New Jersey Health Foundation, Inc.

New Jersey Health Foundation Awards Grant to Enhance Drug Discovery at Rutgers University

New Brunswick, NJ—In its continuing effort to advance the biomedical sciences, New Jersey Health Foundation (NJHF) has awarded a pivotal $35,000 grant to the Office of Translational Sciences at Rutgers, The State University of New Jersey, to help launch a Fragment Based Drug Discovery (FBDD) core facility.

The grant, which will be combined with funding from several units of Rutgers University, will be used toward the purchase of a fragment library and a library of FDA-approved small molecule drugs.

Fragment-Based Drug Discovery is used to find lead compounds as part of the drug discovery process. It is based on identifying small chemical fragments, which may bind only weakly to the biological target, and then growing them or combining them to produce a lead molecule with a higher affinity. Such lead molecules are used to better understand disease pathways and may also be the starting point for designing therapeutic agents.

The collection will be made available University-wide, enabling faculty to use these new drug fragments to initiate further drug development. The library will support the screening of 500 – 1000 protein targets at the concentrations necessary to conduct fragment based screening.

"Our grant will enable Rutgers to lay the foundation for future growth in the critical area of biomedical research," noted George F. Heinrich, M.D., vice chair and CEO of NJHF. "We are

delighted to play an instrumental part in helping Rutgers advance drug discovery efforts in this important scientific area."

The purchase of the library of FDA-approved small molecule drugs will give researchers the opportunity to combine basic biology and translational programs with already-approved drugs, which can directly lead to insights on how to repurpose approved drugs for alternate therapeutic uses.

"This new core capability leverages existing university assets, allowing biomedical research faculty to investigate and understand potential drug targets at a molecular level. The data they derive from these experiments will enable the design of small molecule probes and potential drugs," explained David Kimball, PhD, associate vice president, Office of Translational Sciences. "By making both the fragment and the FDA-approved drug libraries available to faculty institution-wide, NJHF has become a catalyst for drug discovery and development research here at Rutgers University."

Kimball's research operation, which was launched last year, is part of Rutgers' Office of Research and Economic Development. The core facility will be located in the School of Environmental and Biological Sciences at Rutgers-New Brunswick.

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