

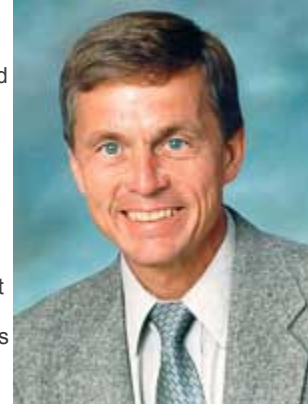


## McGowan Institute for Regenerative Medicine

*A program of the University of Pittsburgh and UPMC*

# Dr. Stephen Badylak Named 2008 Inventor of the Year!

The McGowan Institute for Regenerative Medicine Deputy Director Stephen Badylak, DVM, PhD, MD, Professor, Department of Surgery, University of Pittsburgh, was recently recognized by the Pittsburgh Intellectual Property Law Association as its 2008 Inventor of the Year. The Inventor of the Year Award is awarded annually to recognize inventors whose patented inventions have a significant impact on the economy, the social well being, and the advancement of technology. Dr. Badylak received a plaque recognizing his accomplishments at a recent dinner meeting of the Association in downtown Pittsburgh.



Dr. Badylak's intellectual property portfolio is primarily based on his identification that a strong yet pliable tissue harvested from porcine small intestine provides an inductive scaffold for host cells to replace and constructively remodel damaged or missing tissue. This biomaterial is called small intestinal submucosa, or SIS, and it is a naturally-occurring, complex matrix that is easy to handle, yet strong enough to hold sutures and provide support for weakened tissue.

As a naturally-derived extracellular matrix (ECM) material, SIS is composed of structural and functional molecules maintained in their native 3-dimensional ultrastructure. SIS is not chemically cross-linked. Since SIS is taken from a biological source and is processed to remove all cells, it is biocompatible and safe for human use. It is sterilized to eliminate pathogens and has a shelf life measured in years instead of months.

More than 60 separate medical device products are now commercially available as a result of this patent portfolio. These products provide therapeutic value in many medical fields including topical wound care, lower urinary tract reconstruction, cardiovascular tissue repair and reconstruction, central nervous system repair and reconstruction, gastrointestinal tract remodeling, and the treatment of endocrine diseases such as Type I diabetes. More than 1.5 million patients worldwide have been helped by this technology, clearly making it the most successful and widely utilized tissue engineered material that has ever reached clinical practice.

In terms of his continuing commitment, more exciting results are emerging from the Badylak laboratories. Using ECM technologies, Dr. Badylak will soon be ready to launch a clinical trial for the repair of esophageal tissue. Typically, corrective action is required to repair the esophagus when damaged by cancer or traumatic injury. Currently, the only means to address esophageal repair is to remove the damaged section of the esophagus and then pull the stomach up so that the shortened esophagus can be reconnected. In the procedure, a section of the Badylak-derived ECM material replaces the damaged section of the esophagus. In preclinical trials, the replacement section translates to esophageal-like tissue within several months. Thus, in the near future, Dr. Badylak will be able to help patients who need esophageal repair. His technology will be able to alter the normal course of care in a field of medicine where the current "solution" means a significantly reduced quality of life.

Dr. Badylak's success story is not only about innovative science. It is also about a researcher with a sincere commitment to translate scientific results into commercial practice. Over 1.5 million patients are thankful for his innovation and creativity.

Congratulations, Dr. Badylak!

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