



# **MY**croscopy As Unique As You Are!

Microscopes and Specimen Preparation Instrumentation  
for **Clinical Laboratories**

Living up to Life

**Leica**  
MICROSYSTEMS



# A Complete Solution for High-Quality Work

## Leica DM Digital Microscope Series. DM1000, DM1000 LED, DM2000, DM2500, and DM3000 Microscopes Uniquely Designed to Adapt to Every User

**Leica focused on the pathologists and clinicians who work with microscopes every day** during the development of the Leica DM Microscope Series. The Leica DM Series Microscopes adapt well to the rigorous demands of routine laboratory work. For example, microscope operation is based on the natural movements of the user while viewing a specimen. The controls come to hand naturally and can be adapted to suit both the laboratory and the individual user's requirements.

**Expect more than just optical brilliance.** The adaptable, ergonomic, rugged design of the Leica DM Series exceeds today's standards to make demanding laboratory routines easier, less fatiguing, and more efficient.

**The Leica DM Series is a cornerstone** of Leica's comprehensive laboratory instrument program. The Leica DM Series Microscopes complement Leica's wide range of instruments for reliable specimen preparation and image archiving. Leica DM Microscopes embody the proven benefits that Leica customers already appreciate – flexibility, reliability, safety, durability, and cost-efficiency – and provide the prerequisite system needed for smooth-running, efficient laboratory work.

**When you purchase a Leica DM Digital Microscope**, you not only benefit from superb imaging and reliable workflow, you have also chosen a high-quality product from a company that is serious about standing behind it with dependable support and service.



Leica DM1000



Leica DM1000 LED



Leica DM2000



Leica DM2500



Leica DM3000

# ■ Specimen Preparation

## More Efficiency, Anyone?

Efficiency is key when it comes to specimen preparation. Pairing speed with reliability is the challenge in all histology processes. Leica's precise specimen preparation instruments ensure high-performance for all protocols – in the shortest time, with maximum reliability, while treating specimens as gently as possible. For each individual laboratory function, Leica products offer flexibility, reliability, and cost-effective benefits. And when it is time to automate laboratory protocols or update current equipment, Leica is the premier provider of automated instruments and workstation solutions.



Tissue Processing ► Emb

# Specimen



Embedding ► Sectioning ► Staining ► Coverslipping

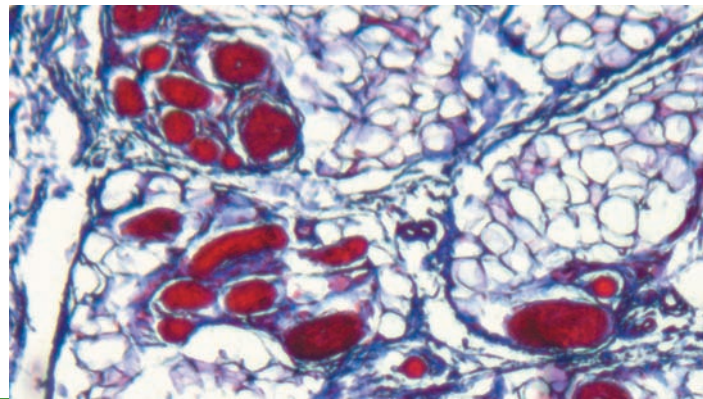
# Section Preparation

## Tissue Processing

Leica has the right equipment for any processing volume – from convenient, easy-to-use tabletop units to high-volume, vacuum tissue processors that are capable of storing 15 programs and processing up to 300 standard cassettes.

## Embedding

Leica offers a full range of embedding instrumentation with maximum functionality – single embedder or modular component embedding stations, cold plates, stand-alone paraffin dispensers – even ergonomic, heated forceps.

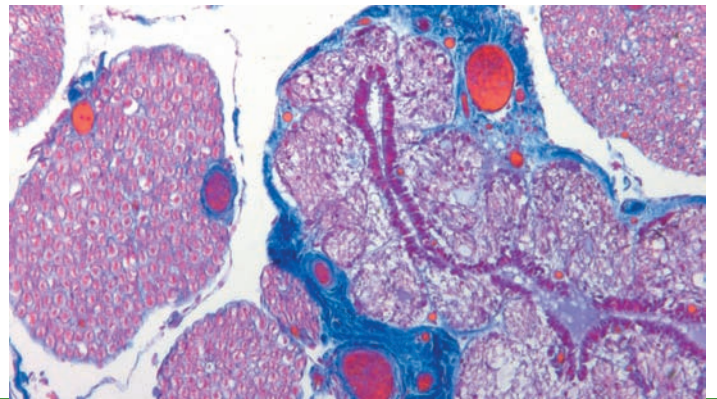


## Sectioning

Leica's extensive range of cryostats and microtomes makes it possible to select the perfect instrument for every application – routine paraffin or plastic embedded specimens; hard specimens; and large or fresh specimens, can be sectioned at room temperature or under precisely controlled cryo temperatures. Leica has a microtome for every sectioning application.

