



## Medical startups — for credit

By Mike Colias  
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Swami Gnanashanmugam can't stop the ideas from popping into his head.

The fourth-year student at Northwestern University's Feinberg School of Medicine envisions an easier way to insert a patient's breathing tube, a better method for delivering medication to psychiatric patients and the creation of tiny devices to improve heart surgery.

Starting this month, Mr. Gnanashanmugam, 25, and about 80 other Northwestern graduate students will get a chance to transform such concepts into experimental devices and, ultimately, start-up companies. Or at least they'll earn a few credit hours.

### COMBINING CURRICULA

Northwestern's new medical-innovation course is a rare melding of curricula, top faculty and money from the school's four main graduate schools: medical, business, engineering and law. Teams of about eight students will receive up to \$15,000 apiece to fund a prototype medical device, eventually presenting business plans for their gadgets to venture capitalists and executives from large health care companies such as Minneapolis-based Medtronic Inc. and North Chicago's Abbott Laboratories.

Conceived by Mr. Gnanashanmugam and other students and embraced by entrepreneurial faculty, organizers hope the program will help repair Chicago's reputation as fly-over country for life-sciences investors.

"Having venture capitalists come here and see our medical innovations should help Chicago's reputation in a big way," says Alicia Loffler, director of the Center for Biotechnology at Northwestern's Kellogg School of Management.

### STUDENTS WITH IDEAS

Eleven teams will each develop a product idea for a different medical specialty, including heart and brain surgery, radiology and emergency medicine. To brainstorm ideas, students will observe surgeries and other medical procedures while batting around ideas with doctors.

Patrick McCarthy, chief of cardiothoracic surgery at Northwestern Memorial Hospital, who has helped put together the new course, says medical students should be a font of innovative ideas because doctors regularly cope with shortcomings in medical tools.

"Instead of throwing instruments in the (operating room) because they don't work, they'll think about how they

can change the design to make them easier to use or more effective," Dr. McCarthy says.

Engineering students will help put the concept to paper and develop a prototype. Law students can sharpen their regulatory and intellectual-property expertise. Business students will forge business plans and try to attract investors.

"These are the same steps they'd be taking if they worked at Baxter (International Inc.) or Boston Scientific," says Michael Marasco, director of the Center for Entrepreneurship and Innovation at Northwestern's Robert R. McCormick School of Engineering and Applied Science.

Organizers concede that some ideas might unravel. But even if they do, the program promises to expose students to all facets of commercializing a medical invention.

"The hope is people will learn the skills to be lifelong medical innovators," Mr. Gnanashanmugam says.

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