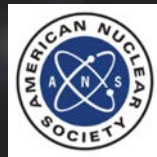




CONSORTIUM CONSENSUS ON LOW-DOSE RADIATION RESEARCH PROGRAM ENACTMENT



Key Messages



Previous research program did not take a strategic, integrated approach.



New program must be comprehensively designed to address key questions through complementary, synergistic lines of inquiry.



A strategic plan should elicit stakeholder and "consumer" input and should be prepared to identify the research priorities.

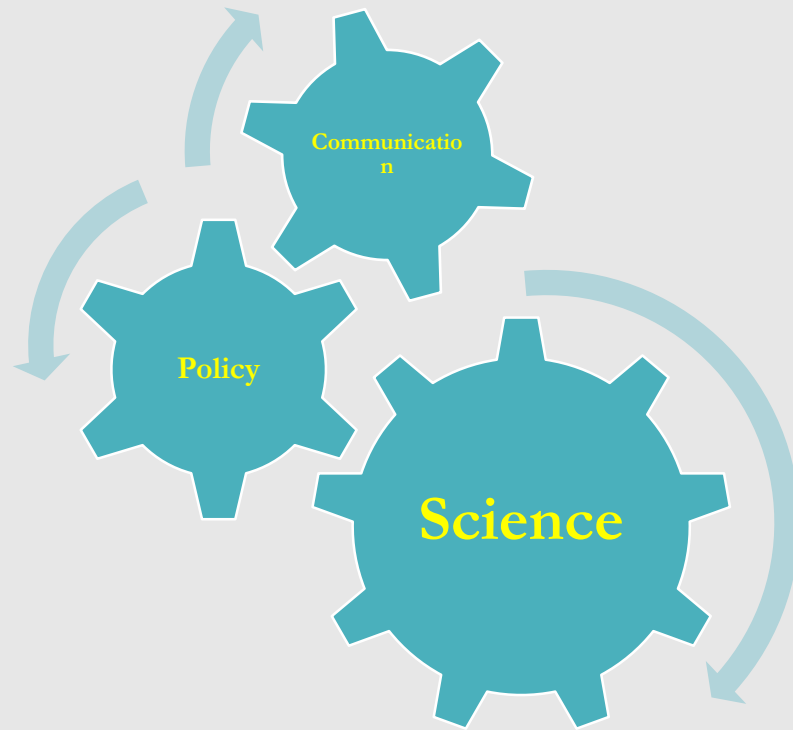


Risk communication research must be incorporated into the program.



