

The Orthopedic Surgery department mourns the passing of Chairman Harry N. Herkowitz, M.D.
The Fall issue of the *Ortho Spine News* will be devoted to him.

ORTHO SPINE NEWS

NEWS AND UPDATES • SUMMER 2013

PATIENT WON OVER BY SPINE SURGEON'S CARING BEDSIDE MANNER

It was supposed to be the perfect end to a Caribbean vacation. Kerry Moustakas was leaving the island of St. Martin in March 2012, but wanted one last dip in the water before heading home.

"I went into the water just to get wet up to my chin, and a rogue wave came along," she recalls.

After a harrowing few minutes when Kerry was certain she would drown, she was slammed onto the beach with two broken vertebrae in her low back. Her legs were numb and tingling.

"At the time, everybody on the beach and the ambulance guys thought I would be paralyzed," Kerry says.

After a miserable 32 hours in the local hospital, which was teeming with mosquitoes and geckos, Kerry was airlifted to Beaumont Hospital in Royal Oak and admitted.

"Fairly shortly after that, they told me yep, you need spinal surgery," Kerry recalls. "You need to choose a doctor, and I said great!"

Actually, she meant not-so-great, Kerry explains. She had always been healthy and never needed a spine surgeon before. But after Internet research, and some detective work among the hospital's nurses, Kerry picked Daniel Park, M.D.

"Dr. Park won me over because he was a real person, and to him I was a real person," Kerry says. "I knew that I was going to be

important to him, and that he cared about me."

Kerry even went for a second opinion at another Detroit area hospital, but felt she was just "a number" to the doctor there.

Dr. Park did Kerry's surgery, with hardware – rods, plates and screws – that were to be removed about a year later. But one of Kerry's vertebrae started to crumble after surgery, possibly because her bones had lost some of their density due to aging. Her bones were so brittle that the screws and rods could not hold her spine as effectively as they should have.

After trying to treat her conservatively with careful watching and bracing, Dr. Park and fellow Beaumont spine surgeon Jeffrey Fischgrund, M.D., fixed the problem using minimally invasive surgery.

Despite the complication, Kerry says: "I really think Dr. Park is one in a million because all he said was he just wanted me to get better. He always made time for me and answered my questions."

Kerry, 60, says she's doing well now, and rarely has pain. She's back to walking for exercise, and does stretching, yoga poses and Pilates type exercises at home.

There's no doubt for Kerry that she picked the best surgeon.

SURGEON SHOWS LEADERSHIP, SPIRITUALITY, TENDENCY FOR HARD WORK

Daniel Park, M.D., has a list of research publications and presentations that's impressively robust, most would agree.

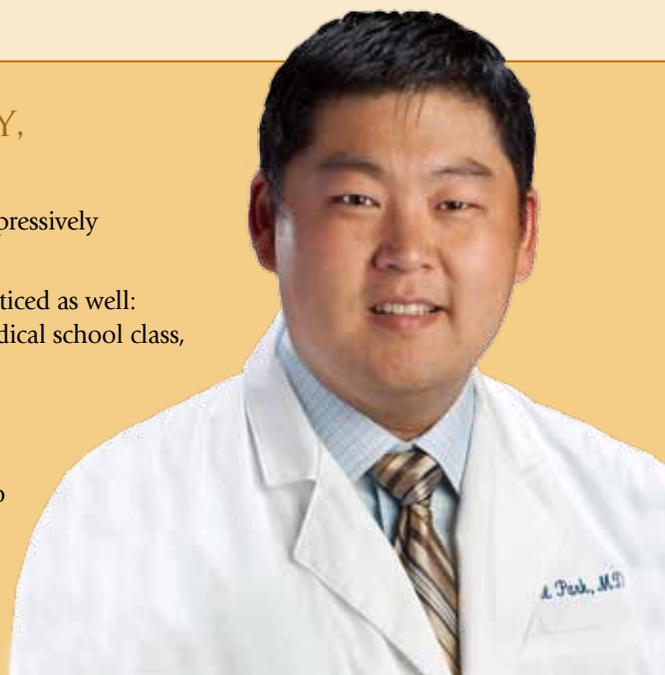
Dr. Park's industry and leadership look good not only on his CV, others have noticed as well: He was valedictorian of his high school, graduated among the top five in his medical school class, and won best research awards three years in a row while a resident.

