

Celebrating During August...

50 Years!

Mildred Caraway

40 Years

Karen L. Stager

35 Years

Jane A. Cummings, Garry L. Robinson

30 YearsKaren L. Ham, Donna P. Harat, Ronald A. Hayner
Sarah L. Johnson, Joseph E. Mazurkiewicz
Thomas W. Williams**25 Years**Thomas P. Hager, Patricia G. Hyland, Liva Helen Jacoby
Susan H. Jensen, Patricia Pinho**20 Years**Renae M. Burnham, Donald L. Chittenden S
Duane B. Diamond, Katherine Lyn DiFiore
Martha G. Kowalik, Angela M. Lasorsa
Kathleen D. Ostergren, Katherine A. Palladino
David A. TenEyck**15 Years**Robert C. Elling, David L. Gardner, Ina D. George
Lisa Marie Howlan, David F. Irvine, Eleanor Kingston
Dawn M. Lynch, Isabelle M. Maisonneuve
Jean M. Nightingale**10 Years**Cheryl R. Bartlett, Ralph C. Calkins, Mark Cosenza
Eric J. Cruickshank, John D. Diaz, Jennifer Donnelly
Tonya Dukes, Susan M. Ford, Roman G. Ginnan
Matthew Jachym, Ronald W. Knaggs
Christopher Krege, Beverly A. LaChance
Michele A. Lapishka, Timothy C. Meehan
Nancy A. Morrow, Jeff Owens, Carmen Ruiz
Manjula Salgam, Harold A. Singer, Roberta Snyder
Suzanne V. Spencer**5 Years**Akua Afrifa, Ehlam Ahmed, Jocelyn P. Arguelles
Maria Catalina Borcena, Noble M. Bowen
Ann M. Brophy, Anthony Caliguire
Jacquelyn L. Evenhouse, Monique Hartfield
Heather M. Holliday, Quanzhi Hou, Cecil R. Jackman
Diane M. Kipp, Robert J. Long, Erica L. Maceira
Shirley M. Mather, Samantha M. Matson
Janella J. Mentore-Ford, Tige A. Monacelli
Courtney L. Panza, Anthony Phelps
Brandon M. Pitcher, Amy V. Raimo, Frances Rios
Amy L. Roach, Bradley S. Schwebler
Natalie A. Snow, Brian Valerian
Michelle M. Weatherwax, Xiaoli Zhao**Albany Medical Center**43 New Scotland Avenue (Mail Code 125)
Albany, New York 12208

Change Service Requested

Alter Ego**Dan Thompson, MD**

Recently, a man whose wife was being cared for in the surgical intensive care unit (SICU) by **Dr. Dan Thompson** stared at the doctor's ID badge before asking if he was the same Dan Thompson whose name appeared on the many photographs hanging in the unit's waiting room. When Thompson confirmed that he indeed was one and the same, the man proceeded to tell him how much the photos had meant to him.

"Every day," he told Thompson, "I pick one photo to concentrate on. I study all the elements, thinking about the colors and designs, and let it take me away. It gives me some peace in all this chaos."

And that's exactly the type of emotional release Thompson was hoping visitors would feel when he hung 48 digital photos in the waiting rooms and hallways surrounding the SICU and medical intensive care unit (MICU).

"I've been here for eight years, and I always thought it was a little drab out there, to be honest," says Thompson, who in addition to his role as an attending physician, serves on the Ethics Consult Service and is chair of the Institutional Review Board (IRB). When he proposed donating the photographs, former SICU Nurse Manager **Joan Comerford** (now an administrative nursing supervisor) secured funding from the department and had the photos printed and mounted by Lamination Preservation, a local company. Thompson's wife Barbara, an interior designer, employed her design skills with Lamination Preservation staff to hang the photos, which are mounted in various shapes and sizes. The finished product spans the entire waiting area and resembles a museum display.

Thompson's specialty is landscapes and flowers, and many of the portraits are taken



Glenn Davenport

in places he's visited while traveling for professional meetings. In fact, he goes to great lengths to take the photos. On one visit to a conference in Arizona, he had six hours were taken in Spain where Thompson's daughter lives, including a colorful landscape that he took while riding in a car that was traveling at 85 mph.

