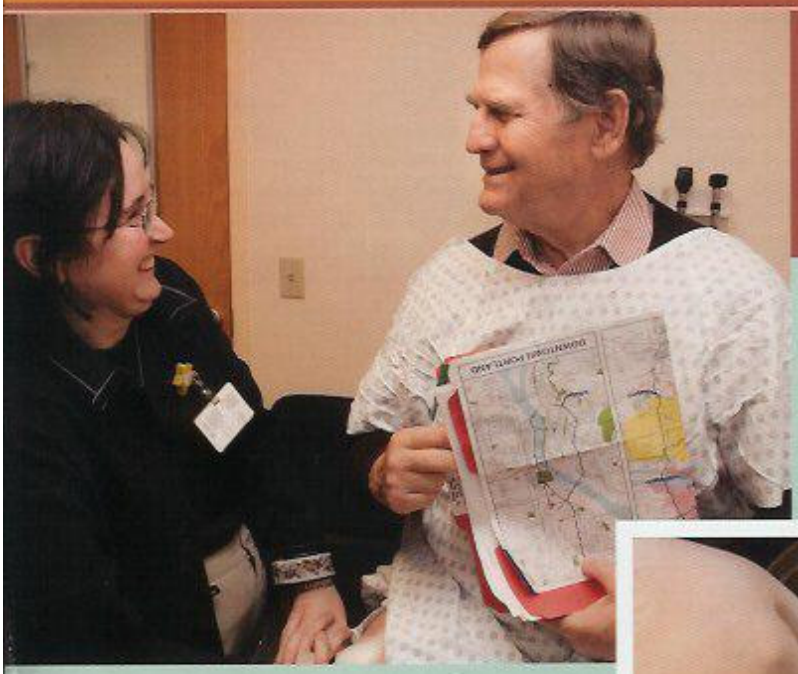
the Right Stuff

BY TARA HILL
PHOTOS BY TIM LABARGE

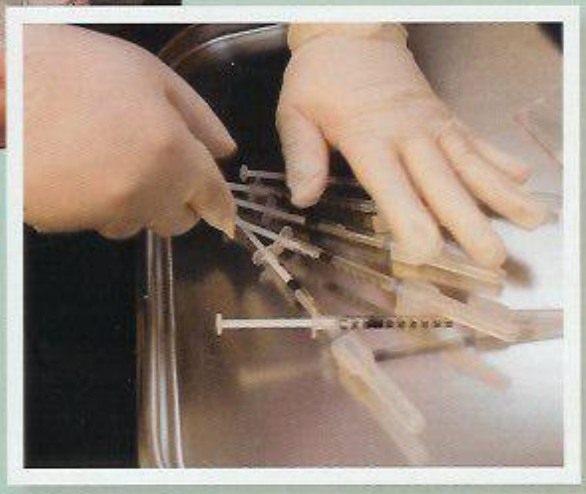
Riding high on hope, planes, cars and a cancer center

Mister ease;" that's his e-mail address. Sitting back to settle his athletic 5-foot-10-inch frame in for his two-hour flight from Santa Barbara, Calif., to Portland, Mike Easley does seem the epitome of ease – confident, comfortable, in control. Just what you'd expect from a retired Army colonel. This trip has become a routine: rental car, overnight at an airport hotel, morning meeting, back to the airport, lunch and board the plane home.

The 70-year-old Easley isn't a businessman. His trips to Portland are to participate in research so new that fewer than 20 people have received this experimental treatment so far. For several months, he's been participating in a Providence clinical trial through the Robert W. Franz Cancer Research Center in the Earle A. Chiles Research Institute. Easley has prostate cancer – Stage IV – the worst it could be.



Mike Easley's treatment visits have a friendly routine, including chatting with Teresa Ratzow, R.N. (at left), who administers the 12 GVAX injections, six in each of Easley's thighs. He refers to the staff as "pros who show a lot of confidence. That's what I need in this fight."



"When I realized how serious my prostate cancer was, I knew I was in desperate straits," Easley remembers. "I started looking on the Internet for clinical trials because conventional treatments weren't helping much."

Easley was diagnosed in 2001, and at the time, his cancer was controllable through a standard treatment known as hormone blockade therapy. After trying that for a year with limited success, Easley looked for a cure and tried another treatment option, an intense form of radiation. It seemed to help.

Still fit, Easley describes himself as a "tennis dog," someone who likes to chase the fuzzy ball around the court for hours. It was in December 2004, while playing tennis, that he lunged for the ball and felt pain in his right thigh. At UCLA Medical Center, he learned that his cracked femur was weakened by cancer in his bones. His prostate cancer was no longer contained.

Tests showed that Easley's cancer is in the most aggressive 2 percent and he had a prostate-specific antigen result indicating the growth of prostate cancer cells. He realized he needed to find a different treatment and began investigating clinical trials.