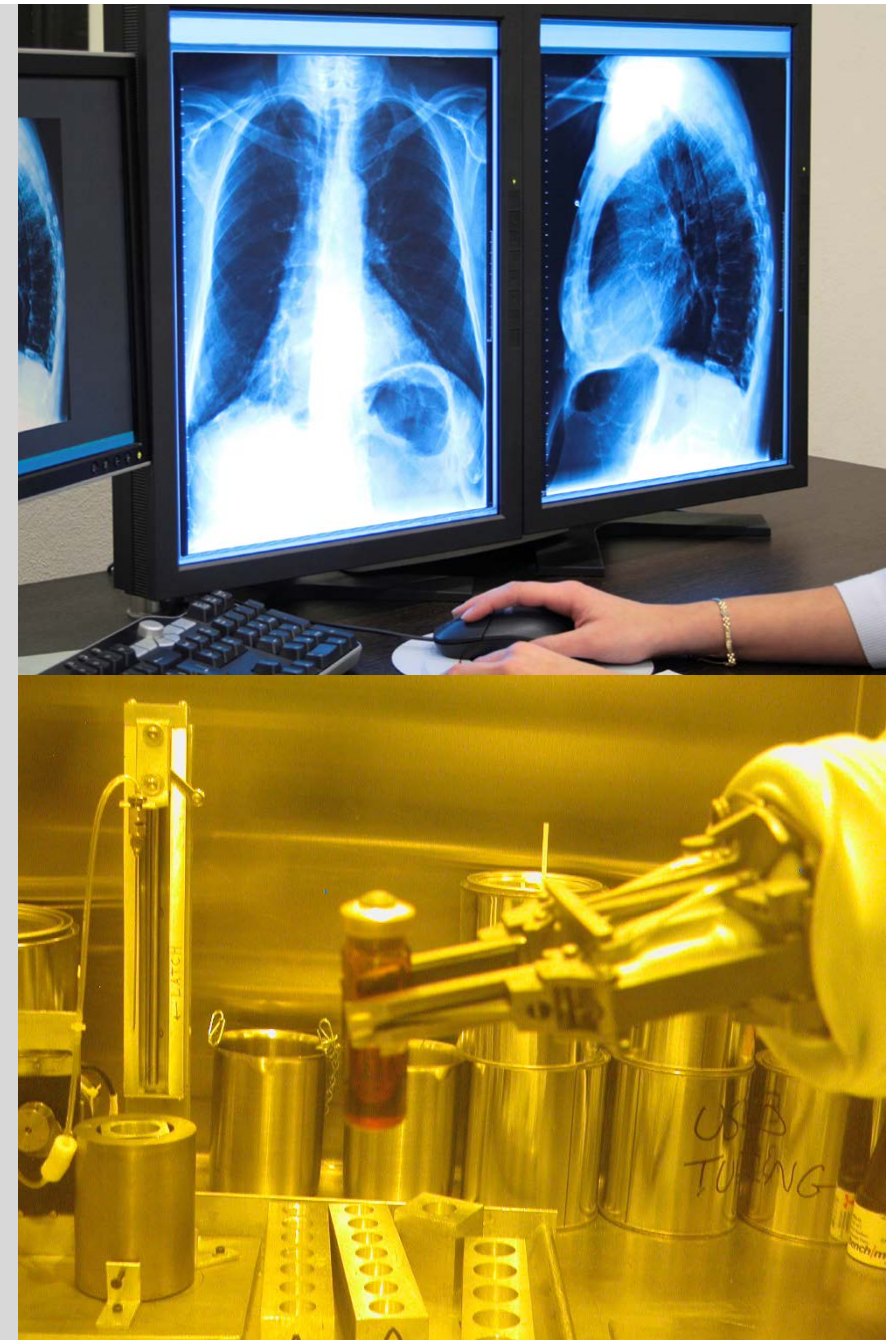
The plan should be designed to ultimately produce science which is relevant radiation-related policy decisions.

Program Must Reflect Synergism of Science, Policy and Communication



Science

- Key research must address biological mechanisms by which ionizing radiation produces cancer and non-cancer health outcomes, and the integration of mechanistic biological insights with epidemiological data.
- Should include the impact of low dose rate radiation as well as total low doses; the study of extremely low dose rates and doses, within existing background levels; and variations in health outcomes within populations, reflecting differing genetic sensitivity.
- Promote and expand interdisciplinary training and integrated cross-professional research programs devoted to understanding and quantifying radiation health effects at low doses.





COMMUNICATION

- We need better understanding of how the risk of ionizing radiation is perceived, and whether and what type of scientific information and communication strategies (if any) can affect perception.
- The research must address elements of both risk and crisis communication.

Potential value of this initiative for policy



Regulated community needs harmonization of radiation standards and alignment of regulatory approaches both domestic and international.



Radiation protection policies have significant impact on:

- Regulation of radiation in medicine
- Evacuation planning in the wake of nuclear accidents and radiological events
- Clean-up, treatment and disposal of civilian and military radioactive waste
- Safety requirements at civilian nuclear power plants
- Naturally occurring radiation sources such as radon



Policy makers need risk informed decision processes based on science.

What Next?

- Low dose radiation research program should be managed by an accomplished DOE project manager who serves as strong champion for the Program.
- Leverage the National Academies of Sciences (NAS) to provide strategic direction and program evaluation for the Program.
- Administration of DOE's Low-Dose Radiation Research Program must ensure that the majority of research funding is competitively awarded via grants and/or cooperative agreements.
- Stay true to the authorized language for this Program: *“to enhance the scientific knowledge of, and reduce uncertainties with, the effects of exposure to low-dose radiation to inform improved risk-management methods.”* Provide due consideration for research that directly impacts radiation protection policy and regulation.