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The Cancer Letter

In April of this year, the President's Cancer Panel released its 2008–09 report titled "Reducing Environmental Cancer Risk: What We Can Do Now." This report discusses many important issues but none as important as the extent of the problem: "Over 1.5 million American men, women, and children were diagnosed with cancer in 2009 and over 562,000 have died." The report then goes on to say that there are many unknowns about what percentage of these cancers are associated with environmental factors, an uncertainty that is highly significant given that environmental factors represent a preventable cause of this disease.

The Society of Toxicology applauds this effort to raise awareness of environmental causes of cancer, and supports the need to understand the role that environmental factors play in this disease. In fact, toxicology, the study of the adverse effects of chemical, physical, and biological agents on health, is directly aimed at identifying environmental contributions to causes of adverse health effects and thus recognizes this importance for identifying preventable causes of cancer.

The President's Cancer Panel, created in 1971 to monitor the National Cancer Program, provides periodic reports on the nation's cancer programs and priorities. Earlier reports have addressed topics such as health disparities, translational research, cancer survivorship, barriers to care, cancer among Native American populations, and promotion of healthy lifestyles for reducing cancer risk. This most recent report summarizes the Panel's findings and conclusions based upon testimony from invited experts and additional information gathering, and provides recommendations for reducing environmental cancer risks. Besides issuing a call to action at several levels for reducing environmental exposures to potential carcinogens, the panel also calls for enforcing existing policies and regulations that protect workers and the public, implementing policy and regulatory changes that support public health and reduce the burden of cancer, and taking personal action.

The Panel's report has been received with mixed reviews from some medical and scientific experts as well as several organizations and advocacy groups. For example, while experts generally believe that the increasing number of known or suspected environmental carcinogens warrants further study and action to reduce or eliminate these exposures, some are concerned that the report overstates the risk of environmentally-induced cancer and gives too little attention to the major known causes of cancer, including tobacco, obesity, sunlight, and alcohol. In this regard, we believe the current report on reducing environmental cancer risk should be viewed in context with the preceding President's Cancer Panel's report, "Promoting Healthy Lifestyles" (2007), which was lauded for its conclusions and recommendations for reducing cancer risk through diet, nutrition, and physical exercise, and by eliminating tobacco use and exposure. These two reports together present a balanced picture of

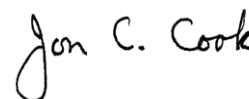
obesity and tobacco as major modifiable cancer risk factors with other sources of environmental pollution also being critically important to human health. A second criticism is that the report recommends a precautionary approach. The SOT is firmly committed to disease prevention as noted by one of the Society's strategic objectives, "Increase the impact of toxicology on human health and disease prevention." However at the heart of toxicological research is the premise that "the dose makes the poison" and we believe that current regulatory decisions should be based on well-informed safety assessments that emphasize appropriate dose-response data. The President's report makes an especially compelling plea, for example, for recognizing the potential for cumulative impacts from radiation exposures from unnecessary or overused CT scanning. Although medical imaging and nuclear medicine have become valued tools for facilitating diagnosis, their use has skyrocketed and application has been common place among individuals seeking early diagnosis. The report endorses recognition of radiation from each scan and promotes extra caution when multiple exposures are proposed for children. Promotion of a campaign to recognize the potential special vulnerability among children to cumulative scans acknowledges this cumulative exposure issue and also the importance of dose when balancing medical risks and benefits.

As noted above, the report's emphasis on the need to identify and prevent environmental exposures that can cause cancer is well aligned with a key component of the toxicological sciences, which is to identify potential toxic compounds prior to widespread use. Our scientists conduct many types of tests to ensure the safety of drugs and chemicals in common usage and thus we applaud the emphasis on prevention in the report. The report also emphasizes the need for both epidemiological and basic environmental cancer research (including innovative methods for going beyond our single chemical testing mentality) to understand these risks. The report makes an urgent plea for more research dollars for finding causes of cancer that are preventable and for identifying windows of susceptibility to environmental exposures. This call is significant and is critical to address one of the most controversial aspects of this report, "How many cancers are due to environmental factors and how many can be prevented?" The Society of Toxicology applauds that call for more research and challenges its members to come forth in this quest.

Sincerely,



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SOT President



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The editorial content for this letter came primarily from the leaders of the SOT Risk Assessment Specialty Section and the Carcinogenesis Specialty Section.