Molecular Pathology

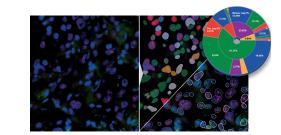
FISHQuant™

A cancer and cytogenetic application dedicated to quantifying FISH signals on tissue samples of solid tumor diseases and hematological tumors.

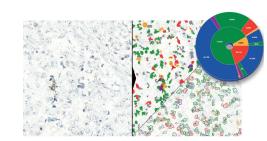
IVD approved solution.



This module is suitable for examining gene amplification, deletion and chromosome aberration on CISH stained samples.



Cep17-Her2 stained FISH sample



Breast cancer CISH specimen stained by Cep17–Her2 probe

Batch Processing

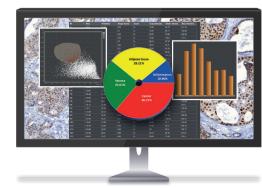
Batch analysis is available – multiple digital slides can be examined in the background and finally measurement results can be exported into an Excel file.

The image analysis algorithms are optimized for whole slide analysis.



Data Visualization

The final results can be visualized in a table, scatter plot, pie chart, histogram or using several other visualization tools.



Solution Components

QuantCenter™: image analysis tools for automated quantitative evaluation

- Multiple image analysis modules (with IVD certification for breast panel analysis)

CaseViewer™: digital slide viewer application

- Designed to support the diagnostic workflow
- Enables teleconsultation on digital slides

CaseCenter™: digital slide management server system

- Designed to support the diagnostic workflow
- Enables teleconsultation on digital slides

Digital slide scanner

 The PANNORAMIC® family is the most comprehensive product range on the digital slide scanner market – from affordable single-slide to high-speed 1000-slide capacity; from high quality brightfield to both brightfield and fluorescence scanning in the same device

Configuration Recommendations

Prerequisites	Description
Hardware Minimum	Intel 3.2 GHz i5 (QuadCore), 4 GB RAM
Operating System	Microsoft Windows 7 Professional 64 bit, SP1 EN
Display Resolution	Recommended Resolution: 1024×768 or better
Disk Space	CaseViewer™ bundled with QuantCenter™: Minimum: 300 MB

Developed and produced by



WWW.3DHISTECH.COM

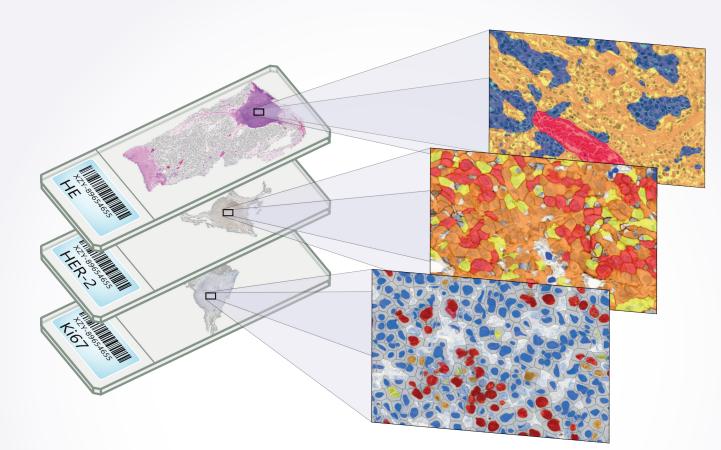
3DHISTECH LTD.

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QUANTCENTER™

Image analysis platform designed for whole-slide quantitative evaluation for accurate, fast and high-quality diagnosis



