

DiFusion Announces Data for ZFUZE Immuno-Stealth Surgical Polymer

Leading Expert on Regenerative Medicine Debates Immune Response of PEEK and ZFUZE

DiFusion Technologies, Inc. today announced promising data for the company's ZFUZE Immuno-Stealth Surgical Polymer. The data and the importance of the immune system response in new technologies such as ZFUZE were debated at the Castellvi Spine Symposium in Key West in April.

The immune system plays a vital role in tissue healing, but only recently have experts come to understand the importance of the immune system in normal tissue/organ development, remodeling following injury, and regeneration and how important it is to consider the immune response in the design and development of implantable medical materials and devices.

Stephen Badylak, DVM, MD, PhD, Deputy Director of the McGowan Institute for Regenerative Medicine, is among the foremost experts the immune response to biomaterials. He discussed data related to ZFUZE at the Castellvi Spine meeting. "Imagine having two materials and making identical devices in terms of the mechanical properties, such as pore size, but one material (PEEK) promotes a prolonged inflammatory response and the other material (ZFUZE) promotes a pro-healing remodeling response," said Dr. Badylak. "We have tested over 300 different biomaterials with respect to the type of macrophage response that is elicited and have never seen immunomodulation like we have for ZFUZE in anything other than a naturally occurring molecule."

"Dr. Badylak's presentation at the Castellvi Spine meeting was a wake-up call to the industry. For many years orthopedic OEMs have borrowed materials like titanium and PEEK from the aerospace industry, based on strength or surface topography. He showed us an entirely new way of looking at the host response to medical implants," said Stephen Hochschuler, MD, Founder and CEO, Texas Back Institute. "Companies should be looking to material biocompatibility first and foremost when selecting future biomaterials."

“Host rejection of medical implants is a major concern across virtually every sector of medicine. The results we have gleaned via Dr. Badylak’s work not only have major implications in orthopedics but in regenerative medicine as a whole,” said Derrick Johns, Founder and CEO of DiFusion Technologies. “Achieving this milestone has really brought DiFusion into the forefront of biomaterial research.”

Additional information about ZFUZE will be presented during the “Industry Implant Architecture Smack Down” led by Peter Whang, MD, FACS, Associate Professor of Orthopedics and Rehabilitation, Yale School of Medicine. This will take place during the State of Spine Surgery Think Tank meeting June 27–29, 2019 in Aruba.

About DiFusion

Founded in 2008 in Austin, Texas, DiFusion Technologies, Inc. is a life sciences company focused on developing a suite of patented orthobiologic polymeric implants. For more information ZFUZE Science and Engineering or www.difusiontech.com.

View source version on businesswire.com: <https://www.businesswire.com/news/home/20190503005086/en/>

<https://www.bioportfolio.com/news/article/3974601/DiFusion-Announces-Data-for-ZFUZE-Immuno-Stealth-Surgical-Polymer.html>