, Dr. Moheb Moneim joined the department, and New Mexico's first microsurgery service was established. Extremity replantation was offered, and the first surgery on a severed hand was performed in 1977. The microsurgery teaching lab was developed at UNM's School of Medicine and is now an integral part of its training programs, helping fellows and the Department's 25 residents hone basic skills for clinical microneurovascular surgery through a number of microsurgical exercises and providing a broad foundation in microdexterity.

The mission of the orthopaedic Hand and Upper Extremity Fellowship Program is to provide the foundation for a lifetime of learning and practice of orthopaedic hand and upper extremity surgery, and to produce graduates who exemplify the highest ideals of our profession. It is our purpose to excel in clinical service, education, and research while maintaining the highest ethical standards, providing compassionate healthcare services, and contributing toward improvement of the healthcare delivery system.

Building a Hand Surgery Practice

We offer our fellows full exposure to a well-balanced variety of hand and upper extremity cases, including congenital problems, arthritis, trauma and microsurgery. We treat a large volume of peripheral nerve injuries presenting both acute and late. The replantation service is moderately busy with about two to three cases a month. A pediatric upper extremity clinic is held weekly at Carrie Tingley Hospital. Free flaps are also covered during the fellowship, and the Orthopaedic service performs its own flaps. We view these as standard components of any hand surgery fellowship. As a result, our hand fellows are well prepared to treat those conditions at the completion of their training.

Our educational approach stresses both the technical execution of advanced surgical procedures as well as surgical indications and strategy that precede the operation. Additionally, UNM's role as the state's tertiary care provider provides our graduates with valuable skills in treating community patients once they embark upon their own practices.

We offer an active microsurgery teaching and research laboratory with a full-time technician and three microscopes available at all times for weekly practice, teaching and research.

In addition to clinical, surgical and research activities, our fellows participate in two conferences every week that are devoted solely to the Hand Fellowship Program. Fellows also participate in the hand curriculum of UNM's Orthopaedic Residency Program, and have access to an active biomechanics research laboratory.

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Hand Faculty

Our fellowship faculty includes four hand fellowship-trained surgeons, one upper extremity fellowship-trained surgeon and a hand physician assistant with whom our fellows work closely.

Name: Deana Mercer, MD, MSCR
Title: Assistant Professor and Hand Fellowship Program Director
Specialty: Shoulder and Elbow Surgery; Hand Microvascular Surgery
Medical School: University of New Mexico
Residency: University of New Mexico
Fellowship: Shoulder and Elbow; University of Washington
Fellowship: Hand; University of New Mexico

Dr. Mercer is an Assistant Professor on tenure track in the Department of Orthopaedics & Rehabilitation, at UNM. She received a B.S. degree in Biochemistry and Chemistry from New Mexico State University, and an M.D. from the University of New Mexico. She received fellowship training at the University of Washington in Seattle in shoulder and elbow surgery followed by a second fellowship in hand and microvascular surgery at UNM. She earned a Masters of Science in Clinical Research. Her research interests include pathology of the shoulder, elbow and hand and biomechanical research addressing orthopaedic musculoskeletal problems, including arthritis and osteoporosis and works closely with the engineering group in her efforts.

Dr. Mercer is certified by the American Board of Orthopaedic Surgeons and belongs to numerous professional societies, including the American Orthopaedic Association's Emerging Leaders Program, American Academy of Orthopaedic Surgeons (Candidate Member), American Society for Surgery of the Hand (Candidate Member), American Medical Association and Alpha Omega Alpha. Dr. Mercer has also recently earned her Subspecialty of The Hand certification.

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Name: Moheb S. Moneim, MD
Title: Professor & Chair Emeritus
Specialty: Reconstructive hand surgery & peripheral nerve problems
Residency: Duke University of North Carolina
Fellowship: Hospital for Special Surgery, Cornell Medical School, New York City

Dr. Moneim joined UNM in 1976 as a faculty member in the Department of Orthopaedics & Rehabilitation. He completed an orthopaedic surgery residency at Duke University in North Carolina and hand surgery fellowship at the Hospital for Special Surgery, which is affiliated with Cornell Medical School in New York City.

