

**Emily Lalone**  
Early Career Researcher  
Faculty of Engineering

# To the bone: A stronger career

*Since its inception, the Bone and Joint Institute has helped researchers at every stage of their career*

Dr. Emily Lalone has lived and breathed the philosophy of the Bone and Joint Institute since the day she came to Western University.

One of the newest members of the transdisciplinary institute is also one of its greatest success stories, a former trainee who embodies every aspect of the vibrant, flexible, collaborative environment the institute hopes to cultivate.

As a biomedical engineer, Lalone has crossed disciplines and allowed her career to blossom through exploration. That starts with being flexible, she said.

“My interest has always been in bone and joint, and musculoskeletal health,” Lalone said. “I was very open to being interdisciplinary. I needed to explore.”

Lalone was one of the first trainees to take advantage of an emerging musculoskeletal environment at Western. Her experience in the collaborative training program, now called CMHR — Collaborative Specialization in Musculoskeletal Health Research — opened her eyes, she said, with everything from guest lectures outside her field to opportunities to collaborate with imaging scientists at Robarts Research Institute.

“It wasn’t this discrete thing,”

she said. “We and the surgeons, we were around each other all at the same time. And it worked.”

Lalone graduated from the training program with her doctorate and left to continue her career at McMaster University with Dr. Joy MacDermid, a rehabilitation scientist whom Lalone met through her studies.

Now, both MacDermid and Lalone work at Western. They’re not alone; other musculoskeletal researchers with different backgrounds and experiences have also found a place at the Bone and Joint Institute.

This includes Dr. Emil Schemitsch, a surgeon from St.

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Michael's Hospital in Toronto, and Dr. Michele Battié, an expert on common spinal disorders from the University of Alberta.

Battié started at Western University in 2018.

"Really the Bone and Joint Institute was the big draw at Western," Battié said. "I was impressed. The university decided musculoskeletal research is going to be one of their flagships. It's going to be one of the areas they want to promote."

Battié was a Tier 1 Canada Research Chair in common spinal disorders for 14 years. She now serves as the Western Research Chair in Musculoskeletal Exercise, Mobility and Health.

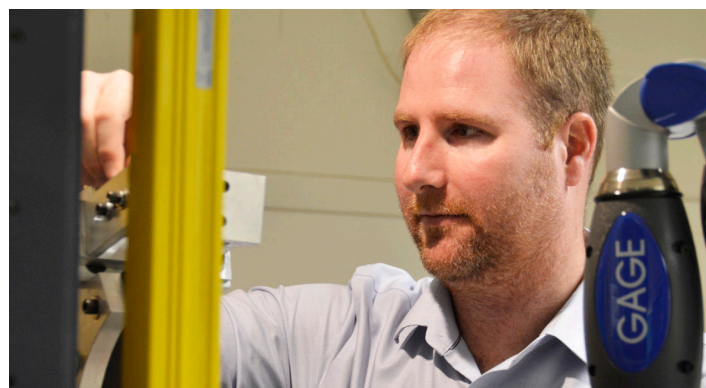
Through early career researcher recruitment activity

the institute has directly hired Dr. Jackie Marsh, a health economist, and Dr. Ryan Willing, a biomechanical engineer, to bolster the range of talent at Western.

Willing was another training program graduate. His career brought him back to Western in 2017 after a four-year stint at Binghamton University in New York.

"I'm here because of the Bone and Joint Institute," Willing said. "Career-trajectory-wise there was only so far I could go in New York. Whereas at Western, with the Bone and Joint Institute, there are all these possible connections that can push my research further."

The Bone and Joint Institute does more than connect people: it enhances their career. That point has always



Dr. Ryan Willing, who studies orthopedic biomechanics, was recruited by the Bone and Joint Institute in 2017.

been important said Dr. David Holdsworth, scientific director of the institute.

"Ambitious researchers tend to have a full plate," Holdsworth said. "We have to position our collaborations as being worthwhile additions."

When establishing his now-acclaimed 3D metal-printing startup ADEISS —

Additive Design in Surgical Solutions — Holdsworth, an imaging scientist by trade, saw an opportunity in former training program graduate Dr. Yara Hosein. Hosein was an engineering student who transitioned her research to applications in dentistry.

"The Bone and Joint Institute changed the trajectory of my career," Hosein said. "I would not have expected to go into dentistry research, but being in the training program, we were really encouraged to collaborate outside our area."

Holdsworth needed an engineer with scientific expertise. The uniquely qualified Hosein went on to become the application specialist at one of the most promising Western University-owned startups in the last decade.

"Really, I'm well equipped no matter where I go in the future," Hosein said.

Lalone returned to Western University in 2017. Now an assistant professor in the Faculty of Engineering, she says her career remains bright regardless of where it takes her.

"I came here for the Bone and Joint Institute," Lalone said. "It's all about taking different disciplines and continuing to direct them towards musculoskeletal research . . . we're all working toward the same goal."



**Michele Battié**  
Western Research Chair  
Health Sciences

# Building Bone and Joint

## 2016

**Jacqueline Marsh**  
Early Career Researcher  
Health Economist

**Joy MacDermid**  
Research Chair  
Physical Therapy, Surgery

**Emil Schemitsch**  
Chair  
Department of Surgery

## 2017

**Ryan Willing**  
Early Career Researcher  
Orthopedic Biomechanics

**Tom Appleton**  
Clinician Scientist  
Rheumatology

**Emily Lalone**  
Early Career Researcher  
Biomedical Engineering

**Mikko Karttunen**  
Research Chair  
Biomaterials Research

## 2018

**Michele Battié**  
Research Chair  
Exercise, Mobility, and Health  
(pictured)

**Andrea Waters-Rist**  
Early Career Researcher  
Anthropology

**Jay Stock**  
Researcher  
Biological Anthropology