The Wings to Fly: Educating a New Generation of Entrepreneurs

In the past, entrepreneurs often learned their skills and gained their experience in a world far removed from the halls of higher learning. Visionaries such as Sam Zell believed, however, that entrepreneurial studies should be part of a well-rounded business school curriculum and that students could learn to be successful entrepreneurs through hands-on experience with new venture companies. By creating the right kind of environment, Zell was convinced it was possible to grow and graduate new entrepreneurs and to tap the entrepreneurial potential of a university community.

Ann Lurie and her late husband, Robert H. Lurie, shared a desire to foster positive changes in the world around them. They believed that entrepreneurial approaches to business could help unlock and maximize the benefits of new discoveries, particularly in medicine and biotechnology.

Today the ideas, convictions and gifts of these thought leaders and philanthropists provide the underpinnings for the Samuel Zell & Robert H. Lurie Institute for Entrepreneurial Studies at the University of Michigan Business School. Since its inception in 1999, the Institute has created a new standard for entrepreneurial education. It not only has incorporated business management principles into entrepreneurial studies but also has brought entrepreneurial thinking to traditional business education. The resulting synergy has accelerated the rate of new venture creation and created business savvy entrepreneurs to lead these start-ups.

The Institute offers theoretical and in-company experiential learning, and its faculty members include both academic researchers and practitioners in entrepreneurship. This dynamic combination has empowered today’s students to choose a career as a professional entrepreneur and to acquire the real-world experience and professional network they need to “hit the ground running” after graduation. The University’s pre-eminence in engineering and the life sciences offers numerous opportunities for joint conferences, internships and partnering on research ventures. The Office of Technology Transfer serves as a conduit for bringing new research discoveries out of the University community and into the entrepreneurial arena.

The scope of career opportunities open to those who aspire to become world class leaders for new venture creation is broad. An entrepreneurial mindset is also a valuable asset for anyone seeking to pursue an entrepreneurial type career track within the bounds of the conventional corporate structure. From the laboratories of biotech start-ups to the storefronts of urban neighborhoods to the boardrooms of global companies, a new generation of University-educated entrepreneurs is making its mark on the world of business. The Samuel Zell & Robert H. Lurie Institute for Entrepreneurial Studies provides a dynamic environment for giving them the wings to fly. Their mark will be a lasting one.
Entrepreneurship Can Be Taught

The Samuel Zell & Robert H. Lurie Institute for Entrepreneurial Studies supports the philosophy that entrepreneurship can be taught. Today it is one of the nation’s leading institutes dedicated to entrepreneurial studies.

The Institute takes an educational approach, which combines innovative programming with course electives covering different aspects of entrepreneurship. Through internships and special projects, students venture out into the entrepreneurial field to gain hands-on experience. The Institute also brings successful entrepreneurs to the classroom to discuss key issues and to share best practices. In addition, students learn entrepreneurial concepts and acquire specialized knowledge that builds upon the general management curriculum taught at the University of Michigan Business School.

“The Institute is an important specialty area at the Business School and serves as a resource for all students,” says Executive Director Tom Kinnear. “At Michigan, entrepreneurial studies are taught by people who have a strong conceptual understanding of general management and who are also street smart about entrepreneurship because they have done it.”

Emphasizing Experiential Learning

One of the hallmarks of the Institute is its emphasis on experiential learning. Most entrepreneurial studies classes include a field assignment that provides an opportunity for students to work closely with a start-up company or to start a new venture of their own under the guidance of faculty as part of a course structure. This real life approach enables students to apply the concepts they learn in class as they explore their own interests and test their abilities in an entrepreneurial setting.

Summer internships offer another avenue for gaining entrepreneurial experience in a wide variety of industries. Michigan students learn about new technologies, work directly with company founders, co-founders and CEOs, and glean knowledge from their mentors’ insight and experience. Over the past summer, MBA student David Carrel aided the product-development, marketing and business-development teams at Arbor Networks in refining products for the Lexington, Massachusetts-based technology company. At Malaxy, a creative services start-up located in Ann Arbor, Rachel Francisco helped the CEO develop sales tactics, and identify and approach potential clients. Christopher Cho took a summer associate position with the investment team at Telecommunications Development Fund, a private venture capital firm in Washington, D.C., that invests in seed and early stage communications sector companies. Mark Wenger described his summer internship with Xoran Technologies, an Ann Arbor-based manufacturer of “middle-market” CAT scanners, as “a fantastic learning experience.” Wenger assisted the start-up company in solidifying its plans for raising additional capital and moving forward with company development.