While searching the Web for new treatments, Easley came across information on Cell Genesys, the company that developed an immunotherapy known as GVAX®. His research led him to Providence Cancer Center, which has several GVAX immunotherapy clinical trials.

"I did my homework on Providence and found it is a very highly respected cancer center nationally, which reassured me," said Easley. "I wanted to optimize my probability of successful treatment by going with the pros."

The Puzzle

Immunotherapy, which enlists the body's immune system to destroy cancer cells, is the focus of Franz Center researchers' efforts. This prostate study is one piece of the immunotherapy puzzle. Bernard Fox, Ph.D., chief of the center's Laboratory of Molecular and Tumor Immunology, developed the prostate cancer trial.

In his lab, Dr. Fox and colleagues discovered a new way to take advantage of immunotherapy. GVAX immunotherapy for prostate cancer is made from human prostate cancer cells that are maintained in the lab and engineered to make an extra protein. This extra protein, called GM-CSF, makes the immune system more likely to find and attack the prostate cancer. What he discovered is that certain types of chemotherapy given just before immunotherapy can strengthen the immune system's response to the vaccine.

There are chemotherapy medications that are considered standard treatment for prostate cancer – chemo that kills the >>>

cancerous cells. In Dr. Fox's laboratory work, different chemo medications were tested for their impact on the immune system. Chemotherapy temporarily weakens the immune system; after that weakened state, the immune system can re-educate (or "reboot") itself and come back fighting. Research on mice shows that the pairing of certain chemotherapy medicines and immunotherapy works in tandem to recharge the immune system. Mice with cancer treated by vaccination and the right kind of chemotherapy show a much more vigorous immune response, and some mice are even cured of the cancer.

The question: Will it work in men? Brendan Curti, M.D., director of the Franz Cancer Research Center's Genitourinary Malignancy Program, is leading the clinical trial to see if it will. In the clinical trial, GVAX immunotherapy is given to the patient as injections under the skin. The immunotherapy is administered to all participants once every two weeks for six months. Alone, GVAX immunotherapy for prostate cancer has been used in approximately 200 men with encouraging results and is currently in its own Phase III clinical trials.

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>
> **Mike Easley**

For the Providence clinical trial, patients must have Stage IV cancer and their cancer must have spread to another area of the body. Their conditions are the most serious, and they do not have the luxury of time.

There are three groups in the study: one gets immunotherapy alone; the other two use different chemotherapy medications with immunotherapy. Researchers measure the effects of each scenario to evaluate effectiveness and create a future treatment protocol. For the patients undergoing chemotherapy, it is completed in one week, and then they receive the immunotherapy series.

In addition to the immunotherapy, all clinical trial patients undergo apheresis during the clinical trial. Apheresis works like a centrifuge to separate white and red blood cells; in addition, apheresis provides "room" for the chemotherapy agents to activate. A portion of the patient's white blood cells, which carry the immune response, are then given back to the patient (like a blood transfusion) to aid in recovery from the therapy. This extra step shows best results in the previous animal trials.

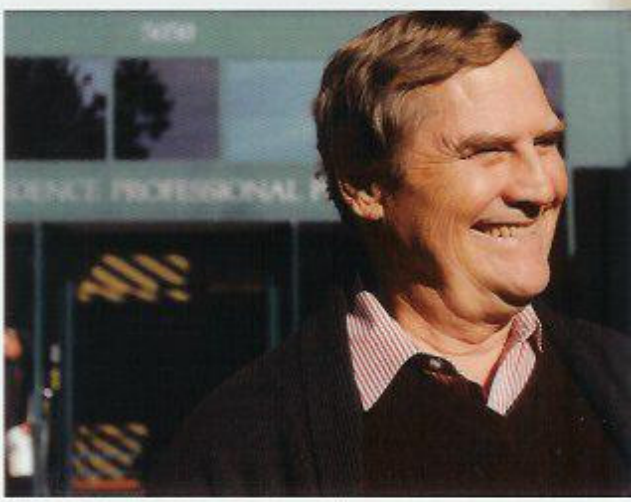
"The idea is to reboot new immune cells that remain following chemotherapy, together with the post-apheresis white cells," says Dr. Curti. "Even though the lab studies are encouraging, we know that research on mice is different than research on humans. Only time will tell if these treatments create a more robust response to kill the cancer."

Seeking the Frontier

Based on his own research, Easley knew he wanted GVAX immunotherapy for prostate cancer, and Providence had the only trial where he would be guaranteed to receive that treatment. Providence Portland Medical Center wasn't the most convenient choice for Easley, but it was an easy decision. A plane ride was nothing when he was in a battle for his life.

He was accepted into the trial and began his semi-monthly trips in July 2005. "In the beginning," he says, "there is magic. I had no apprehension. I'd been fighting this fight for so long that the first plane ride was a case of hope."