Manchester, Vermont. Other photos are taken in the Midwest, where Thompson is from, including a shot of a large field of sunflowers in Michigan. Others on display were taken in Spain where Thompson's daughter lives, including a colorful landscape that he took while riding in a car that was traveling at 85 mph.

"It's amazing how caught up you can get in the colors of an orchid or the shapes of a tree trunk. I've loved taking them and I'm happy to share. It's an honor."

provide the same tour. The resulting photographs show brilliant blue skies, red rocks and gnarled pines—an effect that resembles an intricate oil painting. Other photos are local, detailed close-ups of flowers at the Tulip Festival in Washington Park, trees reflecting in the water of Lake George, tractors on a farm in

"I saw it coming. I knew I had a good shot. There's just a feeling you get when all the elements are right and I think that's what makes pictures people want to look at," he says.

While it's hard to believe, Thompson contends he is not an artist and only took up photography 12 years ago. So perhaps then it is the scientist

that is behind his beautiful work. Using an analytical eye, Thompson thoroughly researches his subjects and is relentless in his pursuits to find just the right light to showcase the intricacies of his subjects, often returning multiple times to an object of interest or a landscape to find the light of his liking.

"We tried to pick the most serene photos to hang here," adds Thompson, who, as he walks through the rooms, is inundated by surprised visitors who didn't know the doctor caring for their loved ones was the photographer who took the photos they had been enjoying.

"I'm glad people have responded to them," says Thompson, who says that taking the photos has been an outlet to relieve the stress from his job for him as well. "It's amazing how caught up you can get in the colors of an orchid or the shapes of a tree trunk. I've loved taking them and I'm happy to share. It's an honor."

Albany Med

TODAY

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NEWS AT ALBANY MEDICAL CENTER

Albany Med First in Region to Offer 'Arctic Cooling' to Reduce Brain Damage

The concept of therapeutic cooling is not new. Most of us have iced a wound at some point in our lives. But while cooling presents a simple treatment to reduce swelling following bumps and scrapes, it also can have a dramatic effect on the outcome of critically ill and wounded patients, and is increasingly being used to reduce swelling in the brain in these patients.

Albany Med is the first hospital in the region to initiate therapeutic cooling protocols for some critical patients.

According to **Gary Bernardini, MD, PhD**, professor and director of stroke and neurocritical care, departments of neurology and neurosurgery, and Edith M. Hellman and Hellman Family Chair in Stroke Medicine, studies have shown that cooling can decrease the amount of neurological damage resulting from conditions such as stroke, cardiac arrest, and brain injury.

"When patients die from stroke or traumatic brain injury, it is often not the injury itself that leads to death, but the cascade of events that follows. This is particular true when it comes to brain injury after cardiac arrest," says Bernardini, who is leading Albany Med's therapeutic cooling effort.

He explains that much of the damage done to the brain occurs when a patient is resuscitated—when oxygen-rich blood flows back into the cells, setting off a series of chemical reactions.



Alexandra Henzel, CNS, is pictured with the Arctic Sun Temperature Management System that will be used to cool critical patients to reduce brain damage. She helped develop Albany Med's therapeutic cooling policies and protocols.

"These chemical reactions cause the production of free radicals and release of other substances which cause swelling and inflammation in the brain, and reduce oxygen delivery to brain cells, leading to cell death," Bernardini explains. "Hypothermia arrests the production of free radicals, slows the injurious process and allows the brain to recover."

When the body's temperature is reduced, vessels constrict and cell metabolism is reduced. Since the body requires less oxygen, the harmful chemical activity is reduced.

According to Bernardini, scientists have known about the healing effects of cooling since the 1950s, but without careful monitoring, the treatment presents several complications. Until recently, there has been no effective means to cool patients carefully.

Over the past year, a multidisciplinary team at Albany Med has reviewed the protocols of 10 institutions currently providing therapeutic cooling, and has worked closely with the companies Innercool and Medivance to develop policies and conduct training of nurses

and other clinical staff. Medivance manufactures the Arctic Sun Temperature Management System, which is used for surface cooling, and Innercool makes an endovascular cooling device. Both will be used at Albany Med.

Initially, patients meeting certain criteria following cardiac arrest, stroke or traumatic brain injury will be candidates for therapeutic cooling. As more patients are treated with cooling, protocols will be amended.

