



NEWS RELEASE

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Provincial Health Services Authority

BC Cancer Agency partners with art gallery to improve treatment

VANCOUVER – The BC Cancer Agency Centre for the North has partnered with Two Rivers Gallery in Prince George to use a 3D printer to help guide radiation treatment of a cancer patient.

“By using 3D printer technology in cancer treatment, we are putting our best innovative and technological advancements to work where it matters, to help those fighting the disease,” said Health Minister Terry Lake.

Medical physicist Piotr Dubrowski, at the Centre for the North, heard about the printer in the local media and called the Gallery. As Dubrowski explains, “3D printing can be of great use to us in creating what we call a ‘bolus,’ a mold that ensures enough radiation gets to the surface of the skin, for head and neck cancer patients. When the area to be treated with radiation is flat and lacks contours, creating a mold is easy; but cases involving a patient’s face can be very challenging and require lengthy appointments.”

Traditionally molds are made directly on the patient using materials such as plaster. By using the 3D printer Dubrowski and his team are able to create molds without mess or patient discomfort.

Two Rivers Gallery jumped at the opportunity to collaborate. “This sort of partnership is exactly what the Gallery had in mind when we purchased the printer,” said Carolyn Holmes, Director of Public Programs with Two River Gallery. “We didn’t have specific plans for the 3D printer when we purchased it, but we knew if it was available—with the expertise, shared ideas and imagination in our community—wonderful things would happen.”

This collaboration could be the first of many as the Centre for the North plans to continue to work with Two Rivers Gallery, and estimates that 10-15 patients will benefit from the 3D printer in 2014.

In late November, Dubrowski, Two Rivers Gallery staff and MakerLab volunteer Darren Ditto worked together to scan and print the first copy of a patient’s face, who was undergoing radiation therapy. “With the 3D printed model of the patient’s face, Dubrowski’s team was able to take the time needed to create an intricate bolus, without the patient having to be there.

In the future the Centre for the North hopes to explore the potential of printing these complex bolus pieces directly, as they are currently handmade and labour intensive. Other possibilities

include printing variable thickness inserts to focus and target radiation beams even further or to print custom-made immobilization molds to ensure that patients are in the best possible position for each treatment.

Background on Two Rivers Gallery MakerLab 2RG

The MakerLab 2RG is a Two Rivers Gallery program aimed at involving the community in creative pursuits. Every Thursday the MakerLab in Prince George is open for Open Make Nights, the Youth MakerLab and special workshops including jewelry making, Arduino computers and hair-cutting. “Two Rivers Gallery is so much more than art on the walls,” Holmes explains. “It’s about encouraging creativity in our community.” In the words of MakerLab Coordinator Kathleen Angelski, “MakerLab 2RG is inspired by the Maker Movement and the growing number of dedicated Makerspaces showing up in schools, libraries, museums and garages. Evolving from a technology-based extension of Do-It-Yourself (DIY) culture, Makerspaces create a physical hub for people of all ages, backgrounds and interests to create, learn, share, inspire, and play.”

***The BC Cancer Agency**, an agency of the Provincial Health Services Authority, is committed to reducing the incidence of cancer, reducing the mortality from cancer, and improving the quality of life of those living with cancer. It provides a comprehensive cancer control program for the people of British Columbia by working with community partners to deliver a range of oncology services, including prevention, early detection, diagnosis and treatment, research, education, supportive care, rehabilitation and palliative care. For more information, visit www.bccancer.ca.*

***Two Rivers Gallery** is a vital centre for visual art in Prince George and the central interior of British Columbia, Canada. It is run by the nonprofit Prince George Regional Art Gallery Association. <http://www.tworiversartgallery.com/>*

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