

the *brilliance* of business

Here are 10 Arizona companies using imagination to create innovation

ADVANCED AESTHETIC ASSOCIATES

Dr. Pablo Prichard of Advanced Aesthetic Associates in Phoenix has used three-dimensional printers to create replicas of a patient's face in order to improve surgical planning. This new method of precision and accuracy cuts the surgical time significantly. "Three-dimensional printers definitely improve the process," says Prichard. Prichard began using three-dimensional technology approximately three years ago to help guide and improve cosmetic and facial surgeries he performs. The printers offer precise dimensions and accurate, customized molds that make the surgical process much more effective, Prichard says.

BANNER HEALTH

Dr. Mark Smith, senior director of simulation and innovation for Banner Health, is a medical innovator who has pioneered medical advancements, including robotic surgery and medical simulation. Under Smith's leadership, Banner Health opened the nation's largest medical simulation hospital in 2009 – a 55-bed facility specifically for training on high-tech mannequins. Wired to computers, these mannequins breathe, bleed and have heart attacks – just for training. The impact of Smith's work is enormous. Each year, thousands of nurses are trained in the Banner Simulation Medical Center. The center has resulted in fewer medical errors and reduced infection rates across the Banner Health system.

BANNER SUN HEALTH RESEARCH INSTITUTE

Dr. Mohammed Gabala, senior scientist at the Banner Sun Health Research Institute, focuses on the potential of gene and adult stem cell therapy and the mechanisms of remodeling in heart failure. Basically, Gabala is using stem cells to fix a broken heart. Gabala and his team are currently working with adult stem cells derived from cardiac muscle as a potential remedy for cardiac repair after heart attack. Gabala, who is in the process of launching the first Phase I clinical trial, hopes his cutting edge research will lead to a permanent cure for heart failure caused by myocardial infarction.

FENNEMORE CRAIG

Fennemore Craig personal injury attorneys James Goodnow and Marc Lamber have used technology to change the way lawyers interact with clients. The lawyers provide their clients with iPads preloaded with an array of apps tailored to the clients' cases; have utilized Google Glass to create new mechanisms to convey evidence to juries, judges and mediators; and have pioneered the use of augmented reality – similar to a three-dimensional holographic image – to help experts bring concepts to life and to bring the scene to a virtual reality during presentations.

FIRSTBANK

A local bank used humor to promote its expanding home loan business. FirstBank, which operates 15 branches in the Metro Phoenix area, put up a billboard within a mile of University of Phoenix Stadium – where the New England Patriots played the Seattle Seahawks in the Super Bowl on Feb. 1 – with the following message: "Deflate mortgages, not footballs." FirstBank has a history of jumping on news-making events – like "Deflategate" – and has used it as a successful marketing strategy.

KEYSER

Phone apps have made our lives easier. What's the song that's playing on the radio? There's an app for that. Want to find a place for dinner? There's an app for that. Trying to figure out how much office space you will need? Now, there's an app for that, too. After almost a year in the making, Keyser introduced its free app, Keyser Office Space Calculator. Its simple interface provides users with the ability to calculate how much office space they need. The typical process of estimating office space involves brokers and architects, but Keyser takes the tools and puts it directly into the user's hands.

TECH TIME: Fennemore Craig personal injury attorneys James Goodnow and Marc Lamber have been widely recognized for their use of technology. The ABA Journal named the attorneys to its list of "America's Techiest Lawyers."

PHOTO BY SHAVON ROSE, AZ BIG MEDIA