OS-Ultra

World's First Affordable High-Speed Whole Slide Scanner

Speed » **Quality** » **Efficiency**

About Us

OptraSCAN is an end-to-end digital pathology solution provider; focused on delivering fully integrated, cloud-based affordable desktop scanning systems and solutions that will maximize your return on investment and improve the performance of your pathology services.

OptraSCAN's recent addition OS-Ultra is a high-speed whole slide digital pathology scanner that scans tissues/cells of size 15x15 mm area at 40x equivalent in less than 60 seconds.

OS-Ultra will assist pathologists in delivering quick and precise results, at an affordable cost.

OS-Ultra

World's First Affordable High-Speed Whole Slide Scanner

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OptraScan®
On-Demand Digital Pathology

Key Features

- High throughput, whole slide, bright field scanner

- Slide Capacity: 80, 160, 320 & 480

- Whole slide scanning at 0.25 micron per pixel at 40x

- Ability to handle slides of varying formats – 1"x3"and 2"x3"

- Patented automatic tissue detection & composite imaging technique

- Continuous loading and unloading for efficient workflow

- High resolution imaging of digital slides and associated metadata

- Real time auto focus and Z-Stack functions

- Barcode and case reconciliation

- Cloud-enabled with instant cloud-loading capability

- IMAGE Path® Image Management System included for viewing, storing and archiving

- TELEPath® Telepathology included for Real-Time, Remote Consultations

- User friendly, intuitive LCD touchscreen

- Easy installation & noiseless operation

Technical Specifications

- Imaging Mode: Brightfield

- Scan time: 52 Seconds at 40x (15 x 15 mm tissue)

- Light Source: LED

- Focusing Technique: Real Time Auto Focus

- File Format: JPEG2000, TIFF
  Ability to convert file formats

- Slide Formats: Standard 25x75mm (1"x3") slides, 50x75mm (2"x3") slides

- Magnification: 40X

- Scan Modes: Normal (Real-time auto focus)
  High Precision (High precision auto focus)
  EDF (Extended Depth of Field)
  Z-Stack (Three-Dimensional Stacking)

- Capable of Bi-Directional Interface with LIS/LIMS

- Slide Tolerances: Length: ± 1mm, Width: ± 1mm, Thickness± 0.2mm

- Resolution: 40X: 0.25 m/pixel μ

- Slides Loader: 80, 160, 320 & 480 slides

- Continuous Slide Loading: Intuitive interface with fully automated walk-away acquisition

- Storage - 1) Local
  2) Cloud
  Cloud enabled for auto-streaming data into Cloud

- Image Storage Space: 600-800MB for a 15x15 mm tissue size at 40x magnification

- Barcode Support: 1D, 2D

- Loaded slides scanning sequence can be rescheduled as per user priority

IMAGEPath®

**Web-based Image Management and Viewing**

- Image sharing, collaboration and storage security
- Pan, zoom, annotate, generate reports
- User authentication and "role-enabled" access
- Image analysis plug-in available
- Audit trail functionality

TELE Path™

Real -time Digital Conferencing

- Real-time sharing/collaboration
- Interactive chat
- iOS and android based applications
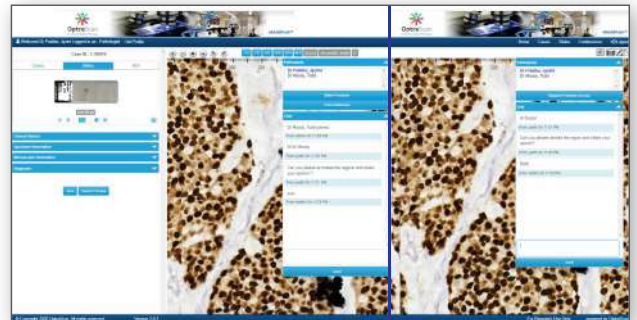
OptraASSAYS™ Image Analysis

