



*Introducing*  
**Digital Cell Morphology by CellaVision**

A unique technology that addresses one of the last remaining automation gaps in routine hematology testing: the process of performing cell differentials.

The price of doing the same old thing is far higher than the price of change



## Introducing Digital Cell Morphology by CellaVision

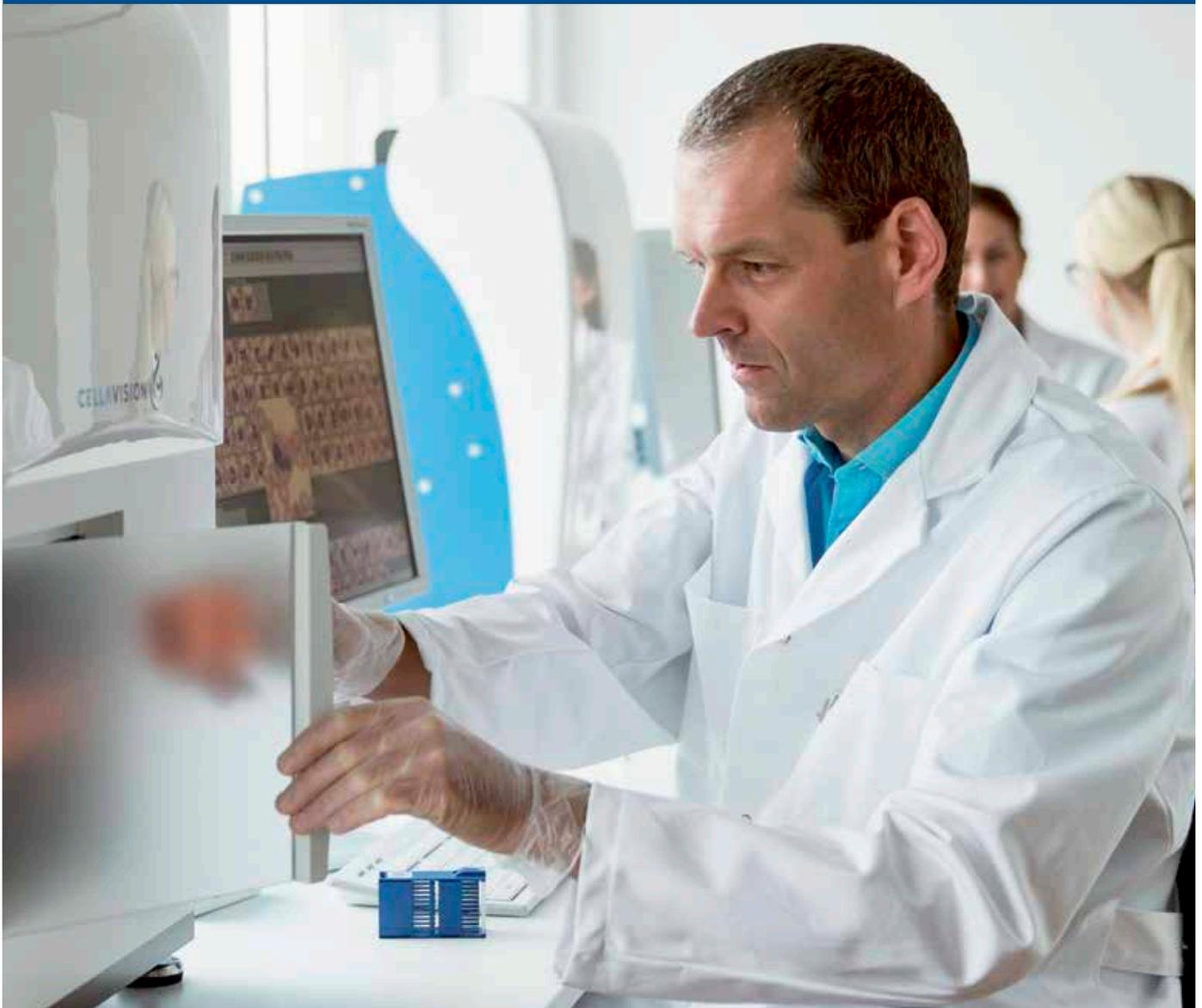
# Redefining and transforming the process of performing cell differentials

Over 15 years ago, CellaVision introduced automation and digital imaging to cell morphology, thereby creating what is known today as Digital Cell Morphology. Put simply, CellaVision offers a proven technology that replaces or complements manual microscopy to create an automated digital workflow for morphological cell analysis – enabling labs to work smarter and perform better.

