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## New treatment destroys cancerous tumors

By William Erwin

Duke researchers have used a combination of microwaves and X-ray therapy to destroy cancerous tumors in seven patients.

In a paper prepared for delivery last week at a meeting of the International

Union of Radio Science in Airlie, Va., Dr. William T. Joines said that the tumors vanished in no more than four and a half weeks with the combination treatment.

Joines said the microwaves apparently help by heating the tumors — similar to the action of a microwave oven — thus

hindering the ability of cancer cells to repair themselves after X-ray damage.

The combined treatment, still experimental, could give doctors a new way to attack tumors that resist other forms of therapy, the researchers said in an interview.

All of the tumors successfully treated were located on the skin or immediately below the surface. Six of the patients were terminally ill.

Other tumors in the same patients were treated with X-rays alone or microwaves alone. These tumors shrank about 40 per cent, Joines said.

Joines is an associate professor of electrical engineering and a specialist in microwaves. He worked on the project with a team of researchers from the Comprehensive Cancer Center.

### One and one is three

Using the two treatments together is "like adding one and one and getting three," one of the researchers, Dr. Raymond U, explained.

Joines and U, an associate professor of radiology, conducted the treatment study with three other Duke radiologists and Comprehensive Cancer Center faculty members: Dr. Lowell S. Miller, a professor; Dr. Kent T. Woodward, an associate professor; and Dr. K. Thomas Noell, an assistant professor.

Their work was supported partially by grants from the National Cancer Institute.