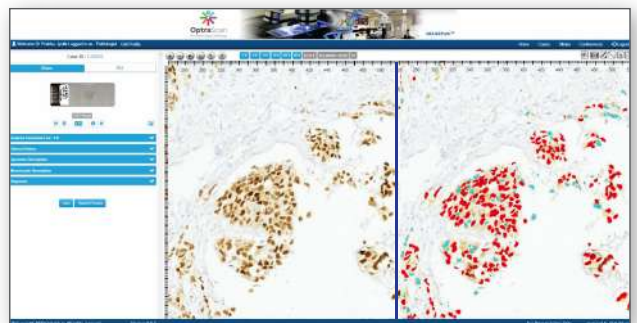**AI & ML based Image Analysis Solutions**

- Turnkey analysis of ER, PR, Her2neu, Ki67, PD-L1
- IHC multiplexing assays
- IHC dual-plex analysis for each biomarker analyzed
- Accurate, rapid & reproducible assessment
- Additional algorithms available with user configuration
- Biomarker quantification using nuclear, membrane & cytoplasmic stains
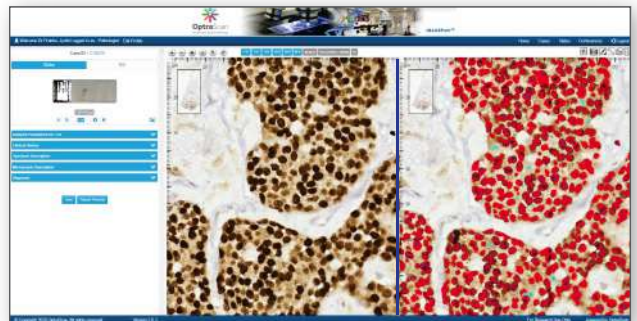
Nuclear Biomarker Analysis

AI & ML based Image Analysis Solutions

- Identification of optical density vectors
- Easily tunable training & classifying modules
- Batch processing and single slide analysis
- Computer assisted whole slide & regions of interest assessment for quantification of nuclear algorithm

OptraSCAN® Is an ISO13485 certified company
OptraSCAN® whole slide scanners are CE marked for IVD Use
OptraSCAN Systems are for research use In North America

Membrane Biomarker Analysis

- Highly reproducible and accurate score generation
- User validation through exposed parameters opened for user interaction
- Stroke detection algorithm for filtering out the residual/background staining
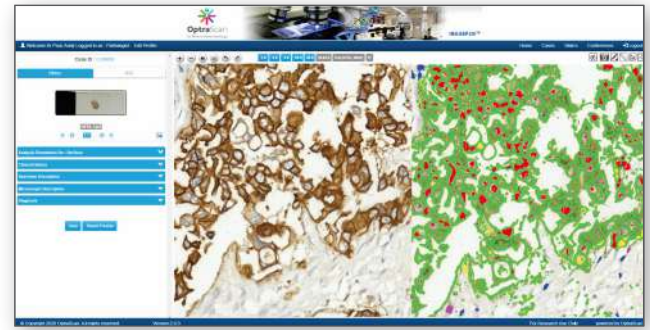

Cytoplasmic Biomarker Analysis

- Algorithm helps distinguish between the staining of two or more sub cellular compartments
- Algorithm evaluates the respective nuclear cytoplasmic localization in order to gain further cellular insights
- Provides accurate and detailed score generation in the form of 3+,2+,1+ and negative cell counts
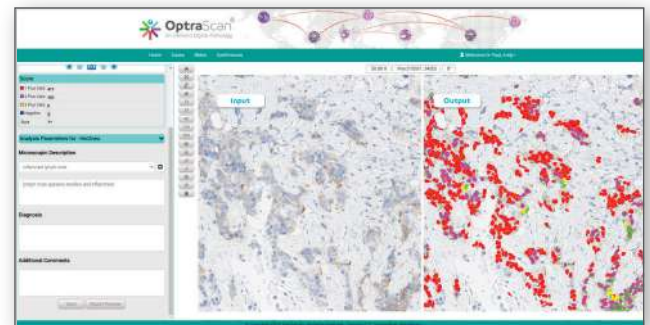

