

## Leaders' Update

### A message from Paul Fawcett, associate director for shared resources

I am pleased to announce that the funds from the Higher Education Equipment Trust Fund for the fiscal year 2015 were finally released by SCHEV in the first week of the new year. As usual, this means that our shared resources will see some exciting instrumentation upgrades.

The [Flow Cytometry Shared Resource](#) will shortly be installing two additional lasers to the BD LSRFortessa cell analyzer that was acquired last year. The new lasers will be at 355 nm (UV) & 561 nm (Yellow-Green) respectively, bringing the LSRFortessa to a total of five lasers. The new lasers will allow users to make use of a variety of newly available fluorescent proteins (mCherry, mApple, etc.) for tagging proteins by translational fusion. Antibody production companies are also making available a variety of dyes that are excited with the UV or yellow-green laser. This upgrade, therefore, increases the number of fluors that can be simultaneously detected and also makes compensation issues much more manageable. For example, when conducting multi-fluor experiments, picking fluors that require little compensation will be significantly easier with five available lasers. In summary, addition of the two new lasers will increase simultaneous fluor detection, will allow detection of new tagged proteins not recognizable with current configurations and will increase quality of data due to reduced compensation corrections. Users of this resource are encouraged to contact resource director [Dan Conrad](#), Ph.D., or resource manager [Julie Farnsworth](#) for further information.

In other news relating to the Flow Cytometry Core, we have recently hired an additional full-time technician to assist Julie with cell sorting and analysis protocols. We anticipate that this should significantly reduce wait times for technician-assisted sorting, which had unfortunately grown longer than we preferred.

In other exciting news, the [VCU Lipidomics Core](#) is officially transitioning to a shared resource capable of supporting both the analysis of lipids (their traditional area of expertise) to a core offering the capability to analyze both the lipidome and the metabolome more generally. This is reflected by a change of name for the resource, which will henceforth be designated as the "VCU Lipidomics & Metabolomics Core Facility". The new ability of this resource to conduct so-called "untargeted" metabolomics arises largely from the acquisition this past summer of a new AB SCIEX 5600+ mass spectrometer. The purchase of the spectrometer was made possible by a young investigator grant given to facility manager Shanaka Wijesinghe, Ph.D., (well done, Shanaka!), along with support from the dean of the School of Medicine and the Office of the Vice President for Research and Innovation. This powerful new instrument will shortly be complemented by new automated sample preparation machinery, as well as the capability to carry out ion mobility spectrometry with the HEETF-funded acquisition of an AB SCIEX SelexION front-end and other ancillary equipment. With the addition of this instrument, VCU can now boast of having one of the best-equipped academic lipidomic and metabolomic mass-spec facilities in the eastern USA! Potential users interested in lipidomic and untargeted metabolomic applications are encouraged to contact resource director [Charles Chalfant](#), Ph.D., or resource manager [Shanaka Wijesinghe](#), Ph.D., for further information.

Regards,

Paul Fawcett, Ph.D.

Associate director for shared resources