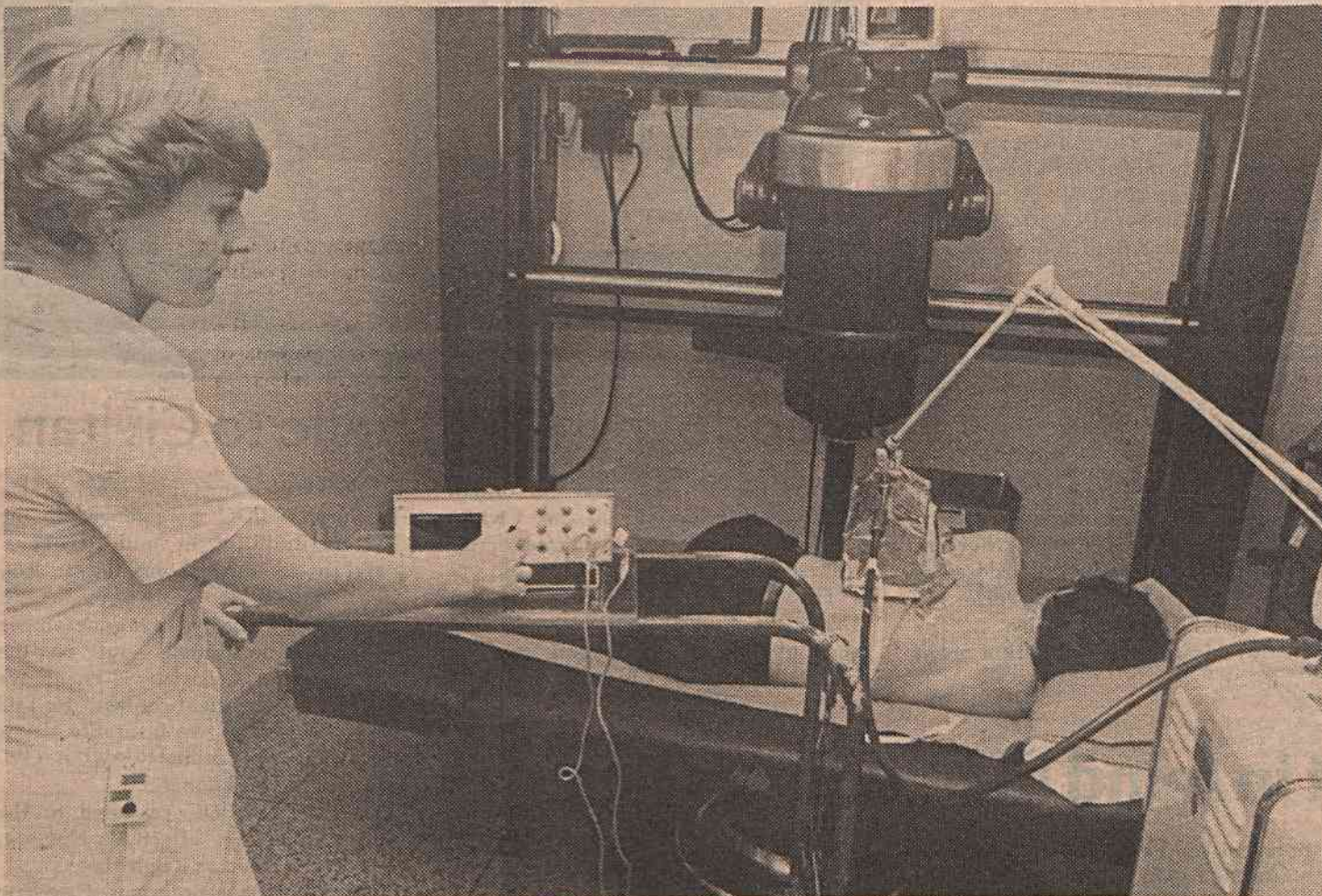
### Opens up new treatment

"This opens up the treatment of tumors that ordinarily respond poorly to radiation," Noell said. "It also could help patients whose cancer goes away but then returns.

"We treated a woman early this year who had an enormous bulk of tumor on her chest. It was four inches by five inches across and 2½ inches deep. She had been treated with every type of chemotherapy (drugs) known to man, but had failed to respond. She already had had radiation therapy, so we couldn't come back with another massive dose. She couldn't tolerate it," he said.

Instead of the usual dose of radiation,

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COMBINED TREATMENT—Several patients have been successfully treated for tumors when microwaves were used to heat the tumors following X-ray treatment. The aluminum-covered box on the patient's

back transmits the microwaves. Aluminum tape is used to protect surrounding skin. R.T. Bonnie Gunter consults a dial which registers how hot the tumor has become. (Photo by Sally Herndon)

## Study of ethics finds place in curriculum

By David Williamson

A young Duke physician who is trying to help medical students develop a better understanding of the ethical and philosophical problems of their profession has received a \$5,000 grant from the Hunt Foundation of Pittsburgh, Pa.

The grant will provide 12 months of partial salary support for Dr. Allen R. Dyer, assistant professor of psychiatry and community and family medicine.

"In many medical schools, people used to have the feeling that ethics wasn't a legitimate academic discipline," Dyer said, explaining his work in an interview. "Ethics was considered more a 'beer and pretzels' kind of subject — one discussed at someone's apartment after more serious study had been completed."

### Questions led to programs in ethics

But about 10 years ago, that feeling rightfully began to change, he said.

Questions about abortion, informed consent, the role of government in medicine and technological advances that could prolong the length, but not necessarily the quality, of life combined to make physicians reassess their responsibilities to society.

Since then, Dyer said, more than half of the nation's 116 medical schools have adopted programs in medical ethics and

humanities.

A course taught by the Duke graduate entitled "Philosophical Problems for Physicians" is part of the School of Medicine's effort to help students learn an approach to dealing with the broad questions of human values and meaning and to clarify their own professional identities.

### To preserve human values

"The course, which couples in-depth discussions with readings in literature, poetry, philosophy, psychology and sociology, is not so much an effort to sensitize very mechanistically-oriented students," Dyer said. "Rather it is an attempt to enable them to preserve the human values that they do possess in the face of the many demands of the profession."

He said he is encouraged that the students have shown themselves to be not only "very sophisticated," but also "very concerned with social issues."

"In the popular imagination, doctors are sometimes considered callous and insensitive," he said. "In my experience, that hasn't been the case."

Dyer said the Hunt Foundation grant also would help to support his research into the ways human values, particularly those learned in childhood and adolescence, influence medical and psychiatric practice.



DR. ALLEN R. DYER