

Educational and Training Opportunities Available to the Clinical Translational Scientist

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Center for Clinical & Translational Science

Department of Behavioral Science
College of Medicine

Science

- The discovery of new knowledge about health and disease prevention, pre-emption, and treatment, as well as methodological research to develop or improve research tools

Clinical Research: NIH

- Patient-oriented research conducted with human subjects (or on material of human origin such as tissues, specimens and cognitive phenomena) for which an investigator (or colleague) directly interacts with human subjects. Excluded from this definition are *in vitro* studies that utilize human tissues that cannot be linked to a living individual.
 - mechanisms of human disease
 - therapeutic interventions
 - clinical trials
 - development of new technologies.
- Epidemiologic and behavioral studies.
- Outcomes research and health services research.

Translational Research

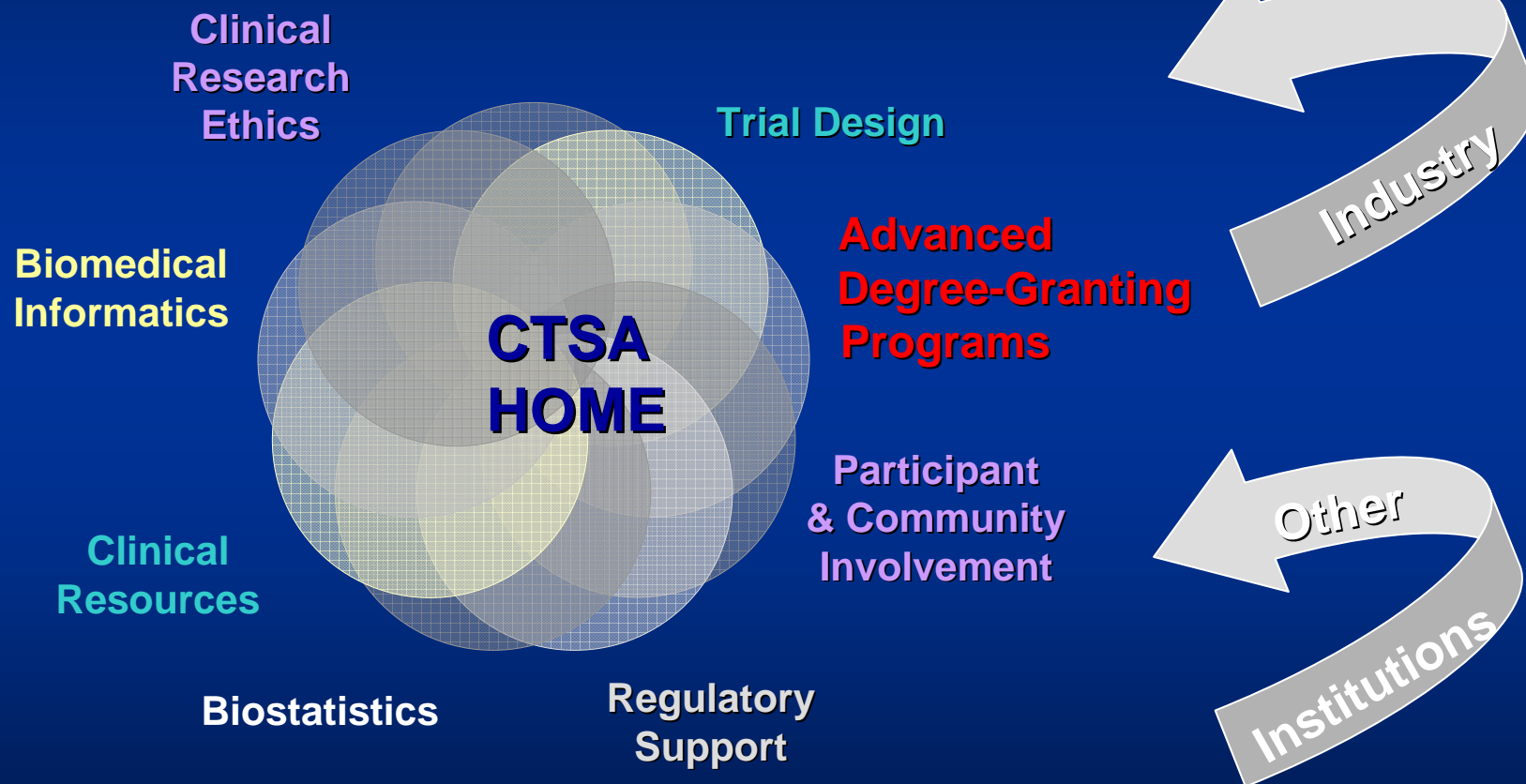
- Applying discoveries generated in the laboratory, and in preclinical studies, to the development of trials and studies in humans
- Enhancing the adaptation of best practices in the community

