“Where Science Meets Hope”

David Nelson, MD
Director, Clinical and Translational Science Institute
Associate Dean, Clinical Research
Welcome!

- Strategic Planning Retreat 2011

- UF research community:
  - CTSI Leadership (Drs Good, Guzick, Phillips)
  - Broad representation from 12 colleges
  - Multiple institutes/centers
  - Investigators

- External advisory committee
External Advisory Committee

– Alastair Wood, MD, Ch.B (Chair)
  • Prof of Medicine/Pharmacology (Weill Cornell)
– Dennis Bier, MD
  • Director, USDA/ARS Children’s Nutrition Research Center (Baylor)
– Gordon Bernard, MD
  • Assoc Vice Chancellor Research (Vanderbilt)
– Debra Haire-Joshu, PhD, MPH
  • Associate Dean for Research (St Louis University)
– Tesheia Johnson, MBA, MHS
  • COO CTSI (Yale)
– Lisa Lavange, PhD
  • Biostatistics, Director, Coordinating Center (UNC)
– Thomas Pearson, MD, PhD
  • Senior Assoc Dean, Clinical Research (Rochester)
– Ted Shortliffe, MD, PhD
  • President and CEO, American Informatics Association (Houston)
Introductory Comments

- Clinical and Translational Science Awards
  - NIH priorities and reorganization
  - CTSA national strategic goals
  - Defining translational research
  - UF CTSI
CTSI Strategic Plan
Road Map to NIH Priorities

NIH Priorities

- High-Throughput Technologies
- Translational Medicine
- Benefiting Health Care Reform
- Focusing More on Global Health
- Reinvigorating & Empowering the Biomedical Research Community
CTSI Strategic Plan
Mapping to NIH Priorities

NIH Priorities
- High-Throughput Technologies
- Translational Medicine
- Benefiting Health Care Reform
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CTSA Strategic Goals
- Encouraging T1 Translational Research
- Building Clinical & Translational Research Capability
- Enhancing the Health of our Communities and the Nation
- Enhancing Consortium-Wide Collaborations
- Training and Career Development
A Curve in the Road Map?
National Center for Advancing Translational Sciences (NCATS)

• Mission: establish a focused, integrated, and systematic approach for building new bridges to link basic discovery research with therapeutic development and clinical care

• Realignment of NIH resources related to translational sciences (T1)
  – CTSA programs
  – Cures Acceleration Network (CAN)
  – Molecular Libraries Program (MP)
  – Therapeutics for rare and Neglected Disease (TRND)
  – Rapid Access to Interventional Development (RAID)
  – NIH-FDA partnership activities
UF CTSI Strategic Plan
Mapping Translational Research

T1
Potential Application

Basic Science Discovery  ➔  Potential Clinical Application

Basic Knowledge  ➔  Theoretical Knowledge

Type of Research:

• Bench to bedside
• Mechanistic
• Animal models
• Phase 1,2 trials
UF CTSI Strategic Plan
Mapping Translational Research

T1
Potential Application

T2
Efficacy

Basic Science Discovery

Potential Clinical Application

Evidence-Based Guidelines

Basic Knowledge

Theoretical Knowledge

Efficacy Knowledge

Type of Research:

- Bench to bedside
- Mechanistic
- Animal models
- Phase 1,2 trials
- Phase 3 trials
- Health services studies
- Observational studies
- Systematic reviews
UF CTSI Strategic Plan
Mapping Translational Research

T1
Potential Application

T2
Efficacy

T3
Effectiveness

Basic Science Discovery

Potential Clinical Application

Evidence-Based Guidelines

Clinical Care or Intervention

Basic Knowledge

Theoretical Knowledge

Applied Knowledge

Type of Research:

• Bench to bedside
• Mechanistic
• Animal models
• Phase 1,2 trials

• Phase 3 trials
• Health services studies
• Observational studies
• Systematic reviews

• Phase 4 trials
• Implementation
• Communication
• Dissemination
• Diffusion
UF CTSI Strategic Plan
Mapping Translational Research

T1
Potential Application

T2
Efficacy

T3
Effectiveness

T4
Population-Based

Basic Science Discovery

Potential Clinical Application

Evidence-Based Guidelines

Clinical Care or Intervention

Health of Community or Population

Basic Knowledge

Theoretical Knowledge

Efficacy Knowledge

Applied Knowledge

Public Health Knowledge

Type of Research:

- Bench to bedside
- Mechanistic
- Animal models
- Phase 1,2 trials

- Phase 3 trials
- Health services studies
- Observational studies
- Systematic reviews

- Phase 4 trials
- Implementation
- Communication
- Dissemination
- Diffusion

- T3 in community (CER)
- Population / outcome
- Cost-benefit
- Policy impact
- Studies beyond clinical care
Clinical and Translational Science Institute
How did we get here?

