

Unstoppable influence: Steven Stice

Article by Charlene Betourney

Engineered by nature, and so tiny, they could fit on a single strand of hair, exosomes are powerful mediators of long-distance communication that can also deliver cargo to change the behavior of tumor and neighboring cells. For decades, scientist thought that all exosomes did was get rid of cell waste. And only until recent years, did a handful of researchers believe them to be worthy of attention. Dr. Steven Stice is one of those believers.

For almost a decade, Stice has dedicated himself almost exclusively to the development of a proprietary exosome technology for the treatment of brain injury, namely stroke and Traumatic Brain Injury and neurodegenerative disorders such as Alzheimer's and ALS.

One could say that Stice's exosomes work much like he does; they both are powerful mediators of hope and work with the same unstoppable influence.

Stice, is a D.W. Brooks Distinguished Professor in the University of Georgia's College



*D.W. Brooks Professor & GRA
Eminent Scholar Chair in Animal
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of Agricultural and Environmental Sciences, who holds a Georgia Research Alliance Eminent Scholar endowed chair, and is the founding Director of the [Regenerative Bioscience Center \(RBC\)](#). In his academic lab located in UGA's Department of Animal & Dairy Science, Stice has mentored more than 200 students and post-docs over a twenty year span. In 2005, he launched Aruna Bio, one of UGA's first Innovation Gateway startups, and currently serves as its chief scientific officer.

Stice is famous on campus for consistently delivering the "world's firsts" —such as cloning rabbits, calves, and pigs and securing the first U.S. patent on animal and

therapeutic cloning from adult animal stem cells. He facilitated the development of three human pluripotent stem cell lines first approved for NIH funded research under President Bush and led the team responsible for commercializing the first derivative cell line from human pluripotent stem cells.

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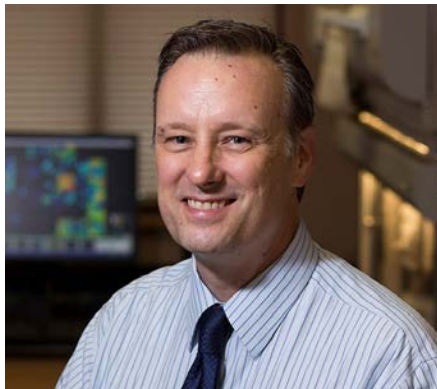
Right now, his start-up is working to be the first-to-market a new exosome treatment for stroke that has shown to reduce brain damage and accelerate the brain's natural healing tendencies, in two divergent animal species and two stroke types.

Throughout his career, Stice has played a critical role in furthering research through public policy, to advocate for science funding. Often called upon by Senator Johnny Isakson and the state government, Stice has spoken on the significance and benefits of stem cell research in multiple forums. Today, he sits on the Scientific Advisory Board for the Food and Drug Administration (FDA), and is serving on the Governing Committee of the first institute funded by the U.S. Department of Commerce (DOC); the National Institute for Innovation in Manufacturing Biopharmaceuticals (NIIMBL).

Last year, Stice was awarded the highest professional distinction accorded solely to academic inventors: Fellow status in the National Academy of Inventors (NAI). Some of his past awards include; one of 100 most Influential Georgians, the Harold W. Gegenheimer Award, University Inventor of the Year, Academic Entrepreneur of the Year, and the 2018 Innovation Award, which recognizes those who break new ground by

exploring and utilizing new technology, from Georgia Bio in recognition of his startup Aruna Bio.

But beyond all the awards and accolades for Steven Stice, the big point of differentiation between Stice's accomplishments and that of



*D.W. Brooks Professor & GRA Eminent Scholar Chair in Animal Reproductive Physiology
Steven Stice*

others in his field isn't personal gain; it is all about purpose and the needs of others. It's the kind of necessary combination of humility and effort to make creative collaborations work that Stice had in mind when he said, "I see ways in which people and projects can work together to make something better. I am not afraid to get out of my comfort zone and take a different approach." That same approach applies to the development of the RBC culture and holds true in the RBC mission statement, "Together we stand for something greater."

Stice had the idea to form the RBC long before cross-institutional, cross-disciplinary collaboration was a trend. What Stice had the vision for and created is a culture in which everyone is both a leader and a follower. With Stice, it is not about personal recognition; it's about being team pioneers in a new field.

Because of Stice's innovative thinking and focus on collaboration, the RBC has leveraged larger funding opportunities and has become a universal research community. A community that includes; MIT's Emergent Behaviors of Integrated Systems (EBICS) a partnership between 11 institutions and 25 faculty that has received over \$46 million since its inception in 2010, and the newly formed Engineering Research Center for Cell Manufacturing Technologies, dubbed [CMaT](#). A federally funded consortium based at the Georgia Institute of Technology that received \$20 million in 2018 from the National Science Foundation. Stice serves as the UGA lead in CMaT, and was recently awarded the Georgia Bio Deal of the Year Award for his work in helping to bring together the consortium.

"Partnerships of this nature-that span different universities and sectors-are critical to advancing human health around the world," said UGA President Jere W. Morehead, "I want to congratulate Dr. Stice and his team at the University of Georgia for helping to drive this important research center."