Dr. Moneim continues to maintain a busy clinical practice that is directed toward hand surgery. He has performed thousands of operations for more than 30 years that include microsurgery and peripheral nerve problems, plus various types of injuries, and arthritis for both children and adults.

He has held numerous administrative positions at UNM's School of Medicine and served as Professor and Chairman of the Department of Orthopaedics & Rehabilitation and Chief of Hand Surgery from 1990 to 2006. He continues to be active in research and teaching. He sees patients and performs surgery two days each week. Dr. Moneim is board certified in Orthopaedic Surgery and has a Certificate of Added Qualifications in Hand Surgery. He has published extensively in the field of hand surgery. Dr. Moneim is a member of national and international orthopaedic and hand surgery organizations.

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Name: Elizabeth A. Mikola, MD
Title: Professor and Chief, Hand and Microvascular Surgery Division
Specialty: Hand and Microvascular Surgeon
Medical School: University of Missouri - Kansas City
Residency: University of Texas - Houston
Fellowship: University of New Mexico

Dr. Mikola specializes in orthopaedic hand and microvascular surgery in children and adults. She treats disorders of the hand, wrist, forearm, and elbow. She also treats patients with arthritis, carpal tunnel syndrome, fractures, tendon and nerve injuries, as well as congenital hand anomalies. Additionally, she utilizes wrist arthroscopy to diagnose and treat many wrist disorders.

Dr. Mikola completed her medical education at the University of Missouri - Kansas City and residency at the University of Texas - Houston. She completed her hand and microvascular fellowship at the University of New Mexico.

Dr. Mikola is a member of the American Society for Surgery of the Hand and the American Academy of Orthopaedic Surgeons. She is board certified by the American Board of Orthopaedic Surgery, and holds a Certificate of Added Qualification in Hand Surgery.

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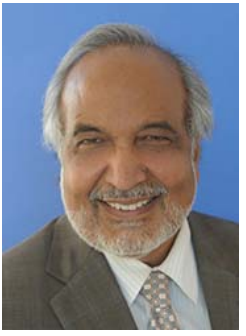
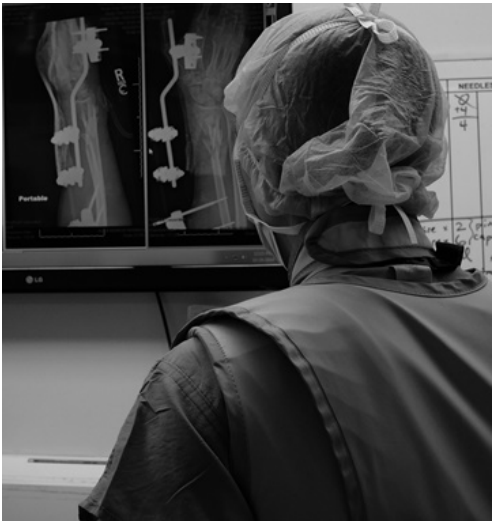
Name: Tahseen A. Cheema, MD
Title: Professor
Specialty: Hand and Microsurgery
Medical School: University of Medicine and Dentistry, New Jersey
Residency: University of Medicine and Dentistry, New Jersey
Fellowship: Rush Presbyterian / St. Luke's Medical Center, Chicago

Dr. Cheema is a diplomate of the American Board of Orthopaedic Surgery and holds a Certificate of Added Qualification in hand surgery. His special clinical interests include congenital hand anomalies, brachial plexus and other paralytic issues, plus skin flaps. His research interests include biomechanics of tendon transfers and movements of the thumb. He is a member of the American Academy of Orthopaedic Surgeons, American Society for Surgery of the Hand, and New Mexico Medical Society.



Dr. Cheema served as Director of the Orthopaedic Department at Quaid-i-Azam Medical College and National Orthopaedic Hospital in Bahawalpur, Pakistan where he was instrumental in developing training programs specific to hand surgery for orthopaedic residents. These are now two of the most sought-after training programs in Pakistan.



