

This project addresses the [insert important issue being addressed in this proposal] and is relevant to [agency name]'s goals/mission to [insert proposal's relevance to agency mission]. [Insert summary of current knowledge in field.] [Describe the gap or need in the knowledge base being addressed.] The continued existence of [this gap/need] constitutes an important problem because [insert reason]. Progress in the field of [insert name of field] to [insert next vertical step in field] is being blocked by [name existing problem]. Our long-term goal is to [state broadest focus of overall goal e.g., reduce birth defects among children of farm workers]. The overall objective we have for this application, which is a step toward attainment of our long-term goal, is to [state slightly narrower focus of overall goal setting yourself up to present the hypothesis e.g. determine the cause of environmentally linked cleft palate syndrome].

It is our central hypothesis that [e.g. prenatal exposure to herbicide x is the cause of environmentally linked cleft palate syndrome]. We further hypothesize that [e.g. there is a higher incidence of cleft palate syndrome among children of farm workers using herbicide x than control subjects]. We have formulated this hypothesis on the basis of our own preliminary data showing [summarize pertinent results i.e. measurable levels of herbicide x in farm workers]. This hypothesis is also based on the published work of [insert examples of related research i.e. Michaels et al. showing an association between herbicide x and cleft palate syndrome in mice]. Whether a positive or negative association is identified between [e.g. herbicide x exposure and cleft palate syndrome] [state possible outcomes of hypothesis], the outcomes of this research will be valuable in identifying [re-state objective; i.e. environmental contaminants of greatest relevance to cleft palate syndrome]. This research will serve to advance the field of [toxicology] by [e.g. characterizing the impact of environmental contaminants on birth defects].

The rationale of the proposed research is [formulate the basis of our work in this section]. This research will [tell reviewers what will become possible that is not possible now i.e. provide to policy-makers, public health professionals, farmers, and the public data about the relative risk associated with using herbicide x]. [Directly link rationale back to the problem stated earlier].

The specific goals of this proposal are to [state 2-4 specific goals at the most remembering the following: make these conceptual, not descriptive; these shall collectively test all parts of the hypothesis; each flow logically to the next; none shall be absolutely dependent on an expected outcome of an earlier aim]:

1. Survey parents who were occupationally exposed to herbicide x during pregnancy herbicide x and their responses to a set of control subjects.
2. Take biological samples to measure herbicide x levels in a group of subjects with cleft palate syndrome and a group of control subjects.
3. Calculate the relative risk of cleft palate syndrome due to herbicide x exposure during pregnancy (from survey responses) and measured levels of herbicide x (from biological samples).

The expected outcomes of this research are to [make positive statement about impacts of research, e.g. further define the public health impact of using herbicide x]. With this knowledge, [continue stating positive impact, especially about vertical advancement of the field, e.g. decision makers will be in a better position to avoid public health costs associated with prenatal exposure to environmental contaminants that impact human development].