

### Digital pathology at the service of oncology research activities



The University Hospital Centre of Québec City - Laval University and the University Institute of Cardiology and Pneumology of Québec City (IUCPQ) are the two main university health institutions in the city of Québec.



Quebec City University Hospital is one of the three largest university hospitals in Canada. He contributes to many projects in the fields of health, science and knowledge sharing.

The IUCPQ is an ultra-specialized hospital centre dedicated to the prevention, treatment, teaching and research of cardiovascular, respiratory and obesity-related diseases.

The University Hospital of Quebec has been interested in the potential of digital pathology for a long time.

This interest is focused on several areas:

- the implementation of a tele-extemporaneous network on the RUIS ( Integrated University Health Network) Laval
- evaluation of an internal digital pathology solution for biopsy reading
- development of digital imaging in education.

In particular, the teams at the research centres of the University Hospital of Québec and IUCPQ expressed the need to be able to use an effective solution for quantifying the immunohistochemically labelled and digitized slides with a scanner.

## The deployed solution:

TRIBVN Healthcare has implemented its CaloPix Research solution within an IT infrastructure that allows network operation.

CaloPix is an image management and analysis tool dedicated to clinical or research activities in anatomopathology. The common use of CaloPix allows to identify tissues and regions of interest and then to quantify the tumor biomarkers present on the slides. The solution is capable of handling large quantities of slides with efficiency and reproducibility. This results in reliable quantitative results and saves time for researchers.

## The benefits:

- Automation of quantitative studies
- Remote access to the workstation from the various University Hospital sites

The objective of this research work is to address concrete clinical issues and to bring observations made in the laboratory to clinical applications that can ultimately be implemented in hospitals in order to improve patient care.

## Testimonies

**Dr Alain Bergeron - Associate professor (University Hospital Research Centre)**

« After a number of evaluations, we opted for the CaloPix Research solution produced by TRIBVN Healthcare, which features an effective quantification performance, a network installation capability and a good cost/benefit ratio. »

**Michèle Orain - Research Assistant in Oncopathology (Research Centres of the University Hospital and the IUCPQ)**

« CaloPix is a pathological image analysis tool with a unique potential for research teams working in a clinical environment, allowing them to independently explore solutions for the analysis of specimens which combine high levels of accessibility with the guaranteed delivery of results which are more than satisfactory, in terms of quality. Add to this the consistent speed and reliability of TRIBVN Healthcare, in terms of responsiveness, attentiveness and results, in response to our requirements for the refinement of algorithms. »

**Dr Philippe Joubert - Anatomopathologist (IUCPQ)**

« Issues associated with the evaluation of biomarkers in thoracic oncology are key, particularly since the emergence of increasingly targeted treatments, and the development of immunotherapy and associated companion tests, often based upon immunohistochemistry. CaloPix permits the reliable reading of large series of slides and the production of robust quantitative data in support of our work. »