Continued on inside

Albany Med: Model for Safe Pharmaceutical Waste Disposal

Albany Med has begun showing off its EPA-sponsored Pharmaceutical Waste Pilot Program and sharing its expertise in safe disposal practices with other hospitals and state agencies through a series of tours at the South Clinical Campus. These tours will run through the rest of the year. The hospital is working on a grant from the EPA to design a pollution prevention program to reduce the amount of pharmaceutical waste in the hospital. The program includes a combination of strategies, including assessment of the current waste stream, identification of less hazardous pharmaceutical alternatives in the formulary, and more careful management of waste segregation on the floors. The Healthcare Association of New York State (HANYS) helped spread the word so other facilities can learn about the Medical Center's program and consider adopting all of it or elements of it. Pictured: Dr. Russell Manke, chemical hygiene officer, discusses with visitors how the program works to divert pharmaceutical waste to a secure incinerator so that it does not end up in the environment.



Glenn Davenport

Albany Med Team Rides in 'Tour de Cure' for Diabetes Funding

Sporting their specially designed Albany Med team cycling jerseys, members of the Albany Medical Center Cycling Team pose just prior to the annual Tour de Cure in Stillwater. The team, which had a total of 23 members in all and which was headed by Dr. James Desemone, director of the Goodman Diabetes Service at Albany Med, had a great ride and raised \$8,084 for the American Diabetes Association. The Goodman Diabetes Service of Albany Med was a leading corporate sponsor as well. About 1,000 people participated in the event in which cyclists rode distances up to 100 miles. Albany Med's team was made up of employees, patients, and friends and family members. A total of \$572, 643 was raised at the event. Shown left to right: Bill Wolfgang, Charlie Riccio, Lisann Verrico, Emily Shumacher, Annie Steinmann, Jim Desemone, Al Steinmann, Dan Sooriabalan, and Sheetal Sharma.



The Grapevine

Did You Know?

- Walter Lee from security services is asking for your help in collecting school supplies for the needy children of Albany. There will be a collection bin in the volunteer office through the end of August. The items needed are the basics: pencils, erasers, three-ring binders and paper, erasable pens, glue sticks, rulers, colored pencils, highlighters, 24-pack crayons, etc.
- On Saturday, August 16 the department of family and community medicine and Project Medscope will serve as "gold sponsors" for the 2008 Carnival on the Hill community event. More than 80 medical students, faculty, residents and staff are expected to volunteer. The purpose of the Carnival on the Hill, which is located on Judson and Second Streets, is to "bring area residents, organizations, agencies, and businesses together to celebrate West Hill's Pride and Empowerment." Approximately 2,000 people attended the event last year.

Accomplishments...

- Timothy J. Sellati, PhD, associate professor, Center for Immunology and Microbial Disease was invited to give a seminar at the 10th Biennial Meeting of the International Endotoxin & Innate Immunity Society, July 30-August 2, 2008 in Edinburgh, Scotland. His seminar was titled "Restraint of chronic inflammation requires CD14-dependent modulation of the P13K/IAK1p38-MAPK axis to negatively regulate TLR signaling." Meenakshi Malik, DVM, PhD, research associate in Dr. Sellati's laboratory also presented a poster titled "Microbial Structures—Host-Pathogen Interactions and the Impact of Innate Immunity on Disease."

Save the Date...

- The Recreation Committee is sponsoring a bus trip to Hyde Park on Friday, September 12. Included is a tour of and meal at the Culinary Institute of America and a visit to the F.D.R. National Historic Site. The trip costs \$79 per person. Sign up/pay at the service cashier on M-1.
- The Annual White Coat Ceremony in which new students receive the traditional doctor's white coat and recite the Hippocratic Oath takes place at 3:30pm on Monday, August 18 in ME-700.
- The annual three-hour welcoming cruise aboard the Captain JP for all incoming students and their guests takes place on August 19. The event is sponsored by the Alumni Association. For more information, call the Alumni Association at 262-5033.

'Arctic Cooling' Continued from cover

Edward Philbin, MD, associate professor and vice chair for clinical affairs, department of medicine, and George Pataki Chair in Cardiology, says that although the population of cardiac arrest patients who will meet the criteria for therapeutic cooling is small, the therapy will have an important impact.

"Thankfully, due to modern advances we're seeing fewer cases of cardiac arrest, but for those patients who do meet the criteria, cooling will present an option that could result in fewer disabilities following the cardiac event," he said.

