

## LETTER FROM THE EDITOR

Thank you for the opportunity to become your editor of the NECHPS newsletter. I feel privileged to be a part of the newly elected team for New England Chapter of the Health Physics Society.

This has been an exciting year for the chapter and I have been fortunate to be a part of the activity. The annual meeting was a great success. The Local Arrangement Committee supervised by Ninni did a wonderful job down to the slightest detail. Even the rain couldn't put a damper on the program.

The meeting was held in Providence, Rhode Island in June. The Providence Convention Center and Visitor's Bureau provided a terrific location for all. The "Curie-ous News" information letter kept everyone informed about the courses, events and tours being offered. The events started off with the Welcome Reception and Historic Providence Tour. Each day was full of courses and tours. The highlight was the HPS Night Out, with a difficult choice to make between a ball game and a cruise on the Queen Ship.

Please feel free to contact me with any information or articles that might improve or newsletter or be of interest to all.

Terry

## **TheraSphere New Alternative to Liver Cancer Treatments?**

MDS Nordion, a leading global provider of medical isotopes and radiopharmaceuticals used to diagnose and treat disease, recently announced that the US-FDA has approved the use of TheraSphere® to treat patients with hepatocellular carcinoma (HCC) with the criterias of having a partial or branch portal vein thrombosis (PVT) and have been identified as suitable candidates by their physicians. HCC is the most common form of primary liver cancer.

## **Two Incidents at O'Hare Prove to be False Alarms**

Emergency response personnel were sent to two separate areas of O'Hare International Airport recently after a report of radiation leak and a call about a possible mortar round in a package. A device for measuring soil density was damaged in a construction zone in the northeast part of the airfield about 5:20 P.M. The mechanism uses a small amount of radioactive material so the emergency response team checked to see if any was released. The initial tests were negative.

About 10 minutes later the team was called to investigate a package in the US Postal facility. The suspicious package appeared to contain a mortar shell.

## **BrainLab Wins Patent Victory**

BrainLab, an image guided therapy firm in Munich, Germany, has reported that the US District Court in Denver, CO, has dismissed a patent infringement lawsuit earlier this month that was brought by the Minneapolis based firm, Medtronic and that the US Court of Appeals for the Federal Circuit has upheld the decision.

The District Court concluded that a 2005 jury verdict, in which the jury found that BrainLab infringed on four patents held by Medtronic and awarded Medtronic \$51 million, was in error and not supported by any clear evidence.

THE NEXT MEETING OF THE NEW ENGLAND CHAPTER OF HEALTH PHYSICS SOCIETY WILL BE HELD IN APRIL. THE EXACT DATE AND THE LOCATION WILL SOON BE AVAILABLE ON THE CHAPTER'S WEBSITE.

## **RADIATION SEEDS USED FOR BREAST CANCER**

There is a new clinical trial testing radiation seeds for breast cancer. Radiation treatment is often necessary for breast cancer patients to ensure remaining cancer cells don't come back after a lumpectomy. It can be painful, time consuming and emotionally and physically draining. Instead of going in for weeks of intense radiation, the patients are injected with permanent radiation implants. In a one-time procedure, doctors insert needles in the breast that are loaded with small titanium seeds. The seeds will treat the area for two months.

## **Radiation Source Identification Packaged for One Hand Operation**

Berkeley Nucleonics Corporation (BNC) is in the process of introducing two new radioactive isotope identification instruments for use in Health Physics, Law Enforcement and Homeland Security. The SAM Defender and SAM Revealer are portable radiation identification systems developed to provide simple operation for the first responder who needs to act quickly, as well as get a detailed analyses for the sophisticated technical user.

## **PACS INSTALLATIONS STUCK IN TRAFFIC JAM**

If PACS implementation seems to be slowing down instead of speeding up these days, that's because it is. According to industry experts, while the reasons for the slowdown are difficult to determine. A combination of factors-more and more hospitals moving to implement PACS, a possible shortage of installation staff, data migration and operational issues tied to second-generation PACS implementation and other issues, is working against quick system implementation.

Everyone is focused on how fast can we get up and running and the only thing that has been accomplished is people are not getting the right training and network infrastructure steps have been fumbled. What is needed is to build an enterprise archive that is actually capable of surviving two or three generations of PACS.

## FORMER CEO SENTENCED

A federal judge sentenced former president and executive officer of Roger Williams Medical Center, Providence RI, Robert Urciuoli, to three years in prison for bribing a state legislator to advance the hospital's interests. The legislator, former state Sen. John Celona, was sentenced to 30 months in prison.

## RADIATION PATIENTS RAISING FALSE ALARMS IN AIRPORTS

Handheld radiation detectors sound well and good, and are designed to detect the threat of dirty bombs or other radiation, which seems totally wonderful, but they also appear to be picking up a good many false positives from recent patients of radiation treatment. After being injected or implanted the patient can be "hot" up to 3 months. Doctors are encouraged to warn their patients of such inconvenience, and some doctors even write notes or hand out a card that allows security personnel to confirm the treatment.

## SWEDISH NUCLEAR POWER PLANT STAFF FOUND TO BE INTOXICATED AT WORK

The security situation at Sweden's Forsmark nuclear power plant, located north of Stockholm, has been found to be seriously lacking. According to an internal report that had been kept secret for several months, several accidents have taken place and some of the staff of the plant have been coming to work under the influence of alcohol and other drugs. The number-one reactor had a shut down this summer in a situation that has been described as one of the most serious to take place in a Swedish Nuclear power plant. The contents of the confidential report were made public by the Swedish television news.

