



# UT / ORNL interactions as seen from "the floor"

*Soren Sorensen*  
Department of Physics

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# Outline

- Brief historical overview
- Structural differences between UT and ORNL
- Types of interactions
- Types of joint employments
- Advantages as seen from UTK
- Issues as seen from UTK
- Summary and conclusion



# UT/ORNL Collaboration History

- Late 40'ties
  - Graduate programs in Chemistry, Math, and Physics
    - First graduate degrees in 1950
- Late 60'ties -
  - Ford Professors
    - Biology, Chemistry, Engineering, and Physics
  - Graduate School of Biomedical Sciences
    - Grew into GST (see later)
- 1984 - Science Alliance
  - State of Tennessee Center of Excellence
  - Joint Institute for Heavy Ion Research
  - Distinguished Scientists
- 1989 - Collaborating Scientists (→ Joint Faculty in 2000)
  - Ted Barnes
- 2000 - UT/Battelle gets ORNL contract
  - Lee Riedinger, Homer Fischer et al.
- 2001 - New Joint Institutes
  - JICS
  - JIBS
  - JINS
  - And later JIAM
- 2009 - News Initiatives !!!



# Structural differences between UT and ORNL

Most issues and problems in the UT/ORNL interactions can be traced to a lack of appreciation of the different structures of the two organizations

## • ORNL

- Top-down management structure based on DOE mission
- Very few central resources (overhead)
- Most funding in many separate FWPs (research grants)
- DOE is the boss, ORNL the client
- Can react quickly, but funding often not long-term stable
- No tenure

## • UT

- Bottoms-up based on faculty initiatives
- Most resources allocated centrally (but with long-term commitments)
- State of Tennessee is a "weak" boss with fairly diffuse requirements
- Slow resource allocation, but fairly steady funding (despite recent cuts)
- Tenure



# UT / ORNL Interaction Surfaces

- **Collaborations between research groups**
  - Often started based on common interests and/or personal connections
  - Sometimes seeded by initiatives like JDRD
- **Joint Employments**
  - Many different types of joint employment (more later)
- **Sharing of graduate students**
  - Exciting research opportunities at ORNL
  - Graduate students needed for much of the work at ORNL
  - Genome Science and Technology Joint Graduate Program
- **Research grants through UT**
  - Allows sometimes ORNL researchers to obtain grants through non-DOE research agencies
  - Good business for UT departments (overhead, graduate student funding etc.)
- **Science Alliance**
  - Distinguished Scientists
  - Joint Directed Research and Development Program
  - Maybe the place for new initiatives
- **Joint Institutes**
  - Larger scale UT/ORNL interactions
- **Legal agreements**
  - Transfer of funds between us with low overhead



# Joint Employment Opportunities

- Educational positions
  - Graduate student research assistantships
  - ORNL Post-docs paid through grants at UTK
- "Normal" ORNL Researchers
  - UT Adjunct
    - Rules in departmental bylaws
    - No salary
  - UT Research Professorships for ORNL employees
    - If part of salary comes from research grants at UTK
    - Teaching at UT ( 20% - 30% deal)
  - UT 0% Joint Faculty positions for ORNL employees (maybe)
- "Normal" UT Professors
  - Access
  - ORNL Research Associates in "20%" external employment time
  - Sometimes summer salary from ORNL
- Joint Faculty
  - JFU if UT the employer
  - JFO of ORNL the employer
  - Typically from 30% to 70% UT
    - Faculty duties prorated
- Governors Chairs / Distinguished Scientists
  - "Locomotives" for growth
  - Usually UT employees with tenure
    - But recent exception



# Advantages and Issues

- Advantages as seen from a UTK department
  - Can attract better faculty
  - Can attract better graduate students and post-docs
  - Can offer more graduate research opportunities
  - Improves the financial situation
  - Can sometimes attract funding otherwise inaccessible to UT
    - Kraken etc.
- Issues as seen from a UTK department
  - "Mail box" departments
  - Lack of campus infrastructure
  - Internal tensions between haves and have-nots
    - Issues with other departments
    - Issues within a department
  - Different employment structures has sometimes been a disadvantage for UT (tenure).



# Summary and Conclusions

- UT and ORNL have collaborated for more than 60 years
- With UT/Battelle the level of collaboration increased significantly
- People at both institutions need to understand the structural differences between our institutions
- Many interaction opportunities
- Many joint employment possibilities at all levels
- Like in all relationships there are always issues and concerns
- But overall: it is a mature, reasonable happy, and growing relationship