## Staining

Leica's diversified line of slide stainers supports high throughput of up to 1000 slides per hour as well as the flexibility to process a wide range of protocols simultaneously.



# Specimen Preparation



## Coverslipping

Leica's automated glass coverslipper produces slides with superior optical quality for reliable, long-term storage. Leica's flexible system accepts the staining racks of virtually all routine slide stainers and is compatible with a variety of mounting media and slides. An exclusive feature of Leica's coverslipper is the ability to interface with a Leica stainer to provide a true walkaway stainer/coverslipping solution.

## Labeling

Leica inkjet printing systems provide permanent, highly-legible printing of exceptional quality on tissue cassettes and microscope slides.

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# ■ Personalized Microscopy

## Focused on Outstanding Performance in the Clinical Laboratory: Leica DM Digital Microscopes

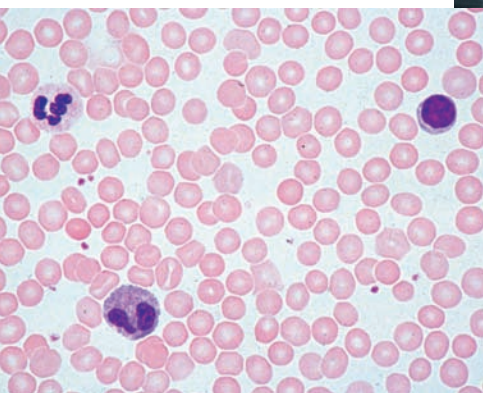
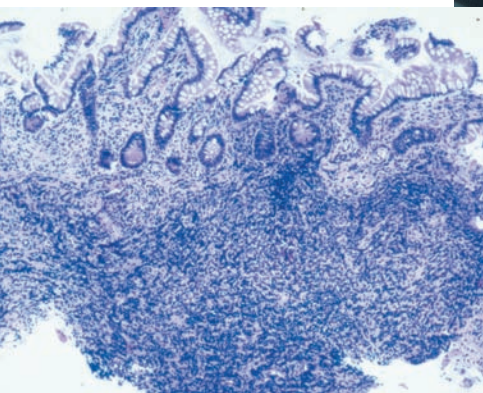
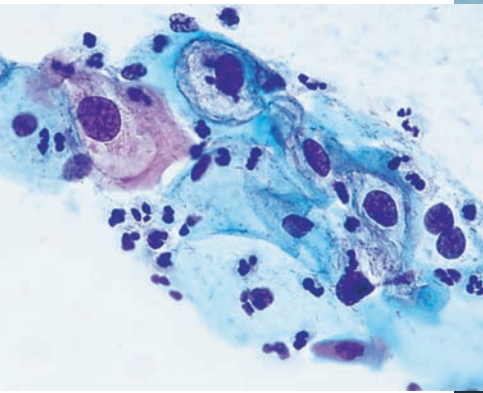
Leica DM Microscopes are designed for accurate clinical diagnostics. While they are ideal for routine tasks, there is no compromise in the performance or range of features for more advanced techniques. With a rugged, solid design combined with excellent optics, Leica DM Microscopes can be equipped with a full range of accessories. Leica can truly personalize a microscope to an individual user's unique needs.

### **Comfort is not a luxury, it is a prerequisite!**

Above all, Leica DM Microscopes feature a level of comfort unparalleled in this class. The microscopes adapt completely and comfortably to each user to prevent muscle tension, poor posture, and long-term health hazards. Microscopy has never been more comfortable. All of these things make the Leica DM Series one of the most well-designed line of microscopes on the market today – and the first choice for those who value ease of use, fatigue-free work, and fast, reliable results.







