November 8, 2007

DRAFT Charge Computational Toxicology Subcommittee December 17-18, 2007 Meeting

3.0.5.0

BOARD OF SCIENTIFIC COUNSELORS

Background

The National Center for Computational Toxicology (NCCT) became operational on February 20, 2005. On April 25-26, 2005, the BOSC Computational Toxicology Subcommittee held its first public meeting at the Office of Research and Development's (ORD) Research Triangle Park (RTP), North Carolina facility, where the majority of NCCT staff is located. This meeting was intended as the first of several consultative reviews of the Center's progress, and was prospective in nature, due to the newness of the Center. The Subcommittee developed a letter report from the April meeting which addressed six charge questions that concentrated on the NCCT's strategic goals; its collaborations, and connectedness to the rest of the Agency and to outside scientists; its staffing plan; and its thematic choices. The letter report was finalized by the BOSC Executive Committee and transmitted to ORD in July 2005. A formal response of the NCCT to the review was provided to the BOSC at their September 2005 Executive Committee meeting.

The Subcommittee met again in June 2006 review to continue to provide the NCCT with advice on the progress the Center had made, since Spring 2005, in fulfilling its mission and strategic goals. The subcommittee addressed nine charge questions, which touched on the new extramural bioinformatics centers, effectiveness of Center work in Agency research, use of computational tools, feedback on the computational toxicology implementation plan, effectiveness of Center communication of research, outcomes, and responsiveness to stakeholder needs. A letter report was finalized by the BOSC Executive Committee and transmitted to ORD in December 2006. A formal response of the NCCT to the review was provided to the BOSC at their January 2007 Executive Committee meeting.

December 2007 Review

The purpose of the December 2007 review is to continue to provide the NCCT with advice on the progress the Center has made, in the past year, in fulfilling its mission and strategic goals. In particular, the subcommittee will address the following questions for five NCCT activities (ToxCast; IT/IM activities; Developmental Systems Biology; Virtual Liver; and Arsenic BBDR):

Charge Question 1: Does the scope and involvement of expertise in the project reflect activities consistent with the function of a Center?

Charge Question 2: Are the goals and milestones suitably described, ambitious and innovative?

Charge Question 3: Are there significant gaps in the approach that can be pointed out at this point in the evolution of the project?

Charge Question 4: Does the work offer to significantly improve environmental health impacts and is the path toward regulatory acceptance and utilization apparent?

Charge Question 4a: In addition, specifically for the Arsenic BBDR project: Does the proposed computational model have the potential to identify and reduce uncertainties with the risk assessment process? Will the model be able to help identify susceptible populations and compare potential risks in those populations with less susceptible groups? Is coordination between model development and associate data collection sufficient to avoid problems with models being either over- or under-determined.

Charge Question 5: Have appropriate data management and analysis tools been incorporated into the project?

Charge Question 6: How would you assess the outreach to other groups in executing the project?