Published works by Dr. Cheema focus on flap coverage, movements of the thumb, tendon transfers and spastic hand in cerebral palsy. Dr. Cheema's expertise in congenital hand anomalies has set him apart from his regional peers. He sees referrals not only from throughout New Mexico, but surrounding states as well.

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Name: Cory Carlston, MD
Title: Assistant Professor
Specialty: Hand, Wrist and Microvascular Surgery
Medical School: University of Utah School of Medicine
Residency: University of Southern California School of Medicine
Fellowship: Hand and Microvascular Surgery, University of New Mexico

Dr. Carlston is an Assistant Professor who joined the faculty at UNM in 2014. He specializes in hand and wrist surgery for patients of all ages. This includes treatment of fractures, lacerations of tendons, nerves, vessels and complex trauma such as finger replantation. He also takes care of common pathologies such as carpal tunnel syndrome and cubital tunnel syndrome. He has an interest in complex wound reconstruction of the upper extremity as well.

Dr. Carlston earned his medical degree from the University of Utah and completed his orthopaedic residency at the University of Southern California. He completed a Hand and Upper Extremity Fellowship at UNM.

Dr. Carlston's research interests include surgical approaches for distal radius fractures, the anatomy and pathology of the first carpometacarpal joint, and tendon lacerations. He is a member of the American Society for Surgery of the Hand.

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Program Structure and Education

The UNM Orthopaedic Hand and Upper Extremity Fellowship is accredited by the ACGME and adheres to all rules and regulations of that organization. Graduated fellows are eligible to sit for the Hand Surgery Sub-Specialty Examination once practice criteria are met. There are no call responsibilities for our fellows.

The fellowship faculty is divided into two teams. Each fellow spends a total of six months with each team, alternating between each at three-month intervals. Weekly schedules include two days of outpatient clinics and a minimum of two days in the operating room. This structure provides balanced exposure to the entire UNM hand practice, and the three-month intervals allow for optimal continuity of care during the year. Fellows work one-on-one with attending surgeons in the operating room and clinic. Preoperative planning is stressed along with technical approaches and pearls. Operative independence is encouraged and progresses in accordance to the skill and confidence of the individual fellow.

All clinical responsibilities occur within the Albuquerque metro area. Clinical and operative sites include the University of New Mexico Hospital (UNMH), which contains the General Orthopaedic Clinic (GOC), Outpatient Surgery and Imaging Services (OSIS), the Sandoval Regional Medical Center (SRMC), and the Orthopaedic Faculty Clinic (OFC).

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We hold a weekly teaching conference on Wednesday morning prior to the Orthopaedic Department Grand Rounds. The conference is topic driven and uses classic and current literature to serve as a jump-off point for discussion. Additionally, we integrate musculoskeletal radiology faculty into the teaching schedule to discuss interpretation of advanced imaging and correlation of surgical findings. A monthly journal club focuses on current literature, and allows for discussion of ideas and treatment approaches outside of the UNM program.

Fellows are provided an opportunity to explore hand and upper extremity research and are supported by full-time research faculty within the department. Additionally, the Microsurgery Laboratory has been an asset to the training of our Hand Fellows since its inception in 1977. Hand Fellows will split scheduled time with 2nd and 4th year residents, having access to both basic and advanced curriculum blocks, with additional time available throughout the year.

Microsurgery Laboratory

Training involves several microvascular anastomotic techniques, performed in the context of a live animal model, and emphasizes the development of a solid foundation in fundamental microsurgical technique.

The training process always begins with the same introductory session regardless of the background of participants. The exposure, vascular dissection and first half of the vascular repair are done by the instructor, and then the repair is finished by the participant. Subsequent sessions are begun by the participant, while the instructor offers advice, reminders and additional demonstrations as needed for clarification. The technique that is demonstrated and practiced is exclusively two-handed. Although some assistance, such as with cutting sutures and cauterization, is provided for the sake of expediency, the participant is learning to work unassisted from the outset.

