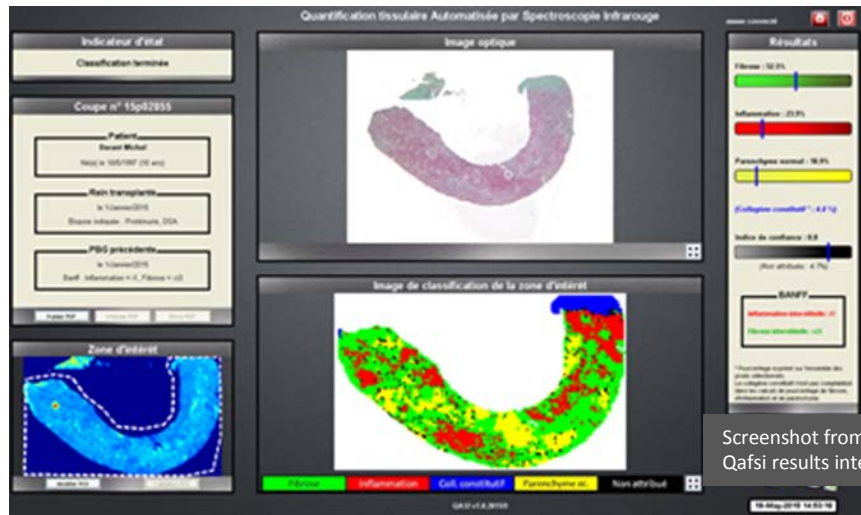




# Automatic device for diagnosis, prognosis and monitoring of acute and chronic organ transplant rejections.

## Technology

- Current quantification technique is based on the subjective analysis by a pathologist of stained slides from biopsies.
- It requires a significant phase for sample preparation and is not reproducible due to the great variability intra and between operators.
- It does not allow you to access certain data such as the distinction between fibrosis and constituent collagen causing a significant overestimation of the fibrosis level.
- No automated technique allows quantifying active inflammation without marking.



Screenshot from Qafsi results interface

## Benefits

- Low cost due to the complete automation requiring:
  - A small technical time ~ 5 minutes,
  - No sample preparation,
  - No engineer time needed,
  - No medical time for analysis
- Diagnostic contribution: precise quantification of active inflammation and classification i
- Prognosis: precise quantification of fibrosis enabling IC and FIAT classification.
- Repeatable: allows the monitoring of patients and could make possible the realization of international studies.
- Specific to pathological collagen: no overvaluation of fibrosis rate
- Acquisition time:
  - comparable to a plate scanner: 1 to 1,5 hour depending on the resolution and on sample
  - This time could be reduced to 30 minutes by coupling detectors.
- Low data volume: 600 MB for a cutting with a resolution of 25µM/cm<sup>2</sup>
- Direct reading of the rates of: fibrosis, active inflammation, normal parenchyma, constituent collagen.
- Direct reading of: the IC Interstitial fibrosis score, the I score of Interstitial Inflammation, the confidence index

## Applications

- For diagnosis, prognosis and monitoring of fibrosis and inflammation (allograft rejections) in kidney, liver or lung.
- Used especially in cases of Kidney Transplant, Liver, Heart, Lungs.
- Can be extrapolated to non transplanted organs ... waiting for an international standard classification

## Keywords

- Tissue fibrosis
- Inflammation
- Transplant rejections
- Diagnosis
- Prognosis
- Patient monitoring
- Histological characterization
- Quantification
- Pathologists
- FTIR

## Intellectual Property

Patent FR 1457323 filed on July 29, 2014  
 PCT/FR2015/051825 filed on July 2, 2015

## Development Status

Proof of concept performed in the field of kidney transplants

Robust method, validated against reference techniques on kidney biopsies.

## Partnership

We are looking for a partner in capacity to develop the product, obtain the CE Mark and/or FDA agreement, market the product and assume the distribution worldwide.

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