



Riley Csernica, a Clemson MBA student, works with her adviser, Dr. Melinda Harman, at the Clemson Biomedical Engineering Innovation campus. Csernica wants to create a company to make a shoulder brace for athletes that grew out of a class project. MYKAL MCELDOWNEY/STAFF

HOME GROWN

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Riley Csernica doesn't have a lot of spare time, and that's putting it mildly. Not only is the 21-year-old from Mount Pleasant working on her MBA at Clemson University's center for business education in downtown Greenville.

She's also working on her master's degree in bioengineering, conducting research on failed hip implants at Clemson's biomedical research center off Pelham Road.



Greg Pickett

"What you do as an entrepreneur is you try, and you fail, and you try again."

GREG PICKETT,
associate dean in charge
of Clemson at the Falls

At the same time, she's planning a new business to make shoulder braces for athletes.

So far, there's little sign of stress on Csernica's face.

She's an example of new fruit coming from Clemson's engagement with Greenville over the past 12 years.

A lot has happened since Clemson President Jim Barker came to town in July 2000 proposing a new kind of "town/gown" relationship.

Since then, Clemson has launched three major research and education centers around Greenville, where it offers various graduate degrees, the latest being an MBA in Entrepreneurship and Innovation.

Just this past Thursday, the university announced another program — its Master of Real Estate Development — that it will put in the One development downtown.

The academic programs are attracting bright young minds to Greenville — and giving them expert knowledge in automotive engineering, bioengineering and business.

Many of the students will go to work for big corporations in other cities, but others will start their own companies — or at least try to.

Chances are good they'll do it in Greenville, the city where they will find themselves when they finish their degrees.

That's especially true of students in the new MBA program downtown because it's specifically designed for would-be entrepreneurs.

Students in the program, in fact, must submit their ideas for new companies as part of the application process.

And it's hard to underestimate the impact that entrepreneurship can have on the local economy.

Firms less than five years old accounted for all net job growth in the United States between 1980 and 2005, according to the Kansas City-based Kauffman Foundation, which

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MBA student Brad Powell is working on a device that would attach to a golf cart and allow golfers to keep track of their scores and other data. MYKAL MCELDOWNEY/STAFF

GreenvilleOnline.com

GETTING STARTED

Clemson MBA students talk about the businesses they aim to start in Greenville.

GET ACQUAINTED

Go online to meet the students enrolled in Clemson's MBA in Entrepreneurship and Innovation and read about their ideas for new businesses at www.clemsonatthefalls.com/mba/mbae/

CLEMSON

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promotes entrepreneurship.

Making her own job

It wasn't always Csernica's plan to become an entrepreneur. In fact, last winter and spring she was interviewing for jobs with existing companies.

She had landed interviews, but not a job, when David Wyman, associate director of Clemson's Spiro Institute for Entrepreneurial Leadership, came to one of her classes to speak about the new MBA and becoming an entrepreneur.

"It hit me, maybe that's what I should be doing," Csernica recalled.

"I originally thought I wanted to be in industry, I want to work for this big company, and blah, blah, blah," she said.

After "thinking about it more and more, I realize that my interests and my personality align with doing my own business, doing my own startup. And, definitely, that's what I want to do for sure."

The company she envisions would make a shoulder brace that she and three other bioengineering students dreamed up as part of a senior design project.

The brace would help athletes with dislocated shoulders and be an improvement over what's available in the market now, Csernica said.

Existing braces either don't do much to keep the shoulder from popping out again, or they restrict shoulder movement so much it's hard to play sports, she said.

"So what our team has done is designed a brace that will just limit the shoulder range of motion right where it needs to be limited and still be comfortable and lightweight enough that they can slip it on under a jersey and go out and play," Csernica said.

She's gotten feedback on the design from a physical therapist, and the Clemson University Research Foundation has agreed to apply for a patent on her innovation.

