



Mayo Clinic Connection

News and information for patients and friends of Mayo Clinic

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A case of luck & pluck

UN official gets a chance diagnosis and a second chance at life

Nancy Andrade Castro has many worldly stories to tell: of life and work in Africa, of peace negotiations in El Salvador, of jobs with the United Nations in New York and Panama.

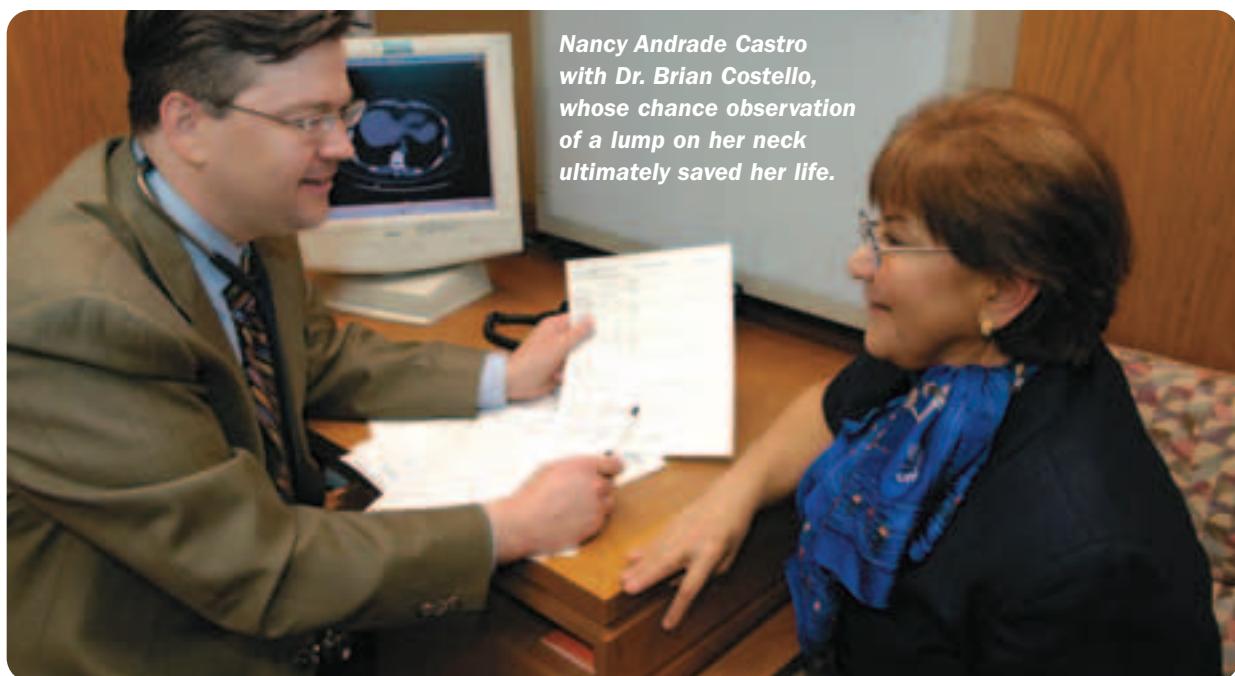
She first visited Mayo Clinic from her native land of Ecuador over 25 years ago and has since returned many times, accompanying her parents on their trips to Minnesota for medical care. She supported her father through his stomach cancer and her mother – both still alive today – through her knee replacement surgery and treatment at Mayo Clinic in 1985.

It was a 2003 visit to Mayo Clinic with her mother that dramatically changed Andrade Castro's life. Her mother was a patient of Dr. Brian Costello, a Mayo Clinic internist who thoroughly evaluates and coordinates multi-disciplinary care for his patients. “I had seen Nancy as a patient previously, but she was not scheduled to see me at that time,

just her mother. When I greeted her, the light hit her neck in a certain way and I noticed a lump,” says Dr. Costello. Concerned, he briefly examined Nancy and told her that he wanted to conduct a more comprehensive examination. He urged Nancy to undergo a biopsy and arranged for the test to occur that same day.

