Another project brought to you by GenomeCanada

Stratifying and Targeting Pediatric Medulloblastoma through Genomics

Status	Approved
Competition	2010 Large-Scale Applied Research Project Competition
Sector	Health
Genome Centre	Genome British Columbia and Ontario Genomics Institute
Project Leaders	Michael Taylor and David Malkin, SickKids; Marco Marra, BC Cancer Agency

Project Description

Understanding childhood brain cancer. Brain cancer is the leading cause of pediatric cancer deaths. Children who survive have a much poorer quality of life due to the aggressive treatment used to fight the disease. This results in a staggering burden of suffering for them and their families as well as economic costs of over $100 million annually to the health system. Studies indicate that children with a good prognosis are often over-treated and could be spared complications by reducing the amount of treatment they receive. At the same time, children with a poor prognosis are often subjected to painful treatments which may, in fact, be futile. With support from Genome Canada, scientists are using genome wide approaches to study medulloblastomas, the most common form of childhood brain cancer, to develop markers that will more accurately classify the tumors for treatment. Researchers are also identifying genetic changes that may reveal the risk factors that predispose children to this type of cancer.
As they unravel the genetic basis of brain cancer, the research team is also working with families to determine what additional risks they are willing to assume in reducing therapy to improve quality of life. It is anticipated that the results of this research will lead to new ways to treat childhood brain cancers more effectively and to enhance the quality of life of children struck by this devastating disease.