Easley remembers his first impression of Dr. Curti – a kind demeanor coupled with an eager smile and handshake. The patient already knew about the physician's expertise and academic credentials.

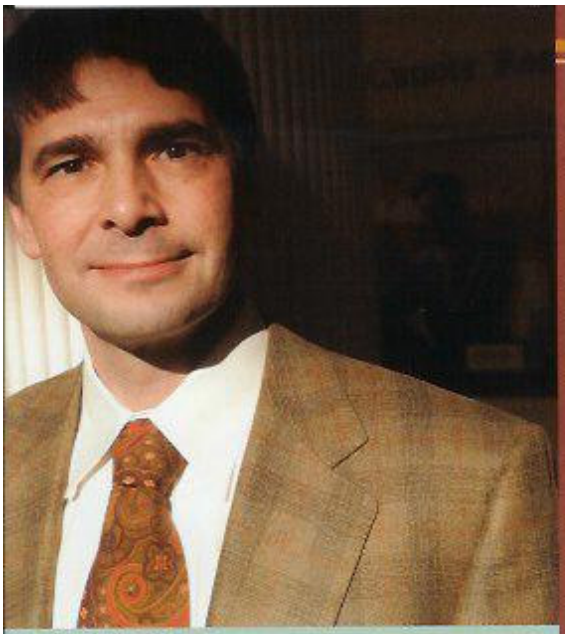


"I feel very fortunate to be part of this study and to be on the team of Dr. Curti and the members of his outstanding staff," he says.

Easley is an immunotherapy-only patient; he is not receiving either chemotherapy treatment during the trial. "I learned from the Army," he says, "that 'you go with what you get.' To me, the obvious progression of the spirit should be one that takes us from our egocentricity as a child to our understanding of life in its larger context.

"If I can benefit from all of this, then I will be absolutely elated," Easley adds. "It would be a great triumph in modern medical science, after all. If I can't, then I've provided some data for the cause that may help someone else out."

Dr. Curti admires that courage he finds in clinical trials patients. "I think all of the patients in clinical trials are motivated to contribute something. They understand that they have a serious problem, one from which they could certainly die. But they wish to make a contribution through research and helping us find new and better treatments. Of course, they hope that they will get better, too, as do we."



Brendan Curti, M.D.

Easley keeps to a schedule with every trip. On this brisk winter morning, he enters the clinic and talks with two clinical trial nurses about how he's doing. He waits patiently for the delivery of the vaccine, carried from the lab freezer by a researcher. The nurses quickly administer 12 injections, six in each thigh. It all takes about 10 minutes. The stings from the shots do not bother Easley. Today after the injections he is asked, "Bees or hornets?" and he replies, "Just bees ... killer bees," he adds with laughter.

Then it's his ride back to the airport, the return of the rental car, and some Chinese food with a fortune cookie that reads, "You shall receive gold in bushels." Easley raises his eyebrows and smiles.

Editor's note:
In December 2005, Mike Easley learned that his bone scans showed continued spread of cancer. Easley decided to remain under Dr. Curti's supervision but stay close to home and receive treatment. A month later, Easley's tests showed significant improvements. As this may be a delayed reaction to the GVAX immunotherapy, Dr. Curti and the team will continue to monitor Easley in the months ahead, and he may return for more immunotherapy. Easley encourages other men who qualify for this study to apply, adding, "I am enjoying the moment and being back on the tennis courts." ■

Changing the standard for cancer treatment

The American Cancer Society reports that this year alone more than 230,000 men will be diagnosed with prostate cancer and more than 30,300 men will die of this disease. There are several treatment options for prostate cancer, and all have serious side effects. If the cancer spreads outside the prostate, treatments are less effective.

Dr. Curti does what he does because he believes that today's conventional treatment is not enough.

"As medical oncologists, we have to show some humility because, quite honestly, the standard treatments don't cure many of the diseases we treat," he says. "Acknowledging that shortcoming, in my mind, makes research our obligation. It is part of what we do to help patients."

Dr. Curti is not alone. He and his colleagues believe in "bench-to-bedside" research – in taking lab bench scientific research directly to the patient's bedside. That's why in 2005 Providence Cancer Center took part in 43 trials involving 177 patients. Clinical trials provide the most leading-edge therapies to patients in our community who haven't been cured by conventional treatment. And some of those patients – men like Mike Easley – choose the routine of airplane rides, car rentals and Chinese food – just to get to the treatment from "the pros."

Waiting for the boarding call for his flight back to Santa Barbara, Easley takes a quiet moment. "If I can benefit from all of this, then I will be absolutely elated," Easley adds. "It would be a great triumph in modern medical science, after all. If I can't, then I've provided some data for the cause that may help someone else out."