Later that week, biopsy results indicated that Nancy had metastatic squamous cell carcinoma – an aggressive cancer. Nancy was stunned. But she was sure that, despite the inconveniences of being far from home, she wanted to be treated at Mayo Clinic. After years of having participated in her parents’ care, she was persuaded by the coordination and compassion she had witnessed and the efficiency in delivering timely care to someone far from home. She quickly returned to Panama to put her affairs in order, said difficult goodbyes to her family, and within a week returned to Rochester. *(continued on page 2)*

Nancy Andrade Castro
with Dr. Brian Costello,
whose chance observation
of a lump on her neck
ultimately saved her life.



A case of luck & pluck (continued from page 1...)



The Department of Otorhinolaryngology (ear, nose and throat) at Mayo Clinic comprises one of the largest groups in this specialty in the world. For more about the services offered, visit: www.mayoclinic.org/ent

Dr. Costello had arranged appointments with Dr. Jan Kasperbauer, an ear, nose and throat (ENT) surgeon specializing in head and neck malignancies. With the assistance of multiple scans and additional testing, Dr. Kasperbauer's team very quickly located Nancy's main tumor. Careful discussions followed, weighing a decision between surgery and radiotherapy. Nancy was impressed by her doctors' approach to that decision: fully educating her on her options, but respectfully leaving the final decision to her.

A team effort

Nancy's decision was quick, and just two days after Dr. Kasperbauer's team located the tumor, that same team performed a difficult surgery to remove four metastases from two separate places in her neck. Nancy was overwhelmed by the size of the team involved with the surgery – so many experts pulled together for her benefit – and the cutting edge diagnostic and surgical technologies that facilitated the team's work.

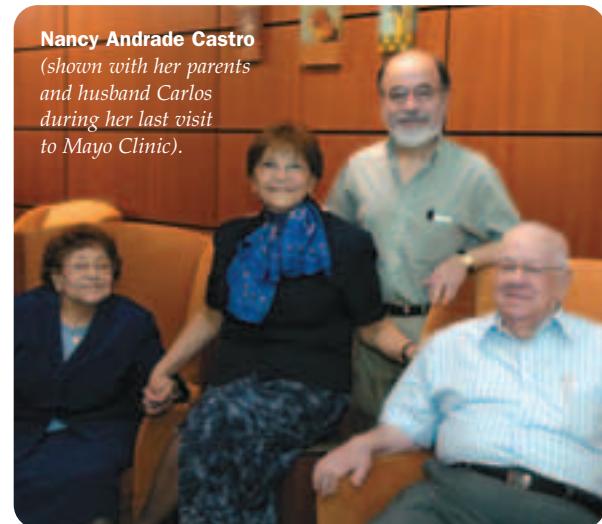
"Nancy's case is a prime example of Mayo Clinic's integrated practice, which allows us to reach an efficient diagnosis and subsequently provide expedient treatment to our patients," says Dr. Costello.

Recovery was arduous. After surgery, she underwent 3 weeks of radiation therapy under the careful direction of Dr. Robert Foote, a Mayo Clinic radiation oncologist, to whom Nancy attributes much of her success in recovery. During the eleven weeks she spent in Rochester, Nancy had to train herself to eat without a feeding tube, to produce adequate saliva, to swallow, to speak correctly, to breathe carefully. In addition to radiation oncology, her Mayo care team included Dr. Costello, ENT physicians, nurses, a psychologist (who, in Nancy's words, specialized in "cancers from the waist up!"), and a speech pathologist – all of whom had specialized training for patients undergoing this type of treatment. According to Nancy's doctors, her positive attitude and commitment to healing contributed enormously to her progress.

As a testament to her successful recuperation, Nancy recently was named regional director of a United Nations program for AIDS in Latin America, based in Panama.

“There is something you can't find anywhere in the whole world in Rochester – the whole town is devoted to taking care of people.”

Nancy Andrade Castro – About the care she received at Mayo Clinic while in Rochester



Bedside diplomacy

One person key to her recovery was Audra Leininger, a nurse who cared for Nancy on several night shifts. The feelings of good will flowed both ways: "Nancy broadened my horizons both globally and spiritually through her experiences with United Nations," says Leininger. "We spent hours looking at pictures and sharing life stories. Both she and her husband were such compassionate and truly appreciative people that I really enjoyed spending time at the bedside."

