



# QUANTACELL

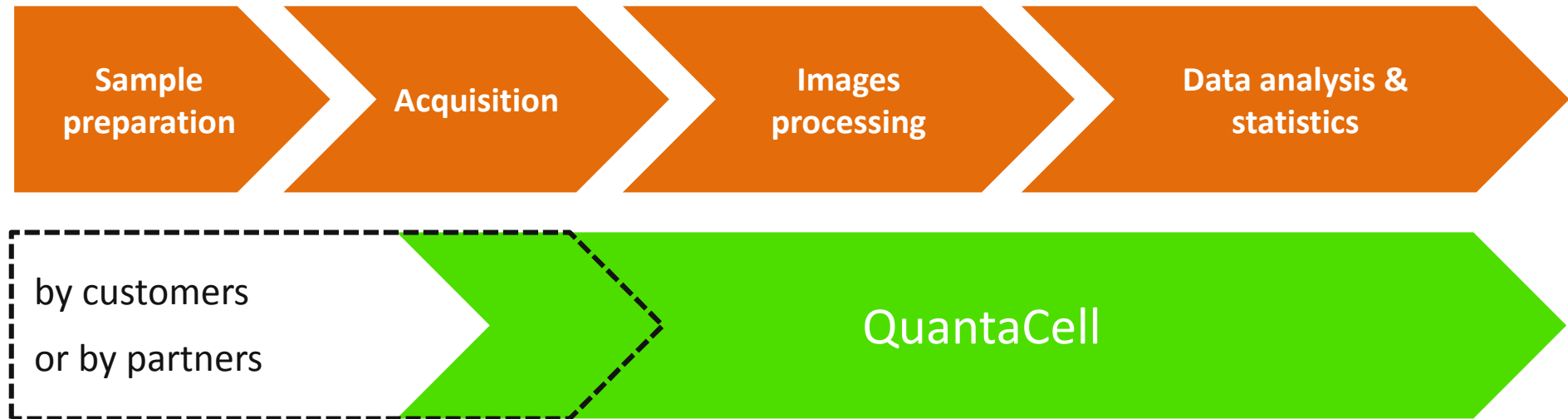
Providing image processing and  
data analysis services for  
biological applications

# Company presentation

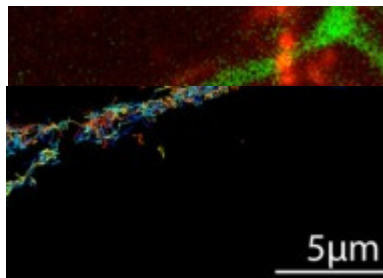
- QuantaCell is a CRO located in Pessac near Bordeaux
- Certified for French research tax credit for years 2015, 2016 and 2017
- The team is composed of 3 people
  - Multiple know-how: biology, imaging & computer science
  - Ability to adapt to specific customer needs
  - Long experience in bio-analysis for imaging
- QuantaCell is selected by the SIRIC BRIO network as a cutting edge structure capable of supporting translational research projects in oncology.



