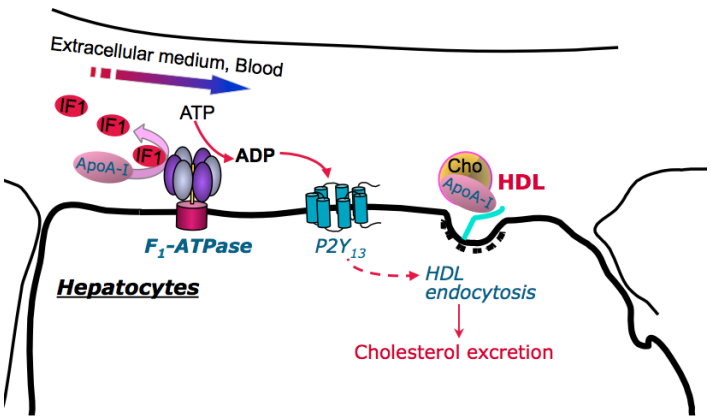
DIAGNOSTICS

# $IF_1$: a new HDL-related biomarker

High Density Lipoprotein-Cholesterol (HDL-C) is an important independent cardiovascular risk factor. However the simple measurement of plasma HDL-C level might not provide sufficiently robust information cardiovascular risk assessment. Novel non-invasive biomarkers allowing a more functional assessment of HDL-C are awaited.

## DESCRIPTION*

- Inhibitor Factor 1 (IF1): a blood-based biomarker of HDL-C functionality to evaluate the risk of coronary artery disease
- Polyclonal antibody against IF1 allowing the development of an ELISA kit/automated assay
- Clinical validation on the GENES cohort:
  - Case-control study evaluating the risk of developing coronary heart disease: 648 patients (45-74 years old) vs. 669 male controls
  - Evaluation of the long-term (10-year) prognosis in coronary artery disease: 577 male patients (45-74 years old)
- Additional discrimination compared to patients exhibiting low apoA-I levels




*IF1 evaluates the efficacy of HDL uptake: High IF1 level would reflect increased activity of $F_1$-ATPase in hepatic HDL endocytosis, decreasing cardiovascular risk.*

## COMPETITIVE ADVANTAGES

- Measurable from serum samples
- Independent from environmental factors
- Possible combination with apoA-I to improve patient stratification

## APPLICATIONS

- Evaluation of cardiovascular diseases (coronary artery disease, peripheral artery disease, etc.):
  - Risk of occurrence
  - Measurement of seriousness
  - Evaluation of therapy efficiency

## INTELLECTUAL PROPERTY

- Patent in force

## DEVELOPMENT STAGE

- Technology validated in relevant environment

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## LABORATORY

- "High density lipoproteins and signaling in atherosclerosis" (I2MC, UMR 1048)

## CONTACT

T. +33 (0)5 62 25 50 60
sante@toulouse-tech-transfer.com
www.toulouse-tech-transfer.com

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