



November 30, 2010

NIH Scientific Management Review Board
National Institutes of Health (NIH)

Dear SMRB Board Members:

I would like to address the current proposal by the Scientific Management Review Board (SMRB) to pull the Clinical Translational Science Award (CTSA) program out of the National Center for Research Resources (NCRR) and into a new institute. Many within the community of scientists that utilize aquatic research models are very concerned how adherence to such a proposal will affect the NCRR and more specifically the important work being overseen by the Division of Comparative Medicine (DCM). As a scientist using aquatic model organisms to address fundamental biomedical problems, the possibility of defocusing NIH oversight of comparative medicine research by breaking up NCRR and/or DCM is frightening. If DCM is fractionated it will very likely result in eventual loss of many important animal research resources and aquatic models. Such a move will decrease our national capability to approach future biomedical problems that simply cannot be approached using only the 3 or 4 mammalian systems represented within the portfolios of standing NIH institutes. Historical and current DCM support for aquatic models research is a single critical avenue that has ensured these valuable models continue to develop and offer new insight into biomedical problems.

Recent technical and scientific advancements indicate this is not the time to defocus the NIH commitment to comparative medicine. As you may be aware, newly developed "next generation" sequencing technologies have made it possible for large genomes and complex transcripts to be completely sequenced and assembled in a few weeks at relatively low cost. These pioneering advancements have liberated scientists using aquatic experimental models and placed comparative genomics and transcriptomic analyses at the forefront of international biomedical research efforts. Novel comparative analyses employing a wide array of aquatic experimental models, that a few years ago would have been considered unapproachable, are giving us new knowledge of how organisms and cells adapt to environmental perturbations. Such studies are uncovering alternative strategies that have evolved by each unique organism to sustain life. Thus, next generation sequencing technology is allowing scientists to illuminate complex genetic mechanisms, including those governing difficult to approach life history traits. This is not a time to break up scientific teams and DCM expertise that can best harvest the fruits of our scientific investment.

Comparative medicine as a discrete entity needs to be maintained under singular administrative oversight. Please consider this as you deliberate how best to proceed. The seeds of scientific discovery that fuel the biomedical research enterprise are often produced in alternative experimental models. After 20+ years of interaction with the NIH, I can assure you DCM personnel are some of the best in the entire NIH. Let's not allow address of other issues to produce the negative result of eventual elimination of DCM, one of the better programs in the NIH.

Sincerely,

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Director of *Xiphophorus* Genetic Stock Center