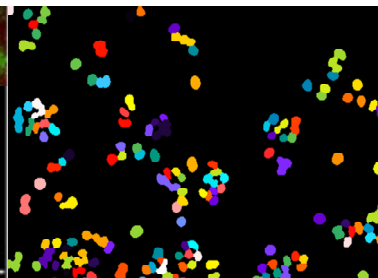
# Application fields of QuantaCell



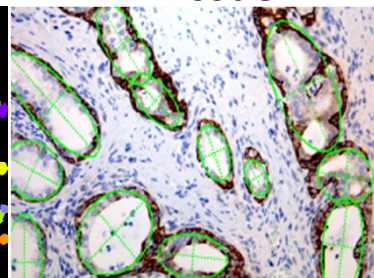
Molecule



Cell



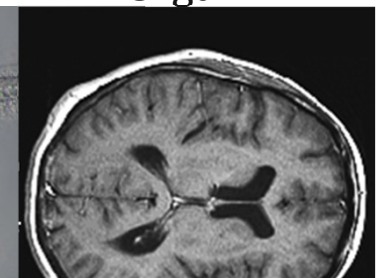
Tissue



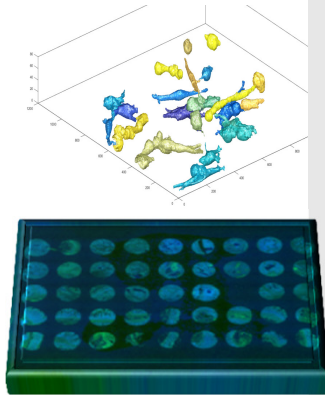
Small organism



Organ



# Our services

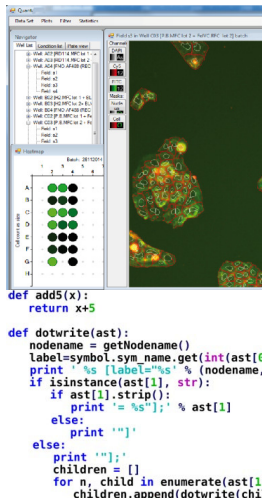


## R&D studies

- Experiment analysis
- Development and validation
- Exploratory analysis

## Deliverables :

- ✓ Statistics
- ✓ Processed data
- ✓ Reports and graphics
- ✓ Materials & methods



## Software / code development

- No data transfer
- No confidentiality issue
- Fast processing
- Integrated in custom's environment

## Deliverables :

- ✓ Software licenses
- ✓ Source codes
- ✓ User manuals

# Major activities

## Complex detections

Filaments / Textures / Lesions

## 3D analysis

Cell culture / histology / RMI-CT

## Large scale analysis

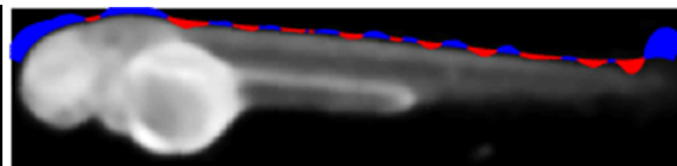
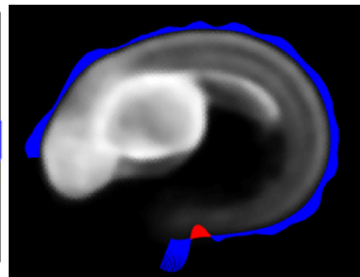
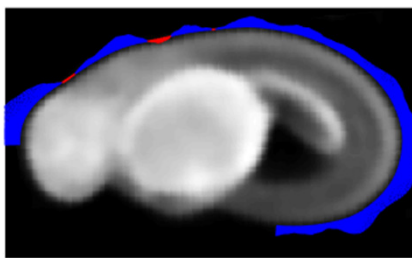
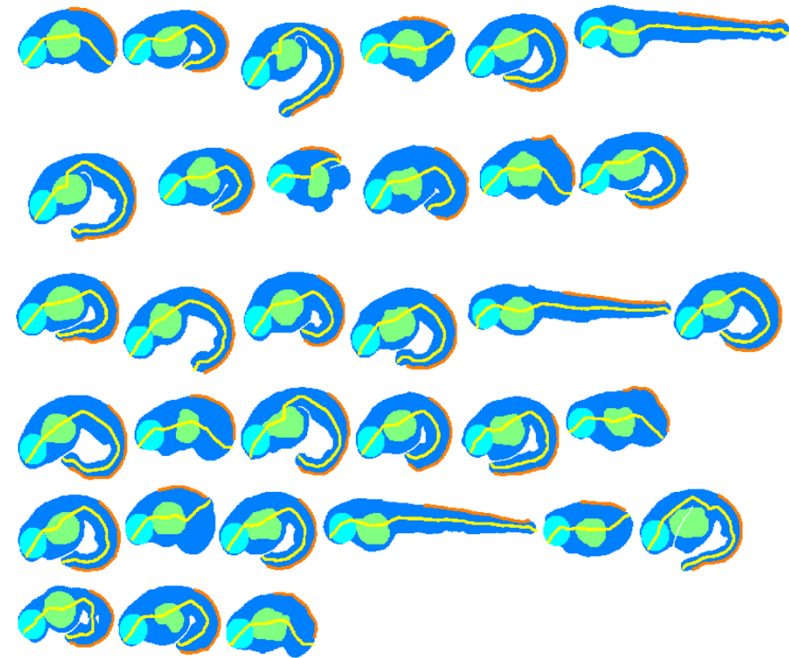
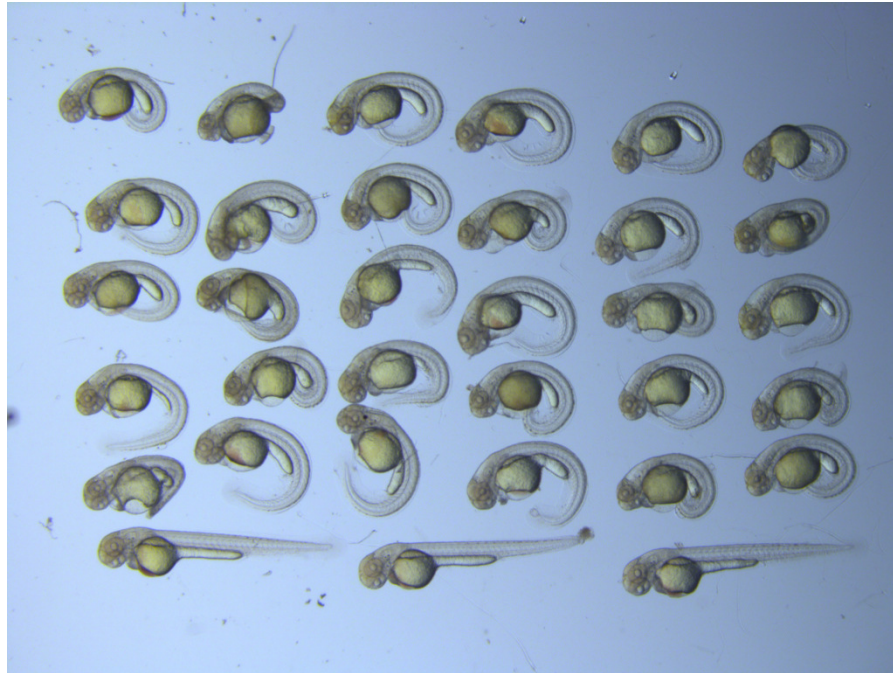
High content screening / histology / classification

