



Overview services Tytgat Institute for Liver and Intestinal Research

Biochemical assays (plasma, serum, full blood, tissue/cell homogenates, feces)

- Glucose
- Glucose-6-phosphate
- Glycogen
- Lactate
- Pyruvate
- Triglycerides
- Cholesterol
- Autotaxin (ATX)
- Caspase 3/7 (activity assay)
- ATP
- Cell Mito Stress Test (Seahorse XF)
- Cell Glyco Stress Test (Seahorse XF)

Compound detection & quantitation (HPLC; serum, bile, tissue/cell homogenates, feces)

- Bile salts
- Hydroxyproline (fibrosis marker)
- bilirubin
- phospholipids

AAV *in vitro* Potency assay

- transduction efficiency
- activity assay and/or expression of the encoded therapeutic protein



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ELISAs

- Multitude of human, mouse, rat and porcine markers
- Sample types: plasma, serum, full blood, tissue/cell homogenates, feces

Please contact us to get information on your marker(s) and sample type(s) of interest

FACS

- Multitude of human, mouse, rat and porcine markers
- Sample types: full blood, isolated blood cells (e.g. PBMCs), tissue cell isolates (fresh and frozen), cell lines

Please contact us to get information on your marker(s) and sample type(s) of interest

Multiplex immunoassays (CBA, MSD, Immunex, O-link)

- *BD Human CBA assays:* IFN γ , IL-1 β , IL-2, IL-4, IL-6, IL-8, IL-10, IL-12p70, IL-17A, MCP-1, MIP1 α , TNF
- *BD Mouse CBA assays :* IFN γ , IL-1 α , IL-1 β , IL-2, IL-4, IL-6, IL-10, IL-12p70, IL-17, MCP-1, TNF
- *Sample types:* serum, tissue/cell homogenates

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RNA in situ hybridization (RNAscope®)

- *Human probes:* CCL25, CCL28, CCR9, CXCL2, IL-10, IL-12B, ITGB7, MadCam1, Sema3a, TNF α , Thy1, Wnt5a
- *Mouse probes:* Apccd1, ATP8b1, ATP8b2, ATP10b, Btc, CXCL12, CXCR4, Ereg, IFN γ , , IL-10, IL-17A, Lgr5, Ly2-1, Nrg-1, Nrp-1, Nrp-2, Olfm4, Sema3a, Sema3c
- *Rat probes:* CD68, HDC
- *Sample type(s):* fresh sections of formalin-fixed, paraffin-embedded tissues

RNAscope is a registered trademark of ACD

mRNA isolation, quantitative PCR, NextGen sequencing

- RNA isolation from tissue (biopsies) and cell lines
- cDNA synthesis
- qPCR: primers for a multitude of human, mouse, rat and porcine markers
Please contact us to get information on your marker(s) and sample type(s) of interest
- library synthesis
- NextGen sequencing (AmsterdamUMC Central Genomics Facility)

RNA sequencing:

- Ovation RNA-Seq System V2 combined with Ovation Ultralow V2 kit (Nugen) for Illumina library prep or
- Kapa RNA Hyperprep with RiboErase HMR kit (Roche)
- Kapa mRNA Hyperprep kit (Roche)
- Single cell RNAseq (AmsterdamUMC Central Genomics Facility)
Fluidic circuit (Fluidigm C1) and 10X Genomics Chromium Controller
- Nextgen sequencers:
 - Illumina HiSeq
 - Illumina MiSeq4000
 - Lontorrent and OT2, CHEF emulsion PCR, and PGM
 - S5XL sequencer

Microbiome and mycobiome analysis

- Bacteria: 16S v3-v4 region sequencing (Microbiota Center Amsterdam, MiCA (AMC))
- Fungi: ITS sequencing (Microbiota Center Amsterdam, MiCA (AMC))



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Histology services

- Processing (paraffin, frozen tissue)
- Sectioning
- Histological staining:
 - H&E
 - Alcian Blue (acid mucins/mucosubstances)
 - PAS (glycogen)
 - Picro Sirius red (collagen)
 - Oil Red O (neutral lipids, cryosections)

Immunohistochemistry (IHC)

- Antibody staining for a multitude of human, mouse, rat and porcine markers
- Chromophor (color) or Immunofluorescent detection
- Double stainings (IHC or IHC + RNAscope)
- Development/Optimization of new antibody stainings

Please contact us to get information on your marker(s) and tissue type(s) of interest

Microscopy/ image analysis

- Standard brightfield microscopy
- Fluorescent microscopy
- Confocal Laser microscopy
- Whole image scanning (Philips Digital Pathology; histological and IHC chromophore stainings only)
- Image analysis (surface area, counts, ImageJ)