Team Science & PhD Training

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Team science at academic institutions: Emerging issues

- increasing use of large scale experiments in biomedical science (genomics, proteomics, kinomics, etc)
- combination of natural evolution & external pressures is involved
- large scale experiments= large teams (PIs, postdocs, techs, students)
- conflict between team-based discovery science and PhD tradition (single investigator testing own hypothesis)

One example

- largish-scale study of regeneration-associated genes
- team approach (2 PIs, 1 SRA, 2 Techs, 2 GS)
- most work cooperative, task-oriented
  - cloning, plasmid prep/sequencing, cell culture, image analysis, bioinformatics
- 2 PhD dissertations
  - bioinformatics to focus on single TF
  - large-scale screen of identified genes
- requirements for success
  - appropriate mindset of PI(s), students; diverse talents
  - enabling lab atmosphere
  - buy-in from dissertation committees
  - skillful management?
  - proactive emphasis on communication

- discussion point: time to re-visit the current dissertation model?