The Coleman Foundation Faculty Entrepreneurship Fellows Program was developed by the private, independent Coleman Foundation to promote entrepreneurship and self-employment education. Every year, grants are awarded to college and university faculty members across the country who are actively incorporating entrepreneurial concepts and activities into their teaching.

WPI is proud to have a number of our faculty members recognized as Coleman Fellows for encouraging the spirit of entrepreneurship in our students.

Tanja Dominko, Associate Professor, Biology and Biotechnology
2011 Coleman Fellow

Tanja Dominko, WPI associate professor of biology and biotechnology and a 2011 Coleman Fellow, is a prime example of how academic research and entrepreneurship go hand-in-hand. Dominko, who has been researching tissue regeneration using adult cells “retrained” to act like regenerative stem cells, is also the founder and CEO of biotech start-up, CellThera Inc.

Dominko sees entrepreneurship as the result of innovation, not the other way around. “I don’t think self-employment is the real motivation behind entrepreneurship,” states Dominko. “I think you have to be innovative and creative first, and then you can think about ‘OK, what am I going to do with this?’ Just being entrepreneurial is not enough.”

As a Coleman Fellow, incorporating entrepreneurial concepts and elements into her coursework has presented a unique challenge to Dominko, who teaches an undergraduate introduction to biotechnology as well as a graduate-level course in cell cycle regulation. “As you can see, these are two completely different things,” says Dominko. “One is trying to get freshmen and possibly some undecided sophomores excited about biotechnology and the possibilities it offers. In my graduate course, I have students who have already decided what to do with their lives, so the entrepreneurial approach for both is entirely different.”

To start the entrepreneurial wheels turning, Dominko has her undergraduate students explore random DNA sequences. “What is the nature of it? What does it do? Is there something really cool or really useful about it?,” says Dominko. “Could it be used for some kind of new development?” Dominko sees this exercise as not only a way to get her students into biology, but as a way to kick start entrepreneurial thinking. “So not only are they now thinking ‘what do I know about the biology of DNA?’ but also ‘what can I use the DNA for?’ It’s a great exercise to give them an appreciation of what biotechnology can actually accomplish.”

For her graduate-level course in cell cycle regulation, which is, as she points out, “hardcore biology, which one would think has relatively little to do with entrepreneurship”, Dominko takes a different entrepreneurial approach. As the final exercise of that course, Dominko has her students design a novel anti-cancer therapeutic.

“It’s really using everything they’ve learned in biology to come up with a novel but biologically-backed way to design an anti-cancer intervention of any sort,” says Dominko. She sees her approach as a logical
progression from introducing students to areas of biology where there are potential problems to be solved, to having grad students use all their knowledge to solve a problem.

“Entrepreneurship takes another level of skill acquisition as well as confidence and a different kind of courage than just applying for a job,” observes Dominko. “You have to be self-reliant and have a certain level of tenacity.”

Dominko believes that entrepreneurship can be easily incorporated into any field of science: "science should be producing innovation and innovation should be put to use.”