When I began collaborating with a research group to investigate the anterior cruciate ligament, I found that the research offers a deeply rewarding combination of something I’m extremely interested in, that I can make a valuable contribution to, and that improves the world. It doesn’t get much better than that.

Following a Passion

While living in Auburn, Alabama, I became involved in research at the Auburn University MRI Research Center, which has 3- and 7-Tesla magnetic resonance scanners. I was attracted, so to speak, to the 7T magnet because the U.S. Food and Drug Administration has only approved magnets of up to 3T for clinical use. Since 7T scanners are approved only for research purposes, they’re not something you’d come by in the clinical setting.

The research being done at the center is amazing and the engineers are brilliant — they have deep knowledge of the math and science behind these machines — but they don’t have a technologist’s understanding of clinical applications.

Taking the initiative, I introduced myself to the research center director and some of the engineers and researchers. I told them I would like to help and also volunteered to be scanned a few times.

A Fresh Take

Combining multiple skill sets is part of a holistic approach to research and, as radiologic technologists, we can add to that. Approaching research from a variety of perspectives makes it more meaningful and applicable in practice.

What I brought to the Auburn University research team was the perspective of a professional athlete. I’ve always been drawn to orthopedic and musculoskeletal work, and I told the team that I’d love to get an orthopedic study started. We formed a research group to investigate the anterior cruciate. The study’s goal was to establish a benchmark for MR examinations of the knee to assess how well a patient is recovering postsurgery and assign a numerical value to indicate whether sufficient healing has occurred to determine when the athlete can return to play.

While this research can provide a tool for assessing any patient, it might prove especially valuable for athletes because it would take some of the guesswork out of recovery times. My role is to optimize the protocols and scan the volunteers on the 3T and 7T. The ongoing research requires a radiologist and orthopedic surgeon to map out the ACL and send that information to the engineers, who apply mathematical formulas to generate a value to indicate whether a patient’s ligament is healthy or not.

As our research continues, I’m always excited to see the results as we progress toward something that could benefit athletes and patients.

Where Do You Fit In?

R.T.s have the advantage when it comes to identifying process and procedure improvements. Through our observations, we’re taking the first step to creating a better tomorrow.

Working in research could mean participating in a full research study, but there are other ways to get involved, such as weekly journal clubs, aiding in peer-review processes and working with research study authors. As technologists, we engage in the research process simply by staying up to date through continuing education conferences, selected readings and many other ways.

No matter how you contribute, it’s valuable. Our field is advancing rapidly, and taking part in those changes can be rewarding. I encourage you to find your own way to contribute; although the results are not always immediate, they’ll prove worthwhile in the long run.

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