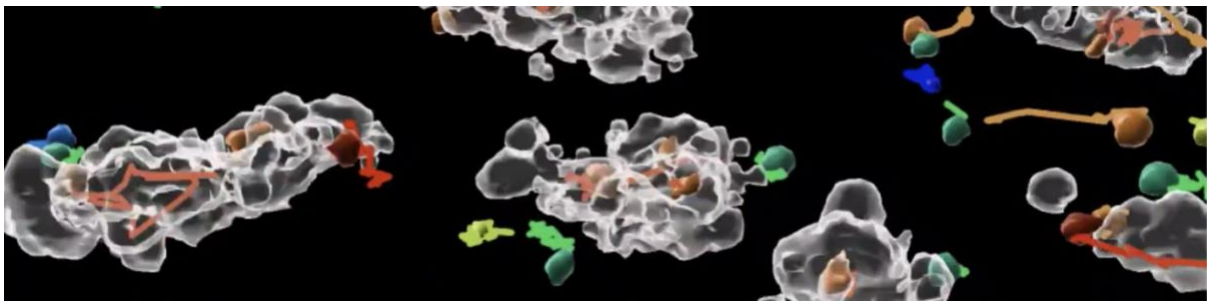
PhD project on advancing immunotherapy for diffuse midline glioma

Function	PhD student
Organization	Princess Máxima Center for Pediatric Oncology, Utrecht
By	Florijn Dekkers, PhD



The project: Diffuse midline glioma (DMG) represents a highly aggressive, rare paediatric brain tumour with no chance of survival. Cellular immunotherapies, like CAR T cells, may provide a valuable treatment option for these patients, but heterogeneity within tumours and between patients are important challenges to overcome. This project aims to pre-clinically evaluate the efficacy and mode-of-action of various T cell therapies using a DMG patient-derived organoid biobank and a technological platform that we recently developed called BEHAV3D. BEHAV3D combines organoid technology, 3D imaging and transcriptomics to not only delineate the mode-of-action of T cell therapy, but also identify strategies to enhance tumour-targeting efficacy. The goal of this project is to identify the most promising cellular treatment option for DMG patients and to further improve their tumour-targeting strategy to increase the chance of successful clinical translation.

The work will be led by Florijn Dekkers, PhD, who develops organoid-based technologies aimed to accelerate translation of newly developed (immune)therapies to patients. She furthermore co-founded green initiatives to enhance sustainability of lab practices throughout the institute and at the (inter)national level. The work will be embedded in the research team of Anne Rios, PhD, who develops state-of-the-art 3D imaging technologies and advanced human models for better understanding treatment of cancer. The combination of patient-derived organoid models with advanced imaging methods provides a unique opportunity to decipher underlying disease mechanisms and therapy mode-of-action in a patient-specific manner. (Dekkers et al., Nat. biotech. *in press*; Dekkers et al., Nat. Protoc. 2019; Dekkers et al., Nat Med 2013). Within the team we value enthusiasm, reliability, creativity, collegiality, diversity and sustainability to provide a motivating and respectful work atmosphere.

The Organization; The Princess Máxima Center for Pediatric Oncology is a research hospital centralizing healthcare, research and education with regard to cancer in children in a single location in Utrecht. The institute aims to provide the highest level of care for all children with cancer and has the ambition to cure all children with an optimal quality of life. The center brings together the best possible care and scientific research, creating a unique interdisciplinary institute for pediatric oncology in Europe.

We are asking for:
A highly motivated PhD candidate to join the team, able to work independently, as well as in collaboration with other members of the group. Experience with (organoid) cell culture, microscopy,

mouse work and/or computational analysis will be advantageous. The candidate should hold a master's degree in life sciences or related disciplines.

We offer: A PhD position with a total duration of 4 years (full-time). You will initially be contracted for a period of one year, after which your performance will be evaluated and the contract may be extended for three more years. You will be working under daily supervision of Florijn Dekkers, in a cross-disciplinary, collaborate research environment on a KWF-funded research project. Your gross monthly salary will depend on experience and background, starting in scale 45 with 8,33% gross monthly salary holiday allowance and 8,33 % end-of-year bonus. The Princess Máxima Center operates according to the collective labour agreement 'cao algemene ziekenhuizen'.

Contact and application

You can apply for this position until June 15th 2022 using the following link: PhD project on advancing immunotherapy for diffuse midline glioma - Werken bij Prinses Maxima Centrum. When we receive sufficient applications prior to the application deadline, we reserve the right to close the application early.

You are welcome to contact Florijn Dekkers j.f.dekkers@prinsesmaximacentrum.nl for additional information about the vacancy.

Detailed information about the Princess Máxima Center for Pediatric Oncology can also be found at www.prinsesmaximacentrum.nl.