Performing cell differentials using manual microscopy is a laborious and time-consuming procedure that's highly dependent on the availability of experienced personnel. We have made it our business to help labs modernize this important routine procedure – offering an alternative approach that makes better use of staff and skills while empowering labs to deliver faster and more standardized test results.

## Providing a reliable and efficient automation process

CellaVision-technology provides a new and more efficient approach to performing cell differentials. The automation offered by our technology removes the laborious and tedious aspects of performing cell differentials, giving Medical Technologists more time to focus on what really matters – the detection of abnormal cells and first-class service delivery to clinicians.



# The CellaVision WORKFLOW EXPLAINED

## A technological shift

The microscope is replaced by a digital imaging system that automatically locates and then captures digital images of cells from barcoded slides.

## Cell location and image capture

The system identifies the monolayer, locates individual cells and captures high quality cell images.

## Review and verification

The pre-classified and pre-characterized cells are presented to the Medical Technologist for review and verification. Structured interfaces, smart functionalities and embedded tools help speed up the review and verification process, while promoting accuracy and consistency.

## Opens up new ways of working

Our technology makes it possible to explore new ways of structuring workflows and managing manpower resources. Create a streamlined workflow within a single lab unit or connect multiple labs in a network, where it is possible to process and review slides independently at all sites or centralize to review slides processed in different sites at one core lab.

## Slide processing

Barcoded slides are placed in a magazine before being loaded onto the system. The system reads the slide barcode, queries the Laboratory Information System for patient demographics and order data before positioning the slide under the microscope.

## Pre-classification pre-characterization

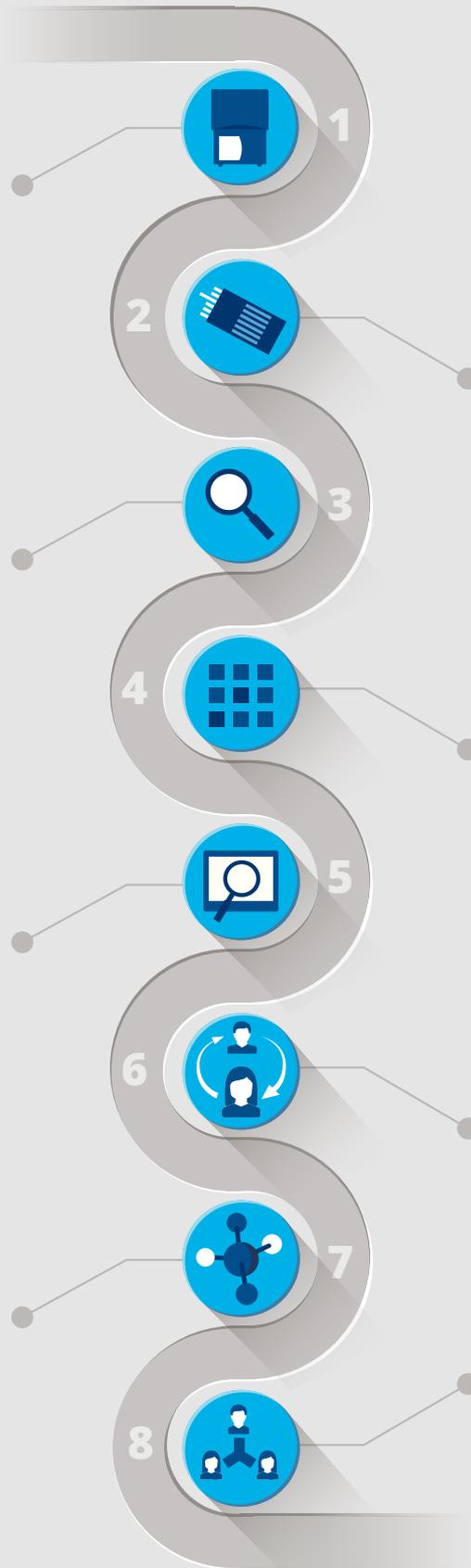
The system uses innovative image analysis technology to perform a pre-classification of white blood cells and a pre-characterization of red blood cell morphology. WBCs are pre-classified into 17 cell types and RBCs are pre-characterized based on 21 morphological characteristics.

## Remote review and verification

With CellaVision technology, it is possible to review and verify cell differentials from anywhere, anytime.