Since late 2003, Nancy has been cancer-free. She returns to Rochester every six months for follow-up care. "There is something you can't find anywhere in the whole world in Rochester – the whole town is devoted to taking care of people. The team was excellent – I don't have words to thank them enough." **MCC**

A blueprint for his future

Mayo Clinic keeps Canadian executive going strong

Michael Audain is a Canadian powerhouse.

For starters, he's the chief executive officer of Polygon, a Vancouver-based housing development company that has built more than 15,000 homes since its founding in 1980. He also is a patron saint of the arts in British Columbia, currently serving as chair of the Vancouver Art Gallery Foundation and the Audain Foundation for the Visual Arts. And he's a lifelong civil-rights champion, who once was arrested and imprisoned for refusing to leave the black section of a bus-station restaurant in Mississippi and who hosted the first meeting of the British Columbia Civil Liberties Association in his living room.

Last, but not least, he is a husband, a father and a grandfather.

He's on construction sites "in all weathers," he says, and his "work day" often extends into night, for a packed itinerary of arts and cultural activities and meetings in the business community.

"I'm 68 years old, and still very active," he says. "I feel as fit today as I did when I was in my 40s."

How does he do it?

Audain credits his general good health and stamina to his annual trips to the United States to take advantage of the Mayo Clinic Executive Health Program – typically a one-to two-day, one-stop medical evaluation that combines expertise and efficiency to meet the needs of busy executives.

Audain, who has been using the Mayo Clinic program in Scottsdale, Arizona, for about 10 years, says it is very different from the "perfunctory," seven-minute exams he'd been getting in Canada. "Our health service in Canada is greatly underfunded, so



Michael Audain with one of the newest members of his Polygon team at a recent company picnic in Vancouver, British Columbia.

there is terrible stress and pressure on the staff," he says. "We have excellent doctors and nurses in Canada, but they don't really have the time to treat patients in the way that they used to, say, 20 years ago."

Dr. Robert Orford, chair of Mayo Clinic's Executive Health Program in Scottsdale and a Canadian himself, says a distinguishing characteristic of the program is the provision of these services in the context of a multi-specialty group practice. Program components include a comprehensive history and physical, a standard series of tests and discussion of the results, including personalized lifestyle counseling, at the conclusion of the visit. Additional tests or consultations may be added when indicated.

Sugar-free

Audain says the program has encouraged and inspired him to make important lifestyle changes. He's dumped the sugar from his diet, lost weight and takes regular exercise, including swimming and hiking in the mountains behind his house with his wife and two Labrador retrievers. His family members also have benefited

from the program, he says, including one whose previously misdiagnosed condition was caught in time for life-saving surgery, and another whose chronic pain was finally diagnosed and relieved. One daughter, he says, who started smoking when she was 14, was able to stop smoking after a visit to Mayo Clinic when she was in her 30s. Audain also extends the Mayo Clinic service to his senior executives and their spouses, and recommends it to others worldwide, including, most recently, a business acquaintance in Hong Kong.

Orford confirms that executives have access to all of Mayo's medical, surgical and laboratory resources, and that if follow-up care is recommended, executives may schedule that at Mayo also. "My colleagues and I have developed great relationships with executive patients such as Mr. Audain over the years, and it's great to be able to care for the entire senior management team of a company as we do for Polygon," he says.

Says Audain: "I just find it very efficient – the way that we're handled down there. Having an appointment with a specialist the same day is absolutely unheard of in Canada."

Audain also praises the hospitality and cordiality of the Mayo Clinic staff. "As I move around the building doing my tests, I chat with the staff and find out what they do and how they're feeling about their work," he says. "I've always found a very friendly staff there and people who seem to be well-motivated."

"I'm a big advocate of the Mayo Clinic." **MCC**

For more about the Mayo Clinic's Executive Health Program, visit: www.mayoclinic.org/executive-health

Attending to the human spirit

Mayo Clinic Center for Humanities in Medicine



"There's a transformation of energy, an exchange that occurs on a deeply human level that is essential to health and healing."

Dr. Jerald Pietan –
Humanities in Medicine Program chair



Renewal. Gratitude. Hope.

These are essential dimensions of the human spirit that Mayo Clinic philosophy recognizes as central to a full and healthy life. So important are these qualities of humanity – in sickness and in health – that Mayo Clinic and generous benefactors from around the world created the Center for Humanities in Medicine 25 years ago to assure that its practice of excellent scientific and technical medicine is also deeply humanistic.