## Dynamic quantification

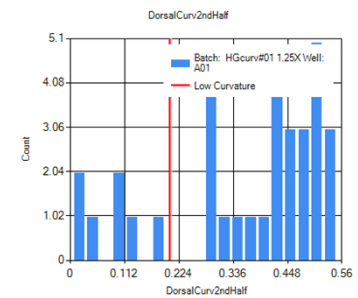
Cell dynamics / animal behaviours

# Complex detections

## Zebra fish quantification

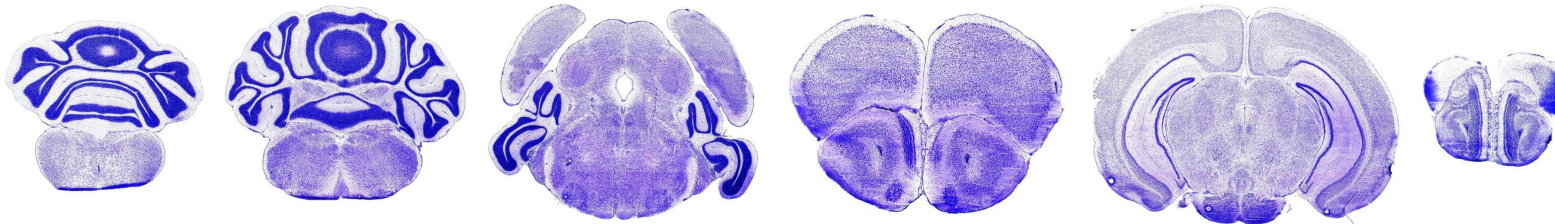


Dorsal curvature analysis

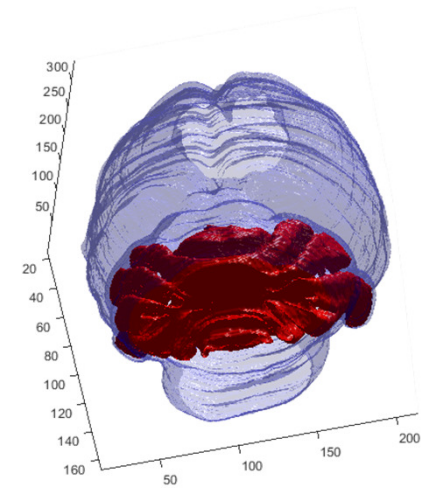
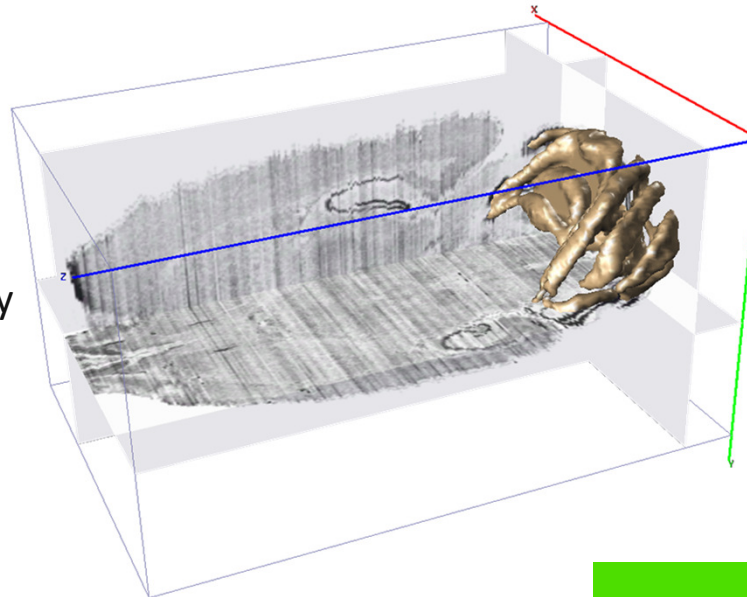


