

Opera Phenix High-Content Imaging Microscope (Pediatric) Oncology Drug Discovery at Scale



Finding the right approach for a well-defined patient population

No two cancers are the same. To find the right approach for a well-defined patient population, we help drug developers test how cells respond to hundreds or thousands of compounds in a robust and automated way. Using the Opera Phenix High-Content Imaging Microscope at the Princess Máxima Center for pediatric oncology, acquired through Oncode Accelerator funding, drug developers can run large-scale screens with enough detail to catch subtle phenotypic and functional effects, in collaboration with expert partners.

The Technology

The Opera Phenix High-Content Imaging Microscope uses advanced confocal microscopy to permit detailed analysis of changes in cell structure, viability, location, or morphology within complex biological models including 3D organoids and organ-on-chip models.

As a part of Oncode Accelerator's oncology infrastructure, the Opera Phenix High-Content Imaging Microscope is integrated within the Princess Máxima Center's High-Throughput Screening (HTS) and Imaging Facility, where it operates as a part of a large and advanced automated robotic system to facilitate large oncological drug screens with minimal manual handling.

Access Through a Demonstrator Project

Co-funded by Oncode Accelerator, the Opera Phenix High-Content Imaging Microscope can be accessed by external parties through Demonstrator Projects.

Within a Demonstrator Projects, and in collaboration with the experts at the HTS and Imaging Facility, you can:

- Run large, standardized oncological drug screens against curated compound libraries
- Detect morphological and functional changes in complex biological models, including adult and pediatric patient-derived organoids and organ-on-a-chip models accessible through the Oncode Accelerator Organoids Platform
- Access support for execution of screens and data analysis by expert users

Get Started

Get started with your application today by contacting our Business Development team at: <https://www.oncodeaccelerator.nl/get-started>

Demonstrator Projects

Demonstrator Projects are collaborative, co-funded preclinical development projects that use our integrated infrastructure. We focus on four therapeutic modalities represented by our Workstreams:

- small molecules,
- biologics,
- cell & gene therapies, and
- therapeutic vaccines.

These preclinical drug development pipelines combine our state-of-the-art drug development pipelines with innovations from our Platforms:

- artificial intelligence (AI),
- organoid models and organ-on-a-chip technology, and
- well-defined data and materials from our patient cohorts.