PD-L1 Biomarker Analysis

- Fully automated solution for interpretation of PD-L1 IHC expression
- Computer aided region detection system based for automated evaluation of tumor nest
- Score generation based on the number of PD-L1 positive cells in relation to total tumor and immune cells in a single read
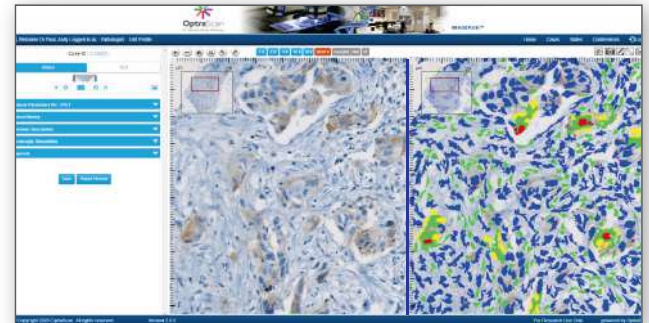

Prostate Cancer Analysis

- End to end, fully automated solution for prostate cancer
- ANN (artificial neural network) based classifier
- ML based histological assessment of architectural patterns
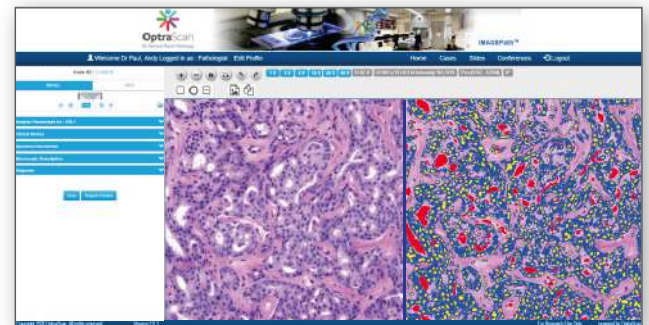
Breast Cancer Analysis

- Evaluation of tumor (invasive carcinoma) area and the tissue area in mm2
- Automated evaluation of invasive cellularity in the tumor area
- Identification of DCIS
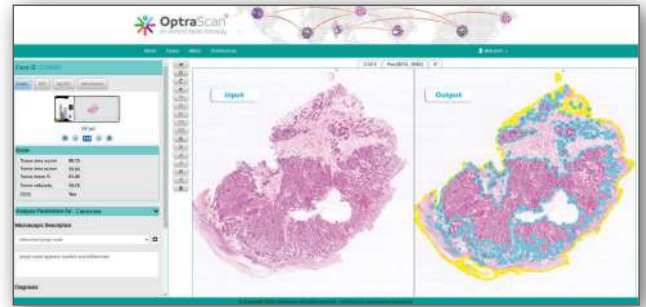
Cytology Imaging and Analysis

- Fully automated multi-layer scanning at different focal depths
- Automated computation of sample adequacy for the whole slide cytology image
- Identification of abnormal cells and other entities based on morphological features and AI based classification
- Identification of reactive, endometrial, actinomyces, candida, clue cells, trichomonas vaginalis, and herpes entities
- Identification of entities including blood, inflammation, and lubricant
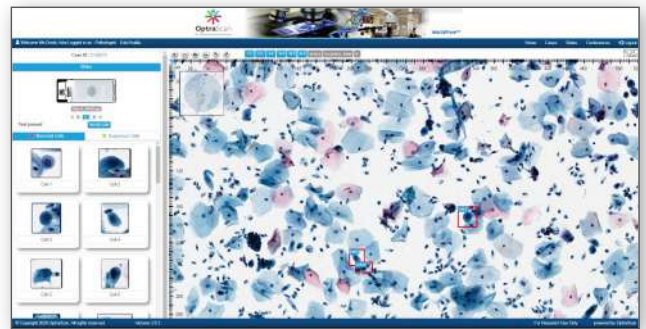
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