NCI Awards UAB Nearly $31 Million

LARGEST CANCER CENTER CORE GRANT IN UAB HISTORY

Comprehensive Cancer Center leaders hailed receipt of the biggest grant in its 34-year history as a vote of confidence in its efforts to bring innovative treatment and research to the people of Alabama and the Deep South. The 5-year, $30.9 million award continues the core funding from the National Cancer Institute (NCI) to the Cancer Center.

The award provides the essential core facilities and basic infrastructure that enable the Cancer Center’s 250 faculty to continue working toward a cure for the disease. Scientists and physicians use the resources of UAB’s largest center to attract additional funding on their own. Nearly $100 million in research grants and contracts currently flow through UAB’s Cancer Center.

CCT Flies Into The Future

EMERGENCY TRANSPORT SERVICE REPLACES ORIGINAL JET WITH FASTER, LONGER-RANGE AIRCRAFT

The aircraft call numbers — N10UH — are the same, but UAB Critical Care Transport’s (CCT) newest addition, a 2000 twin-engine Cessna Citation Bravo outfitted as a fully operational intensive care unit, is faster, larger, and more fuel efficient than the 29-year-old Cessna Citation 500 it replaced. “The new jet also has greater range, modern avionics, and a medically configured interior specifically designed for CCT,” Chief Transport Nurse Laura Lee Demmons, RN, MBA, says.

The total cost of the jet, which had logged only 750 flight hours at the time of purchase, was $4.1 million. The new jet landed in Birmingham on May 14, and following several weeks of training and final preparations, the aircraft safely completed its first official trip on June 2. At 6:40 that evening, the Bravo took off in the rain for Selma, Alabama. The patient was a 58-year-old man in respiratory failure.

Prior to transport, the medical team that included Michael Burch, MD, Michael Lovelace, RN, and Troy Biles, RRT, adjusted the patient’s ventilator settings, administered a breathing treatment and additional medications, and inserted arterial and central lines.

National e-Network For Primary Care Research

UAB 1 OF 10 INSTITUTIONS SELECTED

A national electronic network connecting physicians, academic health centers, and the National Institutes of Health (NIH) is the aim of an initiative involving UAB’s Department of Family and Community Medicine and the Alabama Practice-based Research Network (APBRN).

The project is part of NIH’s Roadmap for Medical Research — initiatives designed to transform medical research capabilities to speed movement of research discoveries from bench to bedside. The collaboration is funded by a 3-year, $3 million grant to the Federation of Practice-based Research Networks (FPBRN), in association with the American Academy of Family Physicians and University of Minnesota.

ELECTRONIC PRIMARY CARE

APBRN, created by UAB, is 1 of only 10 regional networks selected to participate in the initiative to build the Electronic Primary Care Research Network (ePCRN). “The new electronic infrastructure will potentially connect every primary care physician in the nation with...
Pilots Ron Saladin and Roger Kimbrough then took the Bravo up for the 20-minute flight back to Birmingham. The patient arrived in improved condition and was directly admitted to the medical intensive care unit.

With a top speed of 480 miles per hour (100 miles per hour faster than the Cessna Citation 500) and a cruising range of 1,700 miles without refueling, the Bravo saves time and money, allowing CCT to complete patient transports with greater speed and efficiency. “The Bravo’s greater range expands our service area, while its relatively compact size allows us to continue to land at smaller runways, so we can still reach hospitals in rural and underserved areas,” Demmons says.

“UAB Health System and University Hospital are pleased to make this investment on behalf of its patients who come from referring physicians and hospitals. It enables us to continue to provide state-of-the-art care en route to our state-of-the-art facilities,” UAB Health System Associate Vice President and CCT administrator Robert Cofield, DrPH, says.

CCT regularly flies patients from Alabama, Mississippi, Florida, and Georgia to and from UAB, and neonatal transports to The Children’s Hospital in Boston, Massachusetts, also are routine. “The Bravo now allows us to make the flight to Boston without refueling and shaved more than 2 hours off total transport time,” Demmons says.

The Bravo’s dedicated medical interior, designed by Chief Transport Therapist Diane Kahler, RRT, and CCT’s medical team, can support up to two stretcher or isolettes — the old jet had room for only one patient. The Bravo is 28 inches longer than the retired jet, and designers used the extra space to create zoned work areas for the three-person medical team, usually a physician, registered nurse, and respiratory therapist, putting medical gas and electrical outlets and supplies and medical equipment in easy reach of the appropriate staff member.

Removable seating lets the crew place large medical equipment, such as the 180-pound intra-aortic balloon pump, in the front of the aircraft, instead of the rear of the jet, which speeds loading and unloading. The aircraft has an enhanced interior lighting system that includes lights in the drawers and cabinets, Kahler says.

