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**ACQUISITION OF A FIELD EMISSION TRANSMISSION ELECTRON MICROSCOPE TO ENABLE
MULTIDISCIPLINARY MATERIALS RESEARCH, EDUCATION AND OUTREACH IN DETROIT**

RECOMMENDATION

It is recommended that the Board of Governors authorize the President, or his designee, to award a contract not to exceed \$1.4 million to FEI Company, a part of ThermoFisher Scientific, to procure a Talos G2 F200X Electron Microscope with 3D Tomography to be funded by a National Science Foundation MRI award (\$980,000) in combination with an institutional match from the Office of the Vice President for Research not to exceed (\$420,000).

BACKGROUND AND PROJECT DESCRIPTION

A National Science Foundation Major Research Instrumentation Award (NSF-MRI) #2018587 was granted to Wayne State University for the acquisition of a modern Field-Emission Transmission Electron Microscope to support research in the areas of energy conversion/storage, catalysis, microelectronics/sensing, biomedical sciences, and metallurgy. The instrument is capable of providing direct imaging of the atomic scale features in materials that are responsible for their behavior as, for example, high-capacity Li-ion batteries, new catalysts for biomass conversion, or luminescent nanoparticles for biological imaging. The instrument selected, the Talos G2 200X with 3D Tomography, is only the second of its kind at an academic institution in the state of Michigan, and will have an immediate impact on over 23 research programs. In addition to advancing science and technology at Wayne State University, the instrument will result in the training of students and postdocs, provide an opportunity for underserved K-12 students in Detroit to engage in hands-on educational activities, and enable product development at both start-up and established local companies. The instrument will be housed in the Lumigen Instrument Center located in the A. Paul Schaap Chemistry Building at Wayne State University.

The original price for the Talos G2 F200X with 3D Tomography was \$2,830,124. After a negotiated discount, the final invoice price is \$1,400,000. This purchase is being secured by the NSF-MRI Award #2018587 (\$980,000) and a Wayne State University Office of the Vice President for Research (OVPR) 30% match (\$420,000). The projected installation date is within six months of the purchase order receipt.

PROJECT BUDGET

Funding Sources

NSF MRI Award #2018587	\$ 980,000
WSU Matching Funds from OVPR (30%)	\$ 420,000
Total Sources	\$1,400,000

EXPENDITURES PLAN

Purchase Instrument	\$1,400,000
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University Policy 2.81.01.075 – Contract Awards requires that acquisition of equipment, whether by direct purchase or by a capital lease, with the purchase price of \$1 million or more, shall be approved by the Board of Governors prior to the transaction.