



**Kinetic River Corp. receives Phase II SBIR grant  
from the National Institutes of Health**

*2-Year Grant Supports Continued Development  
of a Compensation-Free Flow Cytometer*

**Mountain View, Calif., USA, April 30, 2019** – Kinetic River Corp., a leader in custom flow cytometry instrumentation, announced today having been granted a Phase II Small Business Innovation Research (SBIR) grant from the National Institutes of Health (NIH). The 2-year Phase II grant was issued to Kinetic River by the National Institute of General Medical Sciences (NIGMS), an NIH institute fostering extramural research focused on development of innovative biomedical diagnostic and therapeutic platforms. Following the successful completion of the Phase I feasibility project, also funded by NIGMS, this grant will support continued design, engineering, and validation efforts toward commercialization of Kinetic River's "Arno" cell-analysis technology.

The main goal of the Phase II project is to deliver a compensation-free, 14-parameter flow cytometer for use in biomedical research and in pharmaceutical research and discovery. The approach, protected by issued and pending US and international patents, uses time-resolved fluorescence signatures to add a new dimension of discrimination to cell labeling, enabling a significant reduction in cross-channel spectral contamination. Eliminating the need to compensate for spectral spillover will greatly increase ease-of-use compared to conventional flow cytometers. The approach also reduces the number of lasers and detectors needed for a given number of fluorescence detection channels (only 2 lasers and 6 detectors needed for 12 fluorescence channels). Significantly, the Arno technology uses standard fluorophores and established flow cytometry workflows and is also compatible with sorting.

"After our success in Phase I, we knew we had something worth developing further," said Giacomo Vacca, Ph.D., president of Kinetic River. "Since then, we have continued to devote our own resources to this line of research because we believe it has game-changing potential. With NIGMS's approval to move forward into Phase II, we have now embarked on a longer arc of planning and development aimed at reducing all remaining technical risks and putting us on the path to product launch. We are very gratified by the vote of confidence this represents. With the financial support this grant provides, we are now going full steam ahead."

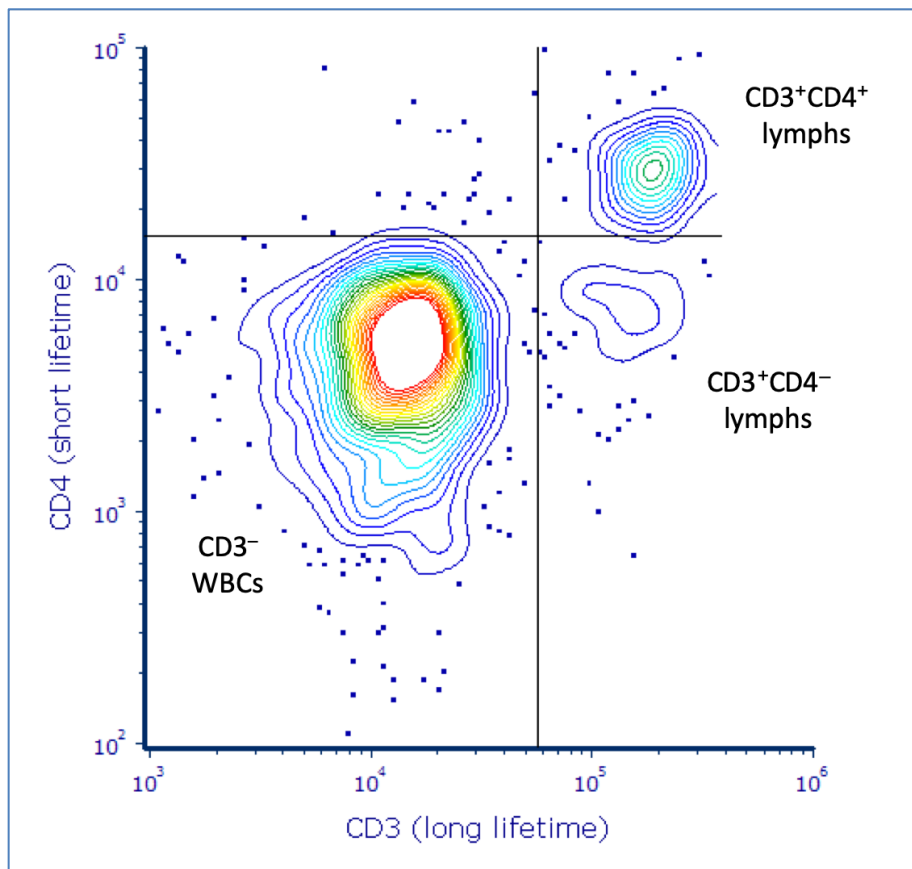
The compensation-free 14-parameter analyzer under development ("No-Comp"), aimed at the broadest segment of flow cytometry users, will be the first of several products planned for the Arno technology platform. We anticipate expanding the Arno platform by following this with a highly multiplexed flow cytometer ("Hi-Mux"). The Hi-Mux offering, aimed at immunophenotyping applications, will provide users with 25+ detection parameters while employing only 3 lasers and 14 detectors.

## About Kinetic River

Kinetic River Corp. is a biophotonics design and product development company specializing in life science research and biomedical applications. 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 expert witness services, technical consulting services, and training seminars to clients worldwide. For more information, visit [KineticRiver.com](http://KineticRiver.com).

**Contact:** Giacomo Vacca, President, Kinetic River Corp.; (650) 439-7413; [info@KineticRiver.com](mailto:info@KineticRiver.com)

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Data from lyophilized white blood cells (WBCs) obtained on the *Arno* platform. The signals corresponding to CD3 and CD4 expression in lymphocytes were collected simultaneously by a single detector, and are easily discriminated solely based on the lifetimes of the respective fluorophores despite their completely overlapping emission spectra. Copyright © 2019 Kinetic River Corp.