## 3D analysis

### Quantification of organs from histological slides



- ✓ 3D reconstruction based on successive histological slides
- ✓ Segmenting structure of interest, ex : cerebellum
- ✓ Volume analysis in 3D like antibody intensities in 3D zones
- ✓ Visualization 3D, ex: transversal slices, iso-surfaces



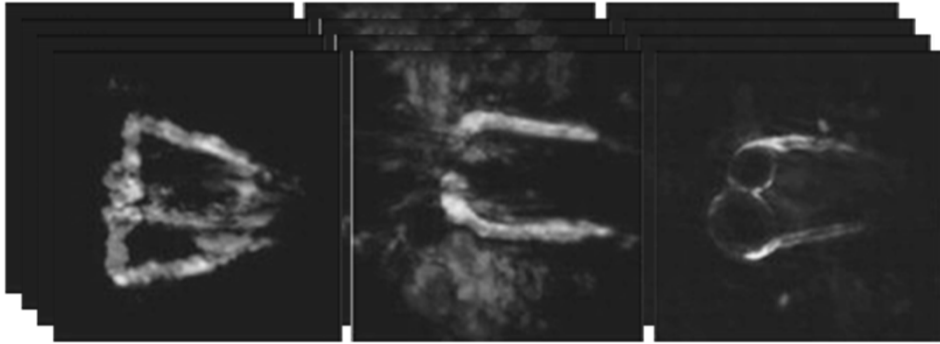
3D Volume information

# Large scale analysis Pronephros classification

Normal

Alteration 1

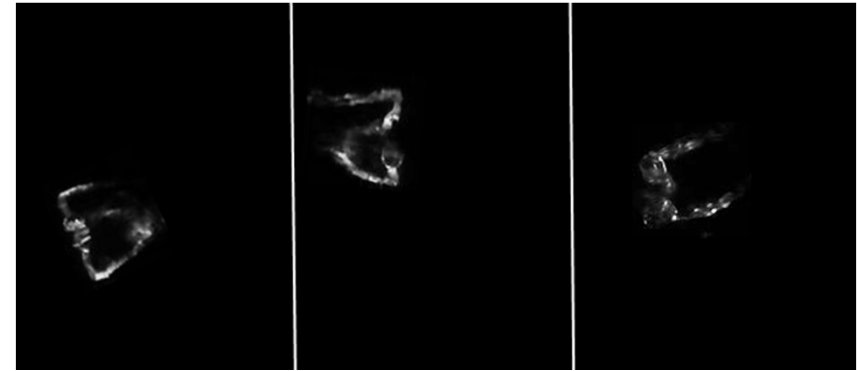
Alteration 2



??