A third component of experiential learning at the Institute is its EMAP program, a project-based course where students assist start-up companies. EMAP provides start-ups with access to business skills and information they may lack; a fresh unbiased business approach to issues; and interaction with Business School faculty and students. Michigan students gain practical experience in addressing entrepreneurial business problems, develop an appreciation for managing change, and receive exposure to the intricacies of entrepreneurship. In the past year, student teams provided a range of business, marketing, strategy and financial services for Michigan-based companies, including CEBOS in Southfield, eCognita Technologies in Birmingham, and HomeRun Services, Techstreet, and Eximware, all located in Ann Arbor.

The $3 million Wolverine Venture Fund, at the Institute, is one of the world’s first venture capital funds led by business students. The fund invests primarily in early stage, technology-oriented companies and gives students the opportunity to seek, screen and negotiate investments as they work in tandem with venture capitalists and entrepreneurs. During the 2002 academic year, students evaluated several hundred businesses seeking funding.
Bringing Entrepreneurs to the Classroom

Nothing speaks louder than the voice of experience. The Institute has capitalized on the lessons learned by successful entrepreneurs by inviting them into the classroom to discuss their entrepreneurial pathways, challenges and triumphs. Among this year’s guest lecturers were Nancy Gamburd (Gamburd and Associates), who spoke about intellectual property, Steve Hilfinger (Foley Lardner), who looked at the legal issues associated with company formation and raising capital, and Tim Mayleben (Esperion Therapeutics), who weighed in on acquisitions and public offerings. Mike Klein (Interlink Networks) and Kathy Zelenock (eCognita) discussed the challenges of creating and managing boards.

Each year, Entrepalooza brings leading entrepreneurs, venture capitalists, business leaders and alumni to the Business School campus to discuss current topics of interest in entrepreneurship and emerging industries. Last fall, the event featured high-profile speakers including Handspring co-founder and CEO Donna Dubinsky and vice president of product marketing Joe Sipher, jointly provided the keynote address. Hal Davis, the co-founder and former CEO of BlueGill Technologies, received special recognition as Alumni Entrepreneur of the Year. Dixon R. Doll, managing general partner of Doll Capital Management, also offered his comments about the current venture capital environment.

In February, the annual Emerging Industry Symposium, co-sponsored by the Institute, focused attention on the life sciences and drew 300 participants from the pharmaceutical industry, emerging and established life-sciences companies, venture capital firms and the University of Michigan community. The event provided students with new knowledge about the emerging biotechnology sector and an opportunity to meet those who are shaping its growth.

Building a Specialized Knowledge Base

The entrepreneurial world operates on a different plane than conventional business enterprise and requires special preparation, according to Tim Petersen, managing director of the Institute and the Wolverine Venture Fund.

“There are technical issues beyond the scope of general management education that must be taught,” Petersen says. “Through specialized, highly interactive course electives, the Institute provides students with the technical knowledge base they will need to be successful entrepreneurs now or at some point in the future.”

These building blocks include entrepreneurial concepts, terminology and skills as well as insights into new venture formation and related professional and personal challenges. Learning objectives are achieved by discussing case analyses and by evaluating new business concepts and preparing business plans. Armed with specialized knowledge and practical experience in developing and screening new venture proposals, raising capital, attracting management talent, and operating new businesses, Michigan graduates can “cross the chasm” when they see the right entrepreneurial opportunity.

Students themselves have many opportunities to test their own entrepreneurial abilities by entering intercollegiate business plan, case writing and venture capital competitions. Every year, the Institute hosts the University of Michigan Pryor-Hale Business Plan Competition as part of a campus-wide effort to promote new business development. The Institute also participates in the Great Lakes Venture Quest, a statewide business plan competition, and sponsors teams to compete against other enterprising students from the nation’s top business schools. Each event provides additional exposure to the entrepreneurial and venture capital world and the chance to compete for prizes ranging from $5,000 to $100,000. Michigan teams frequently walk away with the top honors.
From a business perspective, these competitions are a great opportunity to introduce a business concept to other entrepreneurs and venture capitalists from around the United States,” says evening MBA student Heather Brzoznowski. “Furthermore, this is a wonderful way to network and to get our names circulated.”

