



# Advanced Solutions In Medical Laboratories

Transforming the future of healthcare





### **Thermo Fisher Scientific Mission**

Thermo Fisher Scientific provides an extensive range of healthcare solutions, supporting the essential areas of clinical and anatomical pathology. Our sourcing and supply chain services ensure you have the right products at the right place at the right time. Our mission is to enable our customers to make the world healthier, cleaner and safer.



# Our Business Capabilities

Turnkey Solutions

Integrated Capabilities

Enterprise Services

Instrument Services



# Turnkey Solutions



## From concept to operation

Built by scientist for scientists

Thermo Fisher Scientific, is dedicated to providing laboratory products and services to the scientific community. Our breadth of products, global operations, financial strength and experience make us uniquely qualified to undertake turnkey laboratory projects. Our customers include engineering procurement and construction companies, multinational corporations, academic and research institutes.

We can provide turnkey solutions from concept to operation, including project management, source, logistics, engineering and installation.



Fume Hoods



Casework



Adaptable System



# Integrated Capabilities

## CONSTRUCTION



## ACQUISITION



## OPERATIONS

### LAB DESIGN AND ENGINEERING



- Needs Analysis/Workflow Design
- Service Requirements (e.g., utilities, gas distribution systems [GDS])
- Furniture/Fixed Equipment (FFE)
  - Fume Hoods
  - Instruments
  - Workstations
- Application workflow product mapping

### PROCUREMENT AND SUPPLY



- 11,000+ Suppliers
- 1.2 Million+ Products
- Consumables
- Chemicals
- Equipment
- Furniture
- Fume Hoods
- Instrumentation
- New Lab Start-up Program

### LOGISTICS



- Export Packaging/Documentation
- Order Consolidation
- Onsite Receiving
- Quality Control
- Regulatory Compliance
- 40 Warehouses Worldwide

### INSTALLATION AND COMMISSIONING



- Site Preparation
- Onsite Supervision
- Installation of Fixed Furniture and Equipment
- Gas Distribution Systems (GDS)
- Laboratory Information Management Systems (LIMS)
- Training

### CONTINUED SUPPORT



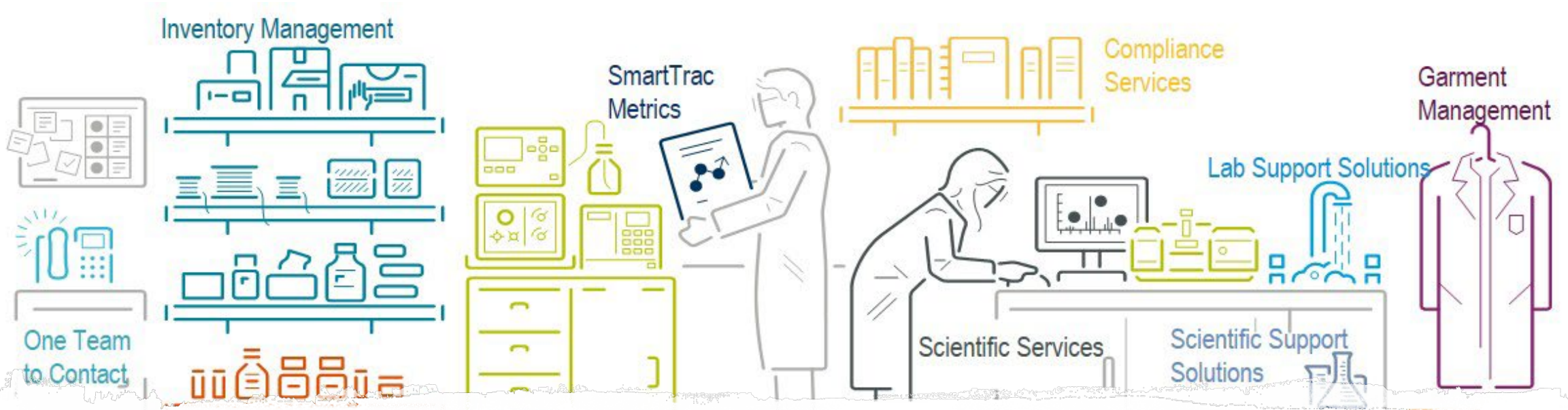
- E-commerce Solutions
- Supply Chain Management
- Support Services
  - Chemical Management
  - Order Management
  - Stockroom Management
- Warranty Support
- Ongoing Training
  - Seminars
  - Workshops

