

ENVIRONMENTAL PROTECTION AGENCY

[FRL-7490-2]

Science Advisory Board, Computational Toxicology Framework Consultative Panel; Request for Nominations for Expertise**AGENCY:** Environmental Protection Agency (EPA).**ACTION:** Notice.

SUMMARY: The Environmental Protection Agency (EPA) Science Advisory Board (SAB) announces the formation of a new "Computational Toxicology Framework (CTF) Consultative Panel" and is soliciting nominations for members of the panel.

DATES: Nominations should be submitted by May 21, 2003. The consultation of the panel is planned for the summer of 2003 (tentatively mid-July) in Chicago, IL.

ADDRESSES: Nominations should be submitted in electronic format through the Form for Nominating Individuals to Panels of the EPA Science Advisory Board provided on the SAB Web site. The form can be accessed through a link on the blue navigational bar on the SAB Web site, www.epa.gov/sab. To be considered, all nominations must include the information required on that form. Anyone who is unable to submit nominations via this form may contact Dr. James N. Rowe, Designated Federal Officer (DFO) as indicated below.

FOR FURTHER INFORMATION CONTACT: Any member of the public wishing further information regarding this Request for Nomination may contact Dr. James N. Rowe, by telephone/voice mail at (202) 564-6488, or via e-mail at rowe.james@epa.gov. General information about the SAB can be found in the SAB Web site at <http://www.epa.gov/sab>.

SUPPLEMENTARY INFORMATION:

Summary: The U.S. Environmental Protection Agency (EPA or Agency) Science Advisory Board is requesting nominations of expertise for a review panel to evaluate the EPA's Office of Research and Development framework for the development of an initiative in Computational Toxicology. (Computational Toxicology is defined as the application of models from computational and mathematical biology and computational chemistry for prediction and understanding mechanisms.)

This Panel is being formed to provide advice to the Agency as part of the EPA SAB mission, established by 42 U.S.C. 4365, to provide independent scientific

and technical advice, consultation, and recommendations to the EPA Administrator on the technical bases for EPA positions and regulations.

This project is intended as a consultation on the direction of the CTF; the background for the effort and the charge to the Panel is described below. The Board is a chartered Federal Advisory Committee, which reports directly to the Administrator.

Members of the Panel will provide advice to the Agency, through the SAB's Executive Committee. The Panel will comply with the provisions of FACA and all appropriate procedural policies, including the SAB process for panel formation described in the EPA Science Advisory Board (SAB) Panel Formation Process: Immediate Steps to Improve Policies and Procedures—An SAB Commentary (EPA-SAB-EC-COM-002-003), <http://www.epa.gov/sab/ecm02003.pdf>.

Background: The EPA's Office of Research and Development is seeking SAB advice in development of a Framework for the Use of Computational Toxicology in Risk Assessment. Computational toxicology involves the application of various mathematical and computer models for prediction and the understanding of mechanisms. The Computational Toxicology Initiative is a technology-based, hypothesis-driven effort to increase the soundness of risk assessment decisions within the Agency, while building the capacity to prioritize, screen and evaluate significantly greater numbers of chemicals by enhancing the predictive understanding of toxicities. Success will be measured by the ability to improve assessments relative to the traditional means that have been utilized to understand modes of action and to characterize adverse outcomes, and by classifying chemicals by their potential to influence molecular and biochemical pathways of concern.

ORD has found it useful to envision the risk assessment paradigm as a continuum of events leading from environmental release to adverse effect. Between those two events are a whole cascade of events that lead from one measurable event to the next. ORD's research program focuses on learning more about the processes that lead from exposure to adverse outcome. ORD will use new techniques in computational toxicology (bioinformatics, mathematical biology, computational chemistry), toxicogenomics technology (genomics, proteomics, metabonomics) and systems biology to improve the understanding of the linkages between the processes in the continuum.

The overall goal of ORD's research initiative on Computational Toxicology is to use the biology and computing to provide EPA with the tools to improve quantitative risk assessments and reduce uncertainties in the source to adverse outcome continuum. To meet this goal, ORD has identified three strategic objectives for the Computational Toxicology Initiative:

- Develop improved linkages across the source-to-outcome paradigm. Understanding those linkages will decrease uncertainties in assessing risk to human health and the environment.
- Develop strategies for prioritizing chemicals for subsequent screening and testing. The current approach requires extensive resources for screening and testing chemicals and an approach must be developed to determine which chemicals or classes of chemicals in the universe or chemicals should be screened and tested first.
- Develop better methods and predictive models for quantitative risk assessment.

Tentative Charge to the Panel: The charge is for a consultation by the Panel to review the Computational Toxicology Framework being developed by ORD and advise on appropriate research directions and roles. A "consultation" is one of several types of formal interactions between the Agency and the Science Advisory Board. The purpose of the consultation is to conduct an early discussion between the Agency and the SAB to help articulate important issues in the development of the project. The meeting is public and consists of briefings and discussions. In some cases a partial document, or an early draft is available to serve as a basis for discussions. A charge is often defined but is less focused than that used in a formal peer review. No consensus advice is sought and no report is generated by the SAB.

SAB Request for Nominations: The EPA SAB is requesting nominations of individuals who are recognized, national-level experts in one or more of the following disciplines necessary to contribute to the discussions to be addressed by the Consultative Panel for the Computational Toxicology Framework:

- (a) Comparative genomics/proteomics/metabonomics;
- (b) Mixtures;
- (c) Quantitative structure-activity relationships;
- (d) Systems biology;
- (e) Endocrine disruptors;
- (f) Computational biology/bioinformatics;
- (g) Risk assessment;