The Institute’s new “Dare to Dream” funding program also encourages entrepreneurial creativity and new venture formation. In March, six teams were chosen from among 24 applications to receive financial assistance of up to $20,000 for their business concepts and to receive independent study course credit for their participation in the program. The winning ideas included a patent-pending medicine opener branded as the Puurfect Opener, a miniaturized alternative to current CAT scan technology and a technological advancement to boost the production of soft shell blue crabs.

Valuing an Entrepreneurial Mindset

The attitudes and skills that define an entrepreneurial mindset also are highly valued by established companies seeking to be innovative and growth oriented. Michigan graduates often accept jobs with these traditional businesses and then spend years honing their entrepreneurial skills, building their professional networks and securing investment capital before launching their first start-ups.

Marcel Gani, who earned his MBA at Michigan in 1978, worked for a number of high profile technology companies, including Intel, before becoming the CFO of Juniper Networks Inc. in California in 1997. In 2001, Gani gave a $1.47 million endowment to the Business School to fund summer internships for students in entrepreneurial studies.

“The University of Michigan celebrates a long heritage of outstanding entrepreneurs, including Samuel Zell and the late Robert H. Lurie, for whom the Institute was named,” says Kinnear. “These icons of entrepreneurship have set high standards for all who follow in their footsteps.”
Financing: Flip Sides of the Same Coin

When an entrepreneur and an investor look at building and financing a new venture, they in effect see flip sides of the same coin.

The entrepreneur comes up with an idea, develops a business model for a company and estimates how much money will be needed at each juncture to fund growth and development. The investor, on the other hand, evaluates the product or service created and the potential market demand for it, the resources the company has assembled and will need to assemble, its management and marketing teams and other aspects of the business model. Then the investor determines how much money to invest and at what valuation.

Eventually, the two sides may reach agreement on the amount and terms of the investment, but accomplishing this feat is not easy when a company is in its early stages and can only project future revenue and profits. In fact, the difficulty of valuing new ventures has led to innovative ways of thinking about financing for the entrepreneurial sector and creative ways of teaching it in the classroom.

"In the past, finance textbooks dealt principally with hard asset-intensive companies," explains David J. Brophy, an associate professor of finance at the University of Michigan Business School and director of the Center for Venture Capital and Private Equity Finance (CVP). "The fundamental change we've seen is that there is now vastly increased awareness of the unique characteristics and problems involved in financing small, private, entrepreneurial, intangible asset-intensive companies."

In his courses, Brophy focuses on the distinguishing aspects of venture capital and private equity finance, and captures the dichotomy between how entrepreneurs and investors view financing. He also covers other aspects of "this mysterious opaque process," such as pre-money and post-money valuation, that normally are not taught in traditional finance courses.

The annual Growth Capital Symposium, sponsored by CVP in cooperation with the Samuel Zell & Robert H. Lurie Institute for Entrepreneurial Studies, brings venture capitalists, institutional investors and entrepreneurs to campus each summer to discuss hot topics in the VC industry and to foster collaboration. Students have the chance to network with some of the movers and shakers in the industry. Nearly 500 new companies have been assisted in raising growth capital for start-up and expansion, according to Brophy, who founded the Symposium in 1981.

The Center also conducts empirical research on private and public companies, sponsors special seminars and builds models to study different aspects of entrepreneurial financing. New knowledge gathered through research and analysis is brought into the classroom to further enrich the curriculum. The value created, through entrepreneurial finance course learnings and activities hosted by the Center, comes from a better understanding of how to form, finance and develop entrepreneurial companies.
Angel investor Chuck Salley has been there, done that. Now, as a mentor to students at the Samuel Zell & Robert H. Lurie Institute for Entrepreneurial Studies, he is passing on the insight and experience he has acquired over many years. Under his guidance, students are able to transfer their classroom learning into real-life experiences and to connect with business people and entrepreneurs. With his mentoring, these prospective entrepreneurs are able to make more informed decisions about their career choices.

Businesses that engage student interns on projects are “overwhelmed with the affordable expertise they receive,” Salley reports. “These companies benefit by completing a project that otherwise might have languished because of a lack of management talent.” In some cases independent studies or summer internships lead to post-graduation job offers for students.

Salley says he personally has received as much as he has given through mentoring. “It’s a lot of fun to be engaged with bright, energetic, talented young people,” he explains. “This is also a chance for me to give back to the community.” He says he enjoys being affiliated with the Institute and all of its programs, which he characterizes as a “beehive of activity” for technology transfer and a “petri dish” for entrepreneurial start-up and growth.

