



Aligning Science Life

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Fast Facts

Founders:	Jed Johnson, John Lannutti
Date Founded:	2009
Employees:	3
Headquarters:	Columbus, OH
Revenue:	N/A
University:	Ohio State University
Federal Funding Agency:	National Science Foundation
Initial Research Funding:	\$76,380

Nanofiber Solutions™ is an engineering and manufacturing firm that produces revolutionary 3D scaffolds that are changing the paradigm of how life science researchers and developers look at cell culture, cell-based therapy, regenerative medicine, and tissue engineered artificial tissues. Nanofiber Solutions' novel platform technology provides researchers with more biologically realistic 3-dimensional *in vivo* cell culture environment.

The Story Behind the Company

In 2006, Jed Johnson, an Ohio State graduate student in materials science and engineering, was studying the properties of metals, plastics, glass and other materials. He had an interest in generating a tissue engineering toolbox containing electrospun topographies that could provide novel, beneficial control of the growth and proliferation of mammalian cells. He believed the technique of electrospinning could play a central role in medicine.

Researchers at Ohio State's James Cancer Hospital and Solove Research Institute were looking for a medium that mimicked the structure of white matter in the brain in order to better predict the migratory behaviors of malignant tumor cells. Johnson, working under faculty adviser John Lannutti (Nanofiber's co-founder), developed a process to create molecule-sized nanofibers capable of producing a more natural, three-dimensional environment to study cancer cells outside the brain and test potential drugs for treating the disease.

Johnson went on to design and build the nanofiber tracheal scaffold, the first U.S.-made synthetic trachea created from nanofibers to be successfully transplanted into a human.

Nanofiber Solutions™ was founded by Lannutti and Johnson as an extension of Johnson's doctoral research at The Ohio State University. His research was supported by the National Science Foundation.