Research Centers in Minority Institutions (RCMI) Translational Research Network (RTRN)

Supporting Connectivity for Biomedical Research:

Keith C. Norris, M.D., FACP

What is the RCMI "Translational" Research Network (RTRN) ?

- A cooperative research network that will facilitate <u>translational research in health disparity areas</u>.

- A consortium of investigators from RCMI and partnering institutions (academic & community)

- Core: Data and Technology Coordinating Center (DTCC)

Clinical Research to Clinical Practice – Lost in Translation?

* Enormous amounts of new knowledge are barreling down the information highway, but they are not arriving at the doorsteps of our patients.

* This is particularly true for a disproportionately high percentage of women, racial and ethnic minorities, and other high-risk groups in the US healthcare system.

Lenfant C. Clinical Research to Clinical Practice - Lost in Translation?
N Engl J Med 2003;349:868-74.

Clinical Research to Clinical Practice – Lost in Translation?

This issue of who will really benefit from research results is especially critical as we look toward applications of proteomic/genomic research.
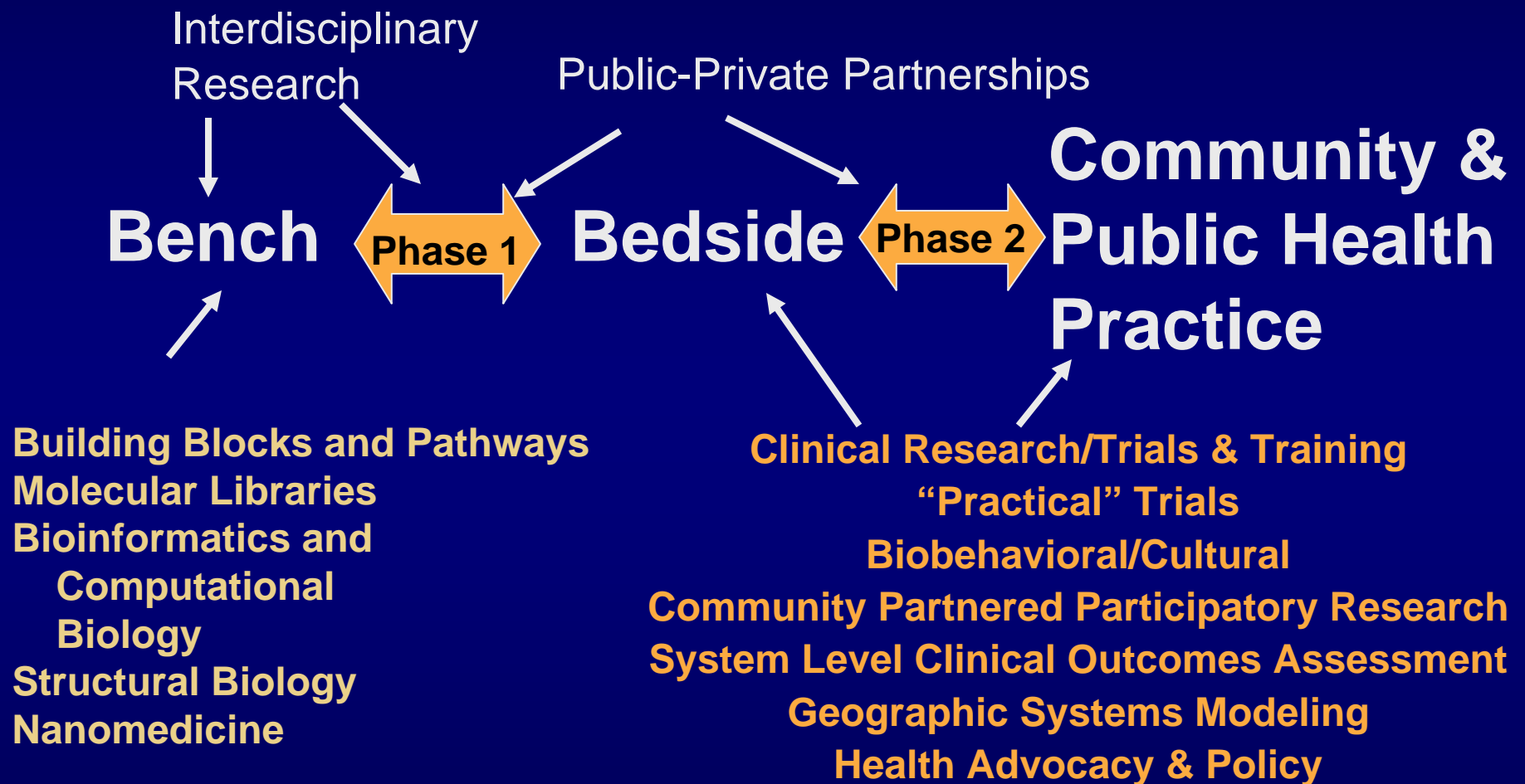
And we must direct our attention, our commitment, our energies, our creativity, and our resourcefulness to making sure that the beneficiaries will be the patients — **all the patients!**

