July 29, 2016

Alvin C. Powers, M.D.
Joe C. Davis Chair in Biomedical Science
Professor of Medicine, Molecular Physiology and Biophysics
Director, Vanderbilt Diabetes Research and Training Center
Director, Vanderbilt Diabetes Center

Dear Al:

On behalf of the Vanderbilt University School of Medicine (VU SOM) and in partnership with the Vanderbilt University Medical Center (VUMC), we are writing to express our enthusiastic support and commitment to the Vanderbilt Diabetes Research and Training Center (VDRTC) in its competitive renewal. The VDRTC continues to provide a stimulating, synergistic environment for research, training, and patient care related to diabetes, obesity, and metabolism, and we are especially proud that the VDRTC is one of the leading diabetes research centers in the world, having been continuously funded by the NIH since its selection as the first diabetes center funded by NIDDK 43 years ago. The VDRTC continues to be one of the leading centers at Vanderbilt, exemplifying our successful approach to establishing and supporting interdisciplinary, trans-institutional centers; it also demonstrates our sustained commitment to maintaining and expanding the cohesive and integrated biomedical research community that exists across Vanderbilt. We are delighted to outline Vanderbilt University's support for the VDRTC as follows.

The VDRTC is housed within the Vanderbilt Diabetes Center (VDC). This organizational structure was specifically established as the unique conduit for coordination of all Vanderbilt efforts across a broad range of diabetes-, obesity-, and metabolism-related activities, including research, training, patient care, and philanthropy. VU SOM provides direct financial support to the VDC, which is consequently of tremendous benefit to the VDRTC. This support includes assignment of research space and resources to the VDC, and working together with the VUMC, we have collectively made extraordinary progress with the recruitment of excellent faculty and students to sustain this strong environment for interdisciplinary diabetes-related research including new faculty members and support for VDRTC, which in turn is greatly enhanced and strengthened through its integration within the VDC. This structure has proven to be very efficient, and combined with your leadership has enabled highly effective coordination of the varied missions encompassed by an institution-wide approach to diabetes discovery and related activities.

Vanderbilt's culture of biomedical research discovery and training has been created over many decades, and the VDRTC will fully benefit from being an integral component of this landscape. To highlight one significant example of the cross-institutional collaborative support for research, the Vanderbilt University School of Medicine and the Vanderbilt University Medical Center have together made significant and numerous strategic investments exceeding $100M in research core facilities over the past fifteen years. These substantial investments are made across Vanderbilt as a whole with the goal of directly supporting centers such as the VDRTC and its investigators, which have been major beneficiaries of this investment and expansion. This strategic effort has funded the development of the following trans-institutional research programs and shared resources: the Center for Integrative & Cognitive Science; the Vanderbilt Zebrafish Initiative; the Institute for Chemical Biology (including development of the High-throughput Screening and Chemical Synthesis Cores in support of drug discovery); the Proteomics Shared Resource (Mass

Spectrometry Research Center); VU Institute for Imaging Science Small Animal and Human research imaging shared resources and the Advanced Computing Center for Research and Education (ACCRE).

Vanderbilt has long recognized that the study of obesity was a critical component in driving discovery in the diabetes field. Considering this key strategic focus, we created the Vanderbilt Institute for Obesity and Metabolism (VIOM). VIOM encourages synergy and collaboration among basic scientists, clinicians, and public health professionals involved in obesity research. The VIOM is a key bridge across Vanderbilt, connecting to the VDC where it plays a vital role in providing expertise for public (community) education, policy development and advocacy. Vanderbilt strategically linked the VIOM to the VDC, to deliberately leverage its efforts and resources to enable those of the VDRTC, leading to additional synergies between obesity and diabetes research; for example, the VIOM Obesity Seminar Series is jointly within the VDRTC Seminar Series. Recently, VIOM investigators obtained $200,000 in funding over two years from Vanderbilt University for a Trans-institutional Research Program, focused on engaging faculty from the Colleges of Arts and Sciences, Law, Business, and Education to work with Medical School faculty on diabetes and obesity education and prevention. This current collaborative environment is a continuation of the long tradition of interaction and productive association between the Department of Molecular Physiology and Biophysics (MP&B) and the VDRTC. Dr. Roger Cone – the former MP&B Chair – oversaw VIOM, Dr. Darryl Granner – former director of the VDC – served as chair of the MP&B from 1984 -1998, and Dr. Alan Cherrington – member of the VDRTC Executive Committee – also served as chair of the MP&B from 1998-2007. As further demonstration of our confidence and support of the continued collaboration between VDRTC and MP&B, it is important to note that the following VDRTC investigators and MP&B department faculty have been recently given endowed chairs during the current funding cycle: Roland Stein, Mark Magnuson, David Wasserman and Christopher Wright in the Department of Cell and Developmental Biology.

