

is “unique, because they are very fragile and vulnerable. Many times they go years without being diagnosed,” says **Hoda Abdel-Hamid** (Child Neurology Resident '05, Neuromuscular/Neurophysiology Fellow '06). Abdel-Hamid is part of a multi-center trial of a genetic-modifier drug for Duchenne muscular dystrophy, recently FDA-approved for a subgroup of these patients. An associate professor of pediatrics at Pitt, she directs the EMG Laboratory and Neuromuscular Program as well as the Muscular Dystrophy Association Clinic at Children's Hospital of Pittsburgh of UPMC.

'10s

After a residency in anatomic pathology in her native Brazil, **Mariana Morais Cajaiba** (Anatomic and Clinical Pathology Resident '10) came to the United States for further training in pediatric pathology and decided to stay. At Pitt, she worked under Trevor Macpherson and Ronald Jaffe researching disorders of sex development and renal medical pathology. Now an assistant professor of pathology at Northwestern University, Cajaiba leads the team that recently discovered the first two known cases of primary renal myoepithelial carcinoma (both in children)—findings that will help the specialty refine diagnoses of pediatric renal tumors. She is also a central pathology reviewer for the National Cancer Institute-supported clinical trials group COG (Children's Oncology Group). “I review over 800 renal tumors in children every year.” —*Imaz Athar, Jessica Boddy, Ali Greenholt,*

Rachel Mennies, and Susan Wiedel

ROBERT SANDERS OF SEA AND SPACE

As 100-mile-an-hour winds blasted across the frozen landscape, Robert Sanders (Res '08) waited out the storm with five other researchers. “If our hut failed, we were dead,” he recalls of that time in Antarctica. Still, he didn't regret coming. The skilled diver had been tapped by the New York Department of Health just out of college for the mission; and in the waters among icebergs he went on to catalog 12-inch sea spiders, swimming scallops, and creatures known as *Astrammia rara*—single-celled carnivores that secrete a biological superglue.

“That learning was so enjoyable that it helped set me on the path for med school,” he says. An avid diver since age 14, he gained expertise that led to adventures galore. An advocate for scuba diving safety and emergency care, he later worked for the films *Cast Away* and *Stuart Little*, for the Los Angeles County Sheriff's Department, and on Catalina Island, a diver's paradise 22 miles off the LA coast. He helped divers avoid potentially fatal illnesses like decompression sickness and air embolism.

Sanders realized becoming a doctor would offer even more scientific adventures and



PHOTO COURTESY OF NASA, WILLIAM BRASSARD

Sanders at NASA's Neutral Buoyancy Laboratory

opportunities to ensure diver health, so he went to med school at Rosalind Franklin University in Chicago, then did an emergency medicine residency at Pitt. While in Pittsburgh, he trained river rescue teams.

Today he's in charge of the NASA medical team's Neutral Buoyancy Laboratory in Houston, a 6 million-gallon swimming pool with a mock-up of the International Space Station (ISS) on the floor. Astronauts train there, lowered in by crane while wearing full space gear, to rehearse station repairs and other tasks in this simulated zero-gravity environment.

As medical director and crew health and safety flight surgeon, Sanders oversees the safety crew and operates the hyperbaric chamber. He supervised aspects of training for Scott Kelly prior to the astronaut's groundbreaking year-long mission on the real ISS to study the human body's reaction to long-term space travel.

Though Sanders still dives around the world, frequently taking his daughter to her favorite snorkeling spots in the Caribbean, he's hoping for his biggest plunge yet: Perhaps, one day, a trip to space? —*Liberty Ferda*

MAA SAYS, “BRIGHAM BACK!”

Just over a year ago, seasoned Pitt orthoped James Kang (Res '92) left the Burgh for Boston, accepting the mantle of orthopaedic surgery chair at Brigham and Women's Hospital. This fall, he returned to Pittsburgh for a happy homecoming indeed—as the recipient of the William S. McElroy Distinguished Resident Award. The reception doubled as the Medical Alumni Association's reunion weekend kickoff event at the Phipps Conservatory.

Kang, who studies osteoarthritis of the spine, is interested in the biomechanics as well as the biochemistry of disc degeneration. An international leader in this area, he has been on the forefront of novel disc-degeneration therapies, including stem cell and gene-transfer interventions.

As the spine surgeon blazed these trails in research and clinical practice at Pitt, he rose from trainee to executive vice chair of clinical services, professor of orthopaedic and neurological surgery, and director of the Ferguson Laboratory for Orthopaedic and Spine Research—experiences that prepared him well for his new role in Beantown, he says: “How a department runs and how it fits with the overall enterprise, what levers to push, how to negotiate.” His first year marks an exciting time for Brigham and Women's as the hospital grows aspects of its research portfolio, and he's especially excited about one development in particular: a translational orthopaedics and arthritis research center that opened October 3.

This isn't the first time a Pitt orthopaedist has led a Harvard department. Henry Mankin (MD '53) was chief of orthopaedic surgery at Massachusetts General for decades; and Harry Rubash (MD '79, Fel '81, Res '84) was at the helm from 1998 until his retirement this year. Both were also honored with Pitt's Philip S. Hench Distinguished Alumnus Award. —*Imaz Athar and Elaine Vitone*



Kang

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