Lenfant C. Clinical Research to Clinical Practice - Lost in Translation?
N Engl J Med 2003;349:868-74.

Why "Translational" Research and a "Translational" Research Network?

Interdisciplinary Research

Public-Private Partnerships

Bench ⬅️➡️ **Phase 1** **Bedside** ⬅️➡️ **Phase 2** **Community & Public Health Practice**

Building Blocks and Pathways
Molecular Libraries
Bioinformatics and
**   Computational**
**   Biology**
Structural Biology
Nanomedicine

Clinical Research/Trials & Training
"Practical" Trials
Biobehavioral/Cultural
Community Partnered Participatory Research
System Level Clinical Outcomes Assessment
Geographic Systems Modeling
Health Advocacy & Policy

Garfield SA, et al and the Diabetes Mellitus Interagency Coordinating Committee Translation Conference Working Group. *Diabetes Care.* 2003; 26:2670-2674. &
Sung NS et al. Central challenges facing the national clinical research enterprise. *JAMA.* 2003; 289:1278–1287.
Norris KC. Translational Research: Moving Scientific Advances into the Real-World Setting. Ethn Dis. 2005;15(3):363-4

RCMI Translational Research Network (RTRN) Overview

* Initiate and perform multi-center clinical trials
    * e.g. Minority involvement in clinical research
    * Gene-environment interactions, advancing personalized medicine, Community focused research.
* Data & Technology Coordinating Center
* Highly active educational/training platform
* Integrated basic biomedical research platform
    * Computational biology
    * Imaging

Who can Participate in RTRN?

