

Neofluidics Awarded NIH Grant to Develop Microfluidic Zebrafish Screening Device

SAN DIEGO, California-October 30, 2017-Neofluidics, LLC, a microfluidics biotechnology company, announced today that it had been awarded a Phase I Small Business Innovation Research (SBIR) grant from the NIH to develop a medium throughput microfluidic device for disease modeling and drug screening studies using zebrafish embryos/larvae.

With more and more companies embracing the 3R guidelines of refinement, reduction and replacement of animal studies, zebrafish is fast becoming the animal “supermodel” of choice for drug screening and toxicity testing. Zebrafish have multiorgan, transparent embryos making it easy to observe impacts of chemicals or xenotransplantation. Their genomes have 70% homology to the human genome making them cost-effective model organisms for many different human diseases. However, current tools for zebrafish screening are complex, and time- and labor-intensive.

The \$175,000 grant will fund the development of a device that will use Neofluidics’ proprietary platform technology to load, align and manipulate zebrafish embryos in an automated or manual fashion. The project will streamline zebrafish based screening, allowing for consistent loading, dechoriation, culture, and straightforward imaging of the zebrafish embryos without the need for agar or anesthesia. One version of the device will also allow for behavioral studies to be performed in which individual larvae could be tracked after treatments with perfused gases or chemicals.

“Our devices will be easy to use and require miniscule amounts of the chemicals which are usually the limiting factor during the candidate drug screening stage,” said Dr. Nilesh Gupta, Neofluidics’ CSO and Principal Investigator on the project. “Using zebrafish in drug discovery could eliminate failing drug candidates at an earlier stage and save pharmaceutical companies a lot of money. Our devices will enable more zebrafish studies to be conducted.”

Neofluidics was also awarded a Phase I SBIR grant from the NSF in 2016 to develop a device for 3D cell culture with their platform technology.

About Neofluidics, LLC

Neofluidics develops next-generation tools and technology for enhanced microfluidics. Our engineering-driven products add unprecedented convenience and efficiency to workflows, significantly reducing the costs of testing, measurement, and analysis.

For more information, please visit www.neofluidics.com