

Label	Value
<b>Core Facility Name</b>	Flow Cytometry and Immune Monitoring Core
<b>Last Name</b>	Nauroth
<b>First Name</b>	Julie
<b>Email</b>	<a href="mailto:jnaurot1@jhmi.edu">jnaurot1@jhmi.edu</a>
<b>Phone</b>	443-287-3952
<b>Amount of Funding Requested</b>	\$25,000
<b>Briefly describe the core services you offer:</b>	<p>The Flow Cytometry and Immune Monitoring Core provides state-of-the-art immune monitoring services to clinical and basic investigators. Cytometry services range from 2 color analyses, to complex cell sorting experiments involving up to 13 colors, as well as training, data analysis and consultation services. Immune services include multiplex cytokine analysis and ELISPOT/FLUOROSPOT assays. The Core continues to expand its abilities to offer the latest immune monitoring technologies to study immune cells with the goal of better understanding immune mechanisms and the development of new therapies. To better meet the needs of investigators, the Core has recently acquired two new instruments with enhanced capabilities, a BD Influx cell sorter and an iSPOT Spectrum. The BD Influx is a high-end 13-color sorter that allows 6-way population sorting to maximize efficiency as well as single-cell sorting into 96-well plates. The iSPOT Spectrum is the newest generation of ELISPOT/FLUOROSPOT readers that has enhanced sensitivity and data analysis capabilities. This instrument is optimized for dual and triple color fluorescent detection and allows the simultaneous measurement of 2 to 3 cytokines/biomarkers at a single cell level. These instruments significantly improve the ability to functionally characterize immune cells clinical studies and preclinical/basic research.</p>
<b>What specific services do you plan to offer as part of this RFA?</b>	<p>This award would enable the Core to give users access to state-of-the-art services to obtain preliminary data for studies that are not yet funded. Applications from junior faculty without current funding will be given priority. Awards can range from \$1000 to 5000, dependent on experimental needs described in application. An award of approximately \$1000 per investigator would provide approximately five hours of cell sorting on the BD Influx or one FLUOROSPOT assay. The current costs to utilize the BD Influx cell sorter and to conduct a two color FLUOROSPOT assay for Cancer Center and non-Cancer Center members are listed below.</p> <p>Cancer Center Member Non-Cancer Center Member  BD Influx \$158 per hour \$205 per hour  FLUOROSPOT \$832 per assay \$1088 per assay</p>
<b>How do these services address the goals of the pilot program?</b>	<p>This award would enable the Core to give users access to state-of-the-art services to obtain preliminary data for studies that are not yet funded. Applications from junior faculty without current funding will be given priority. The higher service charges of these specialized instruments may not allow researchers to utilize them for non-funded or early stage research. Using the BD Influx, human or animal cells can be simultaneously labeled with up to 13 colors and six separate cell populations can be isolated in a sterile manner for further analyses, which would maximize the data generated from limited samples. The iSPOT Spectrum can simultaneously detect up to three cytokines/biomarkers from antigen-stimulated human or mouse cells improving the ability to characterize these cells. Improved</p>

	<p>sensitivity and higher resolution images, as well as the ability to overlay images to demonstrate co-localization of fluorescent signals would strengthen a grant application. The Core will benefit from interactions with researchers, some of who may not have used the Core previously.</p>
<p><b>How would you select recipients to receive core services? Please describe the process and criteria you might use.</b></p>	<p>Applicants will be asked to submit a one page proposal describing their research question, rationale, proposed experimental plan and justification for the amount requested and the need for BD Influx or FLUOROSPOT Services. One proposal will be allowed per investigator. The Core’s steering committee will review applications at their next meeting to determine award recipients. For example, Dr. Eric Lutz, an Associate Professor, Oncology has access to a large number of clinical samples from patients with pancreatic cancer that he has been studying collaboratively with Dr. Elizabeth Jaffee. Receipt of a Core award may enable Dr. Lutz to utilize these valuable clinical samples to address other research questions of interest. Using state-of-the-art technology and Core staff expertise, assays such as dual or triple color FLUROSPOT would maximize the data obtained from samples with limited cell number and may provide preliminary data that could strengthen a grant application for Dr. Lutz.</p>
<p><b>How do you plan to allocate the amounts available to individual investigators?</b></p>	<p>This award would enable the Core to give users access to state-of-the-art services to obtain preliminary data for studies that are not yet funded. Applications from junior faculty without current funding will be given priority. An award of approximately \$1000 per investigator would provide approximately five hours of cell sorting on the BD Influx or one FLUOROSPOT assay. The award is specifically for BD Influx or FLUOROSPOT services in the Core and is non-transferable. Start and end dates of the award will be monitored to ensure timely use of funds. Recipients of this award will not have priority over users with assays already scheduled at the Core.</p>