**NIH Research Training
Opportunities:
K30 Clinical Research
Curriculum Award (CRCA)**

Anthony Hayward

March 16 2006

NIH CTSA Awards: A Home for Clinical and Translational Science



Researchers willing to question received wisdom

- **Change from separate T32, K30, K12 awards to an integrated CTSA component program that will recruit MDs, DDS, DNPs.**
- **Use institutional environment to train research teams**
- **Create a mentored environment for the transition to research independence**
- **Ensure continuing supply of young researchers**

Vision

- **Strengthen clinical research as a recognized discipline with a career structure**
- **Create an environment in which research teams will flourish**
- **Enable trainees to use advances in genotyping and biomedical informatics to further collaborative translational and clinical research**
- **Enable trainees to extend their clinical research into the community**

Existing Resources

- **Current research training programs**
 - Individual Training Awards
 - GCRC programs
 - 10 T32's
 - K30 (Certificate Curriculum)
 - BIRWCH K12
 - Physician-Scientist Program
 - Clinical Scholars Program
- **Health-related graduate degree programs**
- **Institutional support**
 - Tuition benefits
 - Career development infrastructure (ORI, PDO, OSPA)
 - TASC
 - Graduate School
 - Research Infrastructure (Got Grants)

Training, Education And Mentoring (TEAM)

- Provide the foundation for a new academic discipline of clinical and translational science at UK.
 - A vertically-integrated competency-based CTS curriculum for health professionals
 - A CTS curriculum horizontally integrated with health-related graduate programs
 - A CTS curriculum integrated with the community medical outreach activities

Initiatives

- Curriculum in CTS*
- Research Training Program*
- Mentor Training Program*
- Career-Development Office*
- Research Conferences*
- Scholar Recruitment Program*
- T32 (5 slots)
- K12 (4 per year)
- Oversight
 - Leadership Committee*
 - MAC
- Tracking and Evaluation*

*: Elements of these resources are operating

Research Training Programs in CTS

- Mentored Clinical Research Training Program
 - Methods & Technologies in CTS
 - Mentored Research (stipend support)
- Certificate (UK Scholar Entry Point)
- MS in CTS
- PhD in CTS (Future Goal)

Graduate Certificate: Opportunity for Supplemental CTS Training

- Courses
 - Methods & Technologies in CTS (3 cr)
 - Interdisciplinary Protocol Development (2 cr)
 - Seminar in CTS (1 cr)
 - Ethical Issues in Clinical Research (3 cr)
 - Biostatistics (3 cr)
- Research Practicum (\$5K - competitive)
- 12 credit hours applied to MS Program



**Fall 2007 Clinical and Translational Science
Seminar Series (BSC 772-002), 5:00 - 6:30 p.m.**

WEDNESDAYS

- | | | |
|-----------|------------------------|--|
| Aug. 29: | Gill Heart
Room 040 | C. WILLIAM BALKE, MD
(Associate Provost for Clinical and Translational
Science)
"Translational research in medicine: how to get started" |
| Sept. 12: | Gill Heart
Room 040 | ERIC SMART, PhD
(Professor of Pediatrics and Physiology and
Pediatrics Vice-Chair of Research)
"Multi-disciplinary team science: the Pediatric Research
Incubator experience" |
| Sept. 26: | CTW 403 | JOSEPH B. ZWISCHENBERGER, MD
(Johnston-Wright Professor and Chairman, Department
of Surgery and Professor of Diagnostic Radiology) |
| Oct. 10: | Gill Heart
Room 040 | GCRC-Sponsored Medical/Dental Scholars
"Work-in-progress" |
| Oct. 24: | Gill Heart
Room 040 | RAZVAN ARSENESU, MD
(Physician-Scientist/Clinical Scholar Award
Recipient)
"Work-in-progress" |
| Nov. 14: | Gill Heart
Room 040 | BRIAN MURPHY, MD
(Physician-Scientist/Clinical Scholar Award Recipient)
"Work-in-progress"
PAUL ANAYA, MD, PhD
(Physician-Scientist/Clinical Scholar Award Recipient)
"Work-in-progress: Molecular control of diabetic
vascular disease" |
| Nov. 28: | Gill Heart
Room 040 | DAVID MOLITERNO, MD
(Professor and Chief, Cardiovascular Medicine and
Medical Director, Gill Heart Institute)
"Impacting the practice of medicine through
clinical trials" |
| Dec. 12: | Gill Heart
Room 040 | EDWARD D HALL, PhD
(Director, Spinal Cord & Brain Injury Research Center
and SCoBIRC Endowed Professor of Anatomy &
Neurobiology, Neurology & Neurosurgery)
"Discovery of Therapies for Neurodegenerative
Disease: Academia to Industry and Back Again" |