- ## The RCMI Community & partners
  - IDEA institutions, GCRC/CTSA, community providers, health networks, others.
- ## Project Activity
  - Preferably (not necessarily) two levels of activity: across and within disciplines
    - <u>Disease</u>, <u>Stage</u> (e.g. cell, animal, individual, community), <u>Discipline</u> e.g. nanotechnology, clinical trials, community research, computational modeling, economic modeling, etc.
    - Similar activities/levels may involve critical resource sharing
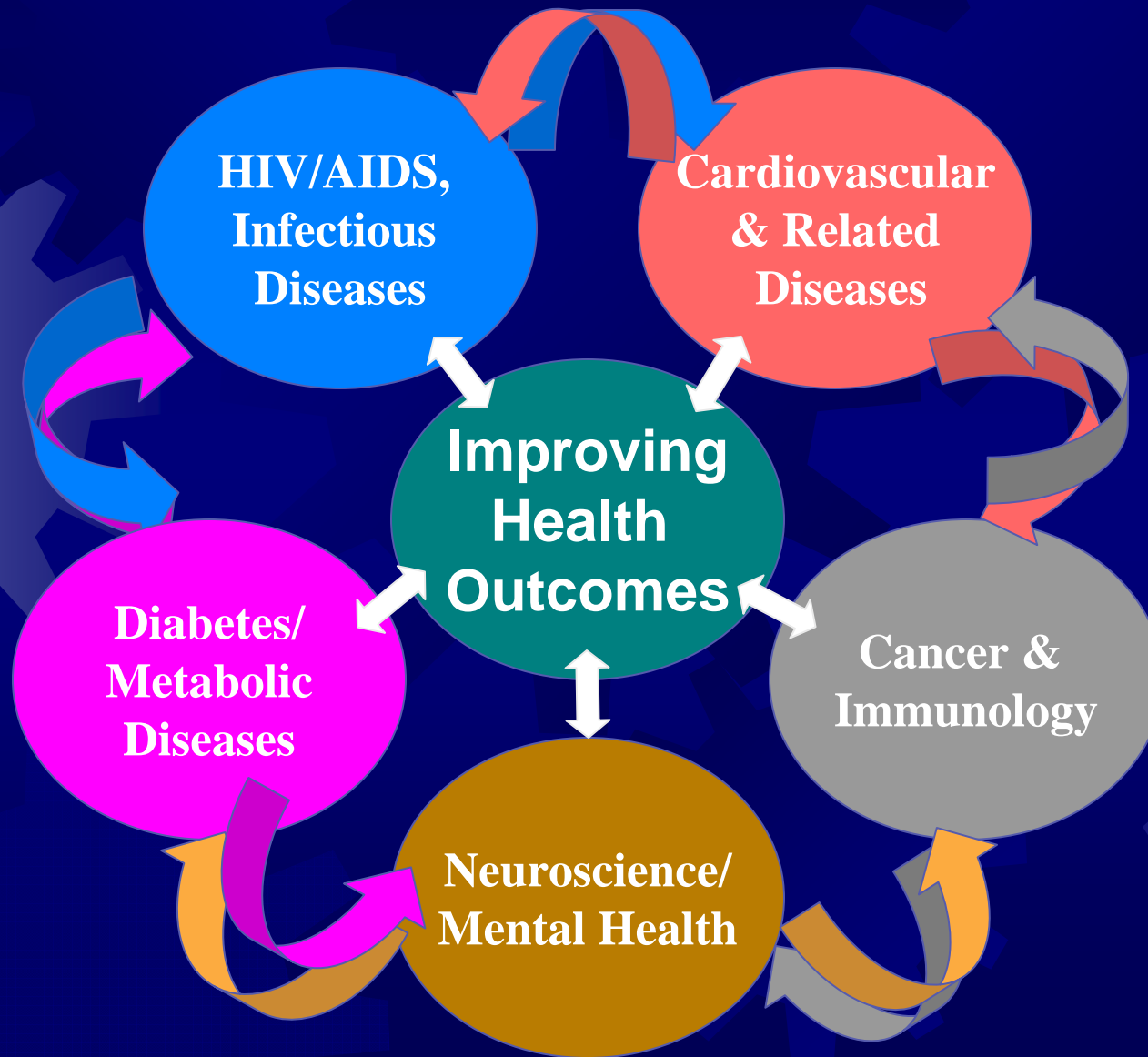- ## Other Considerations
  - Institutional culture - promotion/credit, innovation -IP
  - Cyber Workspaces
- ## Educational Activities
  - Faculty, trainees, community

RTRN Research Disease Cluster

- HIV/AIDS, Infectious Diseases
- Cardiovascular & Related Diseases
- Improving Health Outcomes
- Diabetes/ Metabolic Diseases
- Cancer & Immunology
- Neuroscience/ Mental Health

Jackson State University DTCC

Cyber-Workspaces

* Active inter-and intra-institutional collaborations across disciplines with Structure & Functional Processes

* Research Clusters & Workgroups
  * Interdisciplinary, organized by disease/methods/other with a shared theme

* Admin/Technical support
  * Provide structure & ensure the process is active, not passive.

Health Level Seven (HL7)

- *Develops specifications that enable the <u>semantically</u> <u>interoperable</u> interchange of healthcare and research data between information systems across the entire healthcare continuum.*

- *This is critical for health related research data issues.*

Interchange vs Interoperability

✹ Interoperability

Ability of ≥2 systems or components to exchange information and to *predictably* use the information that has been exchanged.

