

## **Ian Lipkin - Talking Points**

**NSABB Meeting, October 22, 2014**

Thank you for the opportunity to respond to these intriguing presentations. I had planned to join you in person. However, I broke my foot a few weeks ago and am engaged in a personal GOF project that precludes travel.

By way of disclosure, I signed both the Cambridge Working Group and Scientists for Science letters because neither was ideal and I saw merits in both. I also see merits in both Prof Duprex and Prof Lipsitch's presentations.

As Prof Duprex has stated, GOF research is essential if we are to understand the biology of species barriers, what allows agents to cross such barriers and gain a foothold in the human population. This will become increasingly important as surveillance identifies more pathogens and potential pathogens. GOF research can also provide insights in pathobiology that inform drug and vaccine development. Nonetheless, I also believe that GOF research should be closely monitored to insure public health.

My primary concern is the inadvertent release of high threat pathogens—not the publication of GOF research.

Risky GOF research should be identified before investigators and the US taxpayer invest time and resources in doing such research.

I do not believe that all scientists have the insight needed to assess the value of their own work—Indeed, this is the foundation of peer review. I don't believe that individual institutions should be solely responsible for identifying unduly risky GOF research. Many don't have the expertise required to conduct a rigorous review. They may also have a COI in reviewing such research. My preference is that there be a second level of review by another USG panel that has the appropriate expertise.

### **Lipkin's Laws**

Potential high threat GOF research should not be pursued without access to vaccines or drugs that can abrogate or ameliorate disease.

GOF research that may eliminate the activity of existing vaccines or drugs should not be pursued unless there is a backup plan.