



The Royal Australian and New Zealand
College of Radiologists*
The Faculty of Radiation Oncology



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For Release: 28 October 2013

Melbourne Cancer Specialists Unveil World-First Scanning Technique to Improve Lung Cancer Treatments

SYDNEY - A world-first cancer imaging technique which uses 4D scanning is being trialled in Melbourne to help deliver targeted radiation therapy to people with lung cancer. The innovative technique allows radiation oncologists to track changes in the patient's lung blood and airflow, enabling them to modify dose delivery and ensure that radiation is delivered specifically to cancer cells whilst avoiding normal functional lung during treatment.

Today, the driving force behind the sophisticated new approach to improve radiation therapy treatment delivery, Dr. Shankar Siva, will present the progress of their work to delegates at the International Association for the Study of Lung Cancer's (IASLC) 15th World Conference on Lung Cancer held in Sydney Oct. 27-30.

Dr. Siva, a Radiation Oncologist at the Peter MacCallum Cancer Centre in Melbourne, says by using a new type of positron emission tomography (PET) scan, he and his team can accurately target cancer cells, even when they are moving in the lung.

"For the first time, this new type of 4D PET scan gives us a very accurate understanding of the blood and air flow in patients with locally advanced non-small cell lung cancer," Dr Siva says.

"In patients who receive radiation therapy, conventional 3D scans don't give us a good idea of lung performance. Current techniques do not allow us to differentiate functioning from non-functioning lung, and on a CT scan, the two can be indistinguishable. By using this new 4D PET imaging technique, we can account for time, lung function and tumour motion and personalise treatment to target the cancerous cells specifically as they move, whilst sparing the areas of the lung that are still functioning well. It's extremely personalised, precise and effective."

Dr. Siva and his team have studied the potential of this aid to improve radiation therapy delivery in 20 patients so far. They are hoping to receive funding to enable them investigate a further 40 patients.

Lung Foundation Australia's CEO William Darbishire says lung cancer is the leading cause of cancer death in Australia. Every year, about 6,000 Australian men and 3,750 women are diagnosed with lung cancer.

"With latest predictions estimating the number of Australian's diagnosed with lung cancer will increase by 40% by 2020 advances in cancer treatments such as this is extremely important.

Because lungs constantly move as the patient breathes, the location of the cancer also moves, making treatment even more difficult,” he says.

“The outstanding work of the Peter MacCallum Cancer Centre is extremely important for overcoming these issues and providing hope and improving outcomes for people with lung cancer.”

Around 5,000 delegates from more than 100 countries will attend the World Conference on Lung Cancer, which runs from 27-30 October.

The conference coincides with the launch of a new campaign which aims to promote the benefits of radiation therapy. An initiative of the Royal Australian New Zealand College of Radiologists, *Radiation Oncology Targeting Cancer* uses real-life stories from patients, carers and medical experts to promote radiation therapy as a safe and effective treatment for people with all types and stages of cancer.

To learn more about radiation therapy and *Radiation Oncology Targeting Cancer*, visit www.targetingcancer.com.au

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Dr Siva is available for interview. Contact John Emmerson 0448 493 146.

About radiation therapy

Radiation therapy involves the controlled use of radiation to treat cancer either for cure, or to reduce pain and other symptoms caused by cancer. It has many benefits for people with cancer, including:

- **Convenient:** Delivered in a public or private setting, each treatment usually takes around 20 to 30 minutes. This means most patients can continue with their normal daily activities throughout treatment.
- **Pain-free:** Most radiation therapy treatments are non-invasive and pain-free.
- **Few side effects:** While some patients report no side effects at all, most people experience some mild side effects during and/or just after treatment. Long term, permanent side effects are much rarer.

To learn more radiation therapy and the *Targeting Cancer* campaign www.targetingcancer.com.au

About the 15th WCLC:

The World Conference on Lung Cancer (WCLC) is the world’s largest meeting dedicated to lung cancer and other thoracic malignancies. The 2013 theme is “Next-Generation Lung Cancer Care.” More than 4,000 delegates are expected to come from more than 100 countries to discuss the latest developments in thoracic malignancy research. Attendees include surgeons, medical oncologists, radiation oncologists, pulmonologists, radiologists, pathologists, epidemiologists, basic research scientists, nurses and allied health professionals and patients.

About the IASLC:

The International Association for the Study of Lung Cancer (IASLC) is the only global organization dedicated to the study of lung cancer. To learn more about IASLC please visit www.iaslc.org.