The Center brings weekly programming throughout the year in art, music, dance and theater to the public spaces of the Mayo Clinic community in Rochester, Minnesota; Phoenix and Scottsdale, Arizona, and Jacksonville, Florida. Look for it next time you walk the halls of Mayo Clinic. Listen for it in the courtyards, atria or patients' rooms. Feel it in the stirrings of your own humanity.

Dr. Paul Scanlon, chair of the Humanities in Medicine Committee in Rochester, described the importance of the programs this way: "When people are dealing with what might otherwise seem like an impersonal and very mechanistic scientific environment, they need to have a feeling that there are some human edges to it, that there's some way for them to have more of an emotional relationship. This program helps us do that."

Added Dr. Mark Edwin, chair of the Mayo Clinic Center for Humanities in Arizona: "Mayo patients know from their own wisdom and experience here what makes an optimal healing and nurturing environment, and that's why patient benefactors have been, and continue to be, so important to us."

At Mayo Clinic in Jacksonville, the experience has been similarly positive, said Dr. Jerald Pietan, Humanities in Medicine Program chair: "All of us – patients, staff, volunteers, the performers themselves and the community members who seek out the presentations – get something vitally important from it. There's a transformation of energy, an exchange that occurs on a deeply human level that is essential to health and to healing." **MCC**



Here's a sampler of what one might see or hear at the various Mayo Clinic campuses:

Pianos! In Rochester alone, there are 22 pianos throughout the campus, many available for the public to play. While all are exquisite instruments – Steinways and Baldwins number prominently in the totals – one stands out: the Bosendorfer in the Gonda Building's atrium. The soaring vault of the building's ceiling seems to arch higher still when the Bosendorfer is played. Often referred to as "the aristocrat of pianos" the Bosendorfer was hand-built in Vienna, Austria, by the company that has been building world-class instruments since 1828.

Inside Mayo Clinic Hospital in Phoenix, terminally-ill patients listen to soothing sounds of a folk harp, native American flute or vocalists at their bedside. At the Scottsdale clinic, patients, staff and community members get so energized by the jazzy, upbeat music of Trio 380 from Arizona State University School of Music that they often dance.

In Jacksonville, the performances have such an enduring, positive effect that some patients plan their visits around them. "We have one gentleman who makes it a point to schedule his Mayo appointments on Tuesdays to coincide with our Humanities in Medicine events," notes Jacksonville administrator Nell Robinson.

Every Monday at noon in Rochester, "Harmony for Mayo" brings in live, professional performers for the enjoyment of patients, staff and community. From a Bach concerto in a concert hall, to an outdoors bluegrass concert, the performances are as varied as they are inspirational. The five-year-old program is made possible through a gift from Mr. and Mrs. Tomas Furth of Caracas, Venezuela, and New York City in gratitude for the care they received at Mayo Clinic.

Their loyalty runs deep

Colombian family's ties to Mayo Clinic date to the 1950s

Cilia Mercado de Garcés did not intend to start a family tradition. But that is what she did the first time she visited Mayo Clinic in Rochester, Minnesota, more than 50 years ago.

Since the now-deceased matriarch of the family (who lived a long and healthy life) came seeking medical care, two other generations of the Garcés family have traveled from Colombia for checkups and advanced care.

Her granddaughter, Socorro de Garcés, counts her mother and father, her aunts (including one who is 91), a brother, a brother-in-law, her husband and herself as patients who have followed Cilia's footsteps to Mayo Clinic.

"My mother, Virginia, is 83 years old and doing fine," says Garcés. "She had heart surgery in Rochester six or seven years ago, and she's had knee replacement surgery at Mayo Clinic in Jacksonville, Florida, three years ago and one year ago, with Dr. Mary O'Connor."

Garcés and her family have collected a few friends at Mayo Clinic, including Dr. Gerald Gau, a cardiologist in Rochester who has treated three generations of the Garcés family. "He's a good friend," says Garcés. "He has visited us in Colombia and we consider him a member of the family."

