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Your guide to laboratory and pathology equipment in Europe

LAB BOOK

2022 / 2023

Vol.9

- Automation & Sample Processing
- Chemistry & Immunochemistry
- Hematology
- Pathology
- DNA
- Microbiology
- POCT
- Information Technology
- Other Applications



Atellica® Solution enhances clinical standardization by integrating immunoassay and clinical chemistry with industry-leading digitization, automation, and AI-powered intelligence.

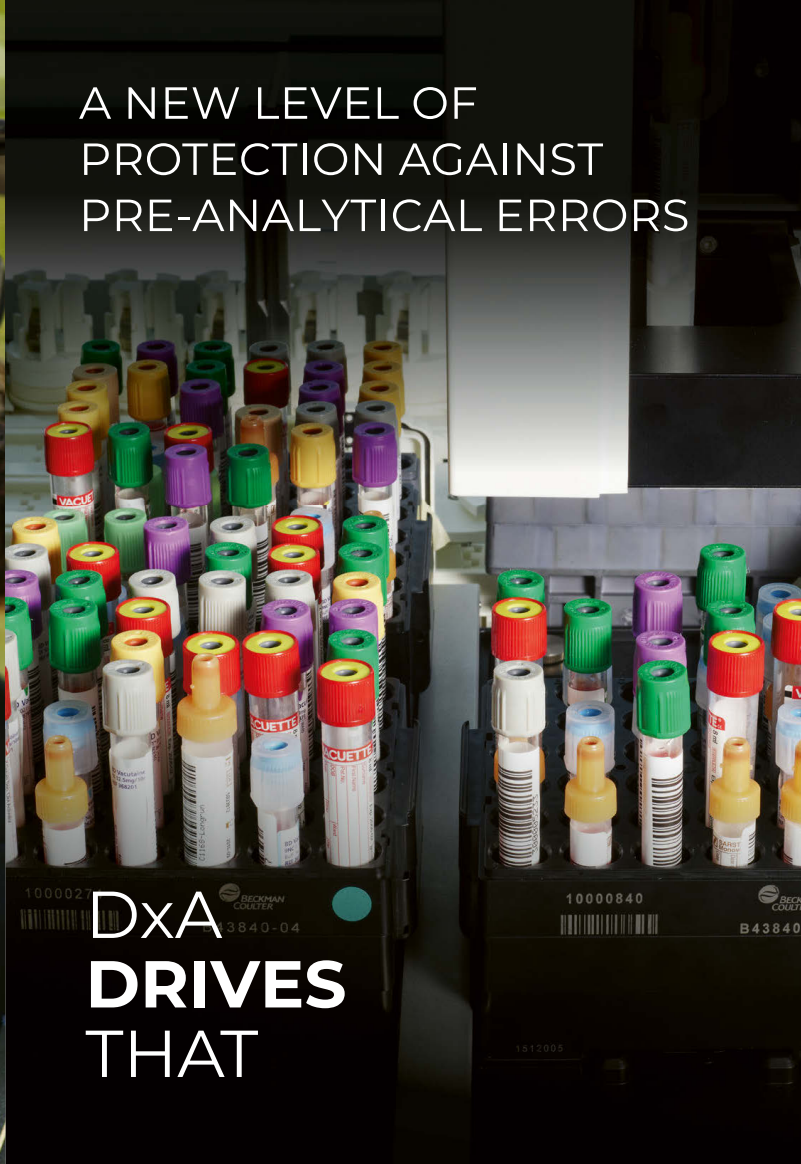
Product availability will vary by country.

GETTING PATIENTS
TO LIFE'S MOST
PRECIOUS OCCASIONS



THIS
DRIVES
YOU

A NEW LEVEL OF
PROTECTION AGAINST
PRE-ANALYTICAL ERRORS



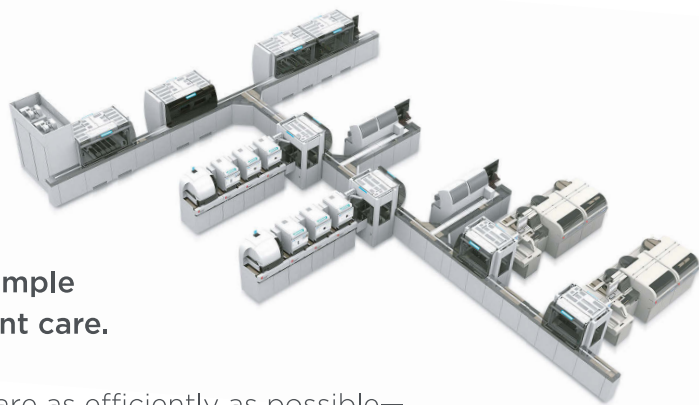
DxA
DRIVES
THAT

DxA 5000

What Drives You?

