Kinetic River Corp. is selected by UC Davis to collaborate on NSF research grant

KRC to develop custom microfluidic module to support UC Davis research on label-free flow cytometry

Mountain View, Calif., USA, March 5, 2019 — Kinetic River Corp., a leader in custom flow cytometry instrumentation, announced today that it has been selected by the University of California, Davis, as a subcontractor on a National Science Foundation research grant. Prof. James Chan, the Principal Investigator on the NSF grant, is leading the effort at UC Davis to develop a label-free approach to identify stem-cell-derived cardiomyocytes (SC-CMs).

SC-CMs are laboratory-grown heart cells that can be potentially used to treat patients with heart disease or heart failure, and to screen drug candidates for toxicity. For maximum effectiveness, samples containing SC-CMs must be purified by removing the undesired cell types; however, no current purification technique is sufficiently reliable. Prof. Chan's project involves the development of a label-free optical technique to accurately and efficiently identify SC-CMs in flow. The instrument being developed would ultimately enable purification without the use of fluorescent labels.

Prof. Chan chose Kinetic River as collaborators on this project thanks to the company's track record in developing microfluidic modules, optical interrogation subsystems, and custom flow cytometers. Kinetic River will support this project by designing and building a custom microfluidic control module for the cell analyzer, and by assisting with optical interrogation architecture and design.

"Collaborating with Prof. Chan at UC Davis is a perfect fit for us," said Giacomo Vacca, Ph.D., president of Kinetic River. "We have long recognized our common interests in using advanced optical techniques to unlock new capabilities in cell analysis. Working together on this project will give us the opportunity to extend our impact and support an ambitious research program with great clinical potential."

Prof. Chan stated, "This project will benefit significantly from Dr. Vacca's expertise and knowledge in flow cytometry and single cell analysis. In addition, I look forward to learning from Dr. Vacca's experience in business development and product commercialization, which is aligned with the project's goal of evaluating the commercial potential of NSF-funded research."

About Kinetic River

Kinetic River Corp. is a biophotonics design and product development company specializing in flow cytometry. Based in California's Silicon Valley, Kinetic River offers cutting-edge flow cytometry instrumentation solutions, including the *Potomac* modular flow cytometer and the *Danube*, a fluorescence lifetime flow cytometer. Kinetic River also provides a range of expert witness services, training seminars, and technical consulting services to clients worldwide. For more information, visit KineticRiver.com.

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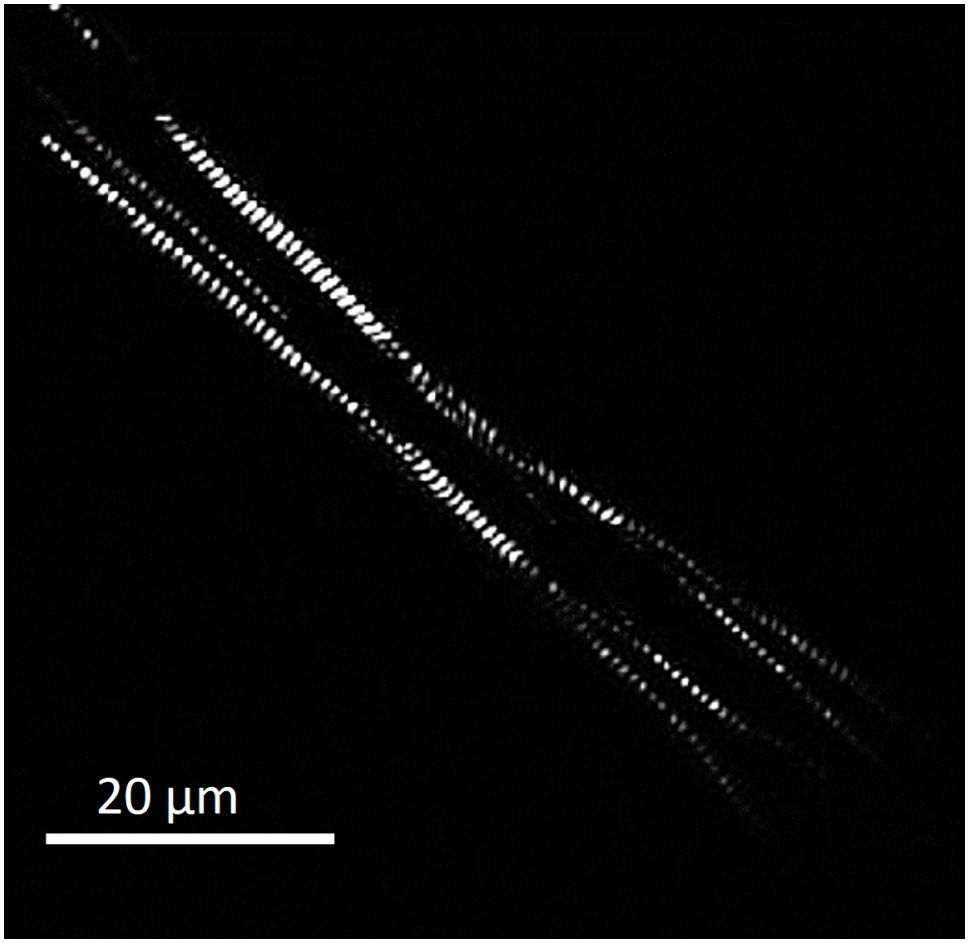

In this microscopy image, myosin bundles (individual white spots) in a stem-cell-derived cardiomyocyte stand out against the background due to their intrinsic, label-free second-harmonic generation (SHG) signal. Courtesy James Chan / UC Davis.