Quick analysis

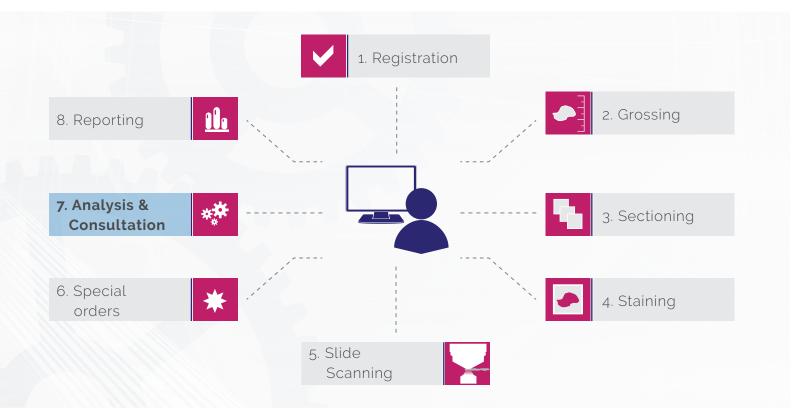
User independent

Batch processing

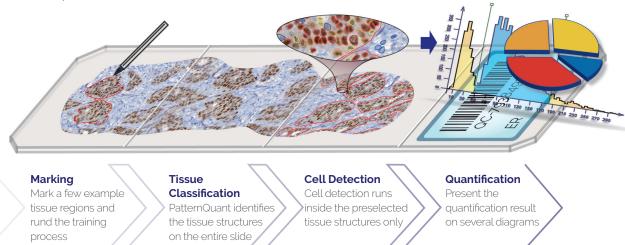
Visualization of results

The histopathologist's work often involves performing manual and time-consuming tasks in an uncomfortable setting. These not only take time away from sample evaluation and consultation but are also more prone to human error.

QuantCenter™ from 3DHISTECH is a multiple-module image analysis platform designed for whole-slide quantification in histopathology and molecular pathology. Pathologists can tailor QuantCenter™ to their needs, connecting different image analysis algorithms to easily define custom image analysis scenarios. In histopathology a tissue classification module can be applied to identify the cancerous region as the first step, then IHC stains can be analyzed with a specific cell-based quantification module.



Thanks to its wide range of linkable modules, QuantCenter™ delivers objective quantitative analysis of digital slides quickly, freeing up valuable time for pathologists to do truly value-added work and contributing to faster and more accurate diagnosis.



HISTOPATHOLOGY

Tissue Classification

HistoQuant™

PatternQuant™

Image segmentation module which identifies stained tissue elements based on color and intensity features.

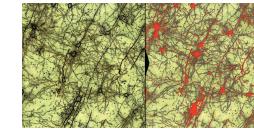
This is an adequate solution for double stain quantification or multiplex fluorescent analysis.

Trainable pattern recognition module for tissue classification

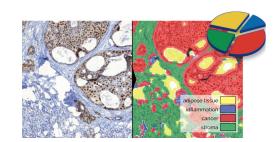
tissue pre-segmentation and identification of different tissue structures. Different tissue characteristics can be detected

based on their morphological and color features using an

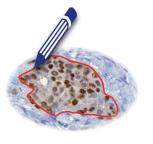
artificial intelligence algorithm based on machine learning.



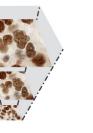
Golgi stained neuron network detection in the ratcortex



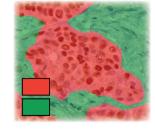
Estrogen stained infiltrating ductal carcinoma in breast tissue







Zoom selection
Select an optimal
zoom level
for the training



Preview
PatternQuant
identifies
the same structures
on the entire slide

80%

Quantification
Present the
final results
on several charts

IHC Quantification

A special IHC color calibration option facilitates the adjustment to varying sample quality (adopting to local laboratory staining protocols or different stainers), resulting in adequate measurements in all circumstances.

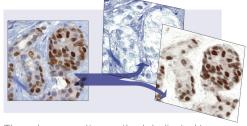
A robust cell nuclei marker detection and quantification

module. An accurate solution for the evaluation of predictive

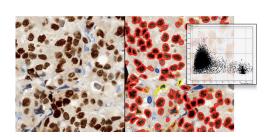
IVD approval for the analysis of Estrogen- and Progesterone-

and prognostic markers like estrogen, progesterone, Ki67,

P53, etc. in histopathological diagnostics.



The color separation method dedicated to IHC stain analysis



Nuclei quantification result in estrogen stained breast tissue

MembraneQuant™

stained breast samples.

NuclearQuant™

A cell membrane marker detection and cell scoring algorithm. The application classifies the detected cells based on their membrane stain intensity.

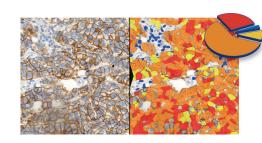
IVD approval for quantification of Her2 expression in breast tissue.

CellQuant™

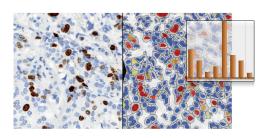
A cell detection application adequate for cell nuclei, cytoplasmic and membrane marker quantification on IHC stained samples.

DensitoQuant™

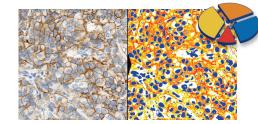
An easy-to-use, fast and accurate, stain-intensity-based IHC quantification tool.



Cell membrane analysis in Her2 stained breast cancer



Cell detection in Ki67 stained breast tissue



DensitoQuant result presented on Her2 stained breast sample