Within three seconds, DxA 5000 inspects eight sample parameters to help you support high-quality patient care.

It's all about consistently delivering the best patient care as efficiently as possible—that's what drives you. Helping you achieve this goal has been our sole focus from the moment we sketched the first DxA 5000. Discover how this revolutionary total-laboratory automation system uses unparalleled pre-analytical error detection, proprietary routing intelligence and harmonisation with middleware to change the standard by which laboratory excellence is measured.



Drive Efficiency: BeckmanCoulter.com/DxA5000



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Dear readers,

two and a half years of the pandemic are behind us – and more are ahead of us. The virus will continue to travel around the globe with us, crossing borders, being part of our lives.

Against this backdrop, laboratory medicine takes on a new role: In the past few years, we have seen how the specimens are no longer taken to the lab, but that the lab is taken to the people. At the same time we recognized that diagnostics is important not only for individual therapy and prevention but for public health in general. POCT is going through the next stage of development towards PODT – diagnostics at the Point of Decision where a test decides whether a person is granted access to a public space, for example a concert or a restaurant.

The objective part of the decision was put in the hands of a discipline that seemingly anybody can engage in. Or, as my professor noted upon his retirement: in Germany there are activities that require professional training, such as flying an airplane, performing surgery or cutting hair. Other activities however, such as coaching soccer players, rearing children and operating a medical lab can be done by anybody and everybody. Even more: everybody claims to do it better than anybody else.

Most likely, this is because laypersons often tend to underestimate the broad range of skills, knowledge and experience required in laboratory medicine as “a bit of everything but nothing in depth”. Nothing could be further from the truth, though, as from the get-go lab medicine is aware of its limitations and therefore transparently assesses the quality and the usefulness of the results for diagnosis and therapy.

Thus the methodology of POCT/PODT and self-tests can be considered prediction as to which diagnostic procedure, if performed by untrained and medical laypersons, might lead to meaningful results. Particularly during the pandemic, the concept of diagnostic usefulness is linked to economic issues, e.g. how diagnostic services can be offered and invoiced, how the capacities of the healthcare system can be predicted and controlled during the pandemic, and how the negative effects of high absence rates due to illness on the national economy can be countered. In this nexus of public health and economics, which is too important to be dominated by politics, lab medicine can offer crucial expertise.

Beyond this short excursion into current events, we have compiled the 2022 edition of the LABBook in the usual tried-and-tested manner. You will find lab equipment, software and supplies for all areas of application in a medical laboratory; from automation to information technology and peripheral devices, the data is available in print, as e-paper and in our database.

The information in the print edition of the LABBook, including the contact details of the manufacturers and authors, is available online at www.labbook.eu and www.healthcare-in-europe.com.

Manufacturers, authors, and the editorial team, we all look forward to receiving your feedback – be it praise, criticism or suggestions – on what you would like to find in the next issue.

Enjoy reading and browsing

Dr Markus Neumann

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Automation & Sample Processing



ASPLab
Automation
Automated Sample Processing



ENDMED

Sample Processing
Automation
Sample Logistics



**BECKMAN
COULTER**



sysmex | Lighting the way
with diagnostics



MOLGEN



Promega



SARSTEDT



SIEMENS
Healthineers



T&O
LABSYSTEMS

Sample Processing

Sample Processing

ASP Lab Automation – SortPro Sample sorter



Number of sorting targets: 5 to 17, free configurable

Capacity input hopper: Approx. 600 tubes

Processing speed: up to 3,600 tubes per hour, dependent on IT environment

Sorting criteria: Barcode, Cap color, Tube type, centrifugation status, aspiration status, duplicates

Highlights:

ASP SortPro detects and handles samples faster than any other sorter and is the only sorter with the capability to assess the quality of the samples it handles and thereby minimizes erroneous diagnoses and downtime in analytics due to defective tubes or samples.

