Cell- and Gene Therapy

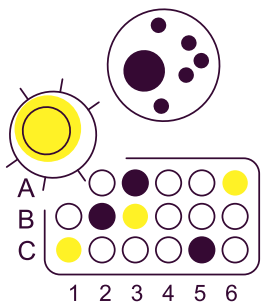
Cell and gene therapies harness the power of the immune system and genetic modification, allowing them to target cancer cells with greater precision and less side effects.

The Oncode Accelerator Cell and Gene Therapy Workstream combines scientific experience with a multidisciplinary academic infrastructure, to build and optimize robust preclinical pipelines for ATMP development. Oncode Accelerator's innovation Platforms – Patient Cohorts, Organoids and Artificial Intelligence – are integrated to develop better prediction models for ATMP production success and clinical outcomes. This approach accelerates the path from target identification to proof-of-concept.

This infographic highlights the services and capabilities available to drug developers during a Demonstrator Project, which can be executed at any stage of the Workstream pipeline and incorporates at least one of the innovative Platforms.

Oncode Accelerator

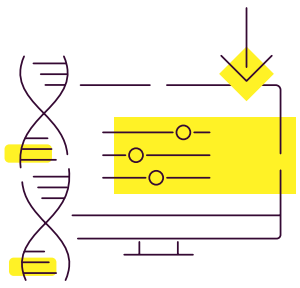
Outsmarting cancer
Impacting lives



Target and Lead Validation

Artificial Intelligence | Organoids | Patient Cohorts

Target Identification • Target Validation • Target Selection • Effector molecule (ATMP-product) identification • Carrier cell type selection • Assessment of potential safety and efficacy in relevant models • Design of ATMP product



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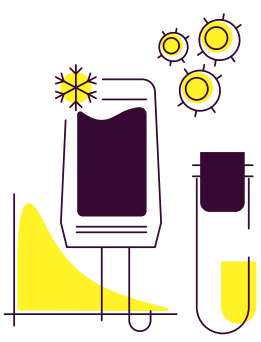
Design the ATMP Production Process

Artificial Intelligence | Organoids | Patient Cohorts

Plug and play modules (genetic modification, TIL, gdTCR, CAR, Third party carriers, abTCR, ATMP tracer) • Assessment of potential safety and efficacy in relevant models • GMP Simulation module (= first scaling-up step/feasibility assessment of ATMP production process) • Refining the existing artificial intelligence model on imaging and clinical outcome



GMP Readiness and Upscaling

Artificial Intelligence

Inventory and ordering of the required isolation and culture systems, raw materials, other equipment and their GMP status • Vendor qualifications and clearance of raw materials, equipment and disposables • Final formulation, cryopreservation protocol • Analytical Assay Development • Production process scale-up - intermediate scale (Tech batch production - stability)

(Pre-)clinical Evaluation and Validation

Artificial Intelligence | Patient Cohorts

Developing full preclinical packages for gene therapy products • Validation of QC tests (e.g. for product characterization, safety, and potency) - Single cell sequencing • Execution of engineering runs (GMP readiness) - GMP batch runs (for IMPD) • Establishment of complete documentation set (e.g. protocols, batch record, IMPD, training records etc.)

Interested in applying for a Demonstrator Project?

Scan the QR-code to get started
or go to **oncodeaccelerator.nl**