STEM Research Group Culture
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Fundamental Questions About Research Groups (RG)
- What are they?
- Where they are?
- Who can be in them?
- What can they do?
- How do groups differ from one another?
- How can I succeed in one?

What is a Research Group?
- Informal group of people investigating topic(s) or theme(s)
- Led by Professor(s)/Principal Investigator(s) (PI)
- Groups are highly variable
  - Number of people
  - Number/range of topics studied
  - Techniques & procedures used
  - Funding availability
  - Undergrads present
  - Culture

Where are Research Groups?
- In addition to academic institutions:
  - Non-profits
  - Government
  - Industry

Research Groups at... Non-Profit Organizations
- Monterey Bay Aquarium Research Institute
- Nature Conservancy
- Howard Hughes Medical Foundation

Turn to the person next to you and come up with an example for each category.
Research Groups at...
Government Agencies

- National Science Foundation
- National Institutes of Health
- NASA
- Center for Disease Control

Industry Research Groups

- Biomedical
- Genentech
- Santa Cruz Biotech
- Information Technology
- IBM Labs
- Bell Labs

Who can be in a Research Group?

- Leader(s): Professor(s) or PI(s)
- Research Scientists, often with Ph.D.’s
  - Including industry or international visitors
- Post-doctoral scholars/fellows (with Ph.D.’s)
- Graduate students
  (earning a Masters or Ph.D.)
- Staff and technicians
  (various degrees)
- Undergraduates
  - Can be supervised by any of the above
  - Can be technicians and/or do independent projects or senior theses

The Importance of Titles

“Professional titles are not simply for ‘show.’
A title tells you a great deal of information
concerning the level of experience,
professional reputation, and the
responsibilities that an individual has within
an organization.”

(The source: http://www.webguru.neu.edu/lab/research-team)

The Professor/PI can be:

- Mentor
- Career Adviser
- Monarch
- Dictator
- President
- Treasurer
- Coach
- Cheerleader
- Advocate
- Therapist
- Friend
- Foe

Mentoring Style

- Typical manner that a mentor interacts with group member
- Don’t take it personally!
- What factors are important to mentoring style?
  - Formality
  - Communication (preferred type, frequency, how personal)
  - Involvement in daily activities
What can Research Groups do?

Professionally

- Meet weekly to provide feedback to members on projects or presentations (group meeting)
- Read and discuss current scientific literature
- Senior members train and mentor junior members
- Collaborate on
  - Projects
  - Grant applications
  - Scientific papers
- Past members can act as an informal career network

Socially

- Form a social group
- Provide emotional support to others
- Explain the group’s culture
- Have group related events, like dinners or parties
- Explain how to manage the personality quirks of members

How do Groups Differ?

- Structure
  - Number of people
  - Number/range of topics studied
  - Techniques & procedures
  - Social and professional interactions
- External influences
  - Culture of department, institution, or company
  - Funding availability
  - Status in academic/industry community

How can I Succeed in a Research Group?

- Be responsible
  - Reply to emails promptly
  - Be punctual
  - Listen to instructions, take notes, and follow directions
  - ASK QUESTIONS if you don’t understand

How can I Succeed in a Research Group? (cont.)

- Understand the group’s culture
  - The PI’s mentoring style
  - Who each person is and his/her responsibilities
  - Who you report to
  - Respect the group’s hierarchy
    - Rules for you are different than for more senior members

Suggestions for Success

- Remember that the PI
  - May not remember what it is like to struggle with the topic
  - May always have been the smartest around
  - Has his/her own political relationships
  - May not be responsive because of other responsibilities
  - (grant writing, teaching, committees, reviewing papers, other research projects…and maybe a partner and/or kids)
Suggestions for Success (cont.)

- Find out who has the professor’s ear and/or is his/her right hand
- Find out who is the lab peacemaker/facilitator
- Be very polite to staff and technicians
- Participate in a community of students with similar goals
- Form an online social group (Linked-In, Google, Facebook, etc.)
- Others?

Please fill out the evaluation and leave it up front.

Thanks!