According to Philbin, cardiac arrest patients must be admitted within six hours of arrest and within one hour of being resuscitated, and must arrive comatose in order to be considered candidates.

Most therapeutic cooling patients will be cooled non-invasively using the Arctic Sun System, which monitors and controls the patient's body temperature. Hydrogel-coated pads are placed along the patient's flanks and legs, similar to using ice packs. However, the system takes the process a step further by monitoring and controlling the temperature of the pads based on body temperature readings. A temperature probe placed in a Foley catheter continuously monitors body temperature and reports it to the Arctic Sun System. The water temperature in the pads increases or decreases automatically based on a pre-set temperature determined by the clinician and programmed into the machine. For most patients, the target temperature will be 32-33° Celsius (91.4 degrees Fahrenheit).

Those patients who will be cooled using the Innercool device will most likely be cardiac arrest patients who will have the internal cooling device placed in the cardiac cath lab.

Most cardiac arrest patients are cooled for 24 hours before the re-warming process starts. Ischemic stroke or traumatic brain injured patients will be considered on a case-by-case basis according to intracranial pressure, but will generally be cooled for a minimum of 48 hours and up to one week.

Julie Suarez, a clinical nurse specialist on the cardio-pulmonary surgery and heart transplant unit, helped develop protocols and has been training nurses. She says therapeutic cooling requires careful one-on-one monitoring by highly skilled nursing staff in order to prevent complications. Suarez and Alexandra Henzel, clinical nurse specialist on the medical intensive care unit, were responsible for coordinating training for nursing staff in the heart transplant unit, emergency department, cath lab, neuro intensive care unit, and stat nurses. They also trained "super users" who can assist with additional training as staff acquire more experience with therapeutic cooling and protocols are amended.

"Nursing staff must take frequent labs to check for electrolyte disturbances, infection and pneumonia, and must keep very close watch on the temperatures of both the patient and the monitor. They'll need to anticipate the results of the monitor's temperature to make sure the patient doesn't become too cool, or re-warm too fast," says Suarez. "There are no exact guidelines to follow. Cooling must be looked at on a case-by-case basis using a lot of problem-solving and with a real team approach using the protocols we have designed."

"If performed carefully, therapeutic cooling can result in remarkable recoveries for these patients," says Bernardini.

The cooling system will also eventually be used at Albany Med for certain patients during neurosurgery and in patients with high fevers.

Albany Med Researchers Receive \$1.36 Million Grant from the Department of Defense to Study Brain-Computer Interface Technology

Imagine having the ability to communicate a directive to a device solely with your thoughts. Brain-computer interface technology has advanced in recent years—it enables a human or animal brain to directly connect through a computer to external devices.

A team of researchers at Albany Medical College has been awarded a \$1.36 million grant from the United States Department of Defense to expand their work on brain-computer interface (BCI) technology. The research team, led by Gerwin Schalk, PhD, associate professor of neurology at Albany Medical College and research scientist at the Wadsworth Center of the New York State Department of Health, and Anthony Ritaccio, MD, the J. Spencer Standish professor of neurology and neurosurgery and director of the Epilepsy and Human Brain Mapping Program at Albany Med, will further explore BCI technology.

BCI technology uses recorded brain signals and translates them into useful outputs for the purpose of communication or to control a patient's environment. Thus, BCIs can restore communication and control to people who can no longer use conventional assistive devices (such as a sip-and-puff device) all of which require some muscle control. Because BCIs use brain signals rather than muscles for communication and control, they can be operated by people who are severely paralyzed, even "locked-in," by amyotrophic lateral sclerosis (ALS), brainstem strokes, severe cerebral palsy, or other devastating disorders. They can allow these individuals to use word-processing programs, send e-mail, surf the Internet, or even operate wheelchairs, robotic devices, or prosthetic limbs.

...BCIs can restore communication and control to people who can no longer use conventional assistive devices (such as a sip-and-puff device) all of which require some muscle control.

Over the past decade at Wadsworth, Schalk has led an international effort to develop a general purpose software platform for BCIs and brain monitoring. This software is becoming the

standard software for BCI research in hundreds of labs around the world. Moreover, Ritaccio has established a nationally ranked epilepsy center at Albany Med and has integrated the use of electrode grids to locate seizure foci and map important brain functions, including language.