"In Jacksonville, Dr. Manuel Rodríguez from Executive and International Medicine is an excellent clinician, and also has been a good friend and a good source of medical and emotional support for us. Doctors Bernd-Uwe Sevin from Medical and Surgical Gynecology and Cándido Rivera from Hematology/Oncology also have been wonderful," says Garcés.

Garcés got to know the Jacksonville doctors during her treatment for endometrial cancer this year. She had come for a second opinion on a gynecological problem, and a malignancy was detected on the lining of her uterus. She had surgery at Mayo Clinic in May, followed by chemotherapy, which she completed in September.

Energy distilled

Rodríguez assembled the team of doctors who treated Garcés. He explained that after the surgery to remove the cancerous lesion and the surrounding tissue, Garcés recovered well and that there was no delay in starting "the best chemotherapy protocol available."

In consultation with Rivera, the doctors decided on radiation as added insurance against the cancer cells.

"The doctors arranged themselves into a work-group and coordinated all the care I needed," Garcés recounts. "They gave each other, as well as my family, excellent support."

Garcés and her family also had a team of nurses – specialized in oncology and chemotherapy treatment – who made the process more bearable. The chemotherapy area at Mayo Clinic is designed to accommodate patients in private rooms and to make them as comfortable as possible during the outpatient treatments, which, for Garcés, were every three weeks. Mayo Clinic staff closely monitored her body's response to the chemotherapy to lessen any side effects.

Garcés is undergoing follow-up radiation treatments at Memorial Sloan Kettering Cancer Center in New York City, where the family lives during part of the year.

"Mrs. Garcés had a favorable response to the treatment," says Rodríguez. And she certainly has a tradition of health, longevity and optimism that runs deep in her family.

"It has been an experience from which we can distill positive energy," she says. **MCC**



Socorro de Garcés is the third generation of her Colombian family to make Mayo Clinic and its doctors a part of the family.



For more information about cancer treatment at Mayo Clinic, visit:
www.mayoclinic.org/cancer-treatment

Mayo Clinic in all of its three locations is the only National Cancer Institute (NCI) - designated cancer center with a national presence in the United States. The institution has held the NCI designation for more than 30 years.

Each year, thousands of patients suffering from any of more than 200 kinds of cancer seek treatment at Mayo Clinic.

Mayo Clinic research briefs

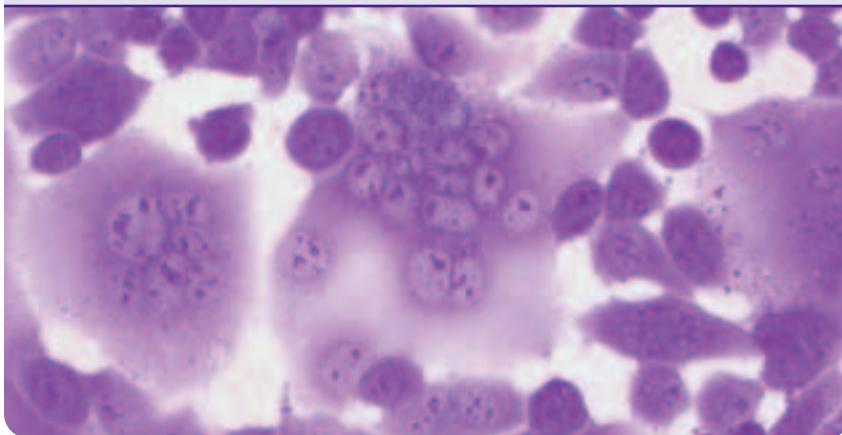
Therapeutic “hitchhikers” home in on cancer tumors

ROCHESTER, Minnesota – A Mayo Clinic research team, which includes a collaborator from the United Kingdom, has devised a new virus-based gene therapy delivery system to help fight cancer. Researchers say their findings will help overcome hurdles that have hindered gene therapy cancer treatments.

The approach relies on “therapeutic hitchhikers” – particles derived from retroviruses (RNA-containing viruses that incorporate into the genomes of infected cells and then produce a therapeutic gene). The viral particles attach to a specific kind of T cell in the immune system and “hitchhike” to the tumor because T cells home in on tumors naturally; T cells are the immune system’s major line of defense against tumors. By hitching a ride on the T cells, the therapeutic particles can hit their tumor target while avoiding detection (and destruction) by the immune system. When the Mayo team experimented with the hitchhiking approach in mice using human and mouse cancer cells, they observed significant cure rates of metastatic – or spreading – tumors.

