

# Automated Scoring Enables Pathologists to More Efficiently Assess Patient Cases in Diagnostics

Automated image analysis provides pathologists and physicians with critical and reliable information that supports treatment decisions for their patients in routine clinical settings. By processing more than 2000 slides per day, Clariant has proven that image analysis is a scalable and long-term solution.

## Problem

Develop automated scoring for breast cancer, colorectal cancer, and other IHC stains for large-scale routine clinical work.

## Solution

- Definiens developed and validated solutions for the automated analysis of a panel with 14 IHC biomarkers for breast, colorectal and other cancer types.
  - Biomarkers include ER, PR, HER2, Ki67, P53, EGFR, PMS2, MSH6, MLH1, MSH2, BCL1, AR, P21, and P27.
- Definiens solution integrated in Clariant's Scope IA Platform enabled pathologists to review and annotate the slides. Biomarker quantification is instantly provided.

## Benefits

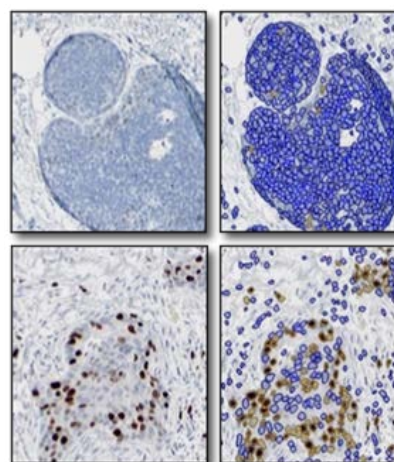
- The Definiens automated image analysis algorithms support hundreds of pathologists at the Clariant CLIA lab to efficiently look at the most relevant tissue features quickly.
- The robust solution is scalable to scan and analyze more than 2000 slides per day with high consistency and reproducibility.

## Implications

- Customized clinical approach: Automated solutions can be integrated into the lab workflow and can be designed for images from all major scanners.
- Enable pathologists to efficiently access patient cases: Clariant's Scope IA Platform enables high quality patient insights for diagnosis.

## Additional Information

Images courtesy of Clariant, Inc.



The images show how Clariant was able to integrate these tests into their reporting framework and how the algorithms perform on actual IHC images to determine scores.