Unlocking the Secrets of Science

Story by Faith Peppers
Photos by Stephanie Schupska

Looking over his long list of discoveries, one has to ask: “How does he think this stuff up?” The answer appears to be that he has born brilliance with a dash of boyish curiosity.

Discoveries at UGA

When he cloned the world’s first calf from a carcass at UGA in 2002, he named her KC after the kidney cell from which she was created. KC soon proved clones can reproduce naturally when she birthed a calf. Stice let students in his lab name the new baby Sunshine — a reference to the ‘70s pop band K.C. and the Sunshine Band.

Last year, Stice developed a product for the Department of Defense that he calls fracture putty. The gooey substance can regenerate bone, mending injuries in just 48 hours. He described it as being “kind of like Silly Putty with stem cells.”

After developing the world’s first ready supply of progenitor neural cells that can provide billions of cells in a kit for research, Stice stumbled upon an interesting idea. He could use the cell kits to make chemical weapon detectors. As he explained it, “the cells in the detection system work like a canary in a coal mine.”

Understandable science

A certain nice-guy image emanates from Stice’s seeming assumption that everyone’s mind works like his and everyone understands his science. Yet, he pays careful attention to not leave others behind in the discussion.

“I remember when the stem cell debate was first coming up in the Legislature,” recalled veteran Atlanta Journal-Constitution political reporter Jim Galloway. “Steve came down to the paper and met with us. He could explain this stuff in a way that you could really understand it, but he never treated you like there was any chance you might not.”

Too often scientists are comfortable detailing intricacies of new discoveries and then shy away from a simple statement of why it matters.

Stice, who wanted to be a veterinarian before biology captured his imagination, has always been intrigued by science but is also driven to make a difference. He thrives on innovations that do something.

Student to mentor

Stice’s latest discovery found him in a reverse role from his first big breakthrough with transgenic calves George and Charlie. Instead of being the student working with a mentoring professor, Stice was mentor to a brilliant student, Franklin West, as they produced the world’s first transgenic pigs with pluripotent cells and tissue.

What a difference a decade makes. Just over 10 years ago, the University of Georgia lured a young scientist named Steve Stice from Massachusetts to pioneer a program in animal biotechnology — an area that was mysterious to many and scary to some.

Today that start-up program is recognized around the world as a leader in cloning and stem cell technology development. Stice is seasoned in the program’s leading role, but he’s still part dreamer, constantly asking those “what if” questions that fuel innovation.

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