Meet Siemens Healthineers

Siemens Healthineers: Our brand name embodies the pioneering spirit and engineering expertise that is unique in the healthcare industry. The people working for Siemens Healthineers are totally committed to the company they work for, and are passionate about their technology. In this section we introduce you to colleagues from all over the world – people who put their hearts into what they do.

MunYoung Paek

MunYoung Paek graduated from Inje University in South Korea in 2000, majoring in computer science. Following her undergraduate studies, she pursued a specialization in MRI at the university's Graduate School of Medical Imaging Science. After earning her master's degree in 2002, she joined a Korean company that was developing a low-field 0.32T MRI system. This company was spun off from the medical device division of another domestic company, and developed the MRI scanner with its own technology, from hardware to software. For over eight years, MunYoung worked as a sequence developer in the R&D team, designing and developing routine MRI sequences for each body part, including b-SSFP in cardiac MRI. She joined Siemens Healthineers Korea in late 2010 and is currently a senior MR scientist responsible for research collaborations in cardiovascular and oncology MRI.

How did you first come into contact with MRI?
I first encountered cell and diagnostic scanner images while majoring in computer science and participating in research activities in a medical image processing laboratory. Perhaps it was fate, but as I approached graduation, the Graduate School of Medical Imaging Science was established through a collaboration between Computer Science and Biomedical Engineering. Intrigued by this interdisciplinary opportunity, I enrolled in the school to delve deeper into this field. This was where I met my supervisor, who had deep roots in MRI academia, and my journey into the world of MRI began.

What do you find motivating about your job?
My motivation has changed over time. In the early days of development, I was proud to be an engineer in a field that is rare in Korea, and proud that the sequences I made were being commercialized in the MRI scanner. Joining Siemens Healthineers has greatly expanded my horizons and has supported a variety of clinical research activities conducted by leading partners. My current motivation is the belief that I can have some meaningful impact in helping patients receive more accurate diagnoses in the future. When I hear that a disease was missed even after someone underwent MRI, I feel sad. This is because anyone can unexpectedly become a patient. These thoughts strengthen my commitment to helping advance medical imaging for the benefit of patients.

What are the biggest challenges in your job?
I have dozens of ongoing projects every year, so I often find it challenging to maintain deep focus on each individual project. Finding a balance between the quantity and quality of projects is important. I believe that actively supporting both capable researchers and the clinical research activities of customers in a variety of settings plays an important role in contributing to academia and accelerating the advancement of the technology.

What are the most important developments in CMR?
I think the most important factor in CMR is speed. In order to reduce high costs and promote CMR scanning, fast scans such as brain MRI and cardiac CT must be performed. The speed refers to total table time, not just acquisition time. This begins with attaching the ECG leads to the chest, with the patient on the table. The BioMatrix Beat Sensor, which doesn't require ECG leads, can be used in all routine cardiac protocols beginning with versions VA51 and VA60, and that makes me excited to think about the changes to the new cardiac MR scanning environment. myExam Cardiac Assist (formerly Cardiac Dot Engine) has already established itself as a reliable and essential tool for radiology technicians, thanks to its convenience during CMR scans. I believe that other technological developments such as Compressed Sensing acceleration, single-shot free-breathing techniques, deep learning image reconstruction, 3D imaging, and AI-assisted workflows will help to gradually increase the proportion of CMR exams.

What would you do if you could spend a month doing whatever you wanted?
Even just imagining that makes me happy. This is because I have worked without a gap for the past 21 years. I have so many things on my bucket list that I want to do, but I must choose only those that require a month. First, I want to train my body and mind by practicing yoga in Bali for a month. Alternatively, I would sign up for a 4-week mud-house building program in Korea. If it's a work-related opportunity, I would like to visit centers that perform and interpret MRI remotely (WeScan), which is challenging to introduce in South Korea because of our domestic healthcare system. I'm also interested in visiting regions around the world where mobile MRI scanners are in operation.