



# About Us

## Who are we?

Specialist analytical and services  
lab operating to  
EMA/INS/GCP/532137/2010

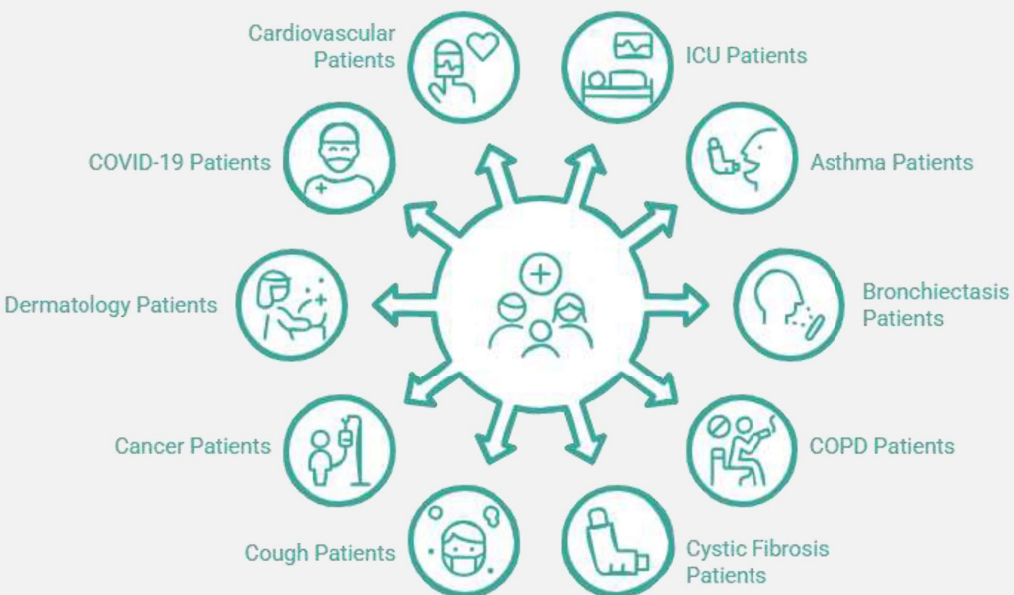
## Where are we?

Wellcome-Wolfson Institute for  
Experimental Medicine (QUB)  
within the Belfast City Hospital  
site

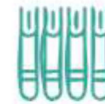
Partnering with  
clinicians,  
academics, CROs,  
biotech innovators,  
& pharmaceutical  
leaders



## Patient cohorts



## Biospecimen Handling & Storage



### Biospecimen Types

Sputum, lung/nasal swabs/brushes, blood, PBMCs, BAL, lung biopsies, urine, breath condensate, saliva, CSF, stool.



### Storage Temperatures

Ambient, 4°C, -20°C, -80°C, liquid nitrogen, cryogenic (-150°C)



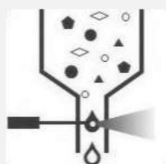
### Storage Duration

Long and short-term storage options are available.

## Exploratory/Secondary PD testing services



**Bioanalytical  
Analysis**



**Flow  
Cytometry**



**Molecular  
Biology**



**Microbiology**



**Microscopy**

## Assay Development and Validation

### Custom Assay Development

Development of  
assays for  
biomarkers, proteins,  
and metabolites.



### Performance Parameters

Validation of  
accuracy, precision,  
sensitivity, and other  
parameters.



### Bridging Studies

Transfer assays  
between platforms  
or labs.



### Regulatory Validation

Validation following  
ICH and GCLP  
guidelines.



### Matrix Compatibility

Testing compatibility  
with various  
biological matrices.



## Microbiology & Molecular biology techniques

### Flow Cytometry Applications



#### Immunophenotyping

Analysis of cell surface markers for immune profiling.



#### Intracellular Staining

Detection of cytokines and transcription factors within cells.



#### Cell Sorting

Isolation of specific cell subsets for downstream functional analyses.



#### Functional Assays

Measurement of cellular functions like proliferation, ROS formation, phagocytosis



#### NETs Evaluation

Assessing neutrophil extracellular traps.



#### Classical Culture Methods

Semi-quantitative for bacterial load and presumptive identification



#### MALDI-TOF MS

Rapid & accurate species-level identification from cultures



#### Antimicrobial Susceptibility Testing

MIC, disk diffusion, E-test



#### DNA Extraction

Sputum, swabs, BAL, stool



#### PCR & qPCR

eg. 16S and oprL



#### Next-Generation Sequencing

Oxford Nanopore Technology

### Microscopy Techniques



#### Differential Count

White cells in various matrices.



#### Live-Cell Imaging

eg ciliary function of epithelial cells.