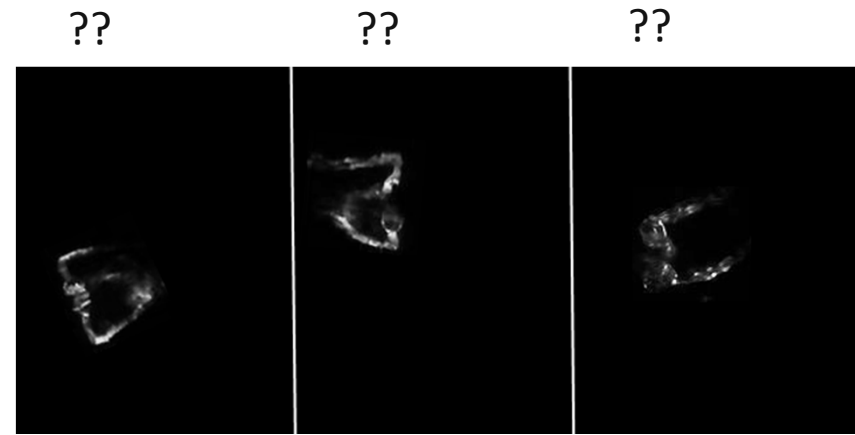
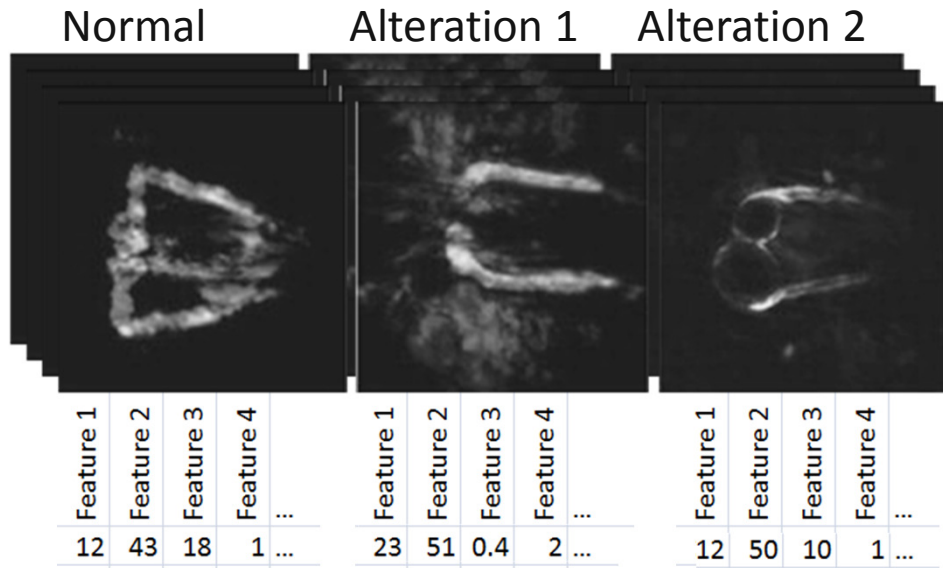
??

??





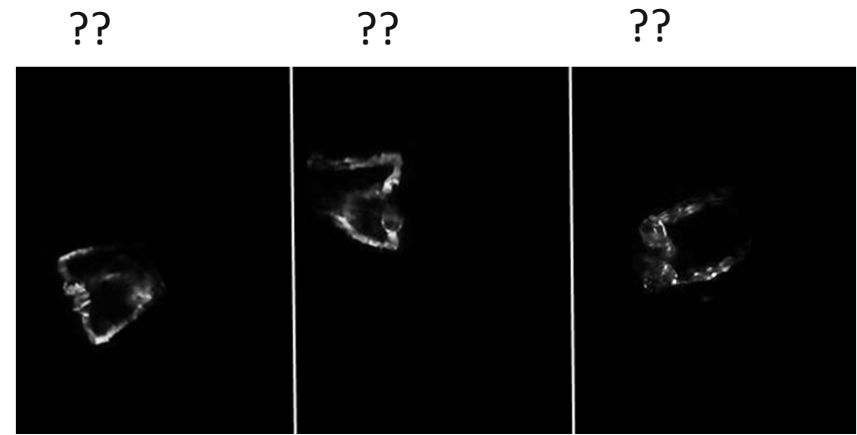
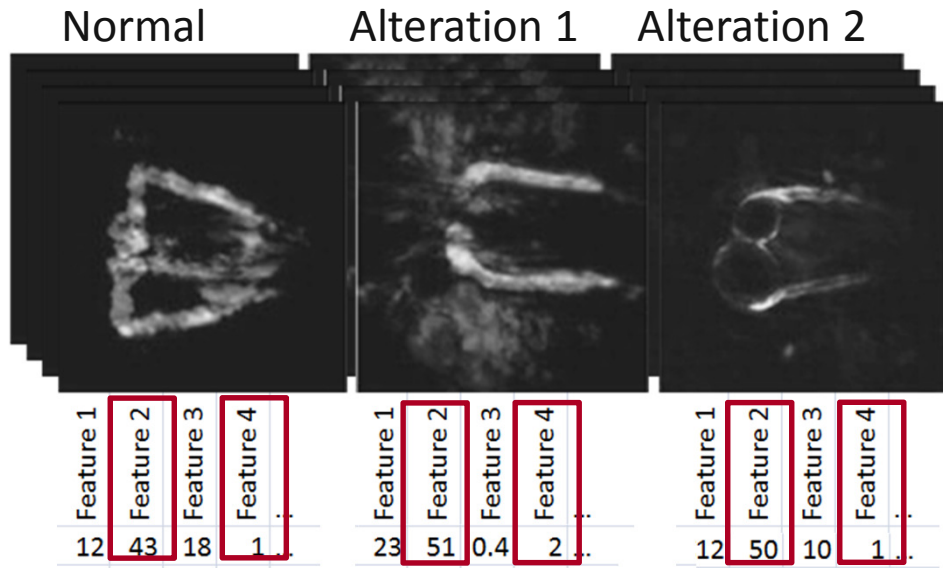
# Large scale analysis Pronephros classification



