

SciTECH IDEAS IN ACTION

Dr. Eric Tomlinson-September 19, 2013



This year the Forsyth Tech *SciTech Lecture Series* began with Dr. Eric Tomlinson, the Chief Innovation Officer at Wake Forest Baptist Medical Center and President of Wake Forest University's Innovation Quarter. Dr. Tomlinson shared with the 86 audience members the plans for development and current innovation occurring in downtown Winston-Salem, NC. First, he defined innovation simply as the products that result from inventions. The smartphone, for example, is a culmination of technology from many inventions into a single product. The Innovation Quarter is a community actively collaborating with others from around the world and nation to develop innovations as diverse as medical devices, protein drugs, performance beverages and even mobile apps.

Dr. Tomlinson spoke about the "body on a chip" which is funded by the Department of Defense and being developed at the Wake Forest Institute for Regenerative Medicine. This innovation uses a modified 3-D printer to generate human tissue on a microchip. The application allows researchers to test drugs and other products, including vaccines, on real human tissue to observe its reaction to various treatments. This is both quicker and less expensive than using animal models for testing.

He also described the newest company emerging from Innovation Quarter. CAUSA is a software solution to assist in monitoring patient adherence in the form of a mobile app. Steven R. Feldman, MD, Ph.D. has developed this new product that allows physicians to monitor their patients' adherence to medical protocol or a drug regimen utilizing a smartphone.



The remainder of the lecture was about the development of downtown Winston-Salem which includes several buildings that were once part of the RJ Reynolds Tobacco Company. According to Tomlinson, "Innovation Quarter is the fastest developing research park in the United States". The aim is to create an innovative community perceived as the best place to live, learn, work and recreate. Dr. Tomlinson told about dilapidated and deserted buildings being refurbished into modern high-tech buildings with walls and roofs of glass that take advantage of natural light to create open, buoyant environments. A "green space" called Bailey Park, named for the historic Bailey Power Plant located across the street, includes a yoga circle, wildflower trail and is used as the venue for movies for the community complete with food trucks and even plans for Oktoberfest celebrations. The old Norfolk Southern railroad tracks will be maintained, so that if railroad transportation ever makes a comeback in Winston-Salem the tracks will already be in place. Alongside the tracks will be a pathway that covers about 25 miles and loops south all the way to Salem Creek and back.

The goal is to develop a culture of intellectual activity that will be home to researchers in several disciplines and workforce training.

By the end of 2014, an estimated 2800 workers will occupy more than one million square feet of world class R & D facilities that will be home to 50 companies and academic departments. As stated by Dr. Tomlinson, innovation brings inventions from many disciplines together to form products that improve or enhance the consumer's quality of life. Video Link: http://video.forsythtech.edu/techtube/view_video.php?v=G3R1M9WNSA6B