“During the design process, our team members thought about all the features they ever wished the old jet had and worked with one of the key pilots, Terry Barnett, to find a way to add them to the Bravo,” says Kahler, who has flown on more than 500 transports. Barnett added his own features to the Bravo to decrease downtime and increase the number of hours the jet is available for patient transport.

Transforming the new jet to meet CCT’s specifications took more than 5 months and, in addition to the interior redesign, included a custom paint job and a 36-inch wide cargo door — believed to be the first ever installed on a Bravo. The result is a cutting-edge air ambulance that provides an optimal environment for patients and medical teams, Demmons says.

LifeGuard Transportation Services, based in Pensacola, Florida, provides the Bravo’s licensed pilots and drivers for CCT’s four ground units, which operate within an 150-mile radius of Birmingham.

Michael Lovelace, RN, Michael Burch, MD, Troy Biles, RRT, Captain Ron Saladin, and Copilot Roger Kimbrough staffed the first new trip (from left).

22 YEARS OF TRANSPORTS

In 1983, CCT broke new ground in emergency transport medicine, becoming the first civilian service to use liquid oxygen in a fixed-wing aircraft and operating the first jet dedicated solely to hospital-to-hospital transfers. Before its retirement on June 1, the Cessna Citation 500 transported more than 26,000 critically ill patients and held records for the most flight hours and cycles — take-offs and landings — in the world.

“With more than 21,000 cycles and 16,000 flight hours, the old jet was both a workhorse and a wise investment,” Demmons says. “But the 500 was beginning to show signs of age, and like an old car that requires constant upkeep to keep it in good condition, operating costs were threatening to outstrip the aircraft’s value.”

A new Federal Aviation Administrations-mandated avionics upgrade that went into effect last January would have required a costly upgrade to the 500, Demmons says, noting that maintenance expenses were also mounting, with parts for the older jet becoming more expensive and scarce. “We wanted an aircraft that would take CCT and our patients through the next 2 decades,” says Demmons, who joined CCT in 1983 as a part-time nurse.

CCT, headed by Medical Director Marlon Priest, MD, is one of the few physician-led transport services in the nation — interested residents in the Departments of Surgery, Internal Medicine, Emergency Medicine, and Anesthesiology undergo training and credentialing to serve aboard the aircraft, Demmons says, noting that CCT has been nationally accredited by the Commission on Accreditation of Medical Transport Systems since 1999 and is 1 of 107 accredited programs in the nation and the state’s only hospital-based accredited service. “The new airborne ICU emphasizes UAB’s commitment to making the outstanding care our faculty and staff provide accessible to every Alabamian,” Dr. Priest says. “This is but one expression of our appreciation for all their support of our work for so many years. Thanks!”

CCT, which is available around the clock every day of the year, fields three air transport teams — adult, neonatal, and intra-aortic balloon pump. Demmons projects that in fiscal year 2005, CCT will complete about 650 air transports and more than 1,100 ground transports.
50,000 Tissues Later

ALABAMA EYE BANK CELEBRATES 35 YEARS

The Alabama Eye Bank (AEB) recently celebrated 35 years of restoring sight to the blind throughout Alabama and the world at the Callahan Eye Foundation Hospital. The event, “Eye on the Future, Building on the Past...Embracing the Future,” honored those who have made a significant contribution to eye banking over the years.

Enjoying the program are (left to right): Sen. Jack Biddle of Gardendale; Dr. Firmon Hardenbergh, director of AEB technical services; Dr. Alston Callahan, founder of the Callahan Eye Foundation Hospital; and AEB Executive Director Doyce Williams.

Special guests included UAB ophthalmologists Alston Callahan, MD (retired); Lanning Kline, MD; John Parker, MD; Robert Phillips, MD; Andrew Velazquez, MD; and Roswell Pfister, MD. Also at the gathering were UAB Professor of Ophthalmology Christine Curcio, PhD, and UAB Archivist Timothy Pennycuff.

“The anniversary was a gathering of AEB corneal recipients, transplant surgeons, donor families, corporate contributors, and friends to celebrate the dynamic story of giving sight to the blind of Alabama. We are honored so many of our friends attended this special program,” AEB Executive Director Doyce Williams says. “The event marked the 50,000th tissue recovered by the Eye Bank during this period in its history. From this recovery, more than 30,000 people have received the gift of sight through transplants,” Williams adds.

