

PROJECT INFORMATION

Project short title / Acronym			
Title			
Sponsor/ Funding institution			
MEC approval	obtained Ref: ...	pending	N/A
Mandatory Biobank agreement (link to Biobank)	YES Ref:	NO	N/A
Principle Investigator (PI)			
Institution & department			
Purchase Order number / Project (budget) ID			
Contact person			
E-mail contact			
Project type	Academic	Commercial	
Co-publication [§]	YES	NO	
Nature of Request	Cost estimate for project proposal	Approved project	
Proposed delivery date of APARTS service (MM/YYYY)			
Number of cases			
Diseases type			
Sample Type	Tissue:	FFPE tissue	FF tissue
	Fluids:	Urine	Blood Plasma
	Other: ...		

§ A discount may apply for the analysis fee of molecular biologist/pathologist in case of co-publication.

UA/UZA pathology group member involved in the project?	No Yes – Name: ... Type of involvement (e.g. copromotor):
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TYPE OF ANALYSIS

1. **Sample processing and staining (histology, immunohistochemistry and ISH)**
2. **Histopathologic evaluation**
3. **Digital Microscopy**
4. **Molecular analysis**

1 Sample processing and staining

The principle investigator has obtained the appropriate consent, medical ethical commission (MEC) permission and proper use of the biomaterials.

Processing			
Fixation	formalin	ethanol	other: ...
Embedding	paraffin blocks	cell suspension in agar cell blocks	other: ...
	other: ...		
Number of blocks			

Please provide an excel list with sample names. This name will be printed on the cassette.

Cutting			
Sample type	paraffin blocks	frozen tissue	TMA blocks
Tissue type (i.e. organ)			
Total no. of blocks			
Number of sections	No. of blocks		
	Section thickness (µM)		
Specification per block	No of sections/block		
Method	RNAse-free cutting	serial sections on glass	sections in cups
Planned analysis	Histochem	IHC or (F)ISH	D/ RNA-isolation
	Other, i.e.		
Other remarks			

Histochemical stainings				
Staining	HE	PAP	PAS...	other: ...
Number of slides				

Immunohistochemical stainings				
<i>IHC staining on Omnis (Dako/Agilent) or BenchMark Ultra (Ventana/Roche) Only for human FFPE samples</i>				
Protocol	UZA PA*: see list IHC UZA pathology department optimisation/validation in consultation with researcher protocol (for Omnis/Benchmark) supplied by researcher			
Antibody	#	AB provided by researcher*	DAB	Alk Fos or Magenta
Control tissue	each run	each slide	not required (e.g. internal control present)	
Other remarks				
IHC technical quality will be evaluated by pathology department				

* if protocol of UZA PA is used, then AB is provided by APARTS

In Situ Hybridisation (ISH)			
Material	<input type="checkbox"/> FFPE tissue slides	Cytospins	Other, i.e
(F)ISH	List of probes*: see list FISH UZA pathology department		
	Probe	#	Probe provided by researcher
Type of analysis	AMPLIFICATION	BREAK	FUSION DELETION
Number of nuclei for evaluation	20	50	Other:
Representative microscopic image needed	YES	NO	
CISH	EBER	Other:	

* if protocol of UZA PA is used, then probe is provided by APARTS

2 Histopathologic evaluation

Microscopic evaluation				
H&E	evaluate if representative tissue is present			
	% relevant cells	ROI selection and annotation		
	other:			
IHC	#	Scoring system		
		H-score: intensity & %	other scoring system:	descriptive
Evaluation by a specific pathologist requested?	No Yes – Name: ...			
Other remarks				

3 Digital Microscopy (WSI, Ultra-fast scanner, Philips, 40x)

Slides need to be clean without excess mounting media on the (edges of the) cover glass, mounting medium has to be dry and cover glass should NOT stick out. No marking on the slide allowed.

Please provide an external hard drive for image storage (0.5-1.5 Gb/image at 40x, depending on tissue area).

Scanning				
Number of slides				
Image format	Tiff	ISyntax		
Required magnification:	40x	20x	10x	5x
Back-up storage for 1 month by APARTS	YES	NO		

4 Molecular analysis

NA extraction				
D/RNA isolation of FFPE sections	# of cases:	Macrodissection required?	YES	NO
	# of sections /case:			
cfDNA isolation	Material: plasma	urine	CSF	other:
	# of cases:	ml/case:	Elution volume:	
Measurement of concentration	Nanodrop	Qubit DNA BR	Qubit DNA HS	
	Qubit RNA BR	Qubit RNA HS		
Other remarks				

PCR			
Idylla	BRAF V600	NRAS+BRAF	KRAS
	NSCLC fusion	MSI	
	ctEGFR	ctKRAS	
	Other:		
Real-time PCR	HPV Xpert (cyto)	HPV sacace (cyto + FFPE)	
	Other:		
Digital droplet PCR	KRAS G12/13	KRAS G12C	BRAF V600
	EGFR 5 hotspots	EGFR T790M	MYD88 L265P
	Other: ...		

Full range of available assays on Idylla platform and QX200 ddPCR platform: [biocartis website](#) en [biocartis website](#).

Next Generation Sequencing (NGS)
Oncomine Focus Assay (OFA)– DNA panel (SNV and small indels, 23 genes)
Oncomine Focus Assay (OFA)– RNA panel for fusions (22 genes) + METex14 skipping & EGFR VIII
Oncomine Comprehensive Assay (OCA) – DNA panel (143 genes)
Oncomine Comprehensive Assay (OCA) – RNA panel (22 fusions)
BRCA1/2 with Oncomine Research Assay (SNV and small indels)

Gynaecology targeted NGS panel (22 genes)
Glioma targeted NGS panel including TP53, IDH1/2, 1p19q deletion and EGFR amplification
Thyroid targeted NGS panel including POLE (15 genes)
TMB with Oncomine Tumor Mutation Load assay
CNA by sWGS
Oncomine PAN-CANCER cell-free assay (52 genes)
Other:

Detailed NGS panel information is available here: [labogids UZA pathologie - NGS](#).

Methylation
MGMT promoter hypermethylation by RT-PCR
MLH1 promoter hypermethylation by RT-PCR
Whole genome methylation by Infinium EPIC microarray
Other: