

May 14, 2016

Kevin L. Schey, Ph.D.
Professor of Biochemistry
Director, Mass Spectrometry Cores
Mass Spectrometry Research Center

Dear Kevin,

As Dean of Basic Sciences in the Vanderbilt University School of Medicine, I write with great enthusiasm to express Vanderbilt University's (VU) commitment to support your proposal to the NIH Shared Instrument Grant program to purchase a high resolution Thermo Scientific Q-Exactive Orbitrap mass spectrometer for metabolomics analysis. Given the growth in this type of analysis, the Q-Exactive instrument will be of great utility to the Major User group as well as to investigators in the Vanderbilt Digestive Disease Research Center (5P30 DK058404), the Vanderbilt O'Brien Mouse Kidney Physiology and Disease Center (3P30 DK079341) and the Vanderbilt Diabetes Research and Training Center (5P60 DK020593) studying obesity and diabetes.

We are pleased to note that this instrument will be placed within the Mass Spectrometry Research Center's (MSRC) Mass Spectrometry Core, a state-of-the-art facility occupying part of a highly integrated 12,900 ft² research and development space dedicated to MS, Proteomics, Bioinformatics and Tissue Imaging and Analysis. The core provides a highly collaborative and consultative environment with experienced personnel and ample space to support it. The MSRC is one of the premier research centers at Vanderbilt University and is highly regarded by NIH-funded investigators at the institution. In addition, the MS Core is reviewed on an annual basis by the Institutional Shared Resources Oversight Committee (ISROC) to ensure compliance with NIH guidelines.

Vanderbilt University and the VU School of Medicine are committed to ensuring the continued excellence of our biomedical research programs including support for the role that shared core facilities have in supporting our faculty research efforts. Our overall institutional commitment to core facilities creates a highly effective and financially stable environment for the implementation and support of new technology, making state-of-the-art instrumentation broadly accessible to investigators across all biomedical science disciplines. Upon award of the shared instrumentation grant, our institutional commitment to this proposal includes funds to replace a shortfall and maintain operation of the instrument if the financial plan should fall short of its projected income for five years from installation of the equipment or for the effective lifetime of the instrument. As further evidence of our commitment, the VU School of Medicine will contribute \$XXXX that will be available to reduce user fees for up to five years following the award. These funds may be used for costs related to operational and maintenance expenses related to establishing the instrument including service contracts or major repairs required after the warranty period is over, the purchase of Compound Discoverer software for metabolomics analysis (not covered by the \$10 award), partial support for technical salaries for user training, and supplies to get the full Discovery metabolomics service operational. The actual amount of institutional support may be reduced proportionate to the awarded budget for this project. We note that this is new support over and above the annual support of the MSRC. As with other instruments in the MS Core, we expect this

instrument to be widely used and able to generate sufficient service revenue to continue operations after the five-year supplemental support has expired.

The addition of the Q-Exactive Orbitrap mass spectrometer for metabolomics in the MS Core will bring important new capabilities to the entire Vanderbilt biomedical research community and further the research mission of the NIH. Again, I am delighted to confirm the strong support of the Vanderbilt University School of Medicine for this application and want to thank you for submitting this proposal on behalf of the university. We wish you all the best with this application. Do not hesitate to call upon us for further assistance.

Sincerely,

Lawrence J. Marnett, Ph.D.

Dean of Basic Sciences in the Vanderbilt University School of Medicine

Mary Geddes Stahlman Professor of Cancer Research

Professor of Biochemistry, Chemistry and Pharmacology