



**BC Cancer Agency**  
CARE + RESEARCH

## **Five-Year Update on the Functional Cancer Imaging Facility at the BC Cancer Agency**

**Please join us for a Neighbour Update:**

**Thursday June 18<sup>th</sup>, 2015 at 7PM**

**BC Cancer Research Centre - 1<sup>st</sup> Floor, 675 West 10<sup>th</sup> Avenue, Vancouver**

Dear Neighbour,

In 2010, the BC Cancer Agency's Functional Cancer Imaging Program launched its PET Cyclotron / Radiopharmacy facility. At that time, we invited neighbours to meet some of our staff and learn more about this state-of-the-art medical imaging facility. As we approach five years of operation, we are again inviting our neighbours to a meeting to update you on activities at the Centre and to answer any questions you might have about its operation.

We look forward to meeting with you on June 18<sup>th</sup>. If you are unable to make the meeting, please visit our website at [www.bccancer.bc.ca/cyclotron](http://www.bccancer.bc.ca/cyclotron) for information about the Functional Cancer Imaging Centre. If you have any questions or concerns, please contact us at 604-707-5979.

Sincerely,

A handwritten signature in black ink, appearing to read "Don C. Wilson", with a long horizontal flourish extending to the right.

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*The BC Cancer Agency's Functional Cancer Imaging Program*

PET/CT scans provide doctors and clinicians with critical information for decision-making and treatment planning so cancer patients from across the province can receive the best possible cancer care. The BC Cancer Agency's Functional Cancer Imaging Program includes BC's only two publicly funded PET/CT scanners. Located at the Agency's Vancouver Centre, the facility began operations in 2005 and in 2010 the Centre also opened its onsite PET Cyclotron / Radiopharmacy facility. A second PET/CT scanner was launched in 2011, allowing the Vancouver Centre to perform up to 7,700 PET/CT scans annually.

*What is PET/CT Imaging?*

In PET/CT imaging, patients are injected with special tracers that are labeled with safe radioactive components. The most common radiotracer used in PET/CT is a special type of sugar combined with the radioisotope Fluorine-18. This radiotracer – called FDG (fluorodeoxyglucose) is preferentially taken up by malignant or cancerous cells in the body. This increased absorption allows physicians to identify where abnormal metabolic activity is occurring in the body.

*What is a Cyclotron?*

The radioactive components of PET radiotracers are produced using a particle accelerator called a cyclotron. These components are then used to manufacture radiotracers in a radiopharmacy facility. The Vancouver cyclotron facility produces radiotracers for in-house use in patients as well as enabling research of new compounds.

*Is PET/CT Imaging Safe?*

At the BC Cancer Agency, the safety of our patients, the general public and of our staff is our highest priority. Following the ingrained BC Cancer Agency culture of safety, the Functional Cancer Imaging facility has been designed to substantially minimize the potential for any radioactive exposures to both staff and the general public. Included in this design are redundant safety systems that are tested on a regular basis to prevent any such exposures including releases of radioactive materials to the environment. In its five-year history of operation, there have not been any accidental exposures or releases to the environment.