Vanderbilt University's Commitments to the VDRTC

At Vanderbilt, we empower and support centers like the VDC/DRTC, allowing centers to play critical roles in initiating and coordinating research and training efforts across our institution. This is evidenced by it becoming a truly interdisciplinary program which involves 121 participating faculty distributed among 15 departments in 2 schools and 3 colleges of the university. We also commend that VDRTC investigators produced 540 manuscripts in the previous funding cycle related to diabetes research. By committing research space and research resources to centers, we seek to continue fostering these types of collaborations between research centers as well as facilitate complementary roles for centers and departments within the institution. Aligned with this principle, we applaud that your strategic vision includes activities and programs that foster the career development of students, postdoctoral fellows and junior faculty members. The VDC and VDRTC, because of their institutional rather than departmental alignment, are particularly suited to coordinating and promoting efforts that span department and school boundaries. This approach is especially effective in supporting research and patient care related to diabetes, which are interdisciplinary, interdepartmental, and multispecialty by nature.

In addition, Vanderbilt has renovated nearly 14,000 square feet of space for use by the VDC/DRTC programs, including nearly 3,000 square feet for Diabetes Clinical Trials as well as research space that benefits MP&B, VIOM and the Mouse Metabolic Phenotyping Center (MMPC) – highlighting once again the synergy and close collaboration between these related research areas. These strategic investments have proved beneficial as evidenced by the MMPC's recent renewal of funding by the NIH (2016 – 2021).

The VU SOM is also committed to partnering with VUMC to provide a total of $XXXXX for pilot & feasibility grants to be administered by the VDRTC P&F program. Funds will be awarded for a total of $XXXXX per year with VU SOM providing $XXXXX/year and VUMC providing the balance. In addition to the three P&F grants supported by the DRTC grant, one P&F grant/year will be awarded to a VU SOM investigator to pursue studies using high throughput screening, mass spectrometry, or the VUMC genomics and phenomics discovery platform BioVU . Aligned with Vanderbilt's overall commitment to supporting the DRTC's efforts in number of ways, we will work with VUMC to provide a total of $XXXXX to match funds in the VDRTC to establish the Collaborative Human Islets and Pancreas Studies at VUMC (CHIPS) to enhance the study of human pancreas and islets. Funds will be awarded for $XXXXX per year with VU SOM giving $XXXXX/year and the balance coming from VUMC. CHIPS is a virtual entity that will be based within the VDC and will leverage infrastructure established through the former Beta Cell Biology Consortium in which Vanderbilt investigators were leaders. CHIPS, efforts by other Vanderbilt investigators, and the NIDDK-funded Human Islet Research Network (HIRN) will enable a national collaborative resource through partnerships with multiple institutions and organizations including Stanford, Caltech, Mt. Sinai and the University of Massachusetts. We wish to particularly highlight this new resource because it represents the true spirit of collaboration that characterizes Vanderbilt research. Your leadership in bringing together Vanderbilt's NIH funded centers, investigators and infrastructure along with multiple other academic institutions to create this unique shared resource is to be commended.

Finally, as the VDRTC continues to grow during the next funding cycle, we will work with you as Director of the VDC/DRTC, along with the VUMC to identify endowed chairs and appropriate research space and resources that will enable recruiting new senior investigators working in the areas of tissue regeneration or stem cell biology related to diabetes or obesity; research in humans related to diabetes or obesity; and research related on the genetics of diabetes or obesity. We will also work with you to identify resources for recruiting new junior investigators conducting research related to the metabolomics of diabetes or obesity, and in the immunology of diabetes (total of 3 senior or junior investigators). We will support your use of VDRTC research space to enable these recruitments.

In summary, we wish to emphasize our enthusiastic support for both the VDRTC and the VDC. We greatly appreciate your efforts and success in guiding the DRTC through a period of remarkable growth and expansion, and look forward to working with you as that progress continues. We hope that these commitments convey the extraordinary confidence we have in you and the programs you have enabled through the DRTC. On behalf of the Vanderbilt University School of Medicine and our Vanderbilt University Medical Center colleagues, we thank you for your leadership and wish you the best for a successful application.

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