

3 December 2010

Mr. Norman Augustine, Chair Scientific Management Review Board NIH Building 1, Room 103 9000 Rockville Pike Bethesda, MD 20892 smrb@mail.nih.gov

Dear Mr. Augustine and Members of the Scientific Management Review Board:

We, the Principal Investigators and Co-investigators of the Mutant Mouse Regional Resource Centers (MMRRC), write with respect to the Translational Medicine and Therapeutics (TMAT) Working Group's 11/10/10 report on enhancing the rate at which discoveries made by basic biomedical research are translated to clinical research and, ultimately, therapeutics. We commend the TMAT on its efforts to enhance the infrastructural resources that support translational research, medicine and therapeutics with the Clinical and Translational Science Award (CTSA) program serving as a nucleus. The recommendation to create a new NIH institute is a bold approach. We understand this report will be discussed and voted on in the 7 December meeting of the Scientific Management Review Board (SMBR) and would like our suggestions below to be taken into consideration in your deliberations.

Currently, as you well know, the CTSAs reside in the National Center for Research Resources (NCRR). If the TMAT Working Group's proposal is approved, we urge you to consider carefully the disposition of other programs within NCRR that also provide infrastructure for translational research. Specifically, please consider moving NCRR's Comparative Medicine program to the new institute with the CTSAs. Animal model resources are critical to the infrastructure that supports translational research and therapeutics. Basic biomedical research is the foundation stone for translational medicine. As we all know, basic biomedical research, which uses these animal model organisms, makes the discoveries that enable us to understand disease processes and lead to the development of new treatments. Model organisms, particularly mice, rats and non-human primates, play a key role not only in basic research discoveries but also in initial testing of therapeutics.

The NCRR's Division of Comparative Medicine has taken several key initiatives to enhance the goals of Translational Research. For example, in 1999 it established the Mutant Mouse Regional Resource Centers (MMRRC) program. The MMRRC enhanced the accessibility of mouse models for biomedical research by establishing regional resource centers for important mouse models of human disease. The MMRRC also provide centralized resources that carry out research to improve delivery of resources, such as improved cryopreservation technology. With stimulus money in 2009 the Division of Comparative Medicine provided revision (supplemental) funding that linked research resources in animal model programs supported by Comparative Medicine with the CTSAs to facilitate more rapid transfer between basic research and translational medicine. Examples of such revision awards:

The University of Missouri was awarded two CTSA-linked grants.

- 1. A revision for their National Swine Research and Resource Center (NSRRC) award that funds a collaboration between the NSRRC and Duke University for Evaluation of New Therapeutic Compounds for Treatment of Urinary Tract Infections.
- 2. A revision to their Rat Resource & Research Center (RRRC) that supports collaborations with several CTSA-funded institutions including Utah State and Duke University. On-going projects include Investigation of Induced Pluripotent Cells for Translational Research.

The Jackson Laboratory was awarded two supplements to grants that support their mouse repositories.

- A revision to the Mouse Mutant Resource that funds a collaboration with the University of Michigan Transgenic Animal Model Core Facility (UMTAMCF, a university ABMR), and several research groups affiliated with the Michigan Institute of Clinical Health and Research (MICHR, CTSA awardee) in a combined effort to (1) enhance our understanding of the early embryonic consequences of aneuploidy using several genetic mouse models and (2) develop new resources for studying aneuploidy.
- 2. A revision to the Special Mouse Strains Resource that funds a collaboration with the Cystic Fibrosis Research and Treatment Center at The University of North Carolina at Chapel Hill to identify novel genetic modifiers of the *Scnn1b* mouse model for cystic fibrosis and develop the model for preclinical testing protocols. This work supports the translational research goals of the North Carolina Translational and Clinical Science (TraCS) Institute (an NCRR-supported CTSA).

These revision awards and other Comparative Medicine programs have stimulated collaborations between CTSA translational investigators and basic animal resource scientists.

We are concerned that, if the CTSAs move out of the NCRR, such Comparative Medicine programs will be in jeopardy. The laudable goals for the new institute include "identify and bridge gaps," "amplify the connection between basic discovery and translation" and "facilitate effective transition between steps." Such existing programs that connect animal model resources with translational medicine resources position the animal model programs ideally to continue to collaborate with the CTSA program proposed as the heart of the new institute. Transferring the infrastructure for animal models research and translational medicine to the new institute together will build on connections already made to achieve the institute's goals. In its wisdom NIH created the NCRR to centralize funding for research resource programs whose infrastructure supports research across many NIH categorical institutes, and to free the categorical institutes to focus, rightfully, on research on specific human diseases. Keeping the CTSAs and the animal model resource programs together in a new institute will preserve this goal in the new institute.

Thank you for considering our comments on the goals and implementation of the new NIH institute. We sincerely hope that the points we have made will encourage you to include the Division of Comparative Medicine's animal model infrastructure programs within the new institute for Translational Medicine and Therapeutics.

Sincerely,

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cc: Dr. Francis Collins (<u>francis.collins@mail.nih.gov</u>) Dr. Arthur Rubenstein, Chair, TMAT working group (AHRdean@mail.med.upenn.edu)