Workshop: Building Successful Multidisciplinary Translational Teams

The Essential Components of a Translational Research Team

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Outline

• Vision of the CTSA Consortium (why we need teams)
• Classical Model: Independent Researcher (a historical contrast)
• Examples & Pathways of Translational Research (a new emphasis demands a new approach)
• The Multidisciplinary Translational Team (MTT) (a solution to successful translational research)
• The Essential Components of an MTT (how to assemble a successful MTT)

“Scientists are very much like people.”

Howard Gadlin*

* Dr. Gadlin is Ombudsman and Director of the Center for Cooperative Resolution at the NIH
Vision of the CTSA Consortium

- **Transform** the way translational research is conducted in academic health centers
- **Reduce the time** it takes for laboratory discoveries to become treatments for patients
- **Engage communities** in clinical research efforts
- **Train the next generation** of clinical and translational researchers

Classical Model: Individual Independent Researcher

- Independent Principal Investigator
- Single laboratory
- One or several (but not many) research projects
- Small group of research staff
- Proficient in a limited number of techniques
- Limited focus on basic, applied, or clinical science
- Training may/may not be a part of research execution

**Problem?** Takes too long for results to translate from publication to utilization in patients
Examples of Translational Research

T1: Basic discovery into a candidate health application.
- Drug discovery
- Molecular phenotyping
- Pharmacogenomics

T2: Assess value and develop evidence-based guidelines.
- Do behavioral interventions reduce disease?
- What are effective models of health care?

T3: Move evidence-based guidelines into health practice.
- What effect does adoption of screening guidelines by public health or national societies have on population health?

Team-based Model: Multidisciplinary Translational Teams (MTT’s)

- *Patient oriented* research programs related to UTMB strategic initiatives and strengths (e.g., aging, environmental health, burns, etc.)
- Committed, productive, and collaborative PIs willing to participate in CTSA team research and training activities
- *Trainees* are involved; with NIH-K series and other training awards as explicit MTT goals
- MTTs are encouraged to *interact* with CTSA national consortia, multi-site trials or networks
Overview: Multidisciplinary Translational Teams

Why is a team approach necessary?

- **Teams** can consolidate expertise required to complete a project with success in a more brief timeframe
- **Teams** can promote systemic innovation & organizational agility to quickly meet challenges
- **Teams** can allow apparent “parallel processing” through actions on varied facets of project(s) simultaneously

Translational science increasingly requires skill sets that a single investigator may not have...

*Teamwork can be a solution to the process of translation*

MTT Critical Components

1. Leader(s)
2. Manager(s)
3. Members
4. Trainee(s)
MTT Critical Components: Leadership & Management

I. Team Leader(s) – typically senior investigator(s)
   1) Vision
   2) Leadership
   3) Experience
   4) Commitment to translational research performance

II. Team Manager(s) – can be junior member(s)
   1) Detail-oriented
   2) Emerging/developing leadership skills
   3) Developing experience in translational research

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MTT Critical Components: Team Manager

Team Manager is the “glue” that:

1. Keeps the MTT moving forward by facilitating communication
2. Insures that regular MTT meetings happen
3. Facilitates new MTT member inclusion

Duties:

- May be delegated to run the MTT meetings
- Meetings planning and reminders
- Keep records of MTT meeting minutes
- Perform as meeting minutes scribe, if necessary
- Remind MTT members of agreed-upon action items
MTT Critical Components: Members

- At least 3 different UTMB departments represented
- Can be from other UT or non-UT institutions
- Must have requisite scientific & communication skills
- May have critical “niche” skills that can solve challenges
- Can be added as project(s) needs dictate

Recommended Critical Members for all MTT’s:

- A member from the **Ethics Key Resource**
  (can help team foresee and plan for potential ethics issues)

- A member from the **Biostatistics Key Resource**
  (incorporate esp. in planning stages of team research projects)

MTT Critical Components: Trainee(s)

1. Pre-professional examples
   - MD Resident
   - PhD Post-doctoral Associate
   - MD/PhD Trainee
   - Graduate Student (PhD or MS candidates)

2. Junior faculty (e.g., Assistant Professor or Instructor)
   - CTSA Scholars with NIH KL-2 funding
     (2-5 yr. 85% salary + project funds support)

   - Commitment to translational research career

   - Typically will submit grants to establish independence
Conclusions

• The Multidisciplinary Translational Team (MTT) is a workable team construct with an achievable formula

• The success of the team is strongly dependent on collaborative member interactions and communication

• A Team Manager can be essential to team success

• Teamwork is critical for the future in biomedical translational research.

Thank You!

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