## Outstanding Features for Every Laboratory:

Each Leica DM Series Microscope model is specifically designed for its intended use:

- The Leica DM1000 is ideally suited for clinical laboratory applications.
- The new Leica DM1000 LED features long-lasting LED illumination and an optional, portable power supply.
- The Leica DM2000 is designed for more complex pathology and cytology laboratory applications.
- The Leica DM2500 is especially suited for applications in pathology or biomedical research that frequently require special contrast methods such as fluorescence or interference contrast.
- With its intelligent automation, the Leica DM3000 is designed primarily for cytology and pathology laboratories in which fast work is the order of the day without sacrificing user comfort.

## Comfort is a Prerequisite to Efficiency!

Every microscope user is different and Leica DM Microscopes adapt completely to user's physique to help maintain a relaxed posture over long periods of time. It is easy to set up the microscope for an individual's ideal working position.

### **Maintain a correct head and neck position.**

Leica offers flexible adjustment or a fixed ergonomic 15° viewing angle. Choose from various tube lengths and height adjustment elements that are designed to adjust the microscope to the individual user.

### **Reduce back and shoulder strain, even after extended time at the microscope.**

Because of the symmetrical arrangement of the stage and focus controls, users automatically adopt a natural, comfortable posture.

### **The height of the focus controls is adjustable for a relaxed hand and arm position.**

This feature is unique to the Leica DM Series. The height can be adjusted in seconds – there is no more need for supports or improvised props.

**Leica DM Microscopes adapt to an individual's seated height.** Leica's optional ErgoLift raises the height of the microscope. Or, ergo modules raise the viewing tube height. Use both options in combination for an almost infinite number of height combinations.

**Left-handed users can simply switch the controls to the left side of the microscope in seconds.** Right-handed users can switch them back with equal ease. Special accessories for left-handed users are a thing of the past.



# Personalized Microscopy

The phrase "time is money" never rang truer than in the clinical laboratory. Every second saved in a work routine counts toward a more economical laboratory. Leica provides a variety of features to save time and make laboratory work more efficient.

**The new slide holders ensure more speed when changing specimens.** The slide holders are designed so that slides can be changed in a single motion with one hand.

**Adjust the focus and position of the stage with just one hand.** The other hand remains free for activities such as taking notes or operating counters or PCs.

**The microscope's stage is well-rounded with no protruding edges.** The entire stage design is compact and requires minimal space.

**The stage plate is built to last.** The surface is made of a durable, hard ceramic that is built to take years of demanding use.

**The Leica DM Series features easy lamp replacement.** The lamp can be replaced quickly without shifting the microscope from its position or disturbing the intricate microscope set-up.

**With the new Leica DM1000 LED, Leica takes efficient illumination a step further.** Long-lasting LED illumination makes changing lamps a thing of the past.

**The new Leica DM1000 LED offers an optional, portable power supply with a flexible solar panel.** The rechargeable battery integrates with the stand for eight hours of operation without AC power.



# Personalized Microscopy

## Optical Brilliance and Durability

The optical qualities of the Leica DM Series are compelling. Outstanding image brilliance and razor-sharp contrast clearly reveal the most delicate specimen structures. The high level of comfort users expect contributes to fatigue-free viewing and greater efficiency.

**Reduce eyestrain with Leica's new HI PLAN SL Planachromat objectives.** These objectives are designed to ensure the same level of brightness at all magnifications. The preferred color impression is preserved, and continual brightness adjustments are a thing of the past.

**Leica's HI PLAN CY 10x objective is designed specifically for cytology.** It features excellent field flattening and color correction, while offering a long working distance of 12mm for clinical applications.

**Set the aperture correctly every time.** The aperture scale features color markings that correspond to the color codes of the objectives. Simply match the colors and the aperture is set.

**Take a quick overview of the specimen.** Leica offers an optional 1.25x overview objective.

**Quick changes between five fluorescence excitations are supported by five filter block positions.** All filter blocks feature Zero Pixel Shift to prevent image shifting when superimposing different fluorescence excitations.

**The complete Leica DM Series of Microscopes for clinical and research applications:**

Leica DM1000, DM1000 LED,  
DM2000, DM2500, DM3000,  
DM4000 B,  
DM5000 B, DM5500 B, and DM6000 B



## The Innovation for Clinical Laboratories: The New, Automated Leica DM3000

Superior operating convenience meets ergonomic design – for even faster and more convenient work at the microscope. With the combination of easy adaptation to a user's physical requirements and intelligent automation, the Leica DM3000 saves valuable time. Leica's unique toggle mode and the automatic condenser are tailored to the requirements of clinical laboratories.

**It takes only half a second for the motorized objective turret to change magnifications.** Change magnification at the touch of a button while your eyes remain fixed on the specimen.

