

Planning Meeting on Interdisciplinary Science Teams

Board on Behavioral, Cognitive, and Sensory Sciences
Division of Behavioral and Social Sciences and Education
National Research Council

STUDY CHARGE

Statement of Task: An ad hoc committee will conduct a consensus study on the science of team science to recommend opportunities to enhance the effectiveness of collaborative research in science teams, research centers, and institutes. The Science of Team Science is a new interdisciplinary field that empirically examines the processes by which large and small scientific teams, research centers, and institutes organize, communicate, and conduct research. It is concerned with understanding and managing circumstances that facilitate or hinder the effectiveness of collaborative research, including translational research. This includes understanding how teams connect and collaborate to achieve scientific breakthroughs that would not be attainable by either individual or simply additive efforts.

The committee will consider factors such as team dynamics, team management, and institutional structures and policies that affect large and small science teams. Among the questions the committee will explore are:

- How do individual factors (e.g., openness to divergent ideas), influence team dynamics (e.g., cohesion), and how, in turn, do both individual factors and team dynamics influence the effectiveness and productivity of science teams?
- What factors at the team, center, or institute level (e.g., team size, team membership, geographic dispersion) influence the effectiveness of science teams?
- How do different management approaches and leadership styles influence the effectiveness of science teams? For example, different approaches to establishing work roles and routines and to the division of labor may influence team effectiveness.
- How do current tenure and promotion policies acknowledge and provide incentives to academic researchers who engage in team science?
- What factors influence the productivity and effectiveness of research organizations that conduct and support team and collaborative science, such as research centers and institutes? How do such organizational factors as human resource policies and practices and cyberinfrastructure affect team and collaborative science?
- What types of organizational structures, policies, practices and resources are needed to promote effective team science, in academic institutions, research centers, industry, and other settings?