“Any clinical situation in which cells home to disease sites – such as inflammation or autoimmune disease might benefit from this approach,” explains Dr. Richard Vile, Mayo Clinic molecular immunologist and lead researcher of the investigation. “Our work is an important contribution to the maturation of the field of gene therapy because ultimately treating cancers by gene therapy depends on scientists’ ability to specifically target tumor cells in the patient – and this specific-delivery feature has eluded researchers for a variety of reasons. But by devising a way for viruses to hitch rides on antigen-specific T cells, we’ve been able to get over multiple obstacles to gene therapy.” **MCC**

For more information on cancer research at Mayo Clinic, visit:
<http://mayoresearch.mayo.edu/mayo/research/cancercenter/>



Breakthrough offers hope to Those with Alzheimer's

JACKSONVILLE, Florida – Researchers at Mayo Clinic, the University of Minnesota and Massachusetts General Hospital were able for the first time to reverse memory loss in mice with significant brain degeneration, a breakthrough that offers hope to the estimated 4 million people living with Alzheimer’s disease.

Researchers first manipulated the genetic makeup of the mice so they developed dementia. The mice experienced memory loss that worsens over time and had brain atrophy similar to what a person with Alzheimer’s disease develops. The researchers further designed the mice so that the tau transgene that causes these symptoms could be “turned off.” Transgenes are genes from one organism that have been incorporated into another organism, such as a human gene placed in a mouse. The results surpassed the researchers’ expectations. Once the human tau transgene was turned off, the mice’s symptoms of dementia were reversed – in other words, they regained memory despite having neurodegeneration similar to that seen in Alzheimer’s disease patients.

“The results of this study give us hope for a treatment.”

Dr. Jada Lewis – Assistant Professor of Neuroscience

“The next step is to understand how brains of mice are able to rebound in the face of this degeneration and to determine whether there’s a therapy that could work this way in people,” says Dr. Jada Lewis, assistant professor of neuroscience at Mayo Clinic in Jacksonville. “Our goal is to find a drug or treatment to help mid- or late-stage patients who don’t show any benefit from current therapy. The results of this study give us hope for a treatment.” **MCC**

For more information on Mayo Clinic research on Alzheimer’s disease, visit:
www.mayoclinic.org/alzheimers-disease

Mayo Clinic research briefs

East meets West: a pointed approach to pain from fibromyalgia

ROCHESTER, Minnesota – A Mayo Clinic study shows that fibromyalgia patients treated with six sessions of acupuncture experienced significant symptomatic improvement, especially in fatigue and anxiety, compared with a group given simulated acupuncture sessions.

Fibromyalgia is a condition characterized by pain and tenderness in muscles, ligaments and tendons. The pain can range from regional discomfort to widespread soreness. Additional symptoms often include disrupted sleep, fatigue and a variety of other disturbances. The cause is unknown, but it's thought to be triggered by events such as injury, infection or chemical changes in the brain. And while it's not progressive, the condition may never disappear.

"This study shows there is something real about acupuncture and its effects on fibromyalgia," says Dr. David Martin, Mayo Clinic anesthesiologist and the study's lead investigator. "Our study was performed on patients with moderate to severe fibromyalgia. It's my speculation that if acupuncture works for these patients with recalcitrant fibromyalgia – where previous treatments had not provided satisfactory relief – it would likely work for many of the millions of fibromyalgia patients." **MCC**

• Mayo News Bulletins •

LIVING DONOR LIVER TRANSPLANT MILESTONE

The Liver Transplant Program at Mayo Clinic in Arizona achieved a significant milestone in June when surgeons performed the 50th living donor liver transplant since the program began in 2001. Wayne Perales, 42, of Benson, Arizona, donated part of his liver to his cousin, Chuck Telles, of Needles, California, during an operation at Mayo Clinic Hospital in northeast Phoenix. "I want Chuck to get his life back," Perales says. Both are doing well. Mayo Clinic performs more than 1,100 transplants each year, making it the largest transplant program in the United States.