## PROJECT MANAGEMENT

DEDICATED PROJECT TEAM • EXPERIENCE IN ALL GEOGRAPHIC MARKETS • FINANCIAL SERVICES • TRACK TIME AND BUDGETS



# Enterprise Services



[Find Out More](#)

1. Managed Services
  - Supply Management Solutions
  - Scientific Support Solutions
2. Asset Management Services
3. Smart Relocation



# Instrument Services

- Instrument Compliance and Validation Services
- Installation
- Maintenance and Repair
- Technical Support
- Support Plans

[Find Out More](#)



**Instrument Services**  
for your Laboratory

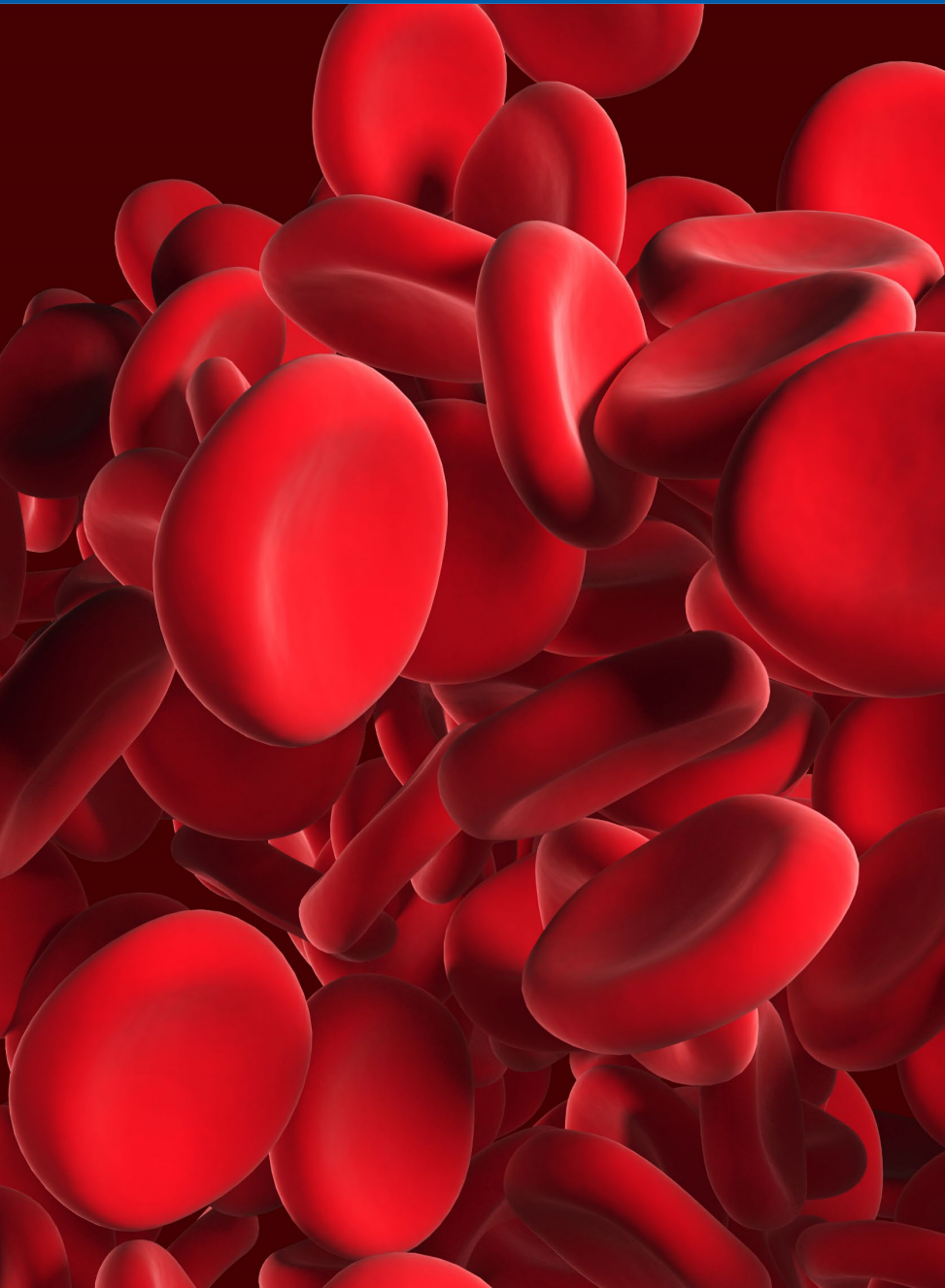


A medical laboratory or clinical laboratory is a laboratory where pathology tests are done on clinical specimens in order to obtain information for the purpose of disease diagnosis, treatment, and/or prevention. Medical laboratories vary in size and complexity. They are located within hospitals, clinics, or exist as stand-alone laboratories.

Medical laboratories are generally divided into two specialties:





