



## Backgrounder

# Personalized Medicine & DNA Sequencing Equipment at Saint John Regional Hospital

The Saint John Regional Hospital Foundation raises funds to support leading-edge technology and research at the Saint John Regional Hospital, the largest health-care centre in the province – providing world-class care for all New Brunswickers. The Foundation has raised over \$80 million to date in support of excellence and innovation in the areas of equipment, mental health, research, education and patient comfort.

Here are the key facts surrounding the personalized medicine and DNA sequencing equipment issue.

### 1. Timeline

In **fall 2013**, the Saint John Regional Hospital Foundation received approval from Horizon Health Network to fundraise for the purchase of the DNA sequencing equipment.

On **Feb. 20, 2014**, with approval from Horizon Health Network and former Minister of Health, Ted Flemming, the Saint John Regional Hospital Foundation launched The Give – Personalized Medicine – a public campaign to raise and donate \$900,000 to the Saint John Regional Hospital for the purchase of 13 pieces of personalized medicine and DNA sequencing equipment.

With the generous support of the Saint John community, the Foundation surpassed its goal on **Feb. 13, 2015**, having raised a total of \$1.1 million.

In a letter dated **March 31, 2015** to Mr. Dave Ferguson, Chair of Horizon Health Network, the Hon. Victor Boudreau, Minister of Health, directed the Horizon Health Board of Directors to reject the offer of funding from the Saint John Regional Hospital Foundation for the purchase of DNA sequencing equipment at the Saint John Regional Hospital.

Representatives from the Foundation had several meetings with government in recent weeks, including one on **Tuesday, June 9** with Minister Boudreau.

Daily media coverage and mounting questions from donors and the public have compelled the Foundation to share some key facts. The Foundation remains hopeful that positive dialogue with the provincial government will continue.

**2. The Saint John Regional Hospital is a tertiary care oncology centre. DNA sequencing equipment is critical to the hospital's Personalized Medicine Program and its ability to continue providing cancer testing and treatment to patients.**

Much current and future research at the hospital relies on genetic testing. The hospital employs 55 full-time and 45 part-time research staff, with an additional 105 physicians doing this research. Genetic testing is an in-house need in current and future research activities.

The Saint John Regional Hospital has been building its Personalized Medicine Program since before 2005. The hospital has the only board-certified clinical molecular geneticist in the province, Dr. Ya-Gang Xie.

The DNA sequencing equipment will give the hospital's laboratory team the tools it needs to analyze the entire human genome and identify disease-causing mutations, including tests for cancer identification and personalized targeted treatment.

Without a Personalized Medicine Program, the hospital can no longer be considered a tertiary care oncology centre.

In addition to oncology, DNA sequencing equipment is also used in pediatrics, stem cell, psychiatry, neurology, cystic fibrosis and cardiology. Genetic testing is also part of the dynamic research occurring at the New Brunswick Heart Centre at the Saint John Regional Hospital.

### **3. When in place, the DNA sequencing equipment will save New Brunswick taxpayers almost \$63,000 per year.**

No additional staffing will be required to operate the equipment. There will be no incremental overhead costs.

Fees that the hospital currently pays to have samples analyzed outside of the hospital will be greatly reduced, as fewer samples will need to be sent outside of the hospital.

To process samples at the privately operated Atlantic Cancer Research Institute (ACRI), at \$900 per test, is not a cost-effective solution, even though it is located nearby in Moncton. A decision to send tests to this private organization would cost New Brunswick taxpayers an additional \$97,000 per year.

The cost to process samples elsewhere in Canada costs, on average, \$468 per test.

The Saint John Regional Hospital currently sends samples to the IWK Health Centre and QEII Health Sciences Centre (Halifax, NS), Hamilton Health Sciences (Hamilton, ON) and The Hospital for Sick Children (Toronto, ON). Only on rare occasions is the hospital required to send samples to the United States. This would also be the case for the Atlantic Cancer Research Institute (ACRI).

### **4. Having DNA sequencing equipment at the Saint John Regional Hospital and the Dr. Georges-L.-Dumont University Hospital Centre through ACRI will not result in unnecessary duplication, as advised by our province's clinicians focused on cancer diagnosis and treatment.**



ACRI, a not-for-profit organization, is located within the Dr. Georges-L.-Dumont University Hospital Centre. ACRI is a private organization and its assets, including its four pieces of DNA sequencing equipment, cannot be considered part of the publicly funded health-care system. ACRI charges the health-care system for its services.

ACRI purchased four genetic sequencing machines in 2013 with a grant from the federal government. In 2014, these machines were made available for clinical use within Vitalité. Two of the four machines are used for research within ACRI and two are used for clinical tests within the Dr. Georges-L.-Dumont University Hospital Centre.

While there is additional capacity for the machines located at the Dr. Georges-L.-Dumont University Hospital Centre, the costs associated with Horizon Health Network sending samples to this location outweigh the costs of having a machine in-house.

The Foundation firmly believes that both hospitals should have this equipment in place, as it is increasingly part of a standard of care in cancer-treating centres.

**5. The Foundation assures donors and the Saint John community that there is a structured process in place for the selection and approval of fundraising causes.**

Horizon Health Network works with Saint John Regional Hospital's medical staff to identify needs, and prioritize those needs.

The hospital's department heads present projects to the Foundation Grants Committee to select fundraising priorities, in alignment with the Foundation's five guiding pillars: advanced medical equipment and technology, community mental health initiatives, research, education and patient comfort.

Horizon Health Network and the Saint John Regional Hospital Foundation approve the chosen fundraising causes, before fundraising begins.

**6. As a registered charity in Canada, the Foundation has a moral obligation to steward all contributions to areas to which donors direct them. If the money will not be used for its intended purpose, the Foundation is obligated to advise all donors and, if a donor wishes, return the donated funds.**

This could have negative ramifications not only for the Saint John Regional Hospital Foundation, but for all foundations in our community and, quite possibly, across Canada.

In the event that the Foundation must return the donated funds, these donors will be required to re-file personal tax returns with the Canada Revenue Agency.