Salley sees Michigan’s entrepreneurial climate as an incubator for enterprising businesses. “If you were born or raised in Michigan and left to go somewhere else, now is the time to think about coming home,” he says. “The opportunity is here.”

Distinguished Entrepreneurial Alumni
Examples of distinguished alumni actively involved with the Institute.

- Keith E. Alessi
  MBA 1979
  Former Chief Executive Officer
  Jackson Hewitt Inc.
  Adjunct Professor of Law
  Washington and Lee University
  Adjunct Professor of Corporate Strategy
  University of Michigan Business School

- Cleveland A. Christophe
  MBA 1967
  Managing Partner
  TSG Capital Group LLC

- Marcel Gani
  MBA 1978
  Chief Financial Officer
  Juniper Networks

- Mary L. Campbell
  MBA 1979
  General Partner
  EDF Ventures

- Hal Davis
  MBA 1985
  Founder and Former CEO
  BlueGill Technologies
  CEO
  BlueGull Network

- Michael R. Hallman
  BBA 1966, MBA 1967
  Former President and COO
  Microsoft Corporation
  President
  The Hallman Group
Those Who Dare To Dream

Michigan’s Entrepreneurial Studies program provides would-be entrepreneurs with the knowledge and real-world experience that give Michigan graduates an edge in their career pursuits.

Luke Chung
MBA 2002
President
JaniLink Corporation

Donna Gent
MBA 1998
President
CEO and Co-founder
Kinderstreet

Robert G. Mazur
Evening MBA
President
B.A. Maze Inc.

Andrew Corr
MBA 2003
Former Director of International Business
CEE Water Devices Company (Slovakia)

David A. Shayman
David Shayman
BBA 2002
President
Audio. Visual. Indulgence LLC

Alex A. Virgilio
Ph.D. 1997, MBA 2002
Associate
Frazier & Co.
Wolverine Venture Fund Alumnus

This Atlanta-based company is a distributor of commercial cleaning products. JaniLink seeks to become the market leader for cleaning supplies in the United States via an acquisition roll-up strategy.

Founded in Ann Arbor, Michigan in August 2000, the company delivers a suite of Internet-based applications to childcare providers and working parents and is designed to streamline administration and increase parent communications.

Developed the PurrFect Opener, an all-purpose device for opening medicine bottles and containers. The nationally marketed opener is about as big as a computer mouse and made to look like a cat.

Andy helped lead this start-up organization to realize new operations in Hungary, Poland and Russia. He is currently serving as the Co-president for the Entrepreneur and Venture Capital Club.

As one of the premier artists and producers for the Detroit Ghettotech sound, David plans to release his debut album in Spring 2003. His current venture, Audio. Visual. Indulgence LLC, is focused around the promotion of a lifestyle brand name, “The Booty Bar”, representing the exciting sounds of Ghettotech music.

Dr. Virgilio joined the biotechnology team of Seattle-based Frazier & Co. in May 2002 to assist with the review of new biotechnology investment opportunities.

Michael J. Jandernoa
BBA 1972
Chairman of the Board
Perrigo Company

Thomas S. Porter
MBA 1967
General Partner
EDF Ventures
Adjunct Professor of Corporate Strategy
University of Michigan Business School

David Shelby
BBA 1962, MBA 1964
President
Northport Private Equity Investment Companies

Steve J. Mariotti
BBA 1975, MBA 1977
Founder and President
National Foundation for Teaching Entrepreneurship

Richard Rogel
BBA 1970
Founder and Former CEO
Preferred Provider Organization of Michigan (PPOM)
President and CEO
Tomay Inc.

Richard D. Snyder
MBA 1979
Former President and COO
Gateway Inc.
Founder and CEO
Ardesta LLC
Social Entrepreneurship: 
Combining Passion and Practical Skills

Greenpeace, Food Gatherers, the Modern Museum of Art gift shop, the Lincoln Center Jazz Orchestra and the original Ben and Jerry’s started as innovative business organizations operating in entirely different economic sectors and diverse geographic regions. However, they all have one thing in common—they were founded by social entrepreneurs who used their business acumen to fulfill perceived social needs.

