CoEE Program Start-up Company Profile

Regenerative Medicine CoEE Start-up: Time no Longer Needed to Heal all Wounds

FirstString Research
CEO Dr. Gautam Ghatnekar
and Executive Chairman Jim McNab

Several years ago, two researchers at MUSC stumbled upon a technology that seemed to help wounds heal faster. In fact, their discovery not only speeds healing but significantly reduces and prevents scarring.

After extensive research efforts, Drs. Gautam Ghatnekar and Robert Gourdie (a senior personnel MUSC faculty member in the Regenerative Medicine CoEE), licensed the technology from MUSC and then established FirstString Research, a start-up biotechnology company.

FirstString's lead commercial product is a topical, peptide-based gel that can keep the body from scarring and promotes regeneration of damaged tissue, particularly if application is begun within 24 hours of injury. "Our technology fundamentally shifts the body's balance from healing by scarring to healing by regeneration," says Dr. Ghatnekar, President and CEO of FirstString.

"The product is so powerful," says Jim McNab, executive chairman of FirstString's board. McNab, who has been a leader in several drug discovery and medical device companies, is active within FirstString on a day-to-day basis.

This peptide-based "wound repair gel" can be used to address scarring on the skin surface. With a different formulation, such as an aerosol or liquid, the gel can tackle more serious internal scarring. Preclinical tests on all these indications have yielded an "impressive suite of data," according to McNab. "Our technology could be used for any number of injuries: heart attacks, spinal cord injuries, hip implants, stents, and age-related macular degeneration, to name a few."

FirstString's management team has successfully raised enough capital to take the company through the completion of Phase I human safety trials. Phase 2 trials are scheduled to begin toward the end of 2009 or early 2010.

The jobs the company hopes to create pay an average wage of $80,000 a year—more than three times the average salary in South Carolina. If clinical testing of the wound repair gel is successful, the company will add manufacturing and packaging facilities to its operation, which will mean more jobs and a bigger contribution toward raising the state's standard of living.

"Our hope is to keep the company in South Carolina," says McNab. "Once we begin manufacturing, we want to keep our manufacturing operation in state. Our goal is to have a large-scale plant which could create thousands of jobs."