But Csernica said she has to pay Clemson to license her idea because it surfaced as part of a class.

"My name is on the patent, but Clemson is the one that really owns it," she said. "So in order for me to be able to manufacture it I have to go and raise money to purchase licensing from them."

She's hoping a grant from the National Science Foundation will provide the needed funds.

Gerald Sonnenfeld, Clemson's vice president for research, said the university, as a state agency, is barred from providing free benefits to private companies such as the one Csernica plans to start.

Plus, he said, revenue generated from licensing faculty and student innovations helps cover the cost of getting patents and other work to commercialize technology.

"We just can't give things away," Sonnenfeld said. "We have to cover our expenses and that wouldn't be fair to the state if we just gave something away like that. But we do all we can to help the students."

Csernica said she plans to stay in Greenville as she develops her company "because I can tell right now that I'm building a huge networking base right here in the town of locals who could help me."

Plus, she said, Martine LaBerge, chair of Clemson's bioengineering department, is offering incubator space at the university's Biomedical Engineering Innovation Campus on the Greenville Hospital System.

"I don't know why I would leave that," Csernica said.

No reason to move

Brad Powell, another MBA student, got his idea for a new business on the golf course, where he's spent time since he was a



David Orr, together with fellow Clemson doctoral graduate Matt Gevaert, started Kiyatec Inc. in 2005. The company sells lab kits based on cell-culture technology that Orr helped invent. HEIDI HEILBRUNNSTAFF

toddler.

During a family beach trip to the Isle of Palms several years ago, Powell noticed a GPS device on a golf cart that players could use to record their scores electronically.

But it wasn't user-friendly, Powell said, so he opted to keep score with pencil and paper in the traditional manner.

The incident got him thinking, and over time he came up with an idea for his own electronic device that would attach to the steering wheel of a golf cart.

Golfers could use the device not only to record their scores, but also track other data about their performance such as fairways hit and number of putts.

With the touch of a button, users could post the data to a website, where it would be assembled into a personal profile.

"You'd be able to easily track all your stats, your scores, as well as your handicap," Powell said. He plans a smart phone app for golfers who walk while playing.

The 27-year-old Powell grew up in Rock Hill and got a business degree from The Citadel before moving to Greenville, where he worked four and a half years for a company that bought and sold bad mortgages.

He enrolled in the MBA program after the company closed its Greenville office in January.

Powell said he has no plans to leave town.

"I don't have to go to some big city to get what I want to get done," he said. "Greenville's got everything I want."

Stefan Hahn, another student in the MBA program, plans to start his business in Greenville, too.

The 26-year-old grew up in Germany and moved to Ohio when he was 12.

He has degrees in engineering and economics from Ohio State University and worked a year and a half at his father's consulting company before deciding to get an MBA.

Hahn said he was accepted at Drexel University in Philadelphia and Case Western Reserve University in Cleveland, but chose the Clemson MBA, in part, because he liked the focus on entrepreneurship.

Clemson's program is less expensive than others, he said, and takes only one calendar year. Plus, at the end he might have his own business.

His idea for a new venture is an online farmers market that would help farmers sell their goods to local restaurants and the general public for better prices than they get now.

Hahn said he sees no great advantage in leaving Greenville following graduate school.

"It's impossible for me to wrap my head around

some of these guys going to San Francisco and paying a ridiculous amount of money for a tiny apartment, trying to get their business going there, when they can do the same thing here," he said.

Generating graduates

At Clemson's International Center for Automotive Research, the six-year-old Graduate Engineering Center will have produced more than 100 graduates with master's degrees or doctorates in automotive engineering by August, said Imtiaz Haque, executive director.

He said graduates have mostly gone to work for automakers or their suppliers, including BMW, Mercedes and Tesla, but at least one current student aims to start his own company.

Bioengineering students from Clemson launched new ventures in Greenville long before the university officially opened its new biomedical research facility late last year.

