

December 22, 2022

Ms. Jenny Doull
Phoebe Rose Rocks Foundation
44 Laval Street
Ottawa, ON K1L 7Z8

Dear Jenny and the Board of Directors,

On behalf of CHEO, and all of the kids and families who are helped by gifts like yours, we would like to extend our deepest appreciation for your ongoing support of PROFYLE. Your gift earlier this year was the final piece in your incredible pledge of \$225,000 made in 2020. Since then, many CHEO patients have been impacted by your generosity. We are pleased to present you with the attached impact report, highlighting the work of CHEO's research team, each of whom are making a difference in the lives of children and youth with cancer.

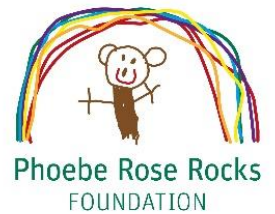
It's incredible to think about everything we have been through as a community and world over the last three years. Your support helped CHEO's kids throughout the pandemic. As you will recall, PROFYLE was granted special permission to continue recruiting patients, while many other research programs were halted. This proves how critical this research project is to patient care. We are proud that CHEO's PROFYLE team has been able to maintain the pace of admitting approximately one patient per month and has recruited 23 patients during the period of September 2020 to November 2022. Since January 2019, you've given more than 50 patients a second chance. Thank you!

Your generosity is a beautiful expression of dedication to the health and wellbeing of CHEO children and families in memory of Phoebe. We hope you will be incredibly proud of the work highlighted in the attached report. Your support was instrumental in moving this forward. On behalf of the researchers whose work you are making possible, and the 50 families that have benefitted from your kind hearts, thank you for your passion and devotion to this vital project.

Sincerely,

Steve Read
President and CEO

Emma Bernans
Senior Philanthropy Officer



Life-Changing Discoveries and Oncology Research Innovation

When patients are diagnosed with hard-to-treat cancers, doctors and scientists never give up. The Terry Fox PROFYLE program is a pan-Canadian project that gives children, adolescents and young adults who are out of conventional treatment options another chance to beat their cancer – by using molecular profiling to study the tumors of these patients, no matter where they live in Canada.

These are young patients with rare or unusual tumors, difficult to diagnose tumors and relapsed patients that have exhausted first-line treatments and need the hope that the PROFYLE program provides by identifying alternative therapies. If we can rapidly identify patients with inherited cancer predisposition syndromes (CPS) we can personalize their treatment and long-term surveillance, identify targeted drug options if/when first line chemotherapy fails, and identify patients who are eligible for clinical trials based on the genomic changes identified in their tumours. Below is an update on CHEO's PROFYLE work made possible thanks to the Phoebe Rose Rocks Foundation.

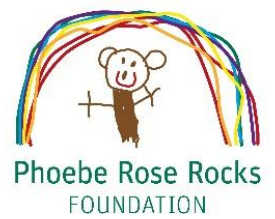
YOUR IMPACT – Genomic Sequencing Approach

Dear Phoebe Rose Rocks Foundation Board Members,

On behalf of the entire PROFYLE team at CHEO, we wish to again express our sincere gratitude for your unwavering support. **We are grateful to have been able to continue our important work, thanks to your generosity.**

Below is an update on the Molecular genetic testing part of the PROFYLE project at CHEO:

- We enrolled our first CHEO patient on personalized therapies this year as a direct result of the identification of specific genetic changes that were found by sequencing the patient's tumour. The patient was started on a specific drug that targets the specific pathway in which the genetic changes were identified. As a result of this targeted treatment, the patients' lesions are almost completely resolved. The genetic testing in the germline sample also identified a cancer predisposition syndrome that was unexpected based on the lesion type, and this allowed for the early start of screening and testing family members who might also be at risk.
- CHEO's PROFYLE team has been able to maintain the pace of admitting approximately one patient per month and has recruited 23 patients during the period of September 2020 to November 2022.
- We have been able to offer 3 patients, with a presumed cancer recurrence tumour, sequencing for a second time to look for additional genetic changes to help determine if the cancer is truly a recurrence or is instead a second cancer. Also, to look for new genetic changes that may suggest additional or different chemotherapy that is targeted to specific genetic changes.