**Microscopy is easier and more comfortable with Leica's unique toggle mode.** Two freely-defined magnifications can be assigned to buttons that are conveniently located behind the focus knobs.

**The Leica DM3000 features an optional, hands-free magnification changer.** An optional foot pedal is available to free a user's hands for other activities.

**Leica's condenser provides convenience.** The motorized condenser head automatically swings out for objectives with a magnification lower than 10x and returns to proper position for higher magnifications. The position of the condenser head can be manually adjusted for special applications.

**Controlled light intensity adapts automatically to the illumination requirements of the objective when changing magnifications.** Light intensity can be adjusted individually, and the Leica DM3000 stores the last-used illumination values for each objective. So the brightness impression of the specimen remains constant. Also, strong differences in light intensity are avoided, which helps prevent eyestrain.



# ■ Digital Documentation

Leica's DC Digital Cameras provide razor-sharp, brilliant images with uncompromising color fidelity. The cameras feature a FireWire interface for particularly fast image processing. A number of models and types are available to suit a wide range of applications.

## **Leica's full line of digital cameras**

Leica DC Digital Cameras feature ease of use, image clarity, and excellent color fidelity. They provide everything needed for precise image analysis, documentation, and reporting.

## **Fluorescence photography**

Leica has developed digital cameras that deliver brilliant images even from very faint fluorescence.

## **Recording, editing, and measurement**

Leica's Image Organizer and Image Manager software provide fast, reliable image storage, with minimum space requirements. A user can easily sort and find images along with the relevant documentation data. Together, the Image Organizer and Image Manager save time and simplify image management.

## **Leica Image Organizer: Tailored to individual requirements**

The Leica Image Organizer has been designed in close cooperation with clinical customers to address specific application needs. In addition to saving images, this powerful software also saves the camera and microscope settings. Additional information related to the image, specimen, and patient can also be recorded. All data can be stored in freely-defined categories to suit a particular laboratory environment; organized according to diagnosis, patient name or identifying number. All data can be retrieved with a single touch of a button.





A sophisticated search function uses a wide variety of criteria to retrieve images and data. The gallery overview allows images to be retrieved quickly, even specimens examined years ago. The image data can also be quickly recalled using a barcode reader, and new patient information is easily added. Retrieving information has never been this easy.

While using the Leica DM3000, the user can read the objective turret position and automatically adjust the calibration. Store and Recall restores the settings for viewing a specimen again under identical conditions or for comparing a specimen with identical settings.

#### **Leica Image Manager: The complete image management solution**

The Leica Image Manager provides a fast, easy, and high-performance platform for digital image recording, editing, measurement, output, exchange, and backup. The archive structure of the database easily adapts to a specific laboratory's workflow. At the same time, it provides fast and reliable process monitoring. The functions for image storage in external archives and fast, direct e-mailing of images add to its convenience.

# “With the user, for the user”

## Leica Microsystems

Leica Microsystems operates globally in four divisions, where we rank with the market leaders.

### • Life Science Division

The Leica Microsystems Life Science Division supports the imaging needs of the scientific community with advanced innovation and technical expertise for the visualization, measurement, and analysis of microstructures. Our strong focus on understanding scientific applications puts Leica Microsystems' customers at the leading edge of science.

### • Industry Division

The Leica Microsystems Industry Division's focus is to support customers' pursuit of the highest quality end result. Leica Microsystems provide the best and most innovative imaging systems to see, measure, and analyze the microstructures in routine and research industrial applications, materials science, quality control, forensic science investigation, and educational applications.

### • Biosystems Division

The Leica Microsystems Biosystems Division brings histopathology labs and researchers the highest-quality, most comprehensive product range. From patient to pathologist, the range includes the ideal product for each histology step and high-productivity workflow solutions for the entire lab. With complete histology systems featuring innovative automation and Novocastra™ reagents, Leica Microsystems creates better patient care through rapid turnaround, diagnostic confidence, and close customer collaboration.

### • Medical Division

The Leica Microsystems Medical Division's focus is to partner with and support surgeons and their care of patients with the highest-quality, most innovative surgical microscope technology today and into the future.

The statement by Ernst Leitz in 1907, “with the user, for the user,” describes the fruitful collaboration with end users and driving force of innovation at Leica Microsystems. We have developed five brand values to live up to this tradition: Pioneering, High-end Quality, Team Spirit, Dedication to Science, and Continuous Improvement. For us, living up to these values means: **Living up to Life.**

### Active worldwide

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