

Consider the center's help in redeveloping the state's infrastructure with what some would consider a part of history.

In an effort to address the problem of the state's crumbling infrastructure, where as many as 60 percent of Oklahoma's rural bridges are reported to be in need of immediate replacement at a time when local resources are stretched to the limit, wooden bridges are making a comeback thanks in part to OCAST.

Steve Anderson, Ph.D. and an Oklahoma State University Extension Forester, thinks he has a solution to the rural bridge problem, made possible in large part by a two-year \$172,000 award from OCAST to demonstrate how timber bridges can be used to replace old concrete structures rendered useless by age.

The OCAST award, as required, was matched by support from sources other than state government.

"Thanks to new technology, timber bridges can be constructed that cost 25 to 30 percent less than concrete structures," said Anderson. The wooden bridges have a higher tonnage capacity, are less susceptible to corrosion and can be repaired by county workers with existing equipment.

Researchers used Oklahoma-grown pine, cottonwood and oak trees to produce test timbers for the innovative approach to a unique but widespread problem. Scientific

expertise available from OSU, coupled with the private sector know-how of Timber King, Inc., of Seminole, will produce the low cost answer to the problem.

In a completely different arena, patients across the country and physicians around the world are calling Oklahoma to schedule treatment for a congenital heart defect known as supraventricular tachycardia.

What these people are calling about is a new heart treatment known as radio frequency catheter ablation, and the person they're calling is Dr. Warren Jackman, an Oklahoma physician who developed the new procedure.

The treatment is considered an innovative, safe and reliable method for correcting the defect. One form of arrhythmia (tachycardia) is caused by an extra and unneeded muscle strand in the heart. Acting as a conductor, the extra strand allows electrical impulses generated by the heart to continue irregularly rather than be extinguished as they are in normal heart function. Dr. Jackman uses a radio frequency catheter procedure to locate and ablate (evaporate) a small section of the muscle strand, permanently stopping the unwanted conduction of electrical impulses.

Prior to Dr. Jackman's development, patients normally underwent lifelong and only partially successful drug therapy heart surgery. The catheter treatment corrects the problem while eliminating long hospital

stays, extended recovery periods, risks and significant costs associated with heart surgery. Patients treated by Dr. Jackman and his team are generally released from the hospital 48 hours after the procedure and can immediately return to normal activities. There is virtually no pain during or after the treatment.

Research and initial evaluation procedures undertaken by Dr. Jackman were made possible by a three-year Oklahoma Health Research Program award from OCAST. This \$90,000 investment is now generating approximately \$2 million in procedure fee income per year for Oklahoma Memorial Hospital, 80 percent of which comes from out-of-state patients.

There are many other projects to which the Oklahoma Center for Science and Technology has lent a hand and helped to generate success. In a few short years and through its wide variety of specifically targeted programs, however, the center has produced both numbers and stories of significant success all in the course of pursuing its objective of building the state's infrastructure of expertise and equipment to conduct nationally competitive research and development and to stimulate Oklahoma firms apply and producing technology.

THAT'S GOOD FOR OKLAHOMA!!