Matthew Veras is one of the youngest members of the Bone and Joint Institute, a doctoral trainee in skeletal biology that will soon graduate from the CMHR — the Collaborative Specialization in Musculoskeletal Health Research training program. The CMHR is one of the most important aspects of Western University’s Bone and Joint Institute. It opens doors to young researchers across all areas of musculoskeletal health. “That’s a flagship part of the institute, the training program,” Veras said. “Where instead of just going through the motions they teach you how to give a presentation, how to write a research proposal. How to critically appraise articles. And we do that in the context of musculoskeletal conditions.” Veras is supervised by skeletal biology researcher Dr. Cheryle Séguin, one of two co-directors of the training program. The other training co-director is Dr. Trevor Birmingham, the Canada Research Chair in Musculoskeletal Rehabilitation. “Cheryle and I come from very different backgrounds,” Birmingham said. “I’m more clinical research, she’s more basic science research.” Séguin and Birmingham’s collaboration is emblematic of the training program as a whole. Through exposure to other disciplines, trainees are taught to think outside the realm of their own research. “We’ve really had a lot of excellent speakers who inspire trainees to think differently,” David Holdsworth, scientific director of the Bone and Joint Institute, said. “To help them realize their research. Their careers may not progress along a predictable path.” “I’m a molecular biologist,” Veras added. “But I’ve been exposed to the engineering side, the clinical perspective. The social sciences perspective as well.” The CMHR builds on the previous success of JUMP, the Joint Motion Program, a
collaborative training program started a decade ago to sell trainees on collaborative research.

In reality, the program sold itself. For many of those original JUMP trainees, working across fields often provided the easiest solution to otherwise challenging questions.

“We were partnering with clinicians, as engineers,” said Dr. Emily Lalone, an engineer who trained at Western in 2003. She was one of the first graduates of the collaborative training program. “That experience was really essential for me. We became centralized on campus. I was next to students doing what I was doing.”

The current CMHR program is similar to JUMP in philosophy, but much more cohesive. Trainees are challenged through seminars, in which researchers from around the world give their perspectives on musculoskeletal health. Health economics is emphasized. There are awards for transdisciplinary projects.

CMHR has even partnered with Western University’s prestigious Ivey Business School for workshops geared toward business and industry. The hope is for trainees to think outside the box and develop unique skills, in their research and in their career. In the process many are given awards, enabling their research and pushing them further.

“It’s to train them to not be afraid of working slightly outside their area of expertise,” Holdsworth said. “To collaborate with people, and to think all the while about how those collaborations can change people’s lives.”

Roughly 25 people graduate from the program each year. As admissions grow, that number is expected to increase as well, with a possible 30 graduates expected for 2019. Those graduates will be uniquely positioned to continue building bridges in musculoskeletal health, bridges now readily apparent to them.

“Why does the Bone and Joint Institute exist? For me it’s very simple,” Birmingham said. “It’s to do better research that has greater impact. We believe that transdisciplinary collaborative research is indeed the way to go.

“Our task, to train the next generation of researchers, follows that same philosophy.”

Often a measure of success for a university is trainee accomplishments elsewhere. Graduates of the collaborative training program have gone on to conduct research across North America and overseas, many of them in fields different from their training while still related to musculoskeletal health.

A number of those original graduates have now returned to Western University including biomechanical engineer Dr. Ryan Willing and engineer Dr. Emily Lalone. Others, like Dr. Yara Hosein, have gone on to work in industry.

Their flexibility has helped them adapt to their situation, asking new and relevant questions about bone and joint health. For current CMHR trainees like Veras, the future is just as bright.

“I would hope that many of our trainees stay at Western. They’re going to be top-notch trainees and they’re going to help us do top-notch research,” Birmingham said. “But frankly our goal as supervisors, as mentors, is not to have them stay with us. It’s to have them go out into the world, to do new things.

“We hope they’ll take the tools they learn in their training to other places in the country and the world.”

A number of graduates from the original collaborative training program, now the Bone and Joint Institute’s CMHR, have recently returned to Western including, from left Dr. Ryan Willing, Dr. Emily Lalone, and Dr. Yara Hosein.