Accelerating Novel Discoveries into Practice

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Outline

• Clinical and Translational Science Award

• Center for Translational Medicine

• Helping TORS investigators
The Best of Times, the Worst of Times

Fundamental science unprecedentedly advanced, but:

- Poor transition of basic or clinical observations into interventions that tangibly improve human health
- Drug/device/diagnostic development system in crisis
- Clinical trials system in crisis
- Poor adoption of demonstrably useful interventions

People unhealthier and funders of biomedical research enterprise (public and private) impatient
UT Southwestern Clinical and Translational Science Award

- NIH Cooperative Agreement (U54)
- Institution-based infrastructure $$ for C&T research and education
- 5 year funding $28,600,000
- Awarded September 2013
- Renewable based on success
62 Sites of Clinical and Translational Research Awards

To catalyze the generation of innovative methods and technologies that will enhance the development, testing and implementation of diagnostics and therapeutics across a wide range of human diseases and conditions.

Chris Austin, MD  Director
Challenge

Laboratory Discovery

Commitment to Care
Role of CTSA

Laboratory Discovery

Commitment to Care

CTSA
Center for Translational Medicine: Home of the UT Southwestern CTSA

Mission Statement
Enable investigators to discover, translate, and disseminate new knowledge that will improve the prevention, detection, diagnosis, and effective treatment of disease.

Align and integrate basic and clinical research communities to promote and facilitate Clinical and Translational Research at UT Southwestern.
Center for Translational Medicine

- Unique
- Based in Dean’s Office
- Disease Agnostic resource
- Reservoir Resources and Services
Vision

• **Encourage** trans-disciplinary collaborations to accelerate translation of discovery into practice

• **Integrate** and centralize research resources the continuum of translational research (T0-T4)

• **Transform our academic practice** to establish a “real time” repository of potential research participants
UT Southwestern CTSA: Programs in (Cores) Translational Research

T0
Basic Discovery
Target Identification and Validation
David Russell and Ralph Deberardinis

T1
Translation to Human
Discovery in Humans
Helen Hobbs and James de Lemos

T2
Translation to Patient
Interventions in Human
Madhukar Trivedi and Blair Holbein

T3/T4
Translation to practice and populations
Population Science and Community Engagement
Celette Skinner and Ethan Halm
Supporting Programs (Cores) in Translation

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Biomedical Informatics
Translational Pilot Grant Program
Research Environment
Research Education Training
High Priority/High Impact in Progress

Center for Translational Medicine

- Biomedical Informatics
- DHS and Biobank
- Human Tissue Bank
- Phase I trials program
- Transform practice
- Patient Registries
Center for Translational Medicine and TORS

- Resources
- Networking
- Education
- Funding
RESEARCH RESOURCES SUPPORTED BY our CTSA
Research Resources Supported by CTSA

- Clinical Research Center (GCRC)
- Clinical Pharmacology and Experimental Therapeutics Center
- Community Research Registry
- Rural County Research Network
- Spanish Language Research Resources
- Regulatory Science Support Service
- Dallas Heart Study
- Institute for Exercise and Environmental Medicine (IEEM)
- Human Biological Repositories
- Office of Clinical Research Facilitation
- Biomedical Informatics (BMI)
- Advanced Imaging Research Center
- Computational Resources
- DNA Sequencing and Genomic Technology
- Biostatistics, and Research Design
- Comparative Effectiveness Research
- Good Manufacturing Practice (GMP) Core Facility
- High-Throughput Screening, Medicinal Chemistry, and Pharmacology Facilities
- Office of Technology Development
- Research Ethics
Requesting CTM Resources and Services
TORS Example: Finding Human Subjects

Investigator Query
Find patients with:
• Obesity/Metabolic Syndrome
• Diabetes
• CV Disease
• Liver Disease

Body fluid sample
Physiological study
First in human study
Clinical trial

List of Potential Research Participants

Data Warehouse

Patient Registry
TORS Example: Pharmacokinetics for New Drugs

Test new Drug in:
- Obesity/Metabolic Syndrome
- Diabetes
- CV Disease
- Liver Disease

Subjects administered drug
Samples collected and processed

Clinical Pharmacology and Experimental Therapeutics Unit

Additional Pilot Funds Available PK/PD studies

Clinical Research Unit

Patient Registry
Networking: Making Connections

Establish ACcelerating Translation (ACTion) Affinity Groups: Genetics, Metabolomics, Imaging, Drug Target Discovery and Development
Networking: Translational Science Forum

- Wednesday 12-1 pm South Campus D1.200
- Clinical investigators present research ideas and preliminary data
- Multidisciplinary Audience feedback
- Build team (collaborations) science
The goal of the Translational Pilot Program is to promote and support the development and testing of new research ideas and novel translational ideas. ~$400,000/yr
Funding: Translational Pilot Grant Program

Investigative team

CTSA Pilot Grant

Funded RO1

Preliminary Data
Funding: Establishing Core Facility for Grantsmanship: NIH K and T Awards

Boilerplate language

Funded Applications and Critiques

Core Labs descriptions

K Awards Kiosk
Clinical and Translational Science Education and Training

- Predoctoral PhD and Medical Students (3 slots/yr)
  - 1 year
  - Mentored
- Post-doctoral trainees (4+ slots/yr)
  - 2 years
  - Mentored
- Competitive
- Stipend/salary support
- Emphasis: multidisciplinary team science
Center for Translational Medicine: Contact Us

• Visit our webpage:
  http://www.utsouthwestern.edu/research/translational-medicine/about/contact.html

• Call Us:
  214-648-2500