

Image

Vol. 22, no.26 September 7, 2009

25 Most Influential in Radiology

Recognizing the movers and shakers in the radiology industry



21. Thomas Jefferson National Accelerator Facility – “Jefferson Lab”

Picture Perfect

It's estimated that more than 40,000 people will have died from breast cancer in the U.S. this year. Catching the disease early and starting treatment is the best way to prevent life-altering or life-ending complications. This is why researchers have spent time and money developing the best imaging technology – to see the problem before it becomes a problem.

Studies have shown that breast-specific gamma imaging (BSGI) is successful – in some cases more than mammography or MRI – at seeing early stage cancers. As a result of the smarts and dedication of the U.S. Department of Energy's Thomas Jefferson National Accelerator Facility's Radiation Detector & Imaging Group in Newport News, Va., radiologists have an easier time differentiating between malignant and benign tumors.

The Jefferson Lab group developed a compact detector, which views the metabolism of cancerous lesions in the breast via radiopharmaceutical uptake in order to capture vital information about the tumor. Newport News-based Dilon Technologies Inc. now uses the technology in its Dilon 6800 Gamma Camera, and the researchers were recognized with an award for “Excellence in Technology Transfer” by the Federal Laboratory Consortium for Technology Transfer.

Previous general-purpose gamma cameras weren't as suited to breast imaging due to their size and limited capabilities, and MRI and mammography have been known to miss some barely detectable cancerous cells. So BSGI continues to be tested and studied as the potential answer to catching certain breast cancers earlier and reducing the number of biopsies for patients.