Model  
SVM

Classification score: 60%

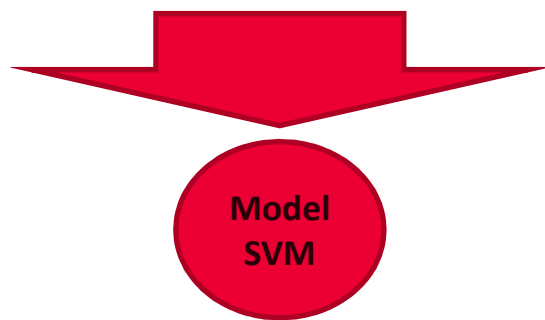
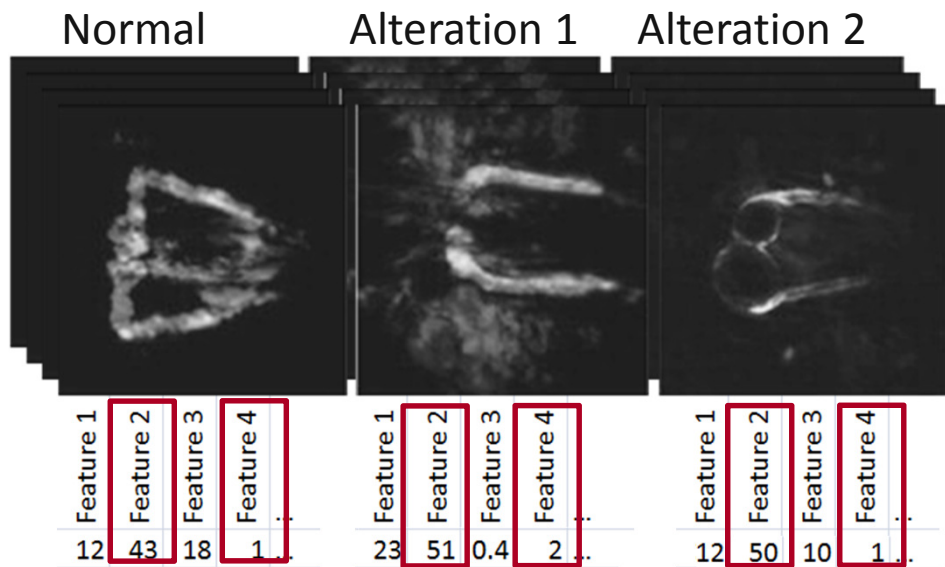
# Large scale analysis Pronephros classification



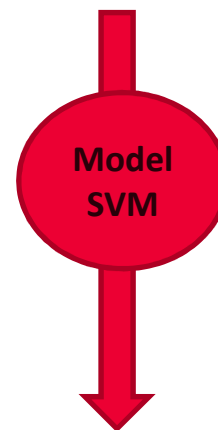
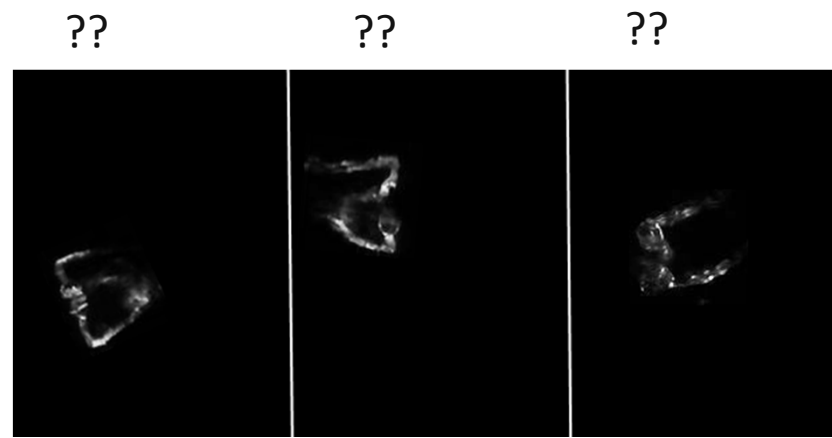
Model  
SVM

