UAB Stays on Cutting Edge With ‘Transformative’ CTSA Grant

UAB’s leadership rejoiced May 30 as it announced NIH approval of a Clinical and Translational Science Award (CTSA) totaling $26.9 million over 5 years. The grant restructures UAB’s research enterprise to facilitate translational science in several ways and provides UAB entrée to a variety of future NIH funding opportunities that are crucial to the university’s health and growth.

“The CTSA brings huge payoffs to UAB,” she says. “This new paradigm emphasizes interdisciplinary science at its core. It draws on our rich history of preclinical studies, the General Clinical Research Center, and our community outreach — whether outcomes research or health disparities — to make available the resources required for effective clinical and translational research.”

A corollary payoff for UAB is a tighter working relationship between the academic medical center and the UAB Health System. In addition, the new structure — much of which was started even as the application was being written — promises to streamline regulatory complexities, extend partnerships with Alabama’s historically black colleges and universities to broaden outreach, train future researchers in clinical and translational science, and punch UAB’s entry card to a variety of road-mapped functions the NIH will be offering.

With the funding UAB becomes a member of a consortium 37 other centers that will grow to 60 in the near future. The consortium’s Web site CTSAweb.org ensures broad access to CTSA resources, enhances communication, and encourages information sharing.

The award from NIH’s National Center for Research Resources is part of the federal effort to energize the discipline of clinical and translational science, transform how research is conducted, and ultimately enable researchers to provide new treatments more efficiently and quickly to patients.

“We will have an accelerated ramp-up to full implementation with the goal of completing the initial framework by late December,” Dr. Guay-Woodford says.

Health System NEWS

UAB Laboratories Undergo CAP Accreditation Process

UAB Health System laboratories participated in the rigorous College of American Pathologists’ (CAP) Commission on Laboratory Accreditation and recently completed a CAP self inspection to determine and correct any areas of deficiencies. CAP’s inspection cycle occurs every 2 years.

The federal government recognizes the CAP laboratory accreditation program, begun in the 1960s, as equal to or more stringent than its own inspection program. The Joint Commission accepts as “deemed status” CAP accreditation.

“Each test performed in the lab has a proficiency measure that provides a standard to compare with our testing procedures,” says Vice Chair of Pathology C. Bruce Alexander, MD. “CAP investigators conduct a preanalytical, analytical, and postanalytical stage during which every section of the laboratory must address as many as 6000 questions to determine proficiency.”

The preanalytical phase may include items such as explaining how tests are ordered, how patients are identified, how specimens are collected, how specimens are handled, and how the requisition process works. The analytical phase covers verification of quality control, while the postanalytical phase covers such matters as a review of reports and computer manuals.
“We want to spend the lion’s share of this funded period on bringing our endpoints to fruition rather than on planning.”

She said UAB developed a pan-university CTSA application with the blessing and assistance of Senior Vice President for Medicine and School of Medicine Dean Robert R. Rich.

“It was clear we had some good ideas, but they needed to be broadened to include all the health schools and joint health science departments as well as the undergraduate schools and the Graduate School,” she says. “We had strong support from the UAB president and provost and from every one of the 13 campus deans, who signed letters detailing how they would contribute to the effort. Our application was embraced as a whole university effort.”

UAB’s CTSA bears the UAB hallmark of broad, overarching themes of outcomes and health disparities research, she says. “We plan to develop new themes as time and science and community interest dictate. The next theme will be genetic health and medicine, which reflects not only the completion of the Human Genome Project, the movement towards molecular medicine, and the increasing interest to deliver personalized medicine, but also is enhanced by establishment of the Hudson-Alpha Institute for Biotechnology in Huntsville.” (See accompanying story.)

UAB also has attracted other partners for its effort, including Southern Research Institute, Children’s Health System, and a variety of community organizations in the state.

In fact, community interaction is a key feature of the new CCTS. “We have worked with community organizations for years on health and health disparities,” Dr. Guay-Woodford says. “We now will expand those efforts so the general community can access us and advise researchers.

