Food & Water Watch • 1616 P St. NW, Suite 300 • Washington, DC 20036
T +202.683.2500 • F +202.683.2501 • www.foodandwaterwatch.org

December 5, 2011

Office of Science and Technology Policy
Executive Office of the President
725 17th Street Room 5228
Washington, DC 20502

RE: Office of Science and Technology Policy Request for Information: Building a 21st Century Bioeconomy

To Whom It May Concern:

I offer these comments on behalf of Food & Water Watch, a national nonprofit consumer advocacy organization, on the Office of Science and Technology Policy's (OSTP) request for information as it develops the Building a 21st Century Bioeconomy Blueprint. We appreciate this opportunity to provide input on the Administration's goals for harnessing emerging biotechnology in order to mitigate national health, food, energy and environmental crises. We urge the Administration to ensure that these emerging technologies are properly evaluated before reaching the market.

On September 16, 2011, President Obama announced a suite of initiatives to fast-track "ideas from the lab to the market." One such initiative is the Administration's charge to draft a "Bioeconomy Blueprint," using novel biotechnologies to supposedly solve some of the health and environmental challenges of our day.

As described by the Administration, the "Blueprint will focus on reforms to speed-up commercialization and open new markets, strategic research and development investments to accelerate innovation, regulatory reforms to reduce unnecessary burdens on innovators, enhanced workforce training to develop the next generation of scientists and engineers, and the development of public-private partnerships." We will take this opportunity to address some of the specific questions posed by the OSTP. In addition, we see this RFI as an opportunity to discuss the Administration's duty to act with caution in considering these emerging technologies so as to protect human health and the environment.

In response to question 2, "what should be the federal funding priorities in research technologies, and infrastructure to provide the foundation for the bioeconomy," we believe that it is most prudent to devote federal funding to the development and testing of improved risk assessment tools that can adequately determine the risks posed by emerging biotechnologies. New risk tools are an imperative first step toward understanding the safety and prudence of commercializing new technologies.

The second funding priority must be environmental health and safety (EHS) research. EHS research must be done before attempting to commercialize whole technologies. We urge the Administration to learn from historical examples of hasty decision-making in the commercialization of unsafe chemical, pharmaceutical and technological products.

To further clarify, we fundamentally oppose the push for commercialization of emerging biotechnologies at this time. In answer to question 5, "what are the barriers preventing biological research discoveries from moving from the lab to commercial markets," we argue that the main barrier is, and should be, the unknown human and environmental health impacts of said technologies.

For example, scientists do not yet know how to accurately assess the risks associated with using nanotechnology on the consumer market. Conventional risk assessment tools appear to be far too blunt for materials that behave differently and pose novel exposure pathways than their larger counterparts. Before commercialization can take place new risk assessment tools must be generated and used for every novel product added to the market.

The additional barrier of having a broken regulatory system that is incapable of governing emerging technologies is problematic as well. .

We also oppose the Administration's "experimentation with private-sector led models for funding the commercialization of life sciences research." Life sciences research should, as much as possible, be performed by independent scientists who are not in anyway obligated to private interests for funding, career advancement, or publication of their work.

In response to question 8, "what are the challenges associated with existing private-sector models for financing entrepreneurial bioeconomy firms and what specific steps can agencies take to address those challenges," we would argue that it is far too soon to answer this question. A more appropriate question is one that asks how to appropriately regulate the products that will come from a bioeconomy. Agencies should be collaborating on generating and testing new risk assessment measures in addition to drafting new statutes that will create a more appropriate regulatory regime that can begin to address the risks of these technologies.

We are especially concerned about the Administration's focus on "reducing regulatory barriers to the bioeconomy" illustrated in questions 13-15. Using nanotechnology as an example, nanomaterials are already on the consumer market even though nano-specific regulations do not exist. The Administration's focus on reducing regulatory barriers is laughable considering there is already an obvious absence of oversight and a complete failure to require technological application disclosure to consumers. More to the point, this is a dangerous and desperate approach to solving our economic problems.

With respect to improving transparency as asked in question 14, agencies must make safety and efficacy data accessible to the public. And, the Administration must draft and enforce consumer-labeling laws. Consumers deserve disclosure when choosing between novel and conventional products.

Public-private partnerships are *not* a solution to the challenge of funding life sciences research. Public-private partnerships do *not* reduce costs; they are expensive to implement and can lead to job loss.

Furthermore public-private partnerships reduce accountability. Private entities usually restrict public access to information and do not have the same level of openness as the public sector. Long-term contracts, in particular, typically reduce accountability and transparency because the

nature of the contract may require projecting needs far into the future, creating terms that are incomplete or riddled with uncertainty.

In response to question 17, "what are the highest impact opportunities for pre-competitive collaboration in the life sciences, and what role should the government play in developing them," we believe that Federally mandated EHS research is the highest impact opportunity for advancing life science research.

In closing, we remind the Administration of its duty to ensure protection for human health and the environment. We urge you to move beyond encouraging EHS research to requiring it. And we ask that you place a moratorium on commercialization of emerging biotechnologies, including nanotechnology, synthetic biology, genetic engineering and geoengineering, until advanced risk assessment tools have been identified and an effective regulatory system is in place.

Sincerely,

Wenonah Hauter
Executive Director