For example, David Orr and Matt Gevaert started Kiyatec Inc. in 2005 after getting their doctorates.

The company sells lab kits based on cell-culture technology that Orr helped invent. It has six full-time employees at its offices on the main campus of Greenville Hospital System along Grove Road.

"We've been able to hire someone each year since 2009," Orr said. "We're proud of that fact."

LaBerge, the bioengineering department chair, said about 100 students use the new research center. While most will not start their own businesses, others will become "our entrepreneurs of the future," she said.

Vincie Albritton, deputy director of Clemson's research foundation, said three other companies in Greenville have licensed technology from the university: SensorTech, Lab 21 and NuBad.

Entrepreneur engine

The Clemson program that's bound to generate the most entrepreneurs in Greenville is the new MBA.

Like the university's other graduate business programs, it's housed at Clemson at the Falls, in the former Bowater Inc. headquarters next to Liberty Bridge downtown.

The inaugural class started in June with 17 students, but going forward Clemson plans to have 25 to 30 students per class, said Greg Pickett, an associate dean in charge of Clemson at the Falls. Tuition for the MBA program is \$28,500.

That means the new MBA program will be churning out 25 to 30 people a year focused on launching their own businesses.

Some won't succeed, perhaps most, and others will decide entrepreneurship is not for them.

But Pickett said he expects the majority of students to launch a business at some point, and he'd be satisfied with a 30 percent success rate over five years.

"What you do as an entrepreneur is you try, and you fail, and you try again," he said. "And over time, that effort hopefully produces a sustainable business, but there are certainly no guarantees."

He said the program is also valuable for those who want to work as "intrapreneurs," or innovators inside corporations.

It's not for the faint of heart.

Students are expected to work at least 60 hours per week and shoulder 15 credit hours each semester, a heavy load for graduate school.

At various times throughout the program, students are called upon to make brief, persuasive presentations of their business ideas.

Practicing such "elevator pitches" is important, Pickett said, because that's the way entrepreneurs appeal to investors



Stefan Hahn says he sees no advantage to moving elsewhere when he finishes his Clemson MBA. Hahn is developing an idea for an online farmers market. HEIDI HEILBRUNNSTAFF

for funding.

Students must participate in summer internships, and this year six are working at The Iron Yard Labs, a startup acceleration program at the Next Innovation Center downtown.

Pickett is also lining up work space for students at various locations such as CoWork, an office building on Washington Street where Web designers collocate to enhance collaboration.

In designing the new program, Clemson looked at other schools, especially three that already offered MBAs focused on entrepreneurship: the Acton School in Austin; Babson College in Wellesley, Mass.; and the Spears School of Business at Oklahoma State University, where Pickett got his doctorate in marketing.

Still, aspects of the Clemson program are unique, Pickett said.

For example, three days a week, students attend working lunches to hear local experts discuss subjects important to entrepreneurs.

One of the speakers this year is local patent attorney Doug Kim. Another is Rod Grandy, a founder of Greenville-based Azalea Capital.

Another unique feature of the program, Pickett said, is a network of

about 100 local entrepreneurs who have agreed to give at least five hours of their time coaching students.

Another novel element comes at the program's conclusion: Students go on a "road show" to three cities — Charleston, Atlanta and Greenville — where they pitch their ideas at special events and compete for \$40,000 available to fund their ventures.

One of the judges will be Greg Hillman, interim director of SC Launch, a state-sponsored program that supports startup ventures, sometimes providing cash infusions of \$200,000.

Clemson at the Falls opened in the spring of 2010 and by this fall about 400 students will be based there, more than half of them working professionals pursuing a conventional MBA, Pickett said.

The students are scheduled to move to the One development under construction in the middle of Main Street no later than the spring of 2014, he said.

Clemson will occupy 70,000 square feet in the twin-tower One and has said it's considering what other graduate programs may be a good fit for downtown.

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