Sometimes it’s hard to see the big picture through a microscope. Promega’s Mark Harms hopes his newly earned master’s degree in biotechnology will help.
venture capitalists devo!, and the ins and outs of the patent process.

Such a cross-disciplinary approach to biotech is considered critical in Wisconsin and the Midwest, because we don’t have a whole lot of business professionals experienced in working with the biotechnology industry. If Harms wants to start his own company someday and can’t find an account executive, lawyer or marketer who has some experience in the biotech industry, he’ll at least have some knowledge about how to proceed in these areas. And UW officials hope the program will also be attractive to non-science professionals interested in working with biotech clients, so eventually there will be a pool of local experts scientists can tap into.

“Biotechnology as an industry can’t stand alone,” says Kurt Zimmerman, program administrator.

The 10 students in the program’s inaugural class, which just graduated last month, couldn’t agree more. Harms says the most valuable thing he learned is that you can’t view biotechnology as simply scientific. “A novel scientific technique won’t guarantee you business success,” he says. “I’ve been focusing on ‘grey zone’ scientific technologies these past years, when it’s actually the more mundane aspects of running a business that lead to success.”

Gabe Gross, an associate attorney at the law firm of LaFollette, Godfrey & Kahn, was one of the first students in the class of 2004 who wasn’t a scientist. Gross joined the program because he works mainly in intellectual property law and often with biotechnology clients; he figured he could better serve these clients if he knew a little bit more about their industry. But while Gross certainly learned a lot about the scientific side of the biotech industry, he was more surprised to learn the importance of some necessary business skills, like how to best manage your patent portfolio when a lot of your key patents near expiration.

“The program really helped me view biotech companies and their goals from their perspective, rather than from the perspective of an outside attorney,” he says. “It was a real eye-opener.”

considered a gut-punch by the university, were given a 50 percent tuition break. Even if they hadn’t gotten such a hefty discount, the program would have been worth it for Jenny Fromczak.

Fromczak was a bench scientist at Invitrogen Corporation when she started the program in 2002 and was promoted to manufacturing group leader a year later. “I think I would have eventually gotten that position,” she says, “but being in the master’s program definitely accelerated the process for me.”

Like the others, Fromczak appreciated the program’s cross-disciplinary approach. But she also gives high marks to the experienced guest speakers, or term teachers, brought in for nearly every session. Discussing intellectual property rights today? Then Nancy Bluck, licensing manager of McCell Research Institute, will be the guest speaker. Suggesting how to launch a start-up? Lugar to Barbara Israel, chief operating officer of four-year-old Platsys Technologies, who just went through that whole process.
Zimmerman is perhaps proudest of the fact that the master’s program really takes a hard look at legal and ethical biotechnology issues, areas other schools typically omit. One of the first classes new students take, in fact, is “Principles and Practice of Biotechnology,” taught by Richard Schilfreen, director of technology and business development at Promega, a Madison company. Zimmerman’s assistant dean of the UW-Madison law school and internationally known in her field for both her work in bioethics and Carl Gultch, managing director of the Wisconsin Alumni Research Foundation. As part of the course, students debate legal and ethical biotech issues. "Having an understanding of the ethical implications associated with biotechnology and knowing how to effectively debate those issues is a critical part of leadership," says Zimmerman.

This fall, Zimmerman says, 29 students will be admitted to the 2006 program, another increase. But he wants to keep class size relatively small to ensure a high-quality experience. Gultch predicts the program will quickly gain a stellar national reputation, attracting top students from a variety of backgrounds. That’s certainly a possibility: Zimmerman says this fall’s new class is more competitive than the first two. But whether or not the program becomes highly selective, many industry insiders are glad to see interest focused on biotechnology. "This kind of a program was critically needed to move the industry forward," says Harms. "The biotech field can’t grow and succeed on its own.

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