Pizza and soda served

For more information, please contact Krista Mevoli: kmcoll0@email.uky.edu

Master of Science

Designed as a broad platform to permit CTS scholars to tailor an individual course of supplementary training across the continuum of basic, clinical and translational sciences

- Certificate Program (12 cr)
- Mentored Research (6 cr)
- Concentration (12 cr)

Course requirements in an approved area of concentration (e.g., Cellular Mechanisms of Health) or a constellation of courses from a broad range of health-related disciplines tailored to the scholar's research activities and career goals.

Research Training

- Incubator Model
 - Clinical Laboratory Training - Pediatrics
 - CR-Doc
 - KAN
- Multi-Mentor Model
 - Mentor teams to identify research settings based on career interests/objectives
 - Faculty mentors will be identified
 - Research training environments will be advertised
 - Formal applications with specified objectives will be required and evaluated by CTS Faculty
 - Training funds (\$5 K) will be provided to mentors
 - Mentors will be charged with oversight training, including completion of certificate competencies and research objectives
- Evaluation

Career Development Office

- Career Guidance/Promotion & Tenure
- Survival Skills Workshops
- Document Development
- Mentor Database
- Community Outreach Education
- Curriculum Development
- Conference Management
- Administrative Support
- Tracking and Evaluation

Opportunities for Graduate Student in Rehabilitation Sciences

- Certificate Program
 - Supplemental Training in CTS Competencies
 - Support for Research Training (\$5K)
 - Career Development Resources
 - Survival Skills
 - Writing Support
 - Co-mentors
 - Expanded Research Training Opportunities
 - Collaborative Opportunities
 - T32 support when CCTS is funded
- Research Conferences

Clinical and Translational Science Fall Conference

Friday, September 28, 2007

Lexington Civic Center, 3rd Floor

- 7:30 a.m. - 8:00 a.m.: Registration
- 8:00 a.m. - 8:10 a.m.: Welcome - Tom Kelly, PhD, TEAM Director
- 8:10 a.m. - 8:40 a.m.: Breakfast Keynote Presentation
Bill Balke, MD
- 8:45 a.m. - 11:45 a.m.: Morning Workshops - Career Development
Entrepreneurial Opportunities in CTS (Gill Workshop: Case I & II)
Career Development Resources (Bill Balke, MD)
Writing a Competitive Training Grant (Tom Curry, PhD,
Margot McCullers, PhD, Kathy Grzech, MA)
Digital Resources Vital to Academic and Research Success
(Norman Pedigo, PhD)
Using the Library (Rick Brewer, MLS, Mary Vaughn, MLS,
Frank Davis, MLS)
Promotion and Tenure (Heidi Anderson, PhD)
- 11:45a.m. - 1:00 p.m.: Lunch and Keynote - Jack Gill, PhD
Intelligence, Leadership, and Entrepreneurship: How they Interact
for Success
- 1:15 a.m. - 5:00 p.m.: Afternoon Workshops - Building
Collaboration
Entrepreneurial Opportunities in CTS (Gill Workshop: Case III & IV)
Health Policy Research (Ellen Hahn, DNS, Ginny Sprang, PhD)
Muscle Biology (Michael Reid, PhD)
Research in the Community (Richard Clayton PhD,
Kevin Pearce, MD, James Norton, PhD)
Academic Discipline of Translational Research (Bill Balke, MD)
Mucosal Immunology (Razvan Arsenescu, MD &
Charlotte Kaetzel, PhD)
- Go to: www.ccts.uky.edu/events.htm for more information
and registration materials

Opportunities for Faculty in Rehabilitation Sciences

- Scholar Recruitment
- Junior Faculty
 - CTS Curriculum
 - CTS Conferences
 - Mentor Training
 - Career Development Office
 - CDO
 - K-12 for Clinically-Trained Faculty
- Senior Faculty
 - Mentor Program
 - Resources for student research training
 - DOE support for T32/K12 mentors
 - CTS Conferences
 - Collaboration