

# CVM Scientists Study New Form of Cancer Treatment

By Linda Breazeale

Electromagnetic fields may hold the key to reducing the side effects of traditional cancer treatments.

"In addition to the life-threatening aspects, many people may fear cancer diagnoses because of the necessary levels of chemotherapy and radiation that can make patients very sick and then drastically reduce their quality of life," said Cody Coyne, a researcher at MSU's College of Veterinary Medicine.

Coyne, an associate professor of pharmacology in CVM's Department of Basic Sciences, uses a resonance generator to study the influence of low-intensity electromagnetic fields on breast cancer in humans.

"The first goal is to find a method to reduce tumor growth. Once we have success with that, we turn our efforts toward reducing levels of chemotherapy and radiation therapy while maintaining an effective treatment," Coyne said. "Success then would make it possible to reduce many of the typical side effects associated with conventional forms of cancer therapy."

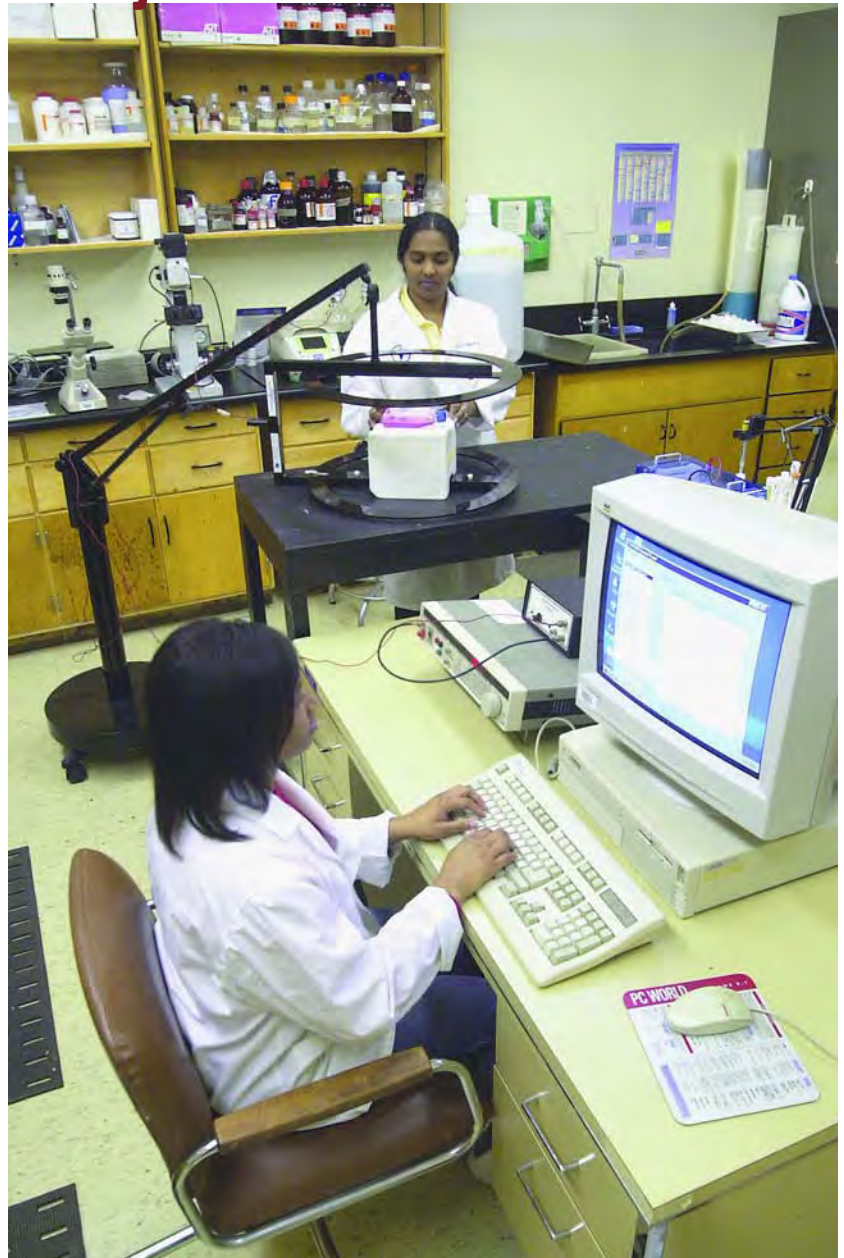
Most electromagnetic field studies by other research groups have pursued the potential risks of intense exposure as a cause of cancer, but not as a form of treatment. A specific request from a funding group prompted MSU's studies involving electromagnetic fields and breast cancer.

"Initial tests revealed that certain frequencies, intensities and durations of exposure significantly reduced the viability of breast cancer cells," he said. "If this therapy damages cancer cells and not the normal cells, this treatment would be less expensive and easier for patients to tolerate with fewer side effects."

Coyne said he has studied several different cancer cell types over the years, but there is a rather aggressive national initiative to increase the amount of research addressing breast cancer.

"Many Mississippians have been touched by this cancer, directly or indirectly," he said. "They have been active in fundraising projects to support breast cancer research for years, and it is anticipated that research laboratories at MSU will begin to attract funding for breast cancer research."

The initial research occurred as a result of a direct request from Jacobson Resonance Enterprises. Since that time, MSU has pursued funding from the Susan B. Komen Foundation and has



been approved for funding by the Goldman Foundation and others. MSU's Life Sciences and Biotechnology Institute provides current funding from the Robert Herrin Foundation for the breast cancer study. Linda Pote, interim head of basic sciences at the veterinary college, commends this type of innovative research. She said it has potential as a stepping stone to future studies.

"There have been numerous studies recently on the effects of electromagnetic fields at the cellular level," Pote said. "This research will further our understanding of the effects of these fields and their potential use in medical treatments."



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*Photos by Tom Thompson*

Wasana Siyambalapiyage, above and left, and Erica Bell, opposite page, assist researchers in CVM's Department of Basic Sciences in a search to find electromagnetic fields that can reduce the side effects of traditional cancer treatments.

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