At the same time, scientists will have ways to help people in the community understand the complexities of the research continuum and provide realistic timeframes for new advances.”

CCTS Leadership

CCTS Director:
Lisa M. Guay-Woodford, MD

CCTS CoDirectors:
Eta S. Berner, EdD
W. Timothy Garvey, MD
Catarina I. Kiefe, MD, PhD
Jay M. McDonald, MD

Cross Cutting Themes:
Donna K. Arnett, PhD
Mona N. Fouad, MD, MPH

Evaluation Director:
J. Jackson Barnette, PhD

HudsonAlpha Among CCTS Partners

The not-for-profit HudsonAlpha (HA) Institute for Biotechnology was created in 2005 in Huntsville with $50 million in state support and $80 million in private donations. It houses a synergistic mix of commercial interests and non-profit research to spur entrepreneurial endeavors and scientific discovery. It is located in Cummings Research Park (CRP), the nation’s second largest research park.

Last year HA recruited a new director, Rick Myers, MD, professor and chair of genetics at Stanford University School of Medicine, with the possibility that the Stanford Human Genome Center, which he also directs, may move to CRP.

“The move of the genome center and the scientist who heads it open incredibly exciting possibilities for UAB that we are very keen to make a reality,” says Lisa M. Guay-Woodford, MD, who hopes to link the institutions via the Center for Clinical and Translational Science.

“This will provide an opportunity for UAB to collaborate with cutting-edge genomic sciences using cutting-edge genomic technologies,” she says.

“We will be well positioned to ask questions in large populations about the genetic underpinning of disease,” Dr. Guay-Woodford says. “Some units already are underway with this effort, and it’s an active area of interest for a variety of other groups on campus.

“The HudsonAlpha’s intellectual and technological resources will be a huge step forward,” she says. “We have begun discussions about potential points of interface. Collaborations would create cost efficiencies and leverage the CTSA funds for Alabama’s commitment to the Huntsville institute, something we also will encourage in the community and other venues.”

Libraries Using BlazerBucks

The Lister Hill Library of the Health Sciences has replaced its aging Copicard system, used for printing and copying, with the campus BlazerBucks account. Faculty, staff, and students can establish a BlazerBucks account and deposit funds in it for a variety of uses on campus and at some area dining establishments. Visit https://campuscard.uab.edu/BlazerBucks.asp for more information.

BlazerBucks accounts are linked to a CampusCard (https://campuscard.uab.edu/CampusCard101.asp) or a UAB ID card and can be managed online.

Lister Hill Library at University Hospital (LHL@UH) no longer accepts cash for copying services. Self-service copying is no longer available in the hospital library. Green and white Copicards may be used at LHL@UH through July 9, after which existing card balances will be unusable.

CampusCard representatives will be at LHL@UH (WP P235) on July 9 from 10 AM to 2 PM to make cards and set up BlazerBucks accounts for hospital users for a one-time fee of $3. BlazerBucks accounts and cards may also be obtained through the CampusCard office at the Hill University Center.
Components of the UAB Center for Clinical and Translational Science

Biomedical Informatics
- Develop a secure research data warehouse to support the storage and analysis of high-quality clinical and biological data;
- Establish systems for automation and tracking of CCTS activities;
- Provide a consultation service to assist investigators in use of biomedical informatics services and navigating the research data warehouse for data collection, extraction, and for hypothesis testing;
- Establish a communication systems infrastructure to enable the exchange of ideas and sharing of information for new investigators;
- Educate investigators in the performance and utilization of informatics research.

Pilot Program
- Provide a key element in developing a new generation of mentored investigators experienced in clinical and translational research;
- Stimulate the formation of investigator-initiated interdisciplinary research teams that focus on highly relevant clinical and translational issues by leveraging the significant success of current university-wide programs.

Research Design and Biostatistics
- Promote the design, conduct, and interpretation of studies to ensure valid, efficient, and ethical research;
- Advance clinical and translational research through independent research focused on methods and the generation of new methodological knowledge.

