# Scientists able to lessen cancer returns with dead cell vaccine

### The Associated Press

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SAN FRANCISCO — Researchers using the diseased cells of melanoma patients have developed a vaccine that they say dramatically reduces the recur-rence of the deadliest form of skin cancer. The method also could be used to develop vaccines

for other forms of cancer.

The researchers used the vaccine on high-risk patients with advanced melanoma. Even after surgery, most of these patients develop additional tumors and die

People with the advance form of melanoma represent a small fraction of those with the disease, which is diagnosed in 32,000 Americans annually

Dr. David Berd of Thomas Jefferson University in Philadelphia said his team treated the patients with a vaccine made from their own cancer cells and another chemical to stimulate the immune system.

After three years, 70 percent of those vaccinated remained cancer-free, compared with 20 percent in patients treated with surgery alone, Berd told the American Association of Cancer Research on Monday.

"There is no reason why it's not applicable to other cancers," Berd said. "A great deal of this work has been concentrated in melanoma merely for tradition." Berd said he believed anti-melanoma immunizations

for high-risk patients could be available within five years from now, if scientists can synthesize the vaccine.

Dr. Joseph Bertino, head of pharmacology at the

J.R. Memorial Sloan-Kettering Cancer Center in New York, said other anti-cancer vaccines are being tried, but the Jefferson results are the most striking yet.

He said he was particularly excited that the re-searchers were closing in on particular peptides, mol-ecules that trigger the body's anti-tumor defenses. He said he would like to see longer-term studies, but agreed that if the results hold up, they could hal

but agreed that if the results hold up, they could help develop vaccines for other forms of cancer as well. Berd agreed the peptides are the key. "Our advantage at Jefferson is that we already know our immunization is effective, so the peptides we pull off the cells are much more likely to be clinic

we pull off the cells are much more likely to be clinically meaningful," he said.

The idea of coupling cancer cells and immune stimulators is not new. But previous vaccines have not been as successful in getting the body to distinguish between cancerous and healthy cells.

The vaccine now must be made from the victim's own tumor cells, requiring a large tumor to produce it, Berd said.

But if laboratory scientists can identify the peptides that trigger the anti-tumor immune response in the vaccine, they can be synthesized to make a more easily reproducible vaccine.

The three-year study at Jefferson involved 47 patients who had malignant melanoma that had spread to regional lymph nodes. They underwent surgery to remove the tumors, but such treatments usually fail because cancer cells remain in the body.

### Audit finds inefficiencies on prison farms

#### The Associated Press

AMARILLO — Farm operations of the Texas prison system lost \$7 million in fiscal 1992, according to a re-

port by State Comptroller John Sharp. But prison board member Jerry Hodge of Amarillo says auditors failed to take into consideration the savings gained when inmates grow their own food.

Sharp's report on the Texas Department of Criminal Justice, released last week, included a look at the state's 30 prison agricultural opera-tions on more than 140,000 acres.

Farms and food processing facili-ties at prisons aren't as efficient as TDCJ has depicted, according to the Sharp report. "In fiscal 1992, the agency's agri-

culture operations actually lost \$7 million, although they reported to the (prison) board a net profit of \$5.6 million," he said.

Auditors found inefficient accounting methods, Sharp said. And overhead costs for salaries, farm shops, the cannery and a packing plant were not counted against the agricultural operations, the report

ADVANCED CARE

Moreover, Sharp's audit said the prison system sells its produce back to itself at prices higher than supermarket costs. Hamburger bought from the agriculture division for \$1.10 per pound, for instance, could have been purchased from commercial suppliers for 77 cents per pound, according to

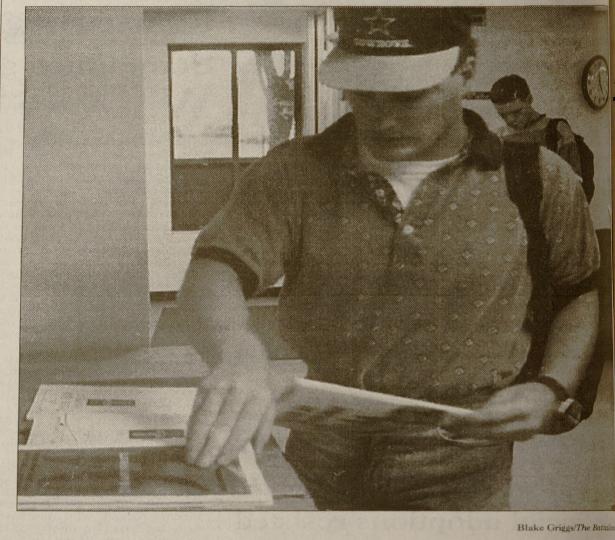
the report. "If food service had purchased all the ground beef supplied by the pack-ing plant in fiscal 1993 (2.2 million pounds) at the open-market rate ... it would have saved \$730,000," the re-port said. "Clearly, the cows are not the only ones getting trimmed."

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Rufus Edwards, a senior construction science and fall semesters. The class schedule bod major, picks up the new class schedule books in also can be obtained in the Pavilion. Registra Heaton Hall Monday afternoon for the summer tion begins at 6 a.m. Monday.



WASHINGTON - President ton ordered unprecedented sand against Taiwan for trafficking i dangered tiger and rhinoceros p but he spared China from sim sanctions.

The action announced Mo. marked the first time the Un States has used trade sanctions weapon for protecting endan species or the environment. It the first time sanctions have

used against Taiwan for any reaso Clinton, in a letter to Ho Speaker Thomas Foley, D-Wash, he directed on Friday that all will imports be barred from Taiwan step that affects less than 0.1 pe of Taiwan's \$25 billion worth of a ports to the United States.

Clinton said he would reconsist the sanctions if Taiwan passes needs sary legislation and steps up mon ment. "The world must know the United States will take strong

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Tuesday, April 12

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tions to protect the Earth's natu Clinton said. heritage,

He credited China with us posters and other media to disco age the trade, with increasing forcement and by destroying so stockpiles of rhinoceros homs tiger bones.

Clinton said that although sanctions would be imposed again China now, more progress is nee there and its case would be review in December.

Tiger bones and rhinoceros h are highly valued and sold prima as ingredients for traditional me cines in Asia.

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