“There are lots of ways to be entrepreneurial within the social sector,” says Janet Weiss, the faculty director of the Nonprofit and Public Management Center at the University of Michigan and the University’s newly appointed associate provost for academic affairs. Some people use for-profit businesses to pursue social goals. Others see a need, see a niche and then create a nonprofit organization to serve that need. Still others create a for-profit subsidiary to generate revenue for the main service mission of a nonprofit group. “All three approaches can be successful, if the passion and the practical skills are there,” adds Weiss.

Interest in the nonprofit sector has grown dramatically in recent years. Weiss’ course, “Managing the Nonprofit Organization,” attracts students from nearly every school and college at Michigan, including business, public policy, information, natural resources, engineering, art, music and medicine. Students come seeking the business skills they need to manage a nonprofit organization successfully, but Weiss takes them a step further.

“I show students how their acquired skills will enable them to grow a nonprofit organization beyond its current scope,” Weiss says. “I also encourage them to become creative entrepreneurs, who can find new ways to generate revenue and attract more support for the causes that attracted them in the first place. When they realize this potential, it’s very exciting.”

Operating in the nonprofit sector has distinctive challenges. First, ownership and accountability in a nonprofit setting are different because no single person or entity owns a nonprofit organization. Therefore, an appointed board of trustees oversees its governance. Second, nonprofits depend upon volunteers rather than paid employees. These volunteers must be recruited, trained, motivated and retained without incentives of salaries and benefits.

Through the Center, successful social entrepreneurs come to campus to share their stories and insights with students. The Center also sponsors summer internships with nonprofit organizations and supports fellowships that place students on nonprofit boards as non-voting members.

“We want to get students started down this pathway earlier in their careers,” Weiss says. “Even if they plan to work in the for-profit sector, businesses expect employees to be engaged in their community, which may involve serving on a nonprofit board. By teaching students about nonprofits and how they function, we can help them be more effective later on.”

In many ways, social entrepreneurship combines the best of both worlds by fostering creative entrepreneurial business activity and, at the same time, fulfilling the social needs of the community.
Educating: Bringing Entrepreneurship to Youth

Steve J. Mariotti, BBA ’75, MBA ’77, attributes much of what he has accomplished as an entrepreneur and educator to the inspiration he gained from his professors at the University of Michigan Business School.

“LaRue Hosmer’s course on entrepreneurship and small business management was brilliant,” Mariotti recalls. “In David Lewis’s class on business history, we discussed the accomplishments of many famous entrepreneurs, and that started me thinking about entrepreneurship from an academic viewpoint. Prof. Lewis became my mentor and friend, and has remained so for more than 28 years.” Michigan also provided a “blueprint of business” with a strong emphasis on marketing, accounting and other management skills.

One of the most important lessons Mariotti learned was that he could use business to accomplish social goals. Today, as the founder and head of the National Foundation for Teaching Entrepreneurship (NFTE), he is serving the community by bringing entrepreneurial education to high-risk, low-income youth. To date, NFTE has trained 2,600 teachers and has helped 55,000 youth gain the knowledge they need to pursue economic self-sufficiency and to launch start-up businesses. The New York-based nonprofit organization now has offices nationwide and is expanding rapidly overseas.

Mariotti began his career as a treasury analyst at Ford Motor Company, but left to start Mason Import/Export Services in New York, a company that imported ladies shoes from India and freshwater shrimp from Bangladesh. “I learned a lot about international affairs at Ford, but I wanted to have my own business, because it was more suitable to my interests and personality,” he explains. His experience as an entrepreneur reinforced the importance of establishing strong communications, winning trust and building personal relationships.

Mariotti made a career shift three years later and became a business teacher in the New York City public school system. At Jane Addams Vocational High School in the Bronx, he became intrigued by the prospect of teaching underprivileged young people about business and business ownership. That served as a springboard for founding NFTE in 1987.

“NFTE is the perfect reflection of my belief that business can be used for a social good,” says Mariotti, who earned the Business School’s 1999 Entrepreneur of the Year Award.
Urban Entrepreneurship: Finders, Minders and Grinders

America’s large cities always have played an important role in shaping the nation’s history and culture, and urban entrepreneurs have taken the lead over the years in fostering business opportunities, growth and development in the inner city.

Today efforts to revitalize and repopulate urban America once more are opening the doors for entrepreneurs with the specialized knowledge, skills and networks to tap the underserved, but rapidly expanding urban consumer market. Lifestyle changes and the migration of popular trends in clothing, music and food from the inner city to the suburbs are fueling this transformation.

