

Research Development Fund – Cover Page Template

SUBMISSION DEADLINE: **September 22, 2017 at 12 noon CDT** to rdf@tamu.edu

(All cover pages will be posted for the campus community to view at <http://rdf.tamu.edu/abstracts>)

Application Title: Rodent Model Resources Core (RMRC)

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Key Participating Units: Comparative Medicine Program, College of Veterinary Medicine & Biomedical Sciences, College of Medicine, School of Public Health, College of Agriculture and Life Sciences, College of Education & Human Development, College of Science

Anticipated Request Amount (\$): \$3,700,000

Executive summary of the intended application to utilize Research Development Funds.

This application proposes to consolidate and expand cutting-edge equipment, unique resources and expert capabilities under a new Rodent Model Resources Core (RMRC) administratively housed in the Comparative Medicine Program within the Office of the VPR. A faculty oversight committee chaired by the University Attending Veterinarian and composed of users representing the various capabilities and participating units will provide oversight and vision for ensuring an efficient administrative structure, appropriate staffing, continued development of a robust business model with appropriate services and technological offerings. The RMRC will have five components: 1) Rodent Phenotyping; 2) Germ-free Mouse Models; 3) Collaborative Cross Population Model; 4) In vivo Model Development; and 5) Cell and Alternative Models. Support is requested to add additional capabilities (Micro-CT imaging, embryo sorter, clinical chemistry, inhalation chambers), expanded capabilities (metabolic cages, animal housing), inclusion of rodent models used by numerous investigators across campus (Collaborative Cross), and technical expertise to support an expanded National Institutes of Health (NIH) grant portfolio (skilled technical staff). Over \$2M has been invested over the last three years to increase rodent modeling capability that has led to new federal grants worth millions of dollars. However, capacity has been reached and other capabilities are needed to be competitive for substantial new funding. This is particularly important as TAMU sets a mission to dramatically increase funding from NIH. Without substantial clinical research capability, the most likely avenue to increase funding is through animal models. Since rodent-based models vastly outnumber all other models, new research capabilities are needed to support a dramatic expansion of NIH research. One group participating in this application has already been invited to submitted a \$15M grant to the National Institute of Diabetes and Digestive and Kidney Diseases for a Nov 1 deadline, but the current infrastructure is inadequate to support the research if funded. Another group participating in this application has self-assembled to plan a program project application but lacks access to specific technologies that this new core will provide. The anticipated outcomes of having an appropriately equipped and staffed RMRC will be a dramatic increase in competitive grant awards from NIH, not only for those using rodent models but also those that can benefit from the technological offerings that can be applied in other model systems like *C. elegans*. The core, with experienced staff and cutting-edge equipment and technologies, will provide service and support for users from across Brazos County, and will take a leading role in supporting increased NIH funded research at TAMU.