Research Ethics, Regulatory Knowledge, and Support
- Streamline the process for meeting regulatory requirements for conducting research;
- Deploy individuals well experienced with UAB’s regulatory landscape to facilitate patient-focused research;
- Use the CCTS as a platform to conduct rigorous outcomes research on the teaching and promotion of responsible conduct of research and to develop innovative new strategies and materials.

Research Education
- Create a “Research Commons” as an intellectual, physical, and virtual home for trainees and faculty;
- Develop new innovative curricula and transform existing programs to provide all members of a research team with the knowledge base and skill sets to perform effective clinical and translational research;
- Develop an extensive mentor training program.

One Great Community
- Establish new sustainable partnerships with the lay community in the Birmingham area to facilitate substantive collaboration across the entire biomedical research enterprise;
- Organize new multilateral partnerships with health professionals outside the university to engage in biomedical research that directly impacts clinical practice;
- Promote activities and relationships within the university that ensure a community as well as a translational perspective;
- Foster and encourage novel ideas through collaborative knowledge creation that leads to improving community health and well-being;
- Ensure that novel ideas from the community come to fruition by the generation of new knowledge.

Participant and Clinical Interaction Resource
- Adapt current clinical research resources to provide flexible protocol-driven support focused on needed functions and extending out to multiple research venues and communities;
- Transform the process of clinical and translational research by removing barriers and enhancing efficiency in a functional partnership with investigators;
- Develop an economically self-sustaining and innovative infrastructure that will support both an expansion of the CCTS investigator base and the application of novel technologies and research approaches.

Translational Technologies and Novel Methodologies
- Establish a network of core facilities and technologies to optimize investigator access, sample processing, and manage data;
- Educate investigators about available technologies that enable clinical and translational research;
- Identify, develop, and apply novel methods, approaches, and technologies that advance clinical and translational research.

Drug Discovery
- Establish the in-house infrastructure necessary to focus UAB’s large and productive research base toward drug discovery in order to identify novel therapeutic agents;
- Organize the academic, investment, and commercial/industrial expertise necessary to conduct early stage compound development from preclinical testing through early clinical trials.
critical values are communicated in reports, and how results are filed and stored. CAP inspectors examine laboratory records and quality control data for the preceding 2 years; the staff’s qualifications; the quality of facilities, equipment, safety measures and management; and how the laboratory meets patient needs.

“An important part of the accreditation process is that any trained technician should be able to come to our laboratories and perform tests without difficulties, once provided with our laboratory’s procedure manual that describes how to perform a test,” Dr. Alexander says. CAP requires laboratories to have written guidelines listing which specimens are routinely submitted to the laboratory for examination and which ones are exempt. Institutions also must establish a procedure for documenting removal or disposal of specimens.

Afterwards, CAP issues a report notifying laboratories of deficiencies with a timeline to correct them before accreditation is terminated.

Accreditation by CAP’s Laboratory Accreditation Program (LAP) is a distinct honor bestowed upon nearly 7000 laboratories in more than 40 countries and on 97% of the top hospitals in the United States. One of the most respected and recognized programs in the world, it includes some of the most advanced educational programs available. Requirements incorporate the rapidly evolving techniques and methods available in each discipline. By achieving CAP accreditation, LAP participants decrease risk and enhance patient safety.

Incorporated into LAP, an ongoing collaborative process between CAP and laboratory staff members, is the verification of compliance on a 2-year cycle and the ability to identify areas of laboratory performance improvement while providing answers, and support and ensuring patient safety.

The Commission on Accreditation of Medical Transport Systems (CAMTS) recently granted full accreditation for 3 years to UAB Hospital’s Critical Care Transport (CCT) Service for fixed wing and ground critical care.

CAMTS cited CCT’s strong safety management, risk management, utilization review, and quality management programs. It also lauded innovations that include development of a new ambulance design featuring a hydraulic stretcher lift that requires no lifting. CCT staff also designed a stretcher pad with thicker padding and side padding to help patients feel more secure on the stretcher.

The CCT, which is celebrating its 25th year, operates a specially modified Cessna Citation Bravo and three ambulances configured into mobile ICUs.