Classification score: 86%

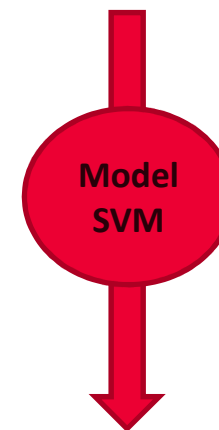
# Large scale analysis Pronephros classification



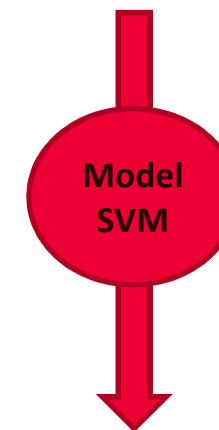
Classification score: 86%



Normal



Normal



Alteration 2

Methods : Artificial intelligence, shape recognition

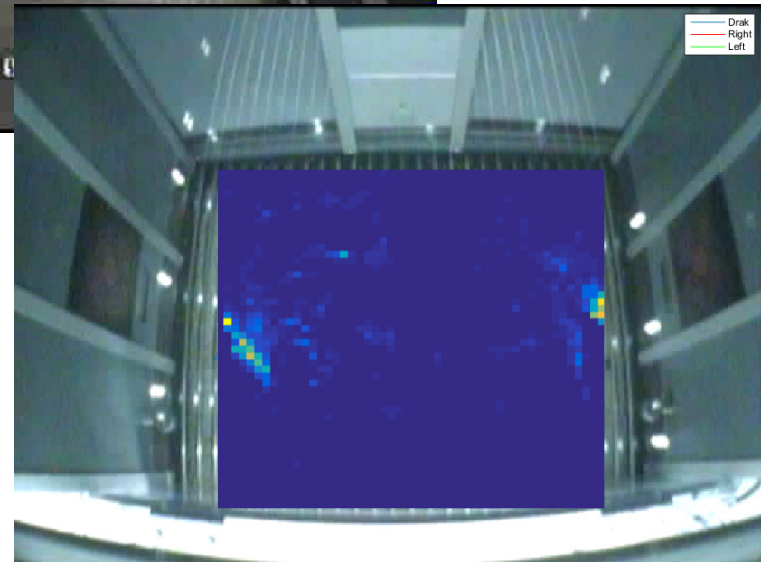
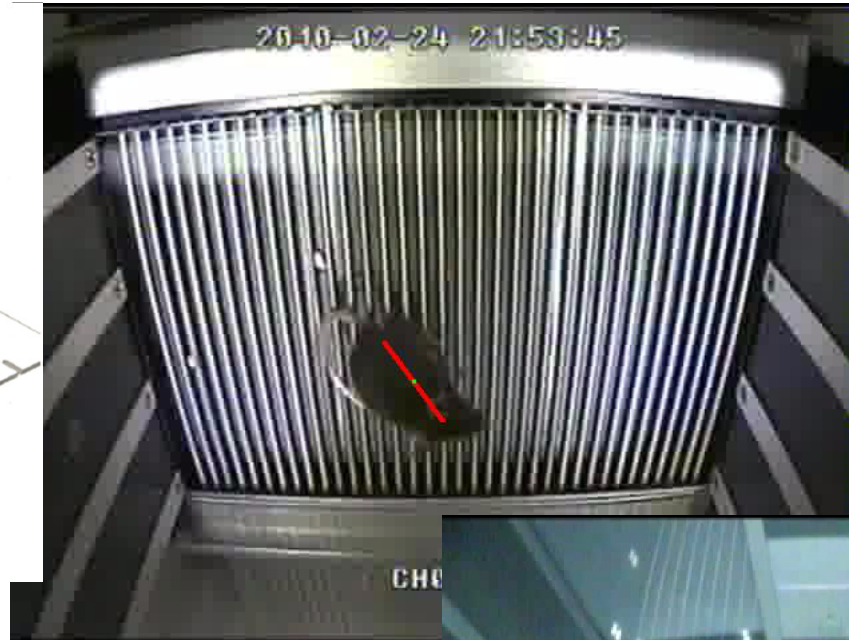
# Dynamic quantification

Post processing analysis of behavior studies



IMETronic

Methods :  
Tracking  
Trajectory analysis





**Each project is unique, and must be treated as such**

[www.quantacell.com](http://www.quantacell.com)