#### KOH Wet Mount

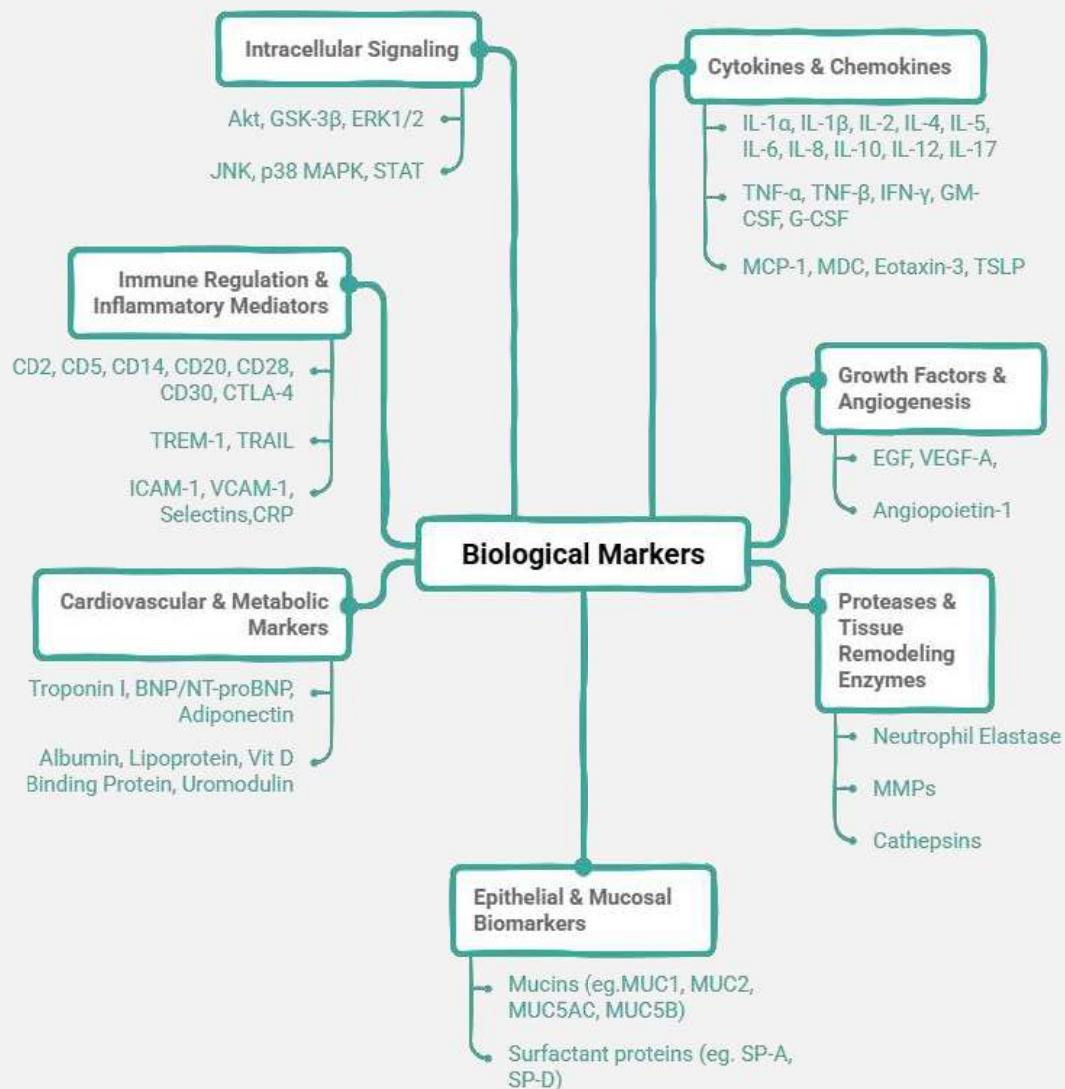
Direct microscopy for yeast and fungi.



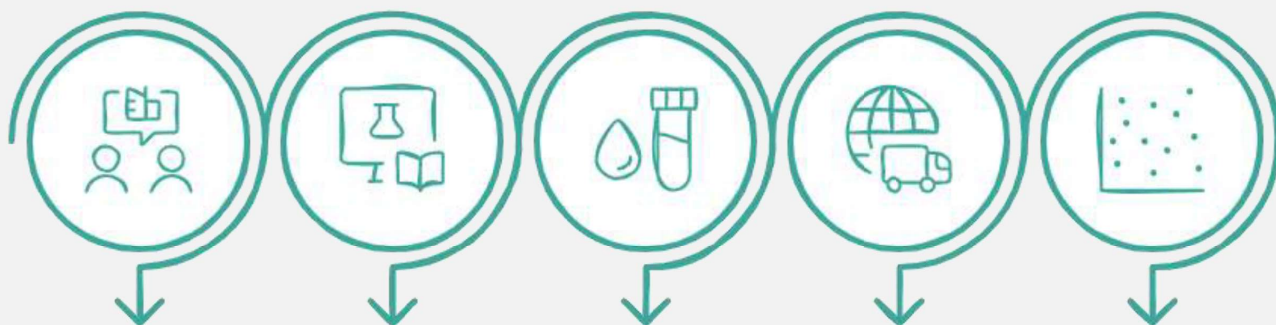
#### Immunohistochemistry

Protein expression and localization  
Cellular pathways and protein interactions

## Bioanalytical Analysis Techniques



## Other Key Service Areas



### **Consultation and Support**

Laboratory Method Consultation, Site Training & Investigator Meetings, Project Coordination

### **Lab Manual Development**

Translating complex study protocols into clear, practical lab manuals.

### **Kit and Material Production**

Creating custom kits and randomization codes for specific trial needs.

### **Logistics and Handling**

Managing global shipping and handling of clinical trial samples.

### **Data Handling and Reporting**

eCRF Setup and Integration, customizable reports, interim analyses, and final datasets



## Opportunities for Collaboration in iREACH