## RADIATION THERAPY REDUCES CANCER RECURRENCE IN OLDER WOMEN

Radiation therapy after lumpectomy and five years of treatment with Tamoxifen can dramatically reduce the risk of both cancer recurrence and new tumors in older women with early breast cancer. According to reports, younger women receive that treatment routinely while older women are less likely to receive them. The results, reported on-line in Cancer, a journal of the American Cancer Society, will be published in the March 1 print issue of the journal.

## INVESTIGATORS TWICE BREACH U.S. SECURITY

Undercover investigators were able to smuggle radioactive material across the border twice last year without being discovered. The two episodes, which were previously released to lawmakers, raise questions whether technology can stop the entry of terrorists with hazardous materials, especially in a country with 7,500 miles of borders and hundreds of legal ports of entry. Although monitors detected the material, two undercover teams were able to enter the U.S. with it because they presented false documentation of purchase and NRC documents. The specific borders that were crossed were not released to the public.

## SWEDISH CANCER INSTITUTE FIRST TO OFFER PRECISION TREATMENT OF PROSTATE CANCER

The Swedish Cancer Institute in Seattle is the first to offer prostate cancer treatment with the Calypso 4D Localization System for precision guided radiation therapy with continuous, objective, organ-motion traction. The system is now enabling physicians the ability to pinpoint a prostate tumor's location with greater accuracy and continuously monitor its position in real-time during radiation treatment. This system which already has FDA clearance, uses tiny electromagnetic sensors called Beacon transponders that are each about the size of a grain of rice. The transponders are implanted in the prostate prior to treatment. The transponder positions are then tracked during therapy delivery and alerts technologists when the prostate is not properly aligned with the radiation beam.

## THE BROKEN ARROWS BEST KEPT MILITARY SECRETS

Wassaw Sound on the coast of Georgia into which the Wilmington River flows is a beautiful area very close to the city of Savannah. This wonderful, historically rich city ripe with magnificent architecture could be wiped out in a matter of seconds. A nuclear bomb lies somewhere, buried in nearby Wassaw Sound. The government can't find it and it's not an isolated incident. In fact, there are as many as 7 incidents (11 worldwide) classified as Irretrievably Lost as far as nuclear bombs are concerned in the US. The military refers to these as "Broken Arrows".

## CURE FOR PROSTATE CANCER?

A new study reveals some exciting news for prostate cancer patients. Investigators say 74 percent of men treated with a combination of radiation seed implants and external beam radiation therapy for prostate cancer are cured of their disease 15 years later. For the study doctors from the Seattle Prostate Institute wanted to know the survival rates of men with early stage prostate cancer who underwent treatment of a combination of seed implants and external beam radiation. They followed the progress of more than 200 men. The research reported 74 percent of these men were disease free 15 years later. This is excellent news for patients since the two processes are much less invasive, spares the healthy tissue and helps the patients return to their regular routines much sooner than surgery.

### 4 Northeast Nuclear Power Plants Warned

Four Northeast nuclear power plants have been told to check for potential safety problems following a failure at a sister plant (Monticello) because they are of the same age and similar in design. The plants being told to be alert are Vermont Yankee, Oyster Creek in New Jersey, Nine Mile Point in New York and Pilgrim in Massachusetts. Monticello has been shut since January 10 when welds failed that held in place a 35,000 pound box containing valves that control steam pressure. No radiation was released.

### TRUCK CRASHES WITH PLUTONIUM ON BOARD

A tractor-trailer hauling a small amount of plutonium overturned on eastbound Interstate 40 in San Bernadino County prompting an 18 hour partial closure of the freeway. The semi, which also contained boxes of fire extinguishers and other items, needed to be offloaded because the trailer was split open. Officials from the Department of Health Services arrived shortly after to examine the container of radioactive material with a meter. The impact did not rupture the 55 gallon drum which contained fewer than 4 grams of plutonium-238 which was being used for electrical power generation in Richland, Washington.

## MAN FINED FOR HOT CAT POOP

In Whitman, Mass a cat owner was made to pay up for his cat's radioactive feces.

William Jenness agreed to pay \$3,856.47 for mishandling his cat's litter box after a trip to the vet for his cat who was diagnosed with hyperthyroidism. The doctor treated the cat with an injection of radioactive iodine and gave Jenness strict instructions to flush the pet waste down the toilet, rather than throw it out.

When Jenness' garbage made its way to SE-MASS waste incinerator in Rochester, an alarm detecting radioactive material went off. An investigation uncovered the source of the radiation as cat poop.

The city picked up the costs of disposing the waste and then billed Jenness threatening arrest if he didn't comply. He immediately brought a check to the department of public works. As for why he didn't follow the instructions, Jenness said he was afraid of his septic system being clogged.

### JOB OPPORTUNITY

There is a Associate Radiation Safety Officer (ARSO) position (Replacing recently promoted Health Physicist) at the Children's Hospital in Boston. The Radiation Safety Office is responsible for all aspects of radiation safety within both the clinical and research enterprises. Position reports to RSO, William (Rusty) Lorenzen, a University of Lowell graduate and 27 career health physicist with strong ties to the local and national health physics community.

This position is a part of a team of professionals involved in supporting the uses of radiation and includes involvement in other areas such as biosafety, lasers, non-ionizing radiation, lab safety, chemical and live safety. The duties are organized under the Research Administration directorate and the RSO has reporting lines to the Radiation Safety Committee. The department and the RSO are strongly supported by the institution. The position requires a master's degree in Health Physics or Radiological Science or a combination experience with an undergraduate degree in a related science field. The position requires the candidate be able to work independently and have strong written and verbal communication skills. Interested candidates should apply through the Children's Hospital Human Resources Department.

<http://www.childrenshospital.org/careers/Site2115/mainpageS2115P4.html>. For more information call Rusty Lorenzen at 617-355-7517.