

Transparent, Actionable Framework for Food and Nutrition Research Public-Private Partnerships

The members of the Institute of Food Technologists (IFT) strives to ensure a safe and abundant supply for everyone, and we hope to achieve this goal through partnerships to advance the science of food. One of our long-term partners, the American Society for Nutrition (ASN), engaged IFT and other organizations in a discussion of guiding principles for public-private partnerships (PPP or P³) for food and nutrition research. PPP are ventures between government organizations and one or more privately-held corporations or commodity groups designed to promote research for the public good. Such partnerships are not a new development. The U.S. Dept. of Agriculture's National Inst. of Food and Agriculture (NIFA) requires matching industry funds for grant applications that propose to study a single food or crop. In the United States, various commodities, from almonds to blueberries to beef and popcorn, have charged producers and processors state and/or federal assessments designated for promotion and research projects that are typically administered by a third party. However, the involvement of industrial funds to support research has been criticized in the lay press, leading to accusations that food industry funds bought the results that best portray their products. In 2014, President Barack Obama encouraged the formation of PPP to stimulate economic development, and IFT and its fellow organizations agreed that food and nutrition research to promote health was essential as well. Partnerships should include government, industry, and universities or other nonprofit research institutions. Contract research between a company and a researcher is not an example of a PPP.

Research funding appears to be shrinking across sectors. As food companies merge and consolidate, basic and applied research programs could be discontinued. Federal funds for food science research are largely provided by NIFA, with considerably smaller levels of funding being provided by other agencies. In the 2013 fiscal year, 122 applications requested \$52,345,066; of those, 17 were funded with 2013 funds for a total of about \$5.9 million. While this figure may seem impressive, consider the 105 research teams who were not funded. Lack of funding for research prevents students from gaining valuable experience to insure their success in future organizations. New options for providing research funding are clearly needed.

A meeting was held on December 8, 2014 in Washington DC to garner agreement on guiding principles for PPP. In addition to the IFT President, Past President, and Executive Vice President; leaders from several food safety, nutrition, and health societies and food industry associations; representatives from the U.S. federal agencies NIFA, the USDA Agricultural Research Service, the National Institutes of Health, the Centers for Disease Control, and the U.S. Food and Drug Administration also took part. Sylvia Rowe, former president and CEO of International Food Information Council (IFIC) and IFIC Foundation, moderated the day-long meeting. The resulting document (available at <http://ajcn.nutrition.org/content/101/6/1359.long>) was

Table 1—Final consensus principles.

Prerequisite principle

1. Have a clearly defined and achievable goal to benefit the public.

Governance principles

2. Articulate a governance structure including a clear statement of work, rules, and partner roles, responsibilities, and accountability, to build in trust, transparency, and mutual respect as core operating principles—acknowledging there may be “deal breakers” precluding the formation of an effective partnership in the first place.
3. Ensure that objectives will meet stakeholder partners' public and private needs, with a clearly defined baseline to monitor progress and measure success.

Operational principles

4. Considering the importance of balance, ensure that all members possess appropriate levels of bargaining power.
 5. Minimize conflict of interest by recruiting a sufficient number of partners to mitigate influence by any single member and to broaden private-sector perspectives and expertise.
 6. Engage partners who agree on specific and fundable (or supportable through obtainable resources) research questions to be addressed by the partnership.
 7. Enlist partners who are committed to the long term as well as to the sharing of funding and research data.
 8. Along with government and the private sector, include academics and other members of civil society (e.g., foundations, NGOs, consumers) as partners.
 9. Select objective measurements capable of providing common ground for both public and private-sector research goals.
 10. Adopt research questions and methodologies established by partners with transparency on all competitive interests, ideally in the precompetitive space.
 11. Be flexible in implementing the PPP process.
 12. Ensure ongoing transparent communications both among partners and between the PPP and the public.
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published online June 1, 2015 in the *American Journal of Clinical Nutrition* with free access to encourage sharing (Alexander and others 2015). IFT and other societies are publishing excerpts of the report to publicize the PPP guidelines in the hopes that they will stimulate formation of new PPP. The principles were announced on June 16, 2015 at the National Academy of Sciences in Washington, D.C., and have been approved by the Academy of Nutrition and Dietetics, American Society for Nutrition, IFT, International Association for Food Protection, and International Life Sciences Institute North America. Membership in these organizations totals nearly 100,000 scientists.

The final 12 principles (Table 1) were developed from previous recommendations published by ILSI NA (Rowe and others 2013). The first, and prerequisite, principle dictates a “clearly defined and achievable goal to benefit the public.” Partnerships are likely to struggle without a clear and reachable goal. The second and third principles address PPP governance. Principle 2 describes key elements of a successful governance structure, and warns that at this step the partners may realize that a PPP may not be the best approach for addressing an issue. Principle 3 focuses on establishment of a baseline from which progress can be measured.

The remaining principles address operations within PPP. Principle 4 stresses the importance of balance among members, while the fifth principle recommends avoiding conflicts of interest by inclusion of enough members with different expertise and affiliations. Partners should be able to agree on specific research questions that can be funded (principle 6), even if certain goals benefit one partner more than another. Research “ownership” and long-term commitment are the topics of principle 7. Partners must be willing to share information, and care must be taken to prevent unfair interference with research direction and publication.

The eighth principle on partners spurred some debate regarding “civil society” and which organizations or individuals might best represent it. The group concluded that university researchers, non-governmental organizations (NGO), foundations, and consumers could be partners. Representatives from all of these groups are not necessary for all PPP that are formed, however. Participants made the distinction that the terms “partner” and “stakeholder” were not necessarily interchangeable.

Measurement is the topic of principle 9. Objective outcomes were preferred to determining project success, but subjective measures also provide useful information. Principle 10 advocates for determination of research questions and preferred methodologies in a fair and transparent manner, ideally before requests for application (RFA) are announced. For example, if partners agree that human studies will yield the most beneficial information, then the RFA should clearly explain that preference so that researchers hoping to use *in vitro* or animal research models do not submit applications for support.

The eleventh principle emphasizes flexibility in carrying out the PPP process. Continuous, transparent communications about the PPP is encouraged in the final principle. Open communication among partners and between the PPP and the public is needed. Participants in the December meeting agreed that these principles should be reviewed regularly.

Although PPP are not a new concept, the IFT leadership believes that these guiding principles can lead to fruitful partnerships that benefit the food industry, universities, and the public, and that the transparency of proceedings advocated by these 12 principles will strengthen consumer confidence in such partnerships.

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