Polyester heart?

Auburn professor making textile stent

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Polyester may be a fabric that had its heyday in the disco era, but an Auburn University researcher wants people to open their hearts to the material once again.

Sabit Adanur, a professor in AU's Department of Textile Engineering, has worked for the last two years to develop a stent made of polyester instead of metal. Just like metal stents, the polyester stent would work as an expandable tube often used to keep clogged arteries open in the heart.

The stent, which has already drawn the interest of a private California-based company, will be cheaper and more effective than those presently used in hospitals, Adanur said.

"Only textiles have this quality," he said. "Flexibility and strength." If Adanur sounds more excited than most about textiles, it's because he is. AU's College of Engineering is making moves to bring textiles into the 21st century, turning the focus away from knitted sweaters and toward spacesuits and kevlar vests. It's no secret that traditional textile operations are rapidly moving overseas, and Adanur is on the front lines in preparation for a new age of textiles.
here in the United States.

"The traditional textiles may go to the Third World countries, but the high-performance textiles will stay here," he said.

Adanur has seen rapid changes in textiles since he came over from Turkey in 1982 to pursue his Ph.D. at North Carolina State University. As a graduate student, he was working to improve weaving machines commonly used to make clothing. Now Adanur is focused on high tech projects like improving fuel cell technology to power cars with hydrogen and oxygen.

Of course, all of these grand plans take money to get off the ground. Adanur's stent project is one of many funded through the National Textile Center, which may get as much as $13 million in federal funds next year for research. The Senate Appropriations Committee approved the $13 million Thursday, but the funding still must be approved in the House-Senate Conference Committee which could arrive at a different figure.

"It's like making sausage, you never know what's going to come out of conference," said Peter Schwartz, head of AU's Textile Engineering program.

Once the funds are approved, the NTC's operating board decides which projects will be funded among the eight universities that comprise the center. Adanur will have to show sufficient progress in order to be funded for the final year of what is expected to be a three-year project. In the third year, Adanur expects the stent to be tested in animals and he hopes to see it licensed for commercialization in the future.