



Healionics Awarded \$1.5M SBIR Grant from NIH to Advance Clot-Resistant Synthetic Vascular Graft for Dialysis Patients

Seattle, WA (December 1, 2015) — Healionics Corporation, a Seattle-based medical device company, was awarded a \$1.5M Phase II Small Business Innovation Research (SBIR) grant from the National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK) of the National Institutes of Health (NIH) to develop new vascular grafts for dialysis use that overcome the major problem of clotting failure. Andrew Marshall, Ph.D., Healionics' Chief Technology Officer, is the Principal Investigator for the 3-Year project.

The award, titled "Biointegrating Dialysis Access Graft with Self-Stabilizing Flow," provides funding to continue development of STARgraft™, a new synthetic vascular graft addressing the primary cause of failure that currently limits usage of dialysis access grafts.

In the United States, More than 400,000 End Stage Renal Disease (ESRD) patients – those with irreversible kidney failure – rely on thrice-weekly hemodialysis treatment to survive. Maintenance of a reliable vascular access site for these patients is challenging and options for access methods are limited.

The current prevailing access method of joining an artery to a vein (AV fistula) is problematic because these fistulas require at least several months to mature, and only about half of all fistulas created ever become usable. The alternative long-term access option of synthetic graft is often avoided due to high rate of clotting. Thus many patients require temporary infection-prone catheters with high mortality risk for many months while waiting for a functional fistula to develop.

Due mainly to the high rate of complications associated with current access methods, the cost of caring for ESRD patients exceeds \$45 billion per year in the United States, accounting for more than 6% of the total Medicare budget.

"If our promising STARgraft preclinical results can be successfully translated to clinical use, it would solve the problem of progressive neointimal hyperplasia (tissue growth inside the graft) that tends to cause rapid clotting of synthetic grafts," says Dr. Marshall. "This would satisfy the enormous unmet need for a ready-for-use, safe, and long-term reliable method to access the bloodstream for hemodialysis patients."

About Healionics Corporation

Healionics develops and manufactures STAR® Biomaterials for implanted medical devices. The precisely controlled pore structure of the innovative STAR technology induces a favorable integrated healing response, overcoming fibrotic reactions and infection issues to enhance medical device performance and longevity. www.healionics.com

About the National Institutes of Health (NIH): NIH, the nation's medical research agency, includes 27 Institutes and Centers and is a component of the U.S. Department of Health and Human Services. For more information about NIH and its programs, visit www.nih.gov.

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