The University of Michigan’s Institute of Labor and Industrial Relations (ILIR) has pioneered coursework designed to prepare entrepreneurs who aspire to own and operate businesses in inner-city neighborhoods and redeveloped commercial areas. These urban pockets of entrepreneurial activity may be far from the high-tech buzz of Silicon Valley, but they hold great promise for those who are willing to invest the time, money and sweat equity. ILIR is a joint effort of the School of Social Work and the Business School, and serves as a resource for the Samuel Zell & Robert H. Lurie Institute for Entrepreneurial Studies.

“Being an urban entrepreneur is no different than being any other kind of entrepreneur—it’s all about marketshare,” says Adjunct Lecturer William Pickard, who both teaches urban entrepreneurial studies at UMBS and serves as an inspiring role model for urban entrepreneurs. “The only difference is that urban entrepreneurs must be aware of nuances in the urban market. And they must find more creative solutions to the challenges of establishing and operating a business—such as raising capital, developing competitive products or services, training employees, and increasing revenue and profits—which usually occur more frequently and are more intense in urban settings than in other places.” It’s a balancing act that takes education and experience to master.

Students of all races and nationalities are attracted to urban entrepreneurship for a variety of reasons. Some see themselves as urban missionaries with social goals. Others view the inner city as a high growth potential market for launching innovative businesses. Still others put their aspirations on hold and join the corporate world, waiting for the right time and opportunity to put their entrepreneurial ideas into action.

Pickard earned his master’s degree in social work from Michigan in 1965 and his Ph.D. from Ohio State University. He got his first taste of entrepreneurship as a 29-year-old doctoral student when he and two partners opened their first McDonald’s restaurant in Cleveland. Pickard knew he had found his niche in life and continued to buy more franchise fast food stores. Eventually, he moved into the automotive sector, and today he is the chairman and CEO of Global Automotive Alliance, a holding company for five automotive parts suppliers, including Vitec in Detroit’s Clark Street Technology Park.

Drawing on his own experience, Pickard characterizes an urban entrepreneur as a person who has vision and sees the upside of every situation. In his seven-week elective course, “Urban Entrepreneurship,” he strives to develop the talent and impart the know-how needed by inner-city business pioneers, who must act as “finders, minders and grinders” all rolled into one. He also stresses the importance of developing networks, tying into community
subsystems and understanding the realities of personal and cultural relationships. As a class assignment, students do case studies of successful urban businesses and develop business plans of their own.

Not every urban entrepreneurial venture is destined for success, of course, so Pickard urges his students to build support systems and develop strategies for survival. “The charm of America is that if first you don’t succeed, you’re about average,” he says. “There’s always another day and another way.”

Franchising: Focusing on Customers, Products and Operations

“I always had an interest in being an entrepreneur,” says Domineca Neal, MBA ’96, “because I wanted more control over my future and financial success.” She achieved that goal last year when she and a partner procured the franchise for a Wendy’s restaurant in Mokena, Illinois, 35 minutes southwest of Chicago. “I was working long, hard hours for someone else, so I figured, why not do it for myself,” she reflects.

Neal’s first year in operation proved both challenging and rewarding. “I’ve learned a ton,” she says. “My background in accounting, marketing, branding and basic management at the University of Michigan Business School has served me well. My biggest growth has been in the soft skills, such as time and people management and juggling a large number of projects.”

As a teenager growing up on Detroit’s east side, Neal landed a job in a McDonald restaurant owned by William Pickard, an adjunct lecturer at the University of Michigan Business School. Years later, as an MBA student at Michigan, she enrolled in Pickard’s urban entrepreneurship class where she was introduced to a wide range of franchising opportunities and met franchisees from a variety of companies. Neal entered the corporate world after graduation, but kept her entrepreneurial aspirations on the back burner until the time was right.

“As an entrepreneur, you set a goal, develop strategies and work hard, just as you do in a corporate setting,” she explains. “There are a lot of unknowns and no safety net. However right now, I feel more secure than many of my counterparts in the corporate world, because as long as I stay focused on my customers, my products and my operations, I know I’ll have a business.”
Dreamcatcher: Xoran Develops MiniCAT™ Technology

Two years ago, University of Michigan doctoral student Predrag Sukovic had an epiphany that opened his eyes to the vast world of entrepreneurship.

