





THE CHALLENGE

Despite robust indications of activity at the preclinical phase, around 95% of new drugs fail to show efficacy on patients. The high attrition rate in drug development has been attributed to poor translatability of preclinical data. Therefore, it is clear that more advanced models – directly derived from patients – are needed for drug discovery and development.

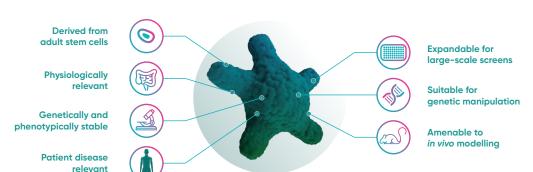
OUR SOLUTION: HUB ORGANOIDS™, A CLINICALLY-RELEVANT MODEL

Patient-derived HUB Organoids are generated from tissue specific adult stem cells (ASC), present in all epithelia. They can be generated from virtually any epithelial biopsy

or resection without the need for prior manipulation, transformation, or ASC purification. Our unique technology allows to develop organoids that preserves the original tissue genetic and epigenetic make-up. This results in patient-relevant *in vitro* models that recapitulate the 3D architecture, morphology, physiology, molecular pathology, and response to treatment of the original tissue *in vivo* - effectively representing "patients in the lab®".

Patient-derived models that recapitulate the original disease in the lab are needed to reduce new drug attrition rates

KEY FEATURES OF HUB ORGANOIDS



WHY IS A LICENSE REQUIRED TO WORK WITH HUB ORGANOID TECHNOLOGY?

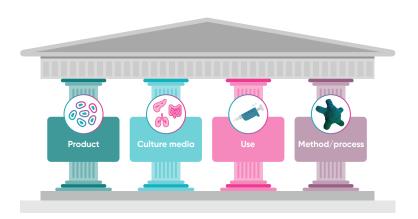
HUB Organoid Technology represents a breakthrough in stem cell research and has allowed to gain better understanding in fields like organ development, tissue damage and repair, or human disease biology. It is based on extensive knowledge of the underlying biology of adult stem cells and their differentiation. This unique technology is covered globally by an extensive and broad IP.

As the inventor of HUB Organoid Technology, our IP portfolio covers all aspects of organoid technology and it is based on 4 pillars:

- Product: ASC-derived epithelial organoids (human/animals)
- Culture Media: organ-specific composition
- Use: applications including drug discovery/ development, diagnostics, regenerative medicine, etc.
- Method/process: establishment, expansion, differentiation, etc.

A license is required to work with this unique technology in-house, independently of the organoid/tissue source, i.e irrespectively of whether organoids are being generated in-house, purchased from HUB, or other HUB-partnering vendors.

THE FOUR PILLARS OF HUB ORGANOID TECHNOLOGY



BENEFITS OF LICENSING HUB ORGANOID TECHNOLOGY

Purchasing our license provides you with the right to use HUB Organoid Technology in-house. This allows you to:

- Generate ASC-derived organoids from patient/animal material in-house
- Purchase organoid models from HUB or HUB approved vendors
- Access to most up-to-date HUB protocols and know-how
- Access HUB characterized and validated Biobank (e.g., characterization data and clinical data)
- Obtain support throughout the ethical approval process, selection of organoid models and shipment
- Access HUB validated list of reagents
- Access technology transfer training with HUB experts

TYPES OF LICENSES

Depending on the intended use of HUB Organoid Technology, we offer different licensing options, including:

- Internal drug development license: incorporate HUB Organoid Technology in your preclinical research and development.
- Biobanking license: become a distributor of HUB Organoids.
- Equipment validation license: validate your technology using HUB Organoids.

To apply for a license contact us at: **bd@huborganoids.nl**

A HUB Organoid Technology license enables you to work with adult stem cellderived organoids in-house

ADVANTAGES OF A HUB ORGANOID TECHNOLOGY LICENSE