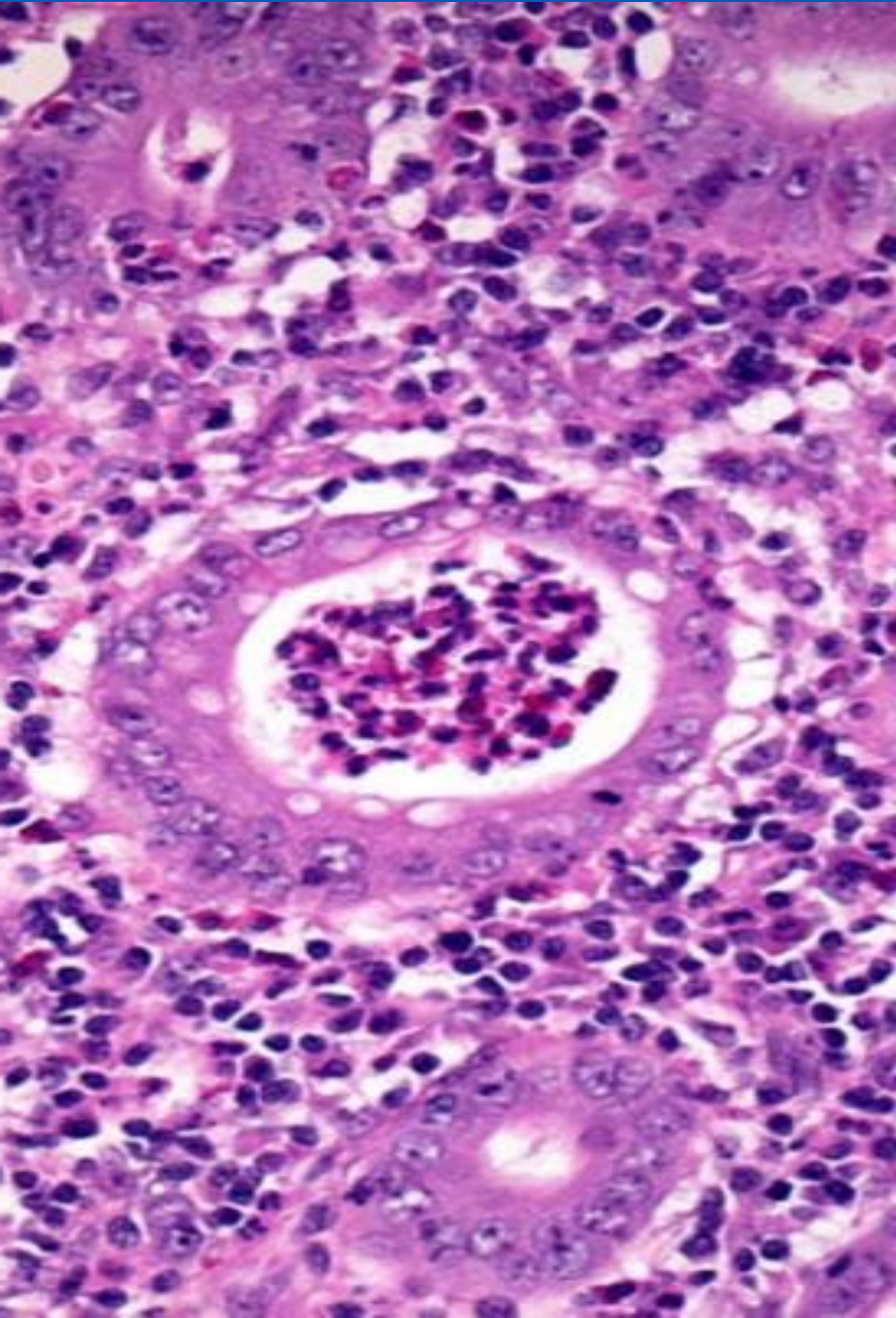


# Clinical Pathology

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- Clinical pathology deals with the measurement of chemical constituents of blood, urine and other bodily fluids. It is divided into many sub-specialties, including clinical biochemistry, clinical microbiology, hematology, blood banking and molecular pathology.
- Clinical biochemistry: Most laboratories employ highly automated systems to run clinical biochemistry tests, including renal function, liver function, glucose, uric acid, lipid profile, tumor markers and many others.
- Clinical microbiology is concerned with infectious diseases caused by bacteria, fungi, parasites, viruses, and prion.
- Hematology studies diseases of blood components, such as blood cells, hemoglobin, bone marrow, platelets, spleen, coagulation and others.
- Blood bank deals with the management of donated blood for transfusion purposes.
- Molecular pathology is a new and rapidly growing field of pathology; it focuses on the diagnosis of diseases by means of genomics and proteomics.





# Anatomical Pathology

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- Anatomical pathology studies the effect of disease on the structure of body organs, both as a whole and microscopically. There are two main sub-specialties within anatomical pathology, namely histopathology and cytopathology (cytology). Histopathology examines tissues (e.g. sections of tumor), while cytopathology examines free cells (e.g. fine-needle aspiration) or fragments of tissues. The specimens are generally stained (e.g. with dyes or antibodies) for cellular components followed by microscopic examination.



# Our solutions for commonly used techniques in medical laboratories:

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Clinical  
Microbiology

ELISA

Genetic  
Testing

Drugs of  
Abuse Testing

Blood  
Banking

Anatomical  
Pathology

# Clinical Microbiology

Diagnose infections quickly, accurately and efficiently for better patient care with powerful manual and automated technologies, and a comprehensive line of products that protect the safety of laboratory personnel