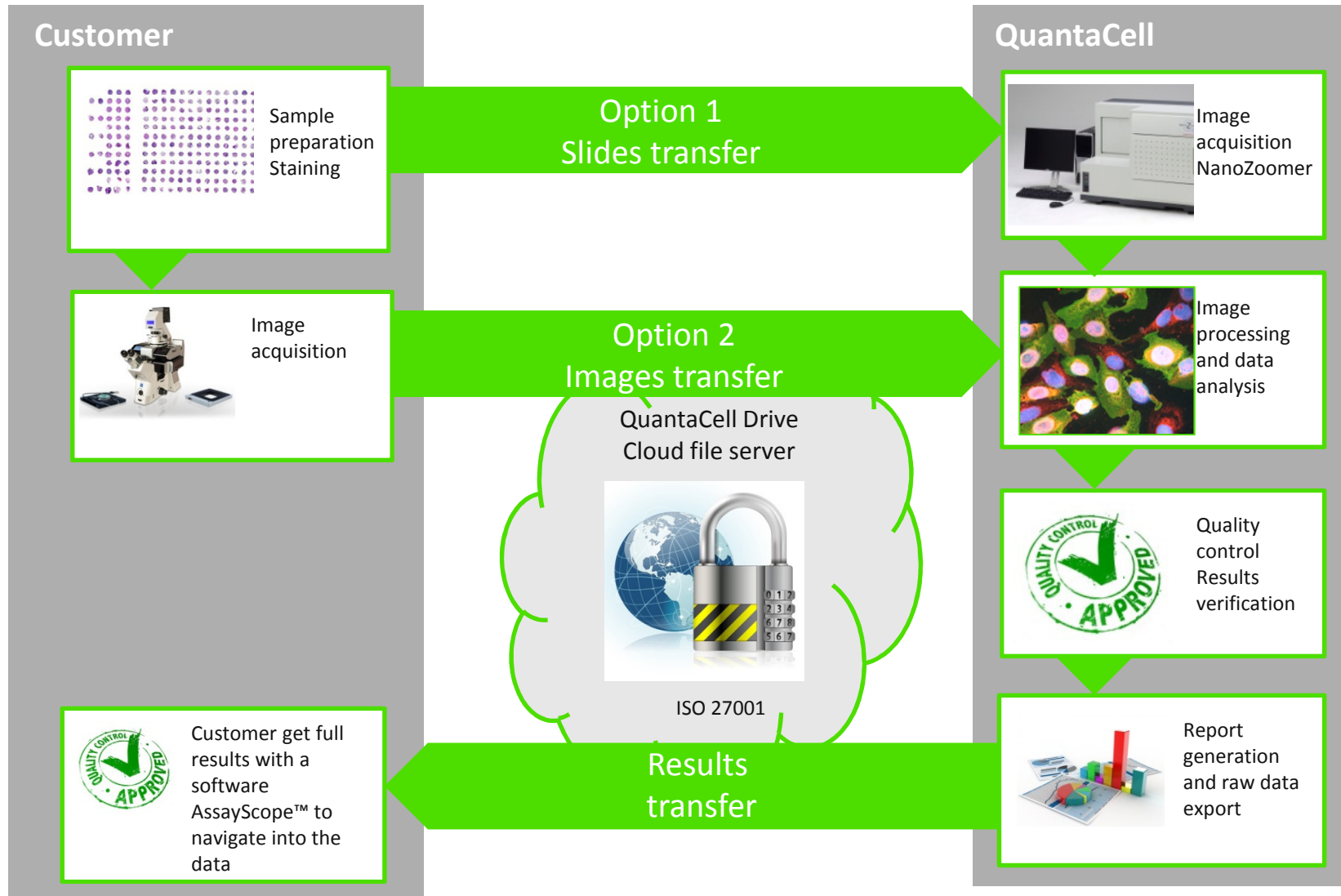
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# Service of image quantification

For quantitative characterization of drugs and ingredients effects



# Software development for time-consuming procedures

To automate analysis in routine experiments in your laboratory

QuantaCell provides software solution to automate analysis in routine experiments for your laboratory

## Our solutions include :

- ✓ Proof of concept on your images
- ✓ Software solution including automatic or user-guided quantification
- ✓ Logging capability of all data and results
- ✓ Software licenses and user manuals

## Added values :

- ✓ Quick software development achievement
- ✓ Fully integrated in customer IT environment
- ✓ Intuitive user interface (no training are required)
- ✓ QuantaCell team members are all graduated in biology and understand life sciences

