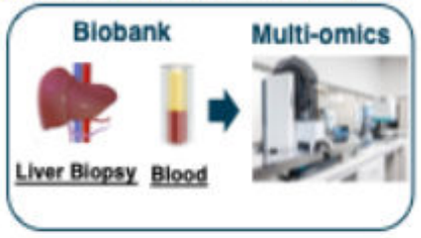
# A Next-Generation Multi-Biomarker Detection Platform for Precision Management of Metabolic Liver Diseases

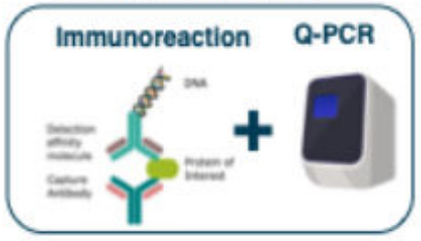
Principal Investigator: Prof Aimin Xu

## Technology

**Three Novel Biomarkers for MASH and Liver Fibrosis**




**Proprietary Multi-Biomarker Detection Platform**




- **Proximity Hybridization-based Assay (PHA) for simultaneous detection of three biomarkers**
- **AI algorithm for precision diagnosis and management of MASH & Liver Fibrosis**

Metabolic dysfunction-associated steatohepatitis (MASH)

## Key Advantages

- ***Non-Invasive*** *vs.* liver biopsy
- Proprietary ***Biomarker Panel*** (sCDCP1, TSP2 and PIIINP )
- Superior ***Sensitivity and Specificity*** (AUC>0.9 & grey zone <10 %)
- ***Minimal*** Sample Requirement (2 μL)
- Radical ***Cost-Effectiveness***
- Easily ***Implementable***
- *Wide* ***Applicability*** without Specialized Infrastructure (just q-PCR)

***Rewriting the Gold Standard for MASH & Liver Fibrosis Precision Management .***

## Intellectual Property

*PCT/IB2021/054808;*
*PCT/CN2024/114303;*
*63/883,695*

## Stage of Development

- ✓ *Cohort establishment & Biomarker discovery*
- ✓ *Generation of specialized antibody pairs*
- ✓ *PHA development and patent application*
- *Assay optimization & analytical validation ongoing*
- *Clinical validation and manufacturing scale-up*
- *Regulatory approval and commercialization*

## Opportunities

- *>25% high risk individuals globally*
- *≈ $103 Billion of direct medical cost annually in the US alone*
- *over 100 MASH pharmaceutical therapies in clinical trials*
- *90% cost reduction per test*

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