Sample Storage

Sample Preparation

Microscopy & Colony Counting

General Equipment

Safety & Personal Protective Equipment



# Sample Storage

*Ensure your samples and reagents are properly labeled and stored at the appropriate temperature. Adding in temperature monitoring system to safeguard and data log critical equipment parameters. Knowing that in the event of a power or mechanical failure, you'll be notified right away.*



Labeling Equipment



Cold Storage Media & Reagent Storage



Undercounter Storage



High-Performance -20°C Manual Defrost Freezers



Conical Tubes



Temperature Monitoring

# Sample Preparation (Bacteria culturing and plating)

*Using the right equipment ensures personnel, environment and sample safety. Automated diluter and plater improve efficiency, delivering timely and consistent results to your patients .*



Glove Box



Biosafety Cabinet



Aseptic Containment Enclosure



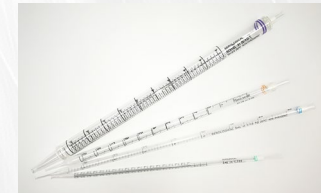
Automated Spiral Plater



Dilutor



Petri Dish



Serological Pipettes



General Purpose Centrifuge



Shaking Incubator



Incubators

CO2 Incubators

Cooling Incubators



Automated Incubators



Densitometer



Bacti-Cinerator



Inoculating Loops



Biosafety Cabinet



**thermo**  
scientific



Shaking Incubator



**thermo**  
scientific



Incubator



**thermo**  
scientific



CO2 Incubator



**thermo**  
scientific



Cooling Incubator



**thermo**  
scientific

# Microscopy & Colony Counting

*Analyze microbes with our manual or automated colony counters and wide range of microscopes.*



Slide Warmer



Microscope



Real-time Incubator and Colony Counter



Colony Counter



# General Equipment



Pipettes & Tips



pH Meter



Analytical Balance



Vortex Mixer



Water Bath



Pipet Fillers



Autoclave



Glassware Washer

# ELISA

ELISA (enzyme-linked immunosorbent assay) is a plate-based assay technique designed for detecting and quantifying substances such as peptides, proteins, antibodies and hormones. We provide instrumentation solution for manual operation or modular automation.



