



# WE'RE FIGHTING FOR KIDS LIKE JORDANA

**JORDANA'S RAINBOWS**

2020 IMPACT REPORT





# TRIALS FOR TREATMENT

## An update on DIPG clinical trials for patients at SickKids

The extraordinary research and clinical expertise in DIPG at SickKids, bolstered by our partners around the world and fueled by inspirational donors like Jordana's Rainbows, the Fiorini family and their supporters, is what propels us forward in our fight against this devastating brain tumour.

With the help of your generosity, SickKids continues to forge ahead full force with ideas and proposals for new trials in DIPG. Unfortunately, even with significant allocation of time and resources, some of the trials we hoped to bring to our patients, including a vaccine, have not come to fruition. This was a result of inconclusive preliminary data and complex administrative roadblocks. Although disappointing, we have extraordinary opportunities on the horizon as we investigate better treatments for our patients.

### A SELECT GROUP

SickKids is the first non-American institution to be accepted as a member of The Pediatric Brain Tumor Consortium (PBTC). Now in its 20th year, the PBTC is composed of 11 academic centres and children's hospitals across the United States which are competitively selected based on their scientific excellence and clinical expertise. PBTC's mission is to contribute rapidly and effectively to the understanding and cure of paediatric brain tumours through multi-centre, multidisciplinary, innovative studies based on the highest-quality science. As a member, SickKids will join upcoming DIPG clinical trials which are sure to be the best in the world. Since 2000, the PBTC has completed 7 DIPG trials and there are currently 5 new DIPG trials enrolling newly diagnosed or recurrent patients.

### TARGET. AIM. TREAT.

SickKids partnered with Sunnybrook Health Sciences Centre scientists, who made history using an early-



stage specialized procedure called High Intensity Focused Ultrasound (HIFU) to target and destroy brain tumours. Surgeons infuse an anti-cancer drug, then tiny, microscopic bubbles, into the bloodstream of a patient. The microbubbles are small and pass harmlessly through the circulatory system. Then they use state-of-the-art MRI-guided focused low-intensity ultrasound (sound waves) to target blood vessels in the area near the tumour and monitor its effectiveness and precision in real time. Once the barrier is opened, drugs flow through and deposits into the tumour. The Brain Tumour Research Centre at SickKids developed a model demonstrating the feasibility of the blood-brain barrier disruption — a crucial first step. The team is discussing strategies to bring this into clinical practice.

### JOINING FORCES FOR A CURE

Under the coordination of Dr. Mark Souweidane, Director of Pediatric Neurological Surgery at the Weill Cornell Medicine Pediatric Brain and Spine Centre, and in partnership with Memorial Sloan-Kettering Cancer Center in New York, an exciting FDA-approved DIPG clinical trial is being conducted called convection-enhanced delivery, or CED. The patient receives a cancer-fighting drug diffused directly to the site of the tumour, bypassing the often impenetrable blood-brain barrier and offering more effective treatment with less side effects. SickKids is honoured to be one of the sites chosen to participate in this trial. We look forward to reporting on the developments of the CED trial in the coming months.