



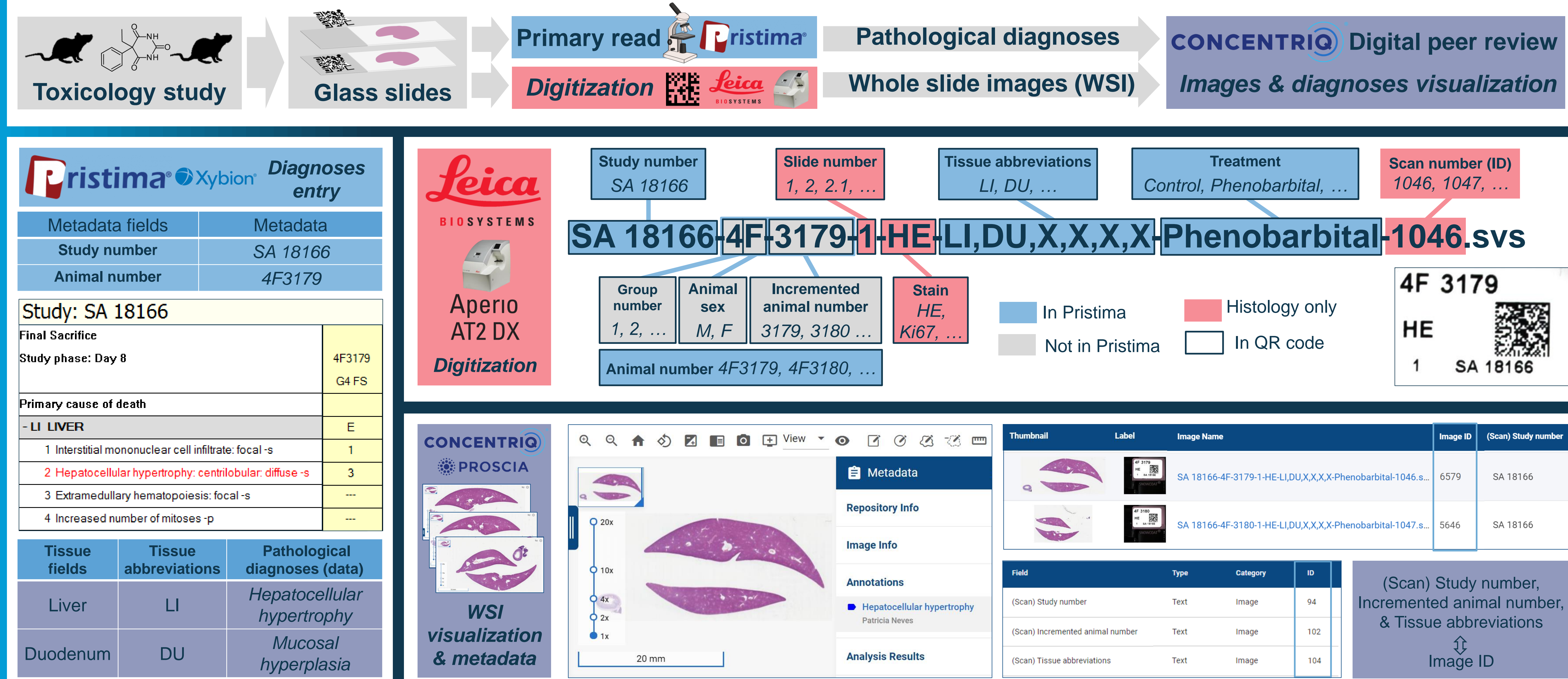
# Real-time messaging of pathological diagnoses from toxicology laboratory information management system to cloud-based digital pathology web application

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## A digital pathology interface relying on an established image metadata identification convention