# Sample Preparation

*Our portfolio of microplate instruments offers a variety of liquid handling instruments and supporting microplate technology products for medical laboratories.*



Microplate Dispensers



Microplate Washer



Aspirator



Microplate Incubator



Microplate Shaker

# Analysis

*Our dedicated and multimode readers provide flexibility, performance and ease-of-use for a variety of assays, whether you need to measure photometry, fluorometry, luminometry, time-resolved fluorometry or AlphaScreen. The modular and expandable automation solution provides the possibility for future laboratory expansion.*



Microplate Readers



Automation

# General Equipment & Consumables



Pipettes & Tips



Microplate Centrifuge



Labeling Equipment



Microplates

# Genetic Testing

Clinical laboratories offering genetic testing face ever-changing requirements and demands. To be responsive, laboratories need to have flexible solutions and options to suit their individual needs. We offer a variety of equipment, instrument, and consumables that can help accelerate routine clinical sample preparation and analysis while preserving sample integrity and preventing cross-contamination.



# Sample Preparation

*Extracting DNA/RNA from any sample type with magnetic separation technology, followed by determining the concentration and quality of the extracted DNA/RNA with micro-volume spectrophotometer.*



Sample Homogenizer



Nucleic Acid Extraction System



Microcentrifuge



Spectrophotometer  
(Microvolume)

# Analysis

*Setting PCR or sequencing reactions under the safety of our PCR cabinet with a built-in UV circulator. A stand-alone UV-circulator will also help eliminate air-borne DNA/RNA/microbes, thus preventing cross-contamination and infection. We offer compact electrophoresis and real-time PCR solutions suitable for medical laboratories in which space is limited and patient samples arrive in small batches.*



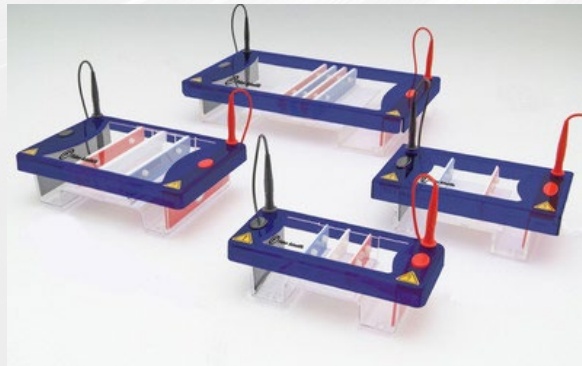
PCR Cabinet



UV Circulator



qPCR



Electrophoresis



Gel Documentation



# General Equipment & Consumables



Labeling Equipment



Dry Heating Block



Pipettes



Pipette Tips  
(Molecular)



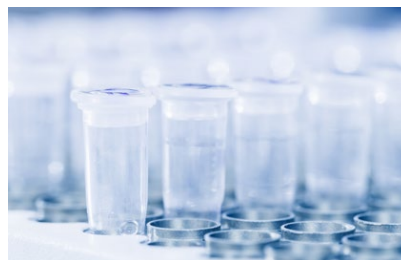
Molecular Standards  
& Quality Controls



Biochemicals &  
Electrophoresis  
Consumables



Extraction Kits



qPCR Plastics



qPCR Kits



EZView Stain

# Drugs of Abuse Testing

In many forensic investigations there is a requirement to analyze drugs of abuse (DoA) in human bodily fluids. In many cases, a reliable and affordable methodology is needed. We provide a complete solution using our UHPLC-MS/MS or GC-MS instrument, and equipment for sample preparation when using conventional Thin-Layer Chromatographic (TLC) method.



Sample Preparation

Analysis

Consumables

Safety & Personal Protective Equipment



# Sample Preparation

*As part of the drugs of abuse extraction process, the extracted sample eluent is evaporated to dryness using our centrifugal evaporators.*



Labeling Equipment



Vacuum Pump



Vacuum Manifold



Centrifugal Evaporator

# Analysis

Analyze the drugs of abuse using our UHPLC-MS/MS or GC-MS instrument, Thin Layer Chromatographic (TLC) documentation systems, and drugs of abuse immunoassays.