The program featured highlights of the history of eye banking, along with several speakers. Charlie Trotman, former Auburn quarterback and color analyst for the Auburn football radio broadcast, spoke of his life-changing experience as a corneal recipient. Denise Edmisten, executive director of the Alabama Coroner’s Association, told how she found comfort through donation after her daughter passed away.

The celebration also coincided with the release of the book, Giving Sight: Eye Banking in Alabama and the Alabama Eye Bank, by Firmon Hardenbergh, MD. Dr. Hardenbergh, director of AEB technical services, spoke on the evolution of eye banking over the past century in the United States, focusing on Alabama’s 35 years of commitment to providing the gift of sight.

AEB, a nonprofit organization founded in 1969, is one of the largest providers of human tissue for corneal transplants in the world. The Eye Bank’s headquarters is located in Birmingham with regional offices in Huntsville, Mobile, and Montgomery. The Eye Bank’s objective is to obtain quality human eye tissue and distribute it to qualified physicians where the need exists anywhere in the world.

For more information, visit the AEB Web site at www.alabamaeyebank.org.

National e-Network For Primary Care Research

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Researchers at universities and NIH,” Myra Crawford, PhD, director of the Division of Research in UAB’s Department of Family and Community Medicine, says. She also is a member of the FPBRN Steering Committee.

The electronic network’s goal is accelerating the pace of discovery and application of new primary care prevention strategies, diagnostics, and treatments. “It will provide access to study participants throughout the country and accelerate the application of research findings in communities that may not have direct access to research institutions,” Dr. Crawford says.

FPBRN governs 60 regional networks: 54 in the United States, which includes APBRN, and 6 abroad.

“The Alabama network contains 40 mostly family physicians who conduct research in clinics throughout the state,” T. Michael Harrington, MD, chair of UAB’s Department of Family and Community Medicine and APBRN director, explains. “It’s the state’s only operative medical practice-based research network and a leader among national networks.” For 30 years, primary care practice-based research networks have conducted research in academic and community-based practices devoted principally to patient care.” Typically, networks draw on the experience and insight of practicing clinicians to identify and frame research questions whose answers can improve patient care,” Dr. Harrington continues. “By linking these questions to rigorous research methods, the network can produce research findings that...
are immediately relevant to the clinician and, in theory, can be more easily translated into everyday practice.”

The Department of Primary Care Clinical Sciences at Birmingham University, England, and the Collaborative Research Network, University of California at San Francisco, also are collaborating on the project. “Ultimately, the plan is for the ePCRN to become a global project,” Dr. Crawford concludes.

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“The renewal of our basic federal grant represents the continuation of a great tradition of excellent research and patient care,” Peter D. Emanuel, MD, acting director of the Cancer Center, says. “Our cutting edge research to fight cancer helps bring the best possible treatment and care to Alabamians.”

Dr. Emanuel notes the total award was a **5% increase over the previous core grant**. “At a time when the NCI budget increased by only half that percentage, clearly this exceeds our expectations,” he says. The Cancer Center undergoes a major review of activities every 5 years, and each time its renewal process is followed closely by the UAB community. The announcement comes in the wake of recent statistics showing that cancer is the **leading cause of death** for Alabamians aged 45-74 years.

The NCI classifies UAB as a “comprehensive” cancer center, a designation that signals the most advanced cancer research, treatment, and education. It has maintained that status since becoming 1 of the nation’s original 11 comprehensive centers in 1973. Today, there are 38 such major centers nationwide — **no others in Alabama** or the five other Deep South states.

The core grant, which begins with a $5.8 million award for the coming year, supports 15 research facilities shared by UAB scientists and physicians. The enterprise pays off with innovative research that UAB has helped apply in cancer diagnosis and treatment. The Cancer Center undergoes a major review of activities every 5 years, and each time its renewal process is followed closely by the UAB community. The announcement comes in the wake of recent statistics showing that cancer is the **leading cause of death** for Alabamians aged 45-74 years.

The center’s research activities include nine major programs. Long-term strengths such as tumor immunology, structural biology, virology, and tumor biology focus primarily on **laboratory research**. Others, including the women’s cancer and neuro-oncology programs, emphasize **patient interventions**.

The Cancer Center’s emphasis on research brings patients the latest tools in diagnosis, access to promising new approaches for battling the disease, as well as clinical studies. Laboratory scientists interact with physicians conducting clinical investigations to move research findings quickly and safely to the patient care setting. UAB also conducts numerous studies on cancer prevention and control. In 2004, about **4,200 new patients** received cancer treatment at UAB.

Dr. Emanuel credits much of the Cancer Center’s success to its leadership. John R. Durant, MD, was director for the initial 10 years, and Albert F. LoBuglio, MD, served for 23 years until he stepped down last year. A national search for the next permanent director is under way.