MIRV: A Phase I/II Study of Mirdametinib and Vinblastine for Newly Diagnosed Patients with Pediatric Low-Grade Glioma and Activation of the MAPK Pathway

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Implementation of ACCESS Core Values:
- ***Equitable access*** to MIRV trial
  - ***Satellite sites*** are directly included in the protocol
  - ***CRAFT tools*** will be use
- Commitment to ***EDI*** principles
  - To follow ACCESS ***Guidance Document on the Collection and Use of Potentially Sensitive***
- ***PWLE involvement***, including on trial's DSMB

Study Milestones:
Health Canada NOL: June 4, 2025
Study Opened to Recruitment: January 12, 2026
Current No. of Patients Enrolled: 1
Expected Completion of Recruitment: January 2029

Study Overview

Study Design: Multi-Center, Phase Ib/II, Open-Label, Non-Randomized Trial
Sample Size: 50 Patients
Clinical Sites: ± 10 Canadian Centers
Main Eligibility Criteria: Patients ages 2 years to 25 years at time of study enrollment who require upfront treatment of pediatric low-grade glioma
Feasibility Phase: The maximum tolerated/recommended phase II dose (MTD/RP2D) of the mirdametinib plus vinblastine combination will be assessed using a modified Rolling-6 design
Treatment Phase: Oral mirdametinib twice daily at a fixed dose (2mg/m^2) for 13 cycles weekly IV vinblastine at MTD will be given for a total of 17 cycles
Study Follow-up: Every 6 months for 36 months
Primary Objectives: To determine the: I) maximum tolerated dose; and II) objective response rate by PLGG RAPNO
Secondary Objectives: To evaluate the: I) efficacy outcome measures (progression-free survival, time to progression and overall survival); II) safety and tolerability; III) effect on neurological evolution; and IV) quality of life during treatment
Exploratory Objectives: To evaluate the response rate based on tumor volume, as well as to investigate and correlate the following biological features to tumor response: I) gene expression; II) DNA methylation; III) RNA expression; and IV) cerebrospinal fluid circulating tumor DNA