- Patients without CPS have also been identified, providing relief to families in knowing that their other children are not at risk, and that their child with cancer is not at increased risk for additional cancers.
- Virtual care continues to provide easier access to PROFYLE for many families, especially those who do not live in Ottawa but still receive care at CHEO. We have been able to offer families a choice between virtual care and in person care, to best meet their needs in 2022.

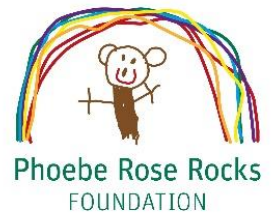
YOUR IMPACT – The Model Systems Node

Funding from the Phoebe Rose Rocks Foundation continues to provide the PROFYLE model systems node with the opportunity to generate patient avatars and provide rapid pre-clinical drug response data for hard-to-treat cancers. Working closely with the clinical care teams, the research scientists at the CHEO Research Institute (Dr. Jason Berman's team) employ a zebrafish platform designed for targeted drug discovery based on the patient's unique sequencing results. Precision medicine is the ultimate goal of PROFYLE, and zebrafish models continue to help us move closer to achieving our goal and improving the lives of CHEO patients. Some examples of this work include:

The model systems node of PROFYLE collaborates directly with the Australian group Zero Childhood Cancer (ZCC). ZCC is an organization that runs a similar program to PROFYLE and uses mouse PDX models to generate a precision medicine approach for hard-to-treat cancers. To date, ZCC has shipped Dr. Berman's lab 13 tumor samples across the globe to complete retroactive transplant drug response studies in zebrafish larvae. Dr. Berman's team has successfully transplanted 4 of these ZCC tumor samples and shown that patient drug responses are conserved across species further solidifying the larval zebrafish platform as a predictive pre-clinical model for patients lacking treatment options. Importantly, a portion of the tumor samples from ZCC either did not have a PDX mouse avatar generated, or there was no response in the patient. Transplanting these samples into zebrafish will be an opportunity to see if the same is true in these models and given the much shorter turnaround time for zebrafish larval PDX drug studies, this data will inform the feasibility and reliability of using this platform for real time clinical decision-making for PROFYLE patients. Funding from the Phoebe Rose Rocks Foundation has allowed for these transplant studies to take place and solidify an international pipeline for knowledge sharing and sample acquisition between PROFYLE and ZCC.

Locally at CHEO, Dr. Berman's team has enrolled 3 neuroblastoma patients on the zebrafish transplant study arm of PROFYLE. This study is led by Dr. Lisa Pinto, a clinical hematology/oncology fellow completing her Master's degree in Dr. Berman's lab.

Dr. Pinto has received neuroblastoma tumor tissue from 3 CHEO patients and is using PROFYLE sequencing data to select targeted therapies to evaluate the reduction of cancer cell proliferation in the zebrafish model. Your funding has allowed Dr. Pinto to order novel therapeutics to test on these neuroblastoma samples and complete these transplant studies. Thank you!



We continue to ensure that every dollar received from the Phoebe Rose Rocks Foundation is spent on the patients who need it the most, who have run out of standard therapy options and need PROFYLE to offer hope. We are deeply grateful that your support allows us to provide this to our families at CHEO.

All of this is possible because of you. On behalf of all the children and families you have helped – we thank you.

Dr. Jason Berman

Chief Executive Officer and Scientific Director, CHEO Research Institute
Vice President Research, CHEO
Professor of Pediatrics, University of Ottawa
Attending Staff, Division of Hematology/Oncology
President, Canadian Hematology Society

Dr. Sarah Sawyer, PhD, MD, FRCPC, FCCMG

PROFYLE Clinical site lead
Clinical Geneticist

THANK YOU!

With the Phoebe Rose Rocks Foundation's continued support, we are positively impacting the lives of children and youth at CHEO and across Canada faced with hard-to-treat cancers by increasing our ability to offer genomic sequencing and accelerating our ability to offer them access to new therapies. Thank you for your continued generosity!