It is hoped that the result will be the development of the first brain-based communication and orientation system that allows for silent communication and orientation unaltered by external environmental noise and light.

Together with their collaborators at Washington University in St. Louis, Schalk and Ritaccio will use the software system and electrode grids to further develop BCI devices that are implanted within the skull and rest on the brain's exterior to map a person's brain function. Using human brain signals in real time, the team expects to accurately assess the person's intentional focus, eye movements, and intended speech. It is hoped that the result will be the development of the first brain-based communication and orientation system that allows for silent communication and orientation unaltered by external environmental noise and light.

The collaboration between Schalk and Ritaccio exemplifies the efforts of the Department of Defense to accelerate both basic research progress and the transition of research results into application. The results of this research would be of significant value in patient care and combat casualty care.

The grant was awarded under the Department of Defense's Multi-disciplinary University Research Initiative (MURI) program, which supports multi-disciplinary basic research in areas that intersect more than one traditional science and engineering discipline. A highly competitive program, MURI solicited proposals in 18 topics of importance to the Department of Defense, received a total of 104 proposals, and selected 34 proposals for funding based on merit review by experts in the fields of science and engineering.

Albany Med Receives Nearly \$1 Million from American Cancer Society to Study Breast Cancer Gene

A researcher in the Center for Cell Biology and Cancer Research has received a major grant to continue his research examining the role an oncogene may play in future breast cancer diagnosis, prognosis and targeted therapies.

In the single largest grant ever presented in the Capital Region by the American Cancer Society, Ceshi Chen, PhD, received \$960,000 to examine the oncogene WWP1, which he theorizes could inhibit the growth of breast cancer cells.

"This research is as cutting edge as it gets," said Anthony Marino, regional vice president of the American Cancer Society. "Many have theorized that the way we treat breast cancer in the future will be radically different than how we combat the disease now. It's an honor for us to support Dr. Chen's work and to partner with Albany Medical Center. We're very optimistic about what we may discover."

"The funding provided by the American Cancer Society on behalf of Albany Medical Center's research is second only to that provided by the federal government," said Albany Med President Jim Barba. "We are extraordinarily grateful to the American Cancer Society for its support, which speaks to the dedication and achievements of Dr. Chen and each of our scientists. It is our hope that together we can unlock the mysteries of cancer and someday find a cure for this insidious disease."

According to Chen, breast cancer develops when certain genes, called oncogenes, cause normal cells to transform into cancer cells. His work will attempt to put a bullseye on breast cancer by studying the behavior of an oncogene called WWP1, which is active in over 40 percent of clinical tumor samples. Newer treatment drugs like Herceptin have had success by targeting oncogenes. The problem is that different oncogenes affect different people in different ways. Chen and his colleagues have already demonstrated that inhibition of WWP1 significantly inhibits the growth—and even induces death—in a subset of breast cancer cells.

"Our team's long-term goal is to see if WWP1 gives off any unique molecular targets during breast cancer," said Chen. "Once identified these 'targets' could be used to develop new breast



From left, Dean Vincent Verdile, MD, Anthony Marino, regional VP of the American Cancer Society, Ceshi Chen, PhD, and Albany Med President Jim Barba.

cancer tests and treatments. This research represents the future of medicine and the direction of breast cancer therapy."

Research has long been a cornerstone of the American Cancer Society's work and the ACS is the largest non-government, not-for-profit funder of cancer research in the United States. A total of 42 ACS funded researchers have gone on to win the Nobel Prize for Medicine.

Closer to home, the Society is currently funding more than \$4.1 million in local cancer research (including Chen's grant). This is also not the first time the ACS has partnered with Albany Med. During the past 25 years the Society has funded nearly \$6 million in cancer research at the College.

Society representatives point out that these grants wouldn't be possible without the hard work and generosity of its volunteers.

Albany Med Recognized in Ad in U.S. News & World Report

Albany Med received national recognition in late July for our care of patients with coronary artery disease and heart failure in an ad by the American Heart Association/American Stroke Association that appeared in U.S. News and World Report. The ad recognized a number of hospitals across the nation for their achievements under the AHA/ASA's "Get With The Guidelines" program. Albany Med is one of only seven hospitals nationwide to receive the Sustained Performance Award for following all performance measures in multiple categories over the course of two or more years.



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