

Comments from Somasundaran:

1. Communication with the public: image and perception of EPA: While the majority of the scholars do understand what good work EPA and its scientists are doing, the public mostly does not. In addition, many of the politicians and business folks consider EPA and its works as a mere bureaucratic mechanism to cope with. For example, my accountant asked me whether I do not find EPA just bureaucratic. Part of the problem might be the word "protection" in EPA rather than something like enhancement or excellence. After having heard talks by EPA folks at ACS green chemistry conference etc., I told him that I know of some world class scientific work being done by EPA people. He was pleasantly surprised as all they know about EPA is what they hear at congressional hearings and through the press.

2. International partnership. Considering the limited budget available to achieve the enormous important tasks in front of us, it makes sense to collaborate with all countries doing similar work and share responsibilities, though the exact situation may vary from country to country. Consider the fact that US companies are buying and selling globally, dealing with countries where EPA can expect to have little influence at present. While EPA alone may not be able to undertake the unification of the effort to achieve global standards, it could ask entities like the Federation of Academies or the United Nations to assist in this regard.

3. population to be considered: In addition to considering just the young and adult populations of the US, any study should consider larger populations including older people with vulnerabilities and even people in other countries, since whole population, particularly children, are migrating back and forth at increasing frequency now a days. Susceptibilities and vulnerabilities vary from population to population. Moreover, though the mission of EPA is to consider the health and welfare of human beings, it makes sense to consider the species at the lower end of the food chain as well, since the toxins and toxicants that they get exposed to do often get to humans ultimately. For instance, many animals are exposed to herbicides and war chemicals and nuclear materials during a war even though we seldom hear about their migration and ultimate destination, which could in fact, be in our own supermarkets.

Tomorrow's chemicals and products: It is important to consider the products that will appear tomorrow and have ready on hand the means to measure and mitigate their potential ill effects. For instance, the dangerous side effects of the many pharmaceutical products in the pipeline today might become evident only in decades to come. Hence it is important to develop predictive evolutionary models that *relate chemical structures and their environment to their effects* so that as soon as a product comes out one can assess its potential effects and take appropriate action.