

Minnesota Private Colleges

In the interim

Mayo Innovation Scholars Program featured in St. Olaf Magazine

This is an excerpt from a larger piece in the Spring 2011 issue of [St. Olaf Magazine](#) by Patricia Kelly '77. She is a Twin Cities freelance writer and frequent contributor to St. Olaf Magazine.

There's nothing like working for the Mayo Clinic — especially when you get to tell the Mayo Clinic what you think it should do. This January, four St. Olaf students got to do just that. As participants in the Mayo Innovation Scholars Program, Leon Clark '12, Frances Xin '12, Michael Rahman '12, and Kristine Amundson '11 spent Interim holed up in a small room in Regents Hall for forty, fifty, sometimes sixty hours a week, investigating a forearm positioning device.

The Mayo Innovation Scholars Program, founded in 2006 by John Meslow '60, invites science and economics majors at select Minnesota private colleges to evaluate the commercial potential for specific inventions or discoveries by Mayo Clinic physicians and researchers.

The St. Olaf team's device was invented by a Mayo orthopedic surgeon, and it was to be used when taking CT images of the wrist's distal radioulnar joint. "They gave us about a two-sentence description of the product," says Leon Clark with a laugh. "It was 'Here's the device we want you to analyze, you have one month to do it, ready, set, go!'"

By the end of the month, the St. Olaf team came back to the Mayo Clinic with their recommendations. If it wasn't commercially viable, Mayo wanted to know why. If it was, Mayo wanted to see a commercial strategy and business plan.

Clark says the toughest part was getting started. "It was essentially a self-guided research project," he says. "We didn't have anyone hovering over our shoulders. We had to come up with the questions that would help us figure out how to determine the efficacy of this device."

It was, they found, a project that required a professional level of discipline, creativity, and collaboration. Clark, a chemistry and math major, and Xin, a biology major, brought their experience with scientific inquiry; economics majors Amundson and Rahman provided their business knowledge. Says Clark: "It was a great collaboration because everyone brought their own specialty to the project. I knew nothing about flow analysis or developing a business plan or coming up with financial projections; the econ majors really helped out with that. As science majors, Frances and I read the patent, figured out how the device worked, and then explored the current practice of care to determine whether or not it would be needed in a clinical setting."

The team spent a great deal of time cold-calling radiologists and orthopedic surgeons, gathering information about what, if anything, they used in their current practices that mimicked the function of the device and how often they would use it.

"Part of the challenge was getting the doctors to have the time of day to talk to undergraduate students," says Clark. "And we realized how expensive information was; that we would have to buy the publications that contained the information we needed, such as how many injuries of this sort occurred in the United States every year. In a lot of our analysis, we had to dig deep and extrapolate on numbers, which made it really interesting."

A challenge of a different sort came when the group went down to the Mayo Clinic to meet face-to-face with the surgeon who invented the device. Says Clark: "The physician was so inspired by his device and truly believed it would



(Standing, L-R)
Frances Xin,
Michael Rahman,
Kristine Amundson;
(Seated) Leon Clark

improve patient care. But we had to come up with our own analysis and idea of what we thought about the product, which can be tough when somebody is so inspiring and is trying to convince you."

When it came time to present to the clinic, the St. Olaf team was ready to talk about the product's strengths, weaknesses, opportunities, and threats, a market analysis, financial projections, and a recommendation. Although they can't divulge what they presented (each student is bound by a five-year confidentiality agreement), Clark says: "We believe we have a very solid recommendation for the clinic, and we feel really good about the work we did."

Coming into the program, Clark says he envisioned being either a physician scientist or a physician in clinical practice. Now he's not sure. "This program definitely opened my eyes to other possibilities in the medical field. I think the medical device market is extremely interesting, and with all the advancements in technology, it's going to be booming!"