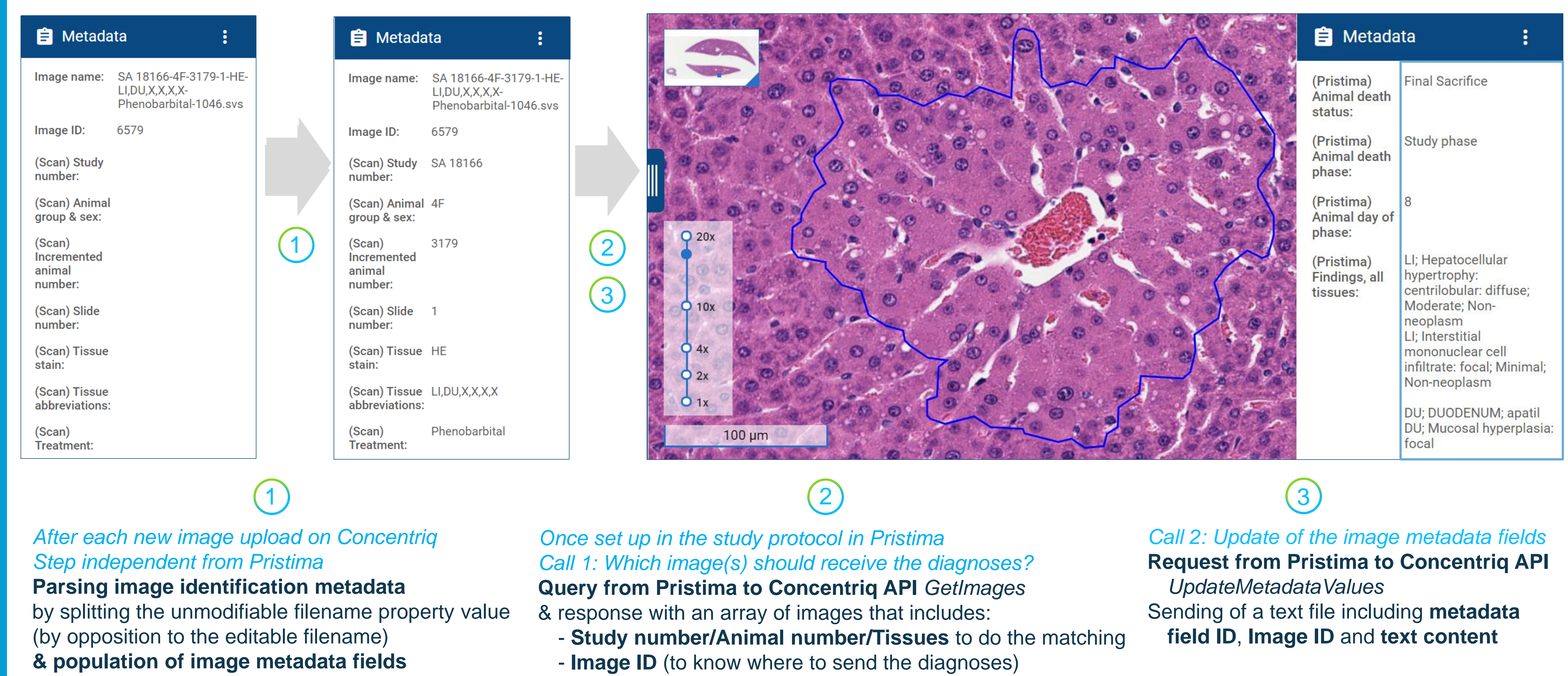


In-house toxicology laboratory information management system (LIMS, Pristima) and glass & digitized slide naming convention (QR code – NiceLabel, scanner -Leica) use the same study number and tissue abbreviations and contain the same information related to animal number.

An image ID number is attributed to each new image uploaded to Concentriq. Image metadata fields can be created and are associated to a field ID.

The combination of study number, animal number & tissue abbreviations IDs is associated to one or several image ID(s) only.

## A toxicology laboratory information management system /digital pathology platform interface: 3 steps



- The choice of the unmodifiable filename property value to populate metadata fields is led by a strategy of future validation of digital pathology peer review process.
- Uploads of WSI from other formats (e.g. .ndpi) lead to the population of metadata fields by splitting the editable filename.
- Edition of diagnoses in Pristima leads to immediate update of the Concentriq image metadata fields dedicated to diagnosis text content.
- Diagnosis data include modifiers, macroscopy correlation, finding type, neoplasm type if applicable and finding comment.
- In addition to diagnosis data, animal metadata (death status, death phase, day of phase and comment) are also sent to Concentriq.

## Automated update of image pathological diagnoses on a web digital pathology platform

Recent years have made the visualization of whole slide images easily accessible to pathologists and colleagues around the world.

Here, we present the automated upload of pathological diagnoses from the laboratory information management system (LIMS) next to images on a digital pathology platform. This is expected to improve peer review processes, in particular for contemporary peer review thanks to its immediate update after edition in the LIMS.

This should support the creation of an informed image database beneficial for research on image analysis and on molecular pathology.