What will cause college students to spend five months researching markets for a new medical technology while maintaining their normal course load, and then subject themselves to giving a formal presentation of their findings to an audience of fellow students, academics, physicians, scientists and attorneys?

The opportunity to be a participant in the Mayo Scholars Program.

“This has been the most valuable experience of my college career,” says Alex Ritter ’09, a biology and chemistry major from Williston, N.D. “I think the fact that I was involved in a research program through the Mayo Clinic Office of Intellectual Property will help my application to graduate school get noticed.”

The Mayo Scholars Program is a unique opportunity for selected Minnesota private college undergraduate science and business students to research potentially marketable inventions submitted by Mayo Clinic physicians and researchers to Mayo’s Office of Intellectual Property for possible patents or product licensing.

Ideas for new medical devices, treatments, diagnostic tools, technologies and procedures flow into the Office of Intellectual Property at a rate of one each day.

When John Meslow of Mendota Heights, Minn., a member of Concordia’s Board of Regents (and a proud Cobber parent) heard about this abundance of ideas that need further evaluation, his business antennae detected an opportunity.

“I thought I could bring together some very smart young people from our excellent private colleges to study some of these ideas,” says Meslow.

A veteran of Minnesota’s innovative healthcare industry, Meslow spent 30 years at Medtronic, including 15 years as president of the Neurological Division, where he transformed a struggling unit with annual sales of $7 million into more than $1 billion. After retirement, he became a director of SurModics Inc., a firm engaged in developing pharmaceutical coatings for medical devices, and a board member of Gillette Hospital, the Minnesota Research Fund, and the Minnesota Private College Council.

For the Mayo Scholars Program, the licensing managers in Mayo’s Office of Intellectual Property select the ideas that merit additional research. The challenge is to sort out the good ideas from the rest, and determine how to quickly move good procedures or devices through the system into the marketplace.

Melsey’s idea is to form small investigative teams of undergraduate science majors and business majors, led by an MBA candidate and supervised by private college faculty. Fifty-six students from seven Minnesota private colleges and two graduate schools participated this year. The staff of Mayo’s Office of Intellectual Property provides oversight of the technology being studied, with the MPCC providing administrative help. To fund the program, Meslow enlisted the financial support of the Medtronic Foundation and the Mayo Clinic Office of Intellectual Property.

Each Mayo Scholar receives a stipend from the Medtronic Foundation while gaining valuable experience investigating an important aspect of science and marketing not often discussed in undergraduate classrooms.

In only two years, Mayo Scholars have studied projects ranging from a new positioning device for shoulder and elbow surgeries, potential early diagnostics and treatments for Alzheimer’s and Parkinson’s disease, knee replacement alternatives and uses for new pharmacogenomic discoveries.

“We definitely want to continue this program,” says Steve VanNurden, chair of Mayo’s Office of Intellectual Property. “Our primary goal is to provide these students...
with a real world experience, but it benefits us as well. It helps us evaluate all incoming ideas as quickly as possible.”

Concordia was asked to assemble two four-person teams this year to study the market potential for an ultrasound surgical device and a predictive diagnostic test for Parkinson’s Disease. **Dr. Krystle Strand**, assistant professor of biology, supervised the two studies.

Meslow beams like a proud father during the team presentations. “I’m so happy to see these bright, young students stand up and present this outstanding work they’ve done in such a professional manner. They’re the experts now. It’s a great experience for them.”

The Mayo Scholars Program is deliberately designed to achieve results. “We want the students to be creative and resourceful,” says Meslow. “We don’t define the projects very tightly. The assignments are intentionally ambiguous. The students have to figure it out for themselves and clearly communicate their findings, which is a big part of this internship experience.”

The students say they were quickly forced out of their comfort zones. “We all had to develop an understanding of the biological aspect of what pathologies our invention would be used to treat, the physics aspect of how it works and the business aspect of how it could be marketed. We all learned new things,” says psychology major **Kendra Gauffin ’08**, Mora, Minn.

“I found out I really like doing this kind of analytical research,” says **Josie Danz ’09**, Fargo, N.D., a business major. “Determining a product’s marketing potential was an eye-opening experience for me.”

**Kristin Putney ’08**, Maplewood, Minn., also a business major, says preparation for the presentations at the Mayo Clinic became a confidence builder. “No matter what our area of study was, we all had to develop good communication skills in order to accurately discuss the science and marketing aspects of our product.”

Teamwork is another important asset. “Each of us took one piece of the project and worked on it independently, then we came together each week to share our progress,” says physics major **Theodore Gagner ’09**, Ham Lake, Minn. “We had to trust each other that we were doing our jobs, and we had some continuity problems because our data had to mesh together. But everyone on our team was outstanding and did incredible work.”

Other team members were **Kevin Nelson ’09**, Brandon, Minn., physics; **Rachel Koski ’08**, Columbia Heights, Minn., biology; and **Drew Schwartz ’08**, Wadena, Minn., biology.

In recent years, Mayo’s Office of Intellectual Property has received 761 patents, signed 1,500 license agreements and has been involved in some 34 start-up companies resulting from Mayo Clinic discoveries. Some of the projects studied by the Mayo Scholars may lead to similar opportunities.