

October 22, 2013

Journal of Visualized Experiments  
One Alewife Center, Suite 200  
Cambridge, MA 02140

Dear JoVE Editors,

We are seeking to publish "Prototype Point-of-Care Blood Diagnostic Assembly with a Flow Cytometry Design for In-Flight Reduced-Gravity Environment Demonstration" in the Journal of Visualized Experiments (JoVE). The work is ideal for publication in JoVE's unique multimedia format because the use of accompanying video will significantly enhance information expressed in the manuscript. We believe this paper will be an asset to other researchers trying to approach reduced-gravity blood diagnostic testing.

William S. Phipps designed the in-flight experimental workflows to operate described demonstrations in flight, performed all described demonstration setup procedures required directly on the described test rig, optimized standard operating procedures for demonstrations in-flight, fabricated microfluidic chips using PDMS method, helped operate in-flight experiments, and wrote the paper and supporting documents. Zhizhong Yin programmed control/acquisition software, implemented electronics, fabricated SU-8 molds for chip fabrication, and contributed to reports that provided a basis for writing this paper. Candice Bae performed all demonstration setup procedures performed away from the described test rig (sample preparation), managed all shipments and orders, provided ground support during demonstrations, and contributed to reports that provided a basis for writing this paper. Julia Z. Sharpe, Andrew M. Bishara, and Eugene Y. Chan performed all other necessary design and engineering. Eugene Y Chan also conceived the described prototype and desired demonstrations, contributed to electronics design and implementation, helped perform in-flight demonstrations, and contributed to reports providing a basis for this paper. Emily S. Nelson and Aaron Weaver participated in pre-flight prep, in-flight testing, and data review. Daniel Brown performed pre-flight system analysis to ensure flight-readiness. Terri L. McKay worked on aspects of the micromixing. DeVon Griffin assisted with programmatic aspects of the flight.

JoVE editor Nandita Singh has assisted us in the submission process. We recommend the following 6 peer reviewers based on their work performed in the reduced-gravity environment:

- (1) Paul Yager (U. of Washington, Dept. of Bioengineering, [yagerp@uw.edu](mailto:yagerp@uw.edu))
- (2) Robert J. Ferl (U. of Florida, Horticultural Sciences Department, [robferl@ufl.edu](mailto:robferl@ufl.edu))
- (3) Timothy J. Broderick (U. of Cincinnati, [andrew.kirkpatrick@calgaryhealthregion.ca](mailto:andrew.kirkpatrick@calgaryhealthregion.ca))
- (4) Oliver Ullrich (University Zurich, Institute of Anatomy, [oliver.ullrich@anatom.uzh.ch](mailto:oliver.ullrich@anatom.uzh.ch))
- (5) Peter Norsk (NASA Human Research Program, [peter.norsk@nasa.gov](mailto:peter.norsk@nasa.gov))
- (6) Jeffrey S. Taube (Dartmouth College, Psychological & Brain Sciences, [jeffrey.taube@dartmouth.edu](mailto:jeffrey.taube@dartmouth.edu))

Thank you.

Sincerely,



Eugene Y. Chan, MD  
President  
DNA Medicine Institute  
[echan@dnamedinstitute.com](mailto:echan@dnamedinstitute.com)