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Jumpstarting Careers in Detroit

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Wayne State University is empowering its students to advance their learning by providing research experiences and intensive entrepreneurial training.

Jumpstarting

by Amy Oprean

In recent years, a growing number of entrepreneurial thinkers from different sectors of Detroit have united for the purpose of lifting the city out of its economic despair and into a new, more prosperous era. Just as the leaders and risk-takers behind these ventures are using bold, new approaches, Wayne State is empowering its students with fresh and creative outlets to advance themselves and the city where they live. From prepping medical school hopefuls with research experience to providing intensive business training to promising student entrepreneurs, Wayne State is helping some of its most promising students excel toward their goals that will ultimately contribute to the movement for a better Detroit.

Med student got feet wet as undergraduate researcher

Whether she was observing surgical techniques, preparing blood samples, or analyzing cognitive data, Samantha Staley's undergraduate research experience gave her an expansive understanding of the science behind medical breakthroughs – and an edge up on her med school peers.

Upon recruitment from Flushing High School in Flushing, Mich., in 2004, Staley learned she would have the opportunity to work as an undergraduate in WSU's renowned bioengineering research lab under Dr. Cynthia Bir, professor of biomedical engineering in the College of Engineering.

Staley's three and a half years of experience that followed included involvement in Bir's cutting-edge research on traumatic brain injury (TBI) caused by improvised explosive devices deployed in the Iraq and Afghanistan wars.

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Additionally, Staley assisted a Ph.D. candidate in assessing the effects of conducted electrical weapons such as Tasers. "Medical schools really took note of my research experiences during interviews, because not many undergrads get to be involved at that level," she said.

Now a student in WSU's School of Medicine, Staley said her undergraduate research continues to give her a deeper appreciation for the vital role of research in the medical field.

"Understanding research is very important for anyone going into the sciences, especially medicine, because it's research that pushes medicine forward," Staley said. "Approaching the things I see in the clinic with a research perspective is something that will build my character, build my background knowledge and help me be a better doctor."

Staley said she's interested in remaining in Detroit for her residency. "Detroit is exciting and constantly changing. I love it here."

Student entrepreneur gets ahead

Thanks in part to a Wayne State summer entrepreneurial program, mathematics graduate student David Collins is well on his way to launching a business in the alternative energy field.

Collins' company, Qisol, was one of the six winners of WSU's E2 Challenge, a program that supports WSU students in exploring the potential of their own start-up company and preparing it for outside investment. The program is funded in part by the Michigan Initiative for Innovation & Entrepreneurship and is housed at TechTown, WSU's research and technology park. The student groups that won the challenge received financial support and a summer-long mentoring program to develop their business ideas.

The idea for Qisol, which will provide meters for monitoring the performance of solar hot water heaters, began a few years back when Collins became curious about the amount of energy his own solar hot water heater produced.

The E2 Challenge helped Collins move his idea forward by educating him on marketing and corporate structure as well as providing the backing that made conversations with industry leaders possible. "The biggest benefit of the E2 Challenge was being able to say I got a grant to develop my business," he said. "Once I could say somebody else believes in me, somebody is supporting me to do this, people wanted to listen. It made me more than just some guy with an idea."

Collins now has two electrical engineers and two Web designers working for him. His second generation prototype will be installed in five locations and his product launch is set for mid-year 2010.

Launching COOL School Technologies

The E2 Challenge was also instrumental in the creation of COOL (Creative Online Opportunities for Learning) School Technologies, a company founded by three WSU instructional technology Ph.D. students.

"E2 helped us write a business plan, executive summary, plan our budget and understand important copyright issues – we had no idea how to do any of that," said Lin Zhang, COOL's multimedia specialist.

COOL is aimed at improving Detroit Public Schools' (DPS) graduation rate through online and face-to-face curriculum that facilitates emotional and social support for students.

Inspiration for the company had existed for years as an idea between founders Ashara Shepard, and Leah Robinson, friends from Detroit's Renaissance High School. "Leah and I were both born and raised in Detroit and are strongly committed to the city," said Shepard, a DPS teacher of 15 years. "We had always talked about how we'd like to see the school system improve, but it wasn't until we decided to apply for the E2 Challenge that we really sat down and developed these ideas."

The company's social media interface includes e-mail, chat, discussion forums along with cartoons that encourage students to confront problem issues. This format improves student skills in social media – another problem area for DPS students – while they address their emotional problems. "We really wanted to capture their interest," Shepard said. "Students are lectured to all the time. We wanted to try something new."

The group has completed a curriculum package and is working with several computer training companies as they further develop their product. Robinson, who is the company's CEO, said she hopes the company will bring about the change she wishes to see in DPS. "We not only want to see more DPS students finish their high school careers, but to enter the next stages of education with technological skills that are on par with their peers. COOL School Technologies is one way we can make this happen."