He also has a bedside manner (*see related story, this page*) inspired by his faith and family values.

"I try to treat patients as if they were my family," Dr. Park says. "It is a blessing to treat patients every day.

"I pray for my patients before I operate, and hope that I can show them God's love through my work."

continued on back



RESEARCHERS WORKING ON MAKING WORN OUT SPINAL DISCS LIKE NEW

There have been efforts to make artificial discs for your spine to replace ones that wear, but Beaumont researchers decided to try a different route. Why not entice the body to heal or regenerate its own disc instead?

The problem with worn out discs (a condition known as degenerative disc disease) is widespread: As people age, the spongy discs start to lose the springy quality that cushions the bones in the spine and allows the upper body to bend comfortably. Or, sometimes an accident or injury damages one or more of the discs.



In Beaumont's Orthopedic Research Laboratory, researchers are using tissue engineering to repair damaged discs. Their experiments focus on getting the body to replace an injured disc with new, healthy tissue. They're using naturally occurring substances – like one found in crab and shrimp shells – and growth factors and the patient's own stem cells to encourage the body's repair work.

Tissue engineering techniques have been used successfully to regenerate liver, heart and lung tissue.

In preclinical research (that means not ready for patients yet), the Beaumont research team used a model of an injured disc. Researchers then removed the injured portions of the disc and injected a gel containing growth factors into the disc. In a separate group of models, the gel containing growth factors was seeded with stem cells harvested from bone marrow.

Six weeks later, the injured discs were imaged with MRI. Researchers found that the growth factor combinations and the stem cells were capable of regenerating a significantly injured disc. The MRI scans of the healed discs look substantially like an uninjured, healthy intervertebral disc.

Kevin Baker, Ph.D., who oversees Beaumont's Orthopedic Research Laboratory, says that even though it may be some time before tissue engineering to regenerate spinal discs is available to patients, it's still a better option than artificial discs.

"I don't think the technique (for implanting an artificial disc) is as straightforward as we would like to think," he says. "The spine is not as forgiving as hips or knees."

ORTHOPEDIC SPINE SURGEONS AT BEAUMONT

Bradley D. Ahlgren, M.D.

Richard W. Easton, M.D.

Jeffrey S. Fischgrund, M.D.

Christopher Hulen, M.D.

Lawrence T. Kurz, M.D.

David M. Montgomery, M.D.

Daniel K. Park, M.D.

Brady T. Vibert, M.D.

For an appointment with one of these specialists, please call the Beaumont Orthopedic Center of Excellence at 855-220-2663.

SURGEON SHOWS LEADERSHIP

continued from front

Dr. Park is a fourth-generation physician, and his parents and sister are doctors as well. He grew up in Augusta, Ga., then went to Emory University (Atlanta) for his undergraduate degree on a full-tuition, merit-based scholarship. Dr. Park later graduated from Duke University School of Medicine (Durham, N.C.), and then completed general surgery and orthopedic surgery training at Rush University (Chicago). He then went back to Emory to complete postgraduate subspecialty training in spinal surgery with world-renowned spine surgeons.

He's on staff at Beaumont Hospital, Royal Oak and Troy, director of minimally invasive spine surgery and clinical director of spine research within his department, and an assistant professor at the Oakland University William Beaumont School of Medicine.

"I was hesitant to come to Michigan, as I have no family here, but have been pleasantly surprised," he says. "My wife and I love it here."

The couple has taken in Detroit Tigers and Red Wings games, and traveled to the Upper Peninsula.

In his research and patient practice, Dr. Park is interested in all disorders of the spine, with a particular interest in minimally invasive surgery and the cervical (upper) spine. His current research includes assessing the patient-related and cost benefits of minimally invasive surgery, and using biologics to regenerate spinal discs (*see related story, this page*).

Outside of work, Dr. Park – who grew up in a devout Christian family – is extremely active at his church, Detroit Korean United Methodist Church. He holds health seminars for the elderly focusing on orthopedic care. He has gone on medical missions to Guatemala and Vietnam and hopes to go on a medical mission with his extended family in the near future.