TIGER TIPS RESOURCES FOR AUBURN RESEARCHERS Building a Team¹

There are many ways to go about building a research team—some more effective than others. If you are charged with or are interested in building a research team, there are several considerations to keep in mind:

- Bring together members with diverse backgrounds and experiences to promote mutual learning.
- Make sure each person understands his or her roles, responsibilities, and contributions to the team's goals.
- As a leader, establish expectations for working together; as a participant, understand your contribution to the end goal.
- Recognize that discussing team goals openly and honestly will be a dynamic process and will evolve over time.
- Be prepared for disagreements and even conflicts, especially in the early stages of team formation.
- Agree on processes for sharing data, establishing and sharing credit, and managing authorship immediately and over the course of the project.
- Regularly consider new scientific perspectives and ideas related to the research.
- When bringing on new team members:
 - ✓ Develop interview questions that require the candidate to articulate his or her interest and experience in working on a research team.
 - ✓ Ask for examples of how the candidate has successfully contributed to a team and what challenges he or she encountered.
 - ✓ When checking a candidate's references, inquire about his or her capacity to collaborate and function as a supportive member of a team.

A research team can be built from the top down (by leaders in their respective fields and/or organizations) or from the bottom up (by junior and senior scientists at the grassroots level). Both approaches can result in the development of highly effective teams.

The model of group development developed by Bruce Tuckman in 1965 is still utilized over 50 years later. The five stages (four original and a fifth added a number of years later) are important for teams to note when considering the development of a team:

- 1. **Forming**: The team is established using either a top-down or bottom-up approach.
- 2. **Storming**: Team members establish roles and responsibilities. This process may trigger disagreements or "turf battles" and reveal a reluctance to appreciate the perspectives and contributions of people from different disciplines or training. However, if collegial disagreement is supported and premature pressure to consensus is resisted, people will begin to open up to one another.

¹ Excerpts from "Collaboration & Team Science: A Field Guide," L. Michelle Bennett; Howard Gadlin; Samantha Levine-Finley

- 3. **Norming**: Team members begin to work together effectively and efficiently, start to develop trust and comfort with one another, and learn they can rely on each other.
- 4. **Performing**: The team works together seamlessly, focuses on a shared goal, and efficiently resolves issues or problems that emerge.
- 5. **Adjourning or Transforming**: Two things can happen when a team accomplishes its initial goal(s):
 - > Teams may come to a natural end. The team's dissolution should be celebrated and the accomplishments recognized and rewarded.
 - ➤ The team may take on a new project with a new goal, applying its ability to work together to solve a new problem.

What Is a Scientific Research Team?

...think of it as a continuum...

Low

Level of Interaction and Integration

High

Independent Research

Investigator works largely independently on a research problem with his or her lab.

Collaboration

- Each group member brings expertise to address the research problem.
- Group members work on separate parts of the research problem, which are later integrated.
- Data sharing or brainstorming among lead investigators varies from limited to frequent.

Integrated Research Team

- Each team member brings specific expertise to address the research problem.
- Team meets regularly to discuss team goals, individuals' objectives, and next steps.
- Team shares leadership responsibility, decisionmaking authority, data, and credit.

Ask Yourself: Am I Ready to Participate on a Research Team?

- ❖ Can I thrive as a member of a highly collaborative research team? To what extent? What would it take?
- ❖ What would I gain? Do I have anything to lose?
- ❖ Am I willing to share data and credit with team members?
- ❖ Am I willing to accept constructive feedback and training from team members?
- ❖ Am I willing to provide constructive feedback and training to team members?
- Can I openly discuss issues and concerns with team members?