TLC Viewer



TLC Documentation System



Gas Chromatograph (GCMS)



LCMS/MS



Drugs of Abuse Immunoassays



Automated Drugs of Abuse Testing Solution

# Consumables



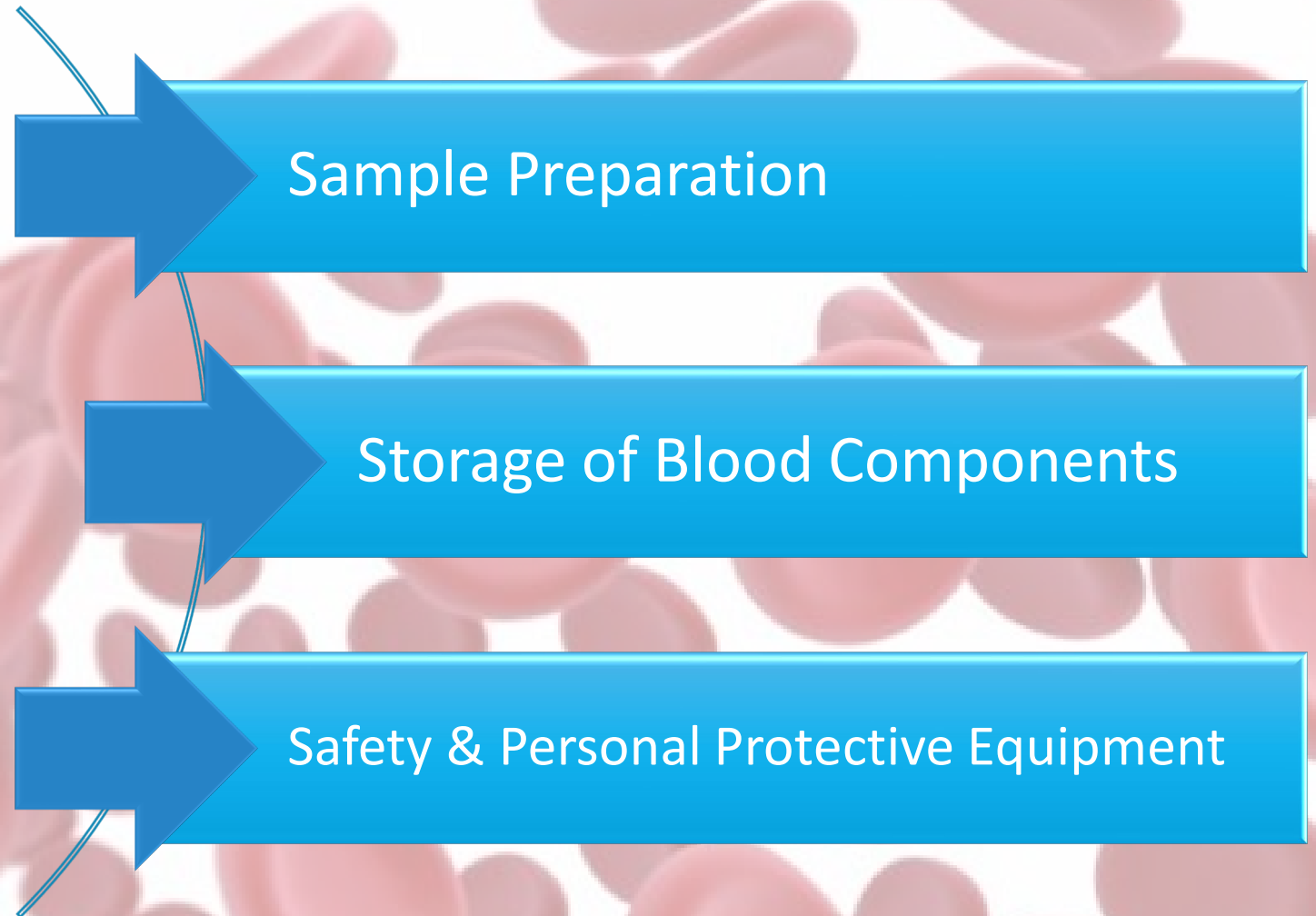
LC Columns & Other Chromatography Consumables



GC Columns & Other Chromatography Consumables

# Blood Banking

Our centrifuge and refrigerators of choice provide simplified blood processing and storage of whole blood and blood components, while in compliance with global standards.