“My academic advisor, Neal Clinthorne, and I realized that our collaborative work at the University had a promising potential commercial application,” explains Sukovic, who is a 2002 Ph.D. candidate in biomedical engineering, a multidisciplinary program combining studies in medicine and engineering. “We felt the underlying technology could be used to make a small, inexpensive, portable CAT scanner that could be marketed to medical professionals.”

Clinthorne, a senior research scientist in the Department of Radiology at the School of Medicine, and Sukovic initiated the first of many steps that led to the founding in 2001 of Xoran Technologies LLC, a University spin-off company. By leveraging Michigan’s resources to bolster the company’s growth and development, Xoran’s founders were able to take their research from conception to near commercialization in a relatively short period of time.

“The University of Michigan is making a strong push toward the commercialization of research,” Sukovic explains. “The support we got from the Office of Technology Transfer, the Samuel Zell & Robert H. Lurie Institute for Entrepreneurial Studies and the TechStart internship program, in combination with various prizes and grants, was fantastic.”

The two researchers obtained a $100,000 Small Business Investigative Research (SBIR) from the National Institutes of Health (NIH) to perform initial proof of concept and R&D. During the 2001 winter term, Sukovic enrolled in an entrepreneurial studies course at the Business School, where a student team was assigned to create a business plan for Xoran. Karen Studer-Rabeler, a business development consultant from the Office of Technology Transfer, helped the company set up meetings with prospective investors.

Through the Institute’s “Dare to Dream” program for student start-ups, the company received a $20,000 grant, enabling it to bridge a gap in funding and to add an engineer to its staff. Xoran also won $25,000 at the Great Lakes Venture Quest in spring 2001. Interns from the Business School and TechStart assisted the company from its very inception by conducting market research, drafting patent applications and providing other basic business services. “We got the business expertise that we as engineers didn’t have and learned basic business principles,” says Sukovic.

Xoran took first prize and $11,000 in awards at the Business School’s 2002 Pryor-Hale Business Plan Competition and placed high in subsequent national business competitions. One student intern, Mark Wenger, returned to Xoran this past summer under the Marcel Gani Entrepreneurial Internship Program, which was established by a gift from Business School alumnus Marcel Gani, a prominent figure in the high-tech industry.

A $100,500 grant, received in January from the Michigan Universities Commercialization Initiative fund, has supported development of the clinical prototype of the MiniCAT™, which will be tested at the School of Dentistry. In June Xoran landed a phase II NIH grant for $750,000, further boosting its chances for a successful launch.

“I’m elated and amazed,” Sukovic says. “This is something I love to do. I can’t believe it’s happening.”
Matchmaker: TechStart Interns Help Start-ups Get Going

The University of Michigan's strong national leadership in research and the State of Michigan's initiative to create a Life Sciences Corridor support the creation and commercialization of new technologies. Ann Arbor's strong entrepreneurial culture and well-established network of entrepreneurs who are willing to share information create an ideal environment for new venture companies.

Within this entrepreneurial high-tech environment, Mark Maynard sees himself as a matchmaker of sorts. As the marketing manager for the University of Michigan Office of Technology Transfer, his job is to assist faculty researchers who have developed promising new technology in securing the resources they require to successfully transfer their ideas to the commercial marketplace.

"We give them the tools they need to start a company and help their research progress to its fullest potential," Maynard explains. Last year, 12 new companies were spun out of the University, which has technology transfer satellite offices in the School of Medicine and the College of Engineering.

Among those important "tools" are Michigan graduate students from the Business School, Law School, Medical School, College of Engineering and other University units, who participate as summer interns in the TechStart program. Students work in interdisciplinary teams assigned to early-stage companies, where they apply the specialized knowledge of business, law, medicine or technology they have acquired in the classroom to actual start-up situations. Participants teach and learn from each other, and together they share an active role in charting the direction of a new company.

The Institute supports TechStart, which was established in 2000, and helps to fund internships for Business School students, who perform market analyses, develop financial projections, formulate pricing strategies and provide other business services for aspiring entrepreneurs. Over the past years, student interns have helped numerous companies, including Velcura, which is working on technology for growing new bone tissue outside the body, and Arbor Networks, which is designing network router security equipment.

"For a lot of students, this is the first experience they have had with a real start-up," says Maynard, who manages the program. "Many come from large corporations or consulting backgrounds, so TechStart gives them the chance to see what it's like on the ground level, to work as part of a diverse team and to make a real impact on technology transfer."
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