• In July of 2009, UF received a $26 million NIH Clinical Translational Science Awards, establishing the UF CTSI.
  – The UF Office of Research provided additional $23 million in support
  – The UF College of Medicine has made $70 million in commitments
  – 12 Colleges → 20% effort for members, faculty lines, space, equipment

• The result: an institute dedicated to enhancing human health by accelerating the translation of basic research into new clinical treatments as quickly as possible.

• New 120,000 sq ft building underway (CTRB)
Clinical and Translational Research Building
Infrastructure for Clinical Research

- CTSI headquarters
  - Ambulatory Clinical Research Center and targeted research programs
    - type 1 diabetes, muscular dystrophy, aging, etc
  - Biostatistics, BMI, and Epidemiology (new Departments being created)
  - Health Policy and Health Service Research
  - Training Programs (pre and post doctoral)
- Incorporated with Institute of Aging Building (NIH funded; 40,000 sq.ft)
- 80,000sq.ft additional dedicated space
- Break ground May 2011
Philosophy of the UF CTSI

University of Florida Colleges
Agricultural and Life Sciences, Dentistry, Engineering, Fine Arts, Health and Human Performance, Journalism and Communications, Business, Liberal Arts and Sciences, Medicine, Nursing, Pharmacy, Public Health and Health Professions and Veterinary Medicine (Gainesville and Jacksonville campuses)

Clinical and Translational Science Institute

Community
IFAS Extension Partnerships-FSU

Healthcare Systems
Shands –GA/Jax N. FL/S. GA VA Orlando-Lake Nona
Major Components of The CTSI
Overarching goal:
To increase accessibility of information by providing expert investigator assistance via Research Project Navigators, and provide prompt access to research and/or training resources ensuring rapid activation of research.

Wajeeh Bajwah, PhD

Clinical and Research Ethics Program

Overarching goal:
To provide an institution wide resource for consultation, collaboration, and education that addresses ethical issues in the design and conduct of CTS

William Allen, JD
**Research Design and Analysis Program**

**Overarching goal:**
Consult, collaborate and conduct research and educate on study design and biostatistical issues in CTS.

Jon Shuster, PhD  
Keith Muller, PhD

**Biomedical Informatics Program**

**Overarching goal:**
Develop and integrate clinical and research data systems to support collaborative CTS and lay groundwork for new academic program in BMI.

Michael Conlon, PhD
Overarching goal:
Train a new generation of multi-disciplinary CTS researchers and leaders in academia, industry and government.

Marian Limacher, MD

Translational Technologies and Resources Program

Overarching goal:
Provide new research and training tools for multidisciplinary research.

Cores:
- Biobehavioral (Sara Jo Nixon)
- Biorepository (Michael Clare-Salzler)
- Genotyping (Julie Johnson)
- Human Imaging (Tee Ashizawa)
- Metabolomics (David Powell)

Jesse Gregory, PhD
Community Engagement and Research Program

Overarching Goal:
To promote collaborative relationships with communities to address the health and well-being of community members.

Elizabeth Shenkman, PhD  Mobeen Rathore, MD

Participant and Clinical Interactions Program

Overarching goal:
Create new training and funding opportunities for patient-oriented research (POR).

Carl Pepine, MD
Facilitating the CTSI – Community Interchange Program

**Overarching goal:**
Ensure that clinical research scholars learn to present findings in a comprehensive manner to lay audiences that include policymakers, families and community leaders.

Enhance the public’s knowledge and understanding of health research and results as well as researchers’ knowledge and understanding of the public’s preferences and needs.

Deborah Treise, PhD

Comprehensive Drug Development Program

**Overarching goal:**
Establish FDA-compliant institutional resource for small molecule drug development, from discovery to proof of concept, with graduate training in these fields.

Nicholas Bodor, PhD  Guenther Hochhaus, PhD
Pilot and Collaborative Projects Program

**Overarching Goal:**
Institution-wide RFAs for CTS, targeting junior faculty; methods (IP) development; and multi-discipline, trans-college initiatives.

Chris Batich, PhD

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Tracking and Evaluation

**Overarching Goal:**
Evaluate and enhance performance of each CTSI component

Russell Bauer, PhD  
Glenn Israel, PhD
CTSI Strategic Plan 2011 ........................