# Sample Preparation

*We have a centrifuge for almost any application. Our Thermo Fisher Cryofuge Blood Banking centrifuge can process 16 blood bags at once.*



Blood Banking Centrifuge  
(Blood Bags)



Microcentrifuge  
(With Gel Card Rotor)



Pipettes

# Storage of Blood Components

*Store whole blood and blood components while meeting the strict AABB, ANRC and FDA requirements. Wireless temperature monitoring system ensures sample integrity and peace of mind.*



High-Performance Blood Bank Refrigerators



Ultra-Low Freezers



Temperature Monitoring



Plasma Freezer



Platelet Incubator



# Anatomical Pathology

We provide a complete line of anatomical pathology equipment and consumables, from specimen collection to diagnosis. Our products include histology products and services from gross dissection and tissue processing to slide staining and coverslipping. Laboratory equipment and consumables to support the pre-analytical phase of the testing process in cytology are also available.



# Pathology Instruments

*Thermo Fisher Scientific provides a complete line of anatomical pathology equipment and consumables, from specimen collection to diagnosis.*



Cryostat



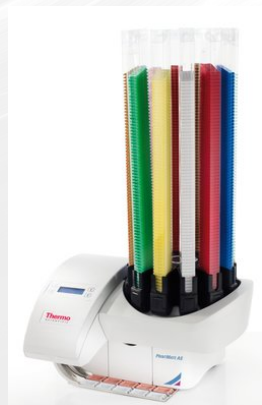
Tissue Processor



Embedding Workstation



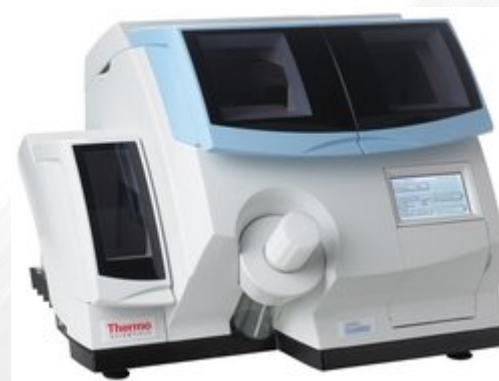
Rotary Microtome



Cassette Printer



Automated Slide Stainer



Coverslipper



Tissue Block Management System

# Consumables



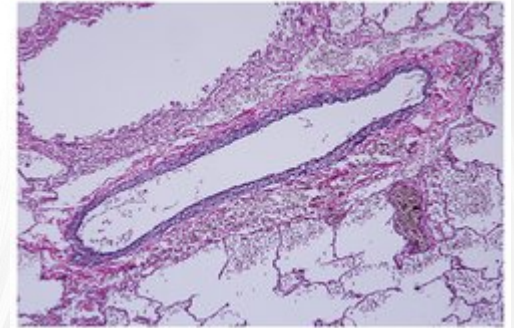
Xylene



Cassettes



Glass Slides



Stains



# Protecting What Matters Most

Your people and the work they do are your biggest investments. Help keep them safe and productive with the products you need to prepare, prevent, protect, and respond.



## Safety & Personal Protective Equipment

Apparels

Gloves

Eyewear

Mask

# Apparels



## Protect

Keep your people safe with all the personal protective equipment and apparel you need.

**Protect Your People**



Bioclean-D Lab Coat



Kimtech Science A7 Lab Coat

# Gloves



## Protect

Keep your people safe with all the personal protective equipment and apparel you need.

**Protect Your People**



HandPRO Nitrile Exam Gloves



KIMTECH PURE and  
KIMBERLY-CLARK  
Exam Gloves



LabServ Nitrile Exam Gloves

# Eyewear



Kimberly Clark Professional  
V80 Revolution OTG Safety Goggle



Nitritex BioClean  
Clearview Autoclavable Goggles



## Protect

Keep your people safe with all the personal protective equipment and apparel you need.

**Protect Your People**

# Mask



Kimtech M3 Sterile Face mask



Kimberly Clark Professional PFR N95 Mask



## Protect

Keep your people safe with all the personal protective equipment and apparel you need.

**Protect Your People**



Dupont Sierra Face mask



Nitritex BioClean  
MEA Non-sterile Looped Facemask



Nitritex BioClean  
MTA Non-sterile Looped Facemask



Nitritex BioClean  
DB POUCH-STYLE FACEMASK



# One Source . Infinite Solutions

Your complete lab resource



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