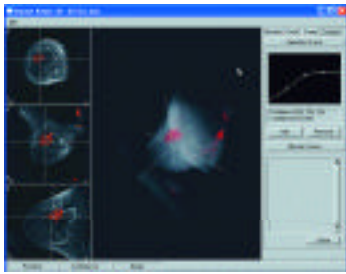


# MTC Breast Cancer Detection

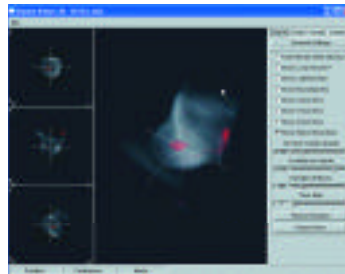
## BREAST CANCER DETECTION AND DISCRIMINATION SYSTEM:

An innovative, computerized, medical research system which helps:

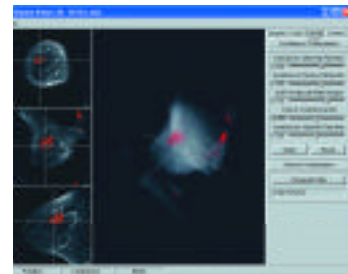
- ◆ Determine the presence or absence of breast cancer
- ◆ Determine the three dimensional location within the breast
- ◆ Determine whether the cancer is multifocal or unifocal
- ◆ Determine the malignancy type
- ◆ Reduces many false positives associated with MRI of the breast, especially for benign fibroadenomas and from early wounding of the breast from biopsy



BCDDS showing washout curves



BCDDS showing various panel components



BCDDS showing volumetric computations

It is easy to use, helpful in breast cancer detection, staging, treatment course, follow-up, and requires less than two days training.

## THE BCDDS SYSTEM USES:

- ◆ Dynamic MRI 4th dimensional analysis
- ◆ True dynamic 3D representation

This system is designed to improve the detection of breast cancer in certain difficult clinical cases.

These include:

- ◆ Mammographical occult, and ultrasonically anomalous cases in which clinical suspicion is high
- ◆ Women with a family history of breast cancer
- ◆ Women who carry the BRCA1 or BRCA2 breast cancer gene
- ◆ Young women with dense breasts, or women of any age with dense breasts
- ◆ Women who have had breast cancer and have had reconstruction surgery with implants

The system uses the latest technological solutions to finding even very small, very early breast cancers: Ordinary resolution is 1.3 x 1.3 x .65 mm at 1.5T.

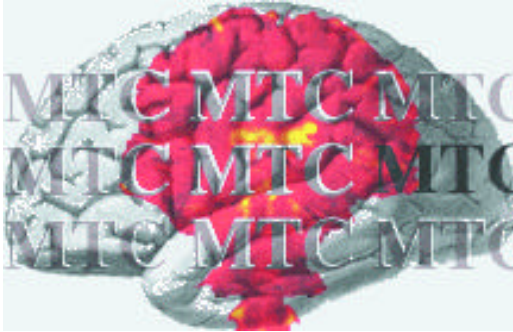
It is excellent in estimating the extent and size of malignancies.

The system uses the temporal characteristics of chelated gadolinium to determine the kind and extent of breast cancers, such as ductal cancer in situ., invasive ductal cancer, lobular cancer which is invasive or in situ., and inflammatory breast cancer.

The system automatically calculates the volume of cancerous tissue and can provide easily (one click) estimates of individual (unifocal vs. multifocal) or disparate abnormal findings.

The BCDDS is sold as a research tool for advanced detection, discrimination, localization and volume calculation of various kinds of breast cancer.

## MTC Contact Information



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Dr. John P. Brockway is the President and Chief Executive Officer of Memory Testing Corporation, a medical research company.

An educator for over twenty-five years, with A.B., M.S. and Ph.D. in experimental psychology, Dr. Brockway now consults, conducts and teaches fMRI as well as complex data display. He has taught graduate and undergraduate University students in Germany, Austria and in the United States. He has spoken widely on the advantages of technological advances in computers and medicine and has published numerous scientific articles concerned with the relationship between cognitive function and brain structures.

He works closely with neurologists, neuroradiologists, breast cancer surgeons, and neurosurgeons to increase the quality of patient care and outcome. Currently with MemTestCorp™ he consults for and with hospitals and clinics, supervises and conducts research in hospitals, clinics and various medical centers in the United States. His program of clinically applied research focuses on the creation of accurate, useful topological brain maps using human memory as one tool to gauge the state of brain function. Since January 2002, he has developed state-of-the-art three dimensional computerized tools for the detection and discrimination of mammographically occult breast cancer.

He has developed many specialized software tools for brain mapping, both intraoperative and functional magnetic resonance imaging, together with complete computerized neurocognitive memory assessment. His recent published work focuses on the cognitive consequences following brain surgery for epilepsy and the fascinating and extensive knowledge learned from the most recent and innovative advances in brain imaging, functional magnetic resonance imaging.

Very recently, he has developed and published work on static region descriptors and neural networks in detecting and discriminating breast cancer, and his most present work deals with fourth dimensional, dynamic analyses for detection and discrimination of various forms of breast cancer.