Source: IEEE Standard Computer Dictionary: A Compilation of
IEEE Standard Computer Glossaries, IEEE, 1990]

Syntactic interoperability (interchange)

Time flies-Fruit flies

Semantic interoperability

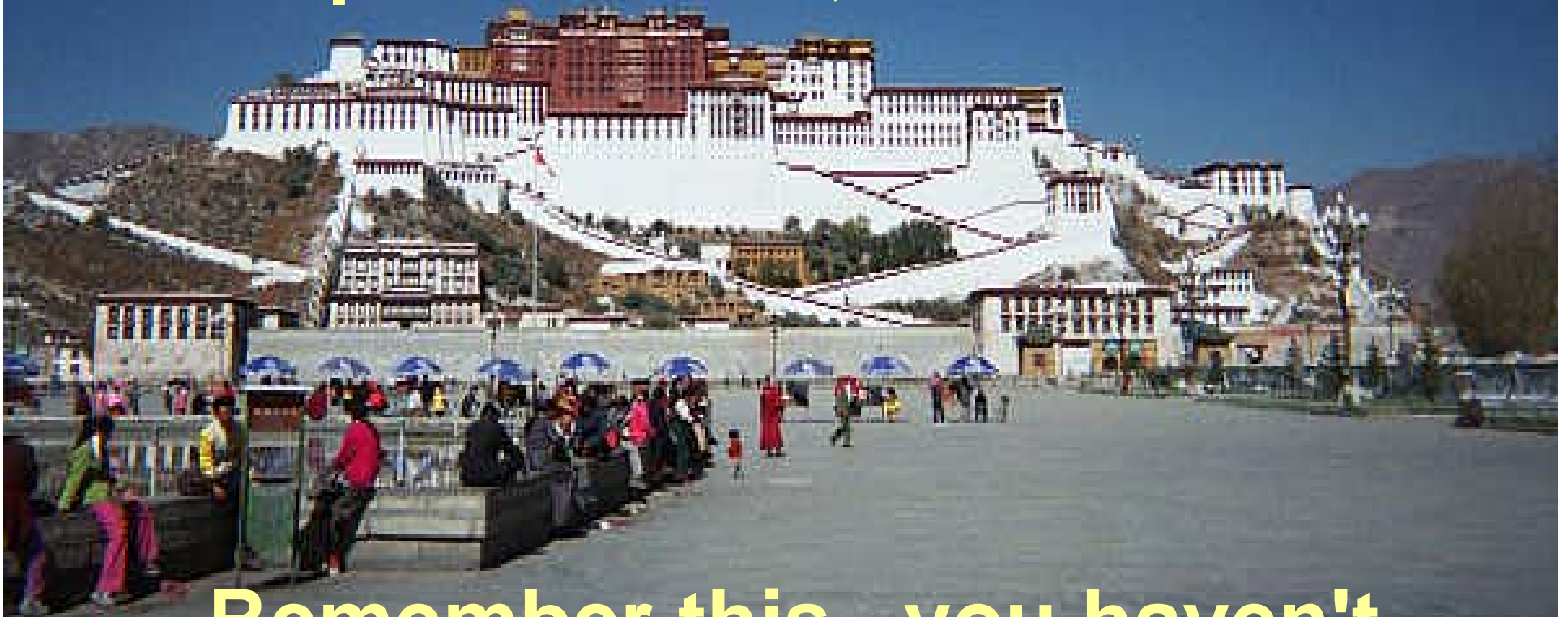Meaning & Context

Adapted from C. Meade, MD

NIH-NCRR: RCMI SITES

Your Project Here !!!

Charles R. Drew Univ, CA

City College CUNY

Hunter College CUNY

Howard Univ, DC

Morgan State Univ, MD

Meharry Medical College, TN

Jackson State Univ, MS

Tuskegee Univ, AL

Clark Atlanta Univ, GA

Morehouse School of Medicine, GA

U of Texas El Paso, TX

Texas Southern Univ, TX

U of Texas San Antonio, TX

Florida A&M Univ, FL

Univ of Puerto Rico, Medical Sciences Campus, PR

Universidad Central Del Caribe, PR

Ponce School of Medicine, PR

Univ. of Hawaii at Manoa, HI

When you have exhausted

all possibilities,

Remember this...you haven't.

- Author Unknown