

Mayo Clinic.

Where Medical Innovation Happens

The innovations that change the very definition of possible are happening right now—right here—at Mayo Clinic in Arizona. Get to know the physicians and dedicated teams of people who are working to heal the once impossible with every medical breakthrough.

Rafael Fonseca, M.D.

Hematologist,
Chief Innovation Officer

Dr. Rafael Fonseca, along with his team, will push innovation and discovery until there's a cure for patients with multiple myeloma and plasma cell disorders. "I'm a pathological optimist. Let's start with that," says Dr. Rafael Fonseca. "When I began at Mayo Clinic in 1998, we had two drugs to treat multiple myeloma with a survival rate of about two years. It was thought to be incurable." Now, 25 years later, Dr. Fonseca's optimism is paying off. As one of the leaders of the Multiple Myeloma team at Mayo Clinic in Arizona, Dr. Fonseca is seeing a growing number of his patients living decades past their diagnosis. "I firmly believe there is a fraction of patients who are actually being cured because of the treatments we provide," he says. "And I share this with every new patient. I tell them, I will do my best so you can someday say you had a curable version of multiple myeloma." Mayo Clinic Comprehensive Cancer Center is a world-class leader in research, education, and patient care with an innovative spirit at its core.



Alyx B. Porter, M.D.

Neurologist,
Associate Professor
of Neurology,
Outpatient Practice Chair

Empowering patients, innovating treatments, and building diversity define Dr. Alyx Porter's approach to medicine. Dr. Porter is known in her field of neuro-oncology for offering aggressive cancer treatment while honoring the patient's comfort and lifestyle. Dr. Porter, a neurologist and prominent leader within the Mayo Clinic enterprise, acknowledges her unique journey. "My parents moved



to Phoenix right before I was born," she says. "We were the only Black family for miles. And I realized early on that I was different. It created in me, a bit of that pioneering spirit, and a willingness to do some things that require a little bit of bravery. It also gave me the ability to be the only or first or one of the few, and not feel totally out of place because, truly, it's all I've known." Now, she is credited with sowing the seeds for what has become a world-class neuro-oncology center dedicated to innovation, research, and inclusion at Mayo Clinic in Arizona. Neuro-oncology encompasses more than brain cancer. It also deals with issues related to the spinal cord and nerves. Because it affects so much of the body, neuro-oncology focuses on overall quality of life. Dr. Porter and her team are at the forefront of cancer care that takes a holistic approach, including improving community engagement through clinical trials, new research, and pathway programs to build trust and bridge gaps.

Dawn Jaroszewski, M.D.

Thoracic Surgeon,
Professor of Surgery,
Chair, Division of
Thoracic Surgery

Dr. Dawn Jaroszewski, along with her team, specializes in pectus excavatum surgery and has invented a unique way to keep corrected chest walls from collapsing—minimizing pain often associated with necessary procedures, reducing hospital stays and promoting quicker recoveries. "A lot of people treat kids with pectus excavatum because when you're young you're very flexible," she says. "You have a lot of cartilage in the chest wall, so it moves easily. That elasticity allows for braces to be put in the chest cavity to correct the deformity. Much like braces do with teeth. As people age, they're not as flexible. And patients are told, 'You're too old. We can't move your bones, so you're stuck with this. Or we can cut these bones out to correct the problem.' We discovered a better way. We just had to change the way the procedure was done," she explains. "We developed new techniques to manipulate the chest cavity so we could put braces on adults to make it a much more reasonable procedure." A world of possibilities opened for Dr. Jaroszewski and her patients. "Suddenly, there were all these adult patients who could have their pectus corrected; patients whose chest wall was caved in, putting pressure on their heart and their lungs. "And now they are normal," she says. "They can take a deep breath for the first time in their lives. It's literally life changing." Because the surgery is so transformational, Dr. Jaroszewski is passionate about educating other physicians about the procedure.