MULTIPLE MYELOMA RESEARCH

Three internationally recognized research specialists have joined Mayo Clinic on the Scottsdale campus to lead the organization's multiple myeloma (blood cancer) research and to expand Mayo's drug development program. They are Dr. Rafael Fonseca (top left), site director for hematologic malignancies, and Drs. Keith Stewart (center) and P. Leif Bergsagel (bottom left), who have joined the Department of Hematology/Oncology as professor and associate professor of medicine, respectively, and as senior associate consultants.

AWARD GRANTED FOR PROTEOMIC RESEARCH

Mayo Clinic researchers have been awarded \$3.76 million to conduct proteomic research that will identify new, more accurate biomarkers to diagnose patients who are at increased risk of heart attack, stroke and other health conditions related to arteriosclerosis (hardening of the arteries). The award, spanning four years, comes from the National Institutes of Health, and the research will be conducted at the Mayo Clinic in Rochester, Minnesota.



To read more about recent research findings from Mayo Clinic, go to: www.mayoclinic.org/news

Mayo Clinic around the world

Mayo Clinic volunteers pull together in the wake of disasters



You can find more information about Mayo Clinic on the Internet at: www.mayoclinic.org



Dr. Cynthia Wetmore, a pediatric neuro-oncologist in Rochester, conducts a well-baby check while volunteering on an aid mission in Spring 2005 on the "tsunami coast" of India.

Medical Editor:
Mark Wilhelm,
M.D.

Managing Editor:
Mariana Iglesias

Editorial Office:
Communications,
Mayo Clinic
200 First St. SW
Rochester, MN
55905



The year 2005 has been remarkable for its waves of devastating natural disasters – from earthquakes in the Indian Ocean to hurricanes in the United States. Through it all, Mayo Clinic personnel were ready and willing to volunteer. Here are just a few of their outreach efforts:

Dr. Cynthia Wetmore, a pediatric neuro-oncologist at Mayo Clinic in Rochester, Minnesota, donated two weeks of her vacation time to Hyderabad, India, to care for sick and wounded children in the wake of the aftershocks and tsunamis triggered by the December 26, 2004, Indonesian earthquake. Says Dr. Wetmore, who examined more than 1,500 children: "All the volunteers worked incredibly long days – but we all got lots more out of it than we gave because the interpersonal contacts were so rich and rewarding."

All three Mayo campuses mobilized in the wake of Hurricane Katrina: In Rochester, more than 650 staff members volunteered to be sent to the Gulf Coast. In Arizona, Mayo Clinic medical personnel treated hurricane Katrina survivors evacuated to Phoenix's Veterans Memorial Coliseum. In Florida, clinic and hospital staffs coordinated efforts with federal agencies to accept patients from Gulf Coast areas hit by Katrina. As an institution, Mayo Clinic pledged \$1 million to Hurricane Katrina relief efforts.

Said Dr. Denis Cortese, Mayo Clinic president and CEO: "It's rewarding to see all Mayo staff come together as one organization to help in these relief efforts. It's truly impressive what we can accomplish together."

To request an appointment, or for more information, please contact one of our International Appointment Offices listed below.

■ Mayo Clinic in Jacksonville, Florida

ph. 904-953-7000
fax. 904-953-7329
e-mail. intl.mcj@mayo.edu
Office hours: 8 a.m. to 5 p.m. (Eastern Time)
Monday - Friday

■ Mayo Clinic in Rochester, Minnesota

ph. 507-284-8884
fax. 507-538-7802
e-mail. intl.mcr@mayo.edu
Office hours: 7 a.m. to 5 p.m. (Central Time)
Monday - Friday

■ Mayo Clinic in Phoenix and Scottsdale, Arizona

ph. 480-301-7101
ph. 480-301-9710
fax. 480-301-9310
Office hours: 8 a.m. to 5 p.m. (Mountain Standard Time) Monday - Friday

■ In Canada, the following Mayo Clinic telephone information services are available:

Calgary area residents: 403-242-5320
Thunder Bay area residents: 807-346-2218
Winnipeg area residents: 204-942-0659
or call Mayo Clinic directly: 888-441-2133



4500 San Pablo Road
Jacksonville, Florida 32224

www.mayoclinic.org

200 First Street SW
Rochester, Minnesota 55905

13400 East Shea Boulevard
Scottsdale, Arizona 85259

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