Mycotoxins are toxic metabolites produced by fungi that contaminate an estimated 25% of the human food supply. Our overall objective is to reduce mycotoxin exposure and their adverse effects on health and development in tropical countries, where mycotoxins are especially problematic. To achieve this goal, we need to integrate studies of mycotoxins across disciplines from food production and storage to health and economic impacts. Several of us recently submitted a concept note to the Agricultural and Health Platform at the International Food Policy Research Institute (IFPRI) addressing some of these goals in the context of aflatoxin in maize in East Africa. We would like to convene a larger group of Cornell faculty to discuss ways to broaden the scope of research on mycotoxins in developing countries. Despite many years of research on mycotoxins, there are many gaps in our knowledge. For example, the effects of chronic (as opposed to acute) mycotoxin exposure on health are poorly documented in humans, and the economic impacts of mycotoxins have been studied primarily with respect to trade barriers, not from the perspective of farmers and their well-being.