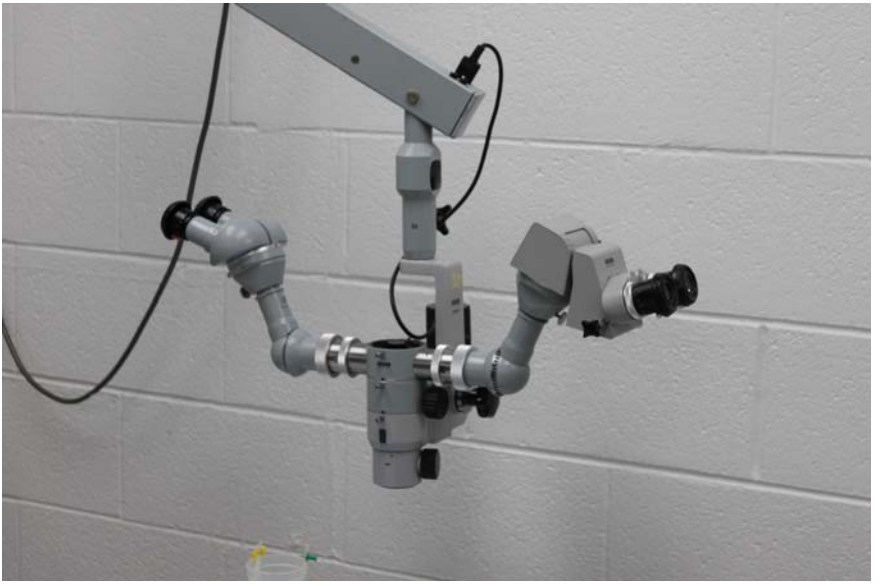
Fellows have the opportunity to work in the lab for a contiguous block of 10 or more weeks. They will progress to the back-wall-first, end-to-end anastomosis as well as be expected to complete at least one variant of the end-to-side anastomosis as part of their advanced training block. Hand Fellows will then be able to maintain their skills and address any weaknesses throughout the year.

Dissection—This introductory session begins with a demonstration of sharp dissection, plus a thorough explanation of the importance of developing the skills needed for sharp micro dissection, and how they can be practiced in congested areas. Exercises performed include mobilizing secondary branches of artery and vein that need to be cauterized, and dissection in a congested area such as a vascular plexus.

Vessel Preparation—The femoral and, occasionally, the epigastric blood vessels will be fully mobilized along a specified length with particular regard for minimizing dissection-induced vasospasm.

Placing Stitches—The advantages and disadvantages of alternative ways to grip the needle driver are explained. The participant is encouraged to experiment and become comfortable with a technique that is efficient and robust.

Tying Knots—The tying technique, resulting in square knots without the need for crossing the hands, is demonstrated. The importance of proceeding in a particular fashion and of not over tightening are explained.



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New Mexico and Albuquerque Living

To live in Albuquerque is to experience high desert living at its best. At over 5,000 feet of elevation, the city enjoys cool nights in the summer and mild winter days with more than 320 days of sunshine annually. Positioned at the base of the Sandia Mountains and with close proximity to multiple outdoor playgrounds, activities such as hiking, running, golf, rock climbing, mountain and road biking are easily accessible throughout the year.

Additionally, with ski resorts such as Taos, Santa Fe, Wolf Creek and Durango (to name a few) in close proximity, day trips or weekend excursions for snow sports are accessible during the winter.

During summer and fall, many farmers' markets sell local produce in Albuquerque and nearby Corrales, while the International Balloon Fiesta brings thousands of visitors to the city every October. Residents of the Duke City also enjoy spending time at its numerous museums and the Albuquerque Biopark.

The history of the Southwest is vividly seen throughout New Mexico with the melding of Native American and Hispanic cultures. Day trips to National Parks and Pueblos plus visits to Santa Fe and Taos help paint the picture of the diverse and complex historical story that New Mexico tells. It doesn't take long to see where the state's nickname "The Land of Enchantment" comes from.

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Thank you for taking the time to apply for our fellowship.

At UNM, we prepare fellows for a rewarding practice with a diverse and nuanced exposure to all levels of hand and upper extremity practice. Our fellows receive exceptional training and gain access to complex cases in a collegial environment that cultivates relationships lasting throughout a career. Visit UNM GME for more information regarding employment and benefits.

Please contact us with any questions regarding our program. We look forward to meeting you soon!