## Promotes collaboration and consultation

With CellaVision, it becomes easier and quicker for Medical Technologists to collaborate within and between lab units. Challenging slides that require a second opinion can be accessed remotely by Supervisors and Morphology Experts for speedy collaboration and consultation.



## Offering a range of proven operational and clinical benefits

CellaVision offers your hematology lab four principal benefits; the improved EFFICIENCY that comes with automating manual processes, enhanced QUALITY of results by promoting consistency and standardization; improved CONNECTIVITY that facilitates collaboration within and between labs; and a general advancement of your staff's PROFICIENCY in performing cell differentials.



## Improve EFFICIENCY

When performing cell differentials using manual microscopy, there are several sub-processes that take up valuable technologist time. Using CellaVision's technology that automatically locates, digitally captures, pre-classifies and presents cells for review by a Technologist it's possible to reduce sample review time by up to 50%. This more efficient process makes it possible for laboratories to take on a greater volume of samples and make more efficient use of skilled staff.

## Promote QUALITY

Replacing manual microscopy with a more standardized testing process helps you manage quality and ensure that your staff report testing results with consistent accuracy and reliability.

The CellaVision way of working also facilitates remote supervisory review as well as supporting quality assurance by providing complete traceability down to the individual cell level.



## Improve CONNECTIVITY

With CellaVision, the task of performing cell differentials becomes a collaborative process that makes better use of staff and skills while empowering the lab to deliver faster and more consistent test results. Using an existing network, multiple CellaVision instruments and review sites can be linked and share a common image database. Cell differentials can be signed off from another location and challenging slides needing a second opinion can be reviewed remotely by a morphology expert.

## Promote PROFICIENCY

The CellaVision way of working promotes proficiency by providing reference cell images, by presenting cells in complete groups side-by-side, and by creating a collaborative environment where technologists learn from real-time consultation with their colleagues, supervisor and morphology experts. In addition, CellaVision offer a range of tools specifically developed to support laboratory managers in assessing, monitoring and promoting staff competency in the area of cell morphology.

# A family of products form a unique and flexible automation concept

**Improve EFFICIENCY** by replacing manual microscopy with an automated digital imaging system that saves time and releases skilled staff.

**Promote QUALITY** by implementing innovative applications that simplify morphological examination and deliver more standardized results.



## CellaVision DM9600

A hematology system designed for high volume labs

Loading capacity: 96 slides, with continuous feed  
Throughput: Approximately 30 slides / h



## CellaVision DM1200

A hematology system designed for high and medium volume labs

Loading capacity: 12 slides  
Throughput: Approximately 20 slides / h



## CellaVision

### PERIPHERAL BLOOD APPLICATION

Performs a comprehensive pre-classification of WBCs and allows for initial review of RBCs and PLTs



## CellaVision

### ADVANCED RBC APPLICATION

Performs a comprehensive pre-characterization of RBCs



## CellaVision

### BODY FLUID APPLICATION

Performs a comprehensive pre-classification of WBCs in body fluid preparations

Creating a streamlined and intelligent workflow in today's modern labs requires more from technology than just delivering automation. For the past 15 years, we have gradually refined our product technology to ensure that we can provide labs with a holistic product solution that goes above and beyond automation in the pursuit of operational efficiency.

**Improve CONNECTIVITY** to create a collaborative process that makes more efficient and flexible use of resources, staff and skills.

**Promote PROFICIENCY** by implementing effective processes and tools for proficiency assessment and competency promotion.



**CellaVision**  
REMOTE REVIEW SOFTWARE

Makes it possible to review, adjust and verify workflow data from anywhere within a network



**CellaVision**  
PROFICIENCY SOFTWARE

Makes it easier to set-up a structured and integrated process for proficiency assessment and competency promotion



**CellaVision**  
SERVER SOFTWARE

Enables multi-site/multi-analyzer organizations to transfer workflow data to a single centralized database



**CellaVision**  
CELLATLAS

A free App that helps promote learning and competence in the area of cell morphology



Visit [www.cellavision.com](http://www.cellavision.com) for inspirational implementation stories and more in-depth information about our innovative technology.



# We help hematology labs work smarter and perform better

CellaVision is the world-leading provider of digital solutions for medical microscopy in the field of hematology. We have made it our business to help hematology laboratories around the world improve and transform the process of performing cell differentials.

## CELLAVISION

For more information about our technology, please contact one of our offices

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