

Report 92: How do we connect studies on basic biological mechanisms, toxicology, clinical studies and epidemiological studies to synergistically (I hate that word) solve important problems.

Convener: David Miller

Brief History: The organization of research institutions often provides barriers to collaborations broadly across disciplines. Because of those barriers, interdisciplinary collaborations tend to be limited in scope, not utilizing the full potential of programs with basic, tox, clinical and epi components. Larger groups of investigators rarely self-assemble, even when they share an interest in specific problems. How can particularly fruitful larger-scale efforts be organized and focused around critical issues? Are there different drivers for extramural and NIEHS intramural programs?

Discussion Highlights: Intramural investigators can learn from the experiences of the extramural world, where such approaches have been successful. Teams of investigators are assembled around a critical problem. Collaboration should be highly valued by the institution's power structure. The NIEHS center at U. Rochester was considered as a first model. It was clear that collaborations are valued and multiple lines of communication and multiple mechanisms (meetings, seminars, pilot projects) are used to assemble and guide teams.

Recommendations:

1. Defining the target biomedical problem is the key to assembling a team. Each member contributes ideas, techniques, subprojects based on their strong investigator-initiated research programs.
2. The team must have excellent scientists who are motivated and are willing to participate in the process. Fruitful collaboration is a carrot in itself, that should be encouraged by the institution. Within NIEHS, involvement of DIR, DERT and NTP is needed; all divisions can contribute to the statement of the problem, team assembly, data collection, interpretation. Mechanisms are needed to facilitate involvement of extramural collaborators
3. Essential to the assembly process is clear communication among scientists with potentially different takes on a common problem. Well-organized, science-based meetings, retreats (large and small scale, irrespective of sponsoring division) are one key to getting started with the science.
4. Work out incentives to promote collaboration and grease the skids.
5. Study design needs to be iterative and flexible.
6. Proper advance planning and leadership can reduce logistical problems related to publication, resources, etc.

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