It supports the work in the accessioning area of laboratories while remaining easily operated. SortPro provides significant increases in laboratory efficiency, reducing the workload on lab professionals and minimizing errors.

Sample Processing

ASP Lab Automation – SortProR Rack Module



Processing speed: approx. 1,800 samples/h for each rack module

Number of specimen: up to 600, depending on used racks

Sorting criteria: See basic device SortPro

Permitted rack types: All racks commonly used in clinical laboratories fed vertically

Highlights:

By adding the SortProR module, your SortPro can load any racks directly during sample accessioning without any loss of time. Equipped with two of these modules, ASP SortPro achieves the same potential throughput of 3,600 tubes / hour when loading racks as it does when dispensing in bulk.

This means that samples can be placed in racks just as quickly as they are registered and processed by the base unit. SortPro R has five drawers for any combination of racks that are fed vertically.

Sample Processing

ASP Lab Automation – SortTable Unboxing workbench



Dimensions: 1970 × 1060 × 800 mm (w × h × d)

Working height: 950 mm

Set up in relation to base unit: To the left of the unit, parallel or at right angles

Tube capacity: Up to 5,000 depending on tube dimensions

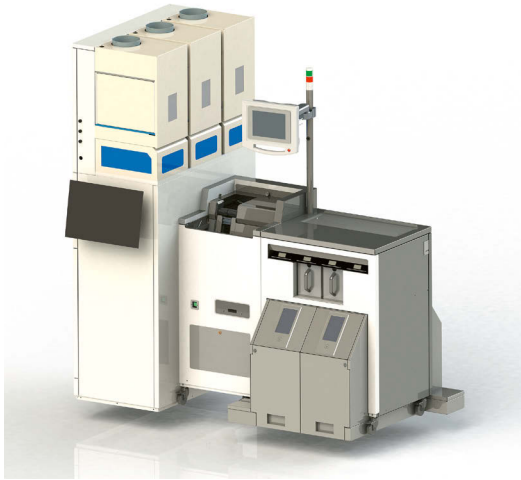
Highlights:

The ergonomic workstation SortTable buffers highly fluctuating sample volumes by collecting up to 5,000 samples and feeding them to the sorter without interruption. Incoming submissions are unpacked here and the samples are placed directly in the buffer.

From the buffer they are automatically fed to the ASP SortPro sorter for processing. This allows the sorter to constantly work at maximum capacity. In this way efficiency can be maximized and TAT minimized, even with heavy workloads.

Sample Processing

ASP Lab Automation – ASP SortPro ALSR4 for Sumetzberger hospitals and laboratories transport system



Input channels: 1-3 Sumetzberger transport channels, manual input of bulk tubes

Output channels: 1-4 Sumetzberger transport channels, 2 target bins for manual operation

Throughput: Up to 3,600 samples per Hour, depending on facility

Highlights:

With ASP and Sumetzberger, accessioning, sorting and distribution of samples can be fully automated in medical laboratories. The modified sorter ASP SortPro was specially designed for Sumetzberger and is integrated directly into Sumetzberger's laboratory transport system. The samples from up to three stations are automatically unpacked, recorded in the sorter, registered and sorted. Without having to pick them up, the samples are automatically transported to up to four destinations (e.g. systems or rooms) by the transport system.

Sample Processing

Beckman Coulter – AutoMate 2500 Family Sample Processing Systems

Highlights:

The AutoMate family of sample processing systems allows you to streamline pre- and post-analytical processes to help gain optimal performance and use of resources, eliminating steps between sample receipt and analysis.

- Single point of entry to manage all tubes, from sample receipt to archiving
- Advanced, automated sample loading and sorting, to minimize manual handling
- Cap color analysis validates sample type against test ordered for error prevention When you need to improve lab efficiency, turn to the AutoMate 2500 Family for an automation system that fits your lab's unique requirements.
- Through-the-label sample volume detection
- Sorting speeds of 800–1,200 tubes per hour
- Intelligent aliquoting and tube labeling to eliminate manual sample preparation errors and ensure faster, more accurate secondary-tube preparation
- Intuitive software to facilitate ease of use
- Re-sealer for safe and convenient transfer to archiving



Sample Processing

EndMed – Decapper DC 2000 SL



Dimension: 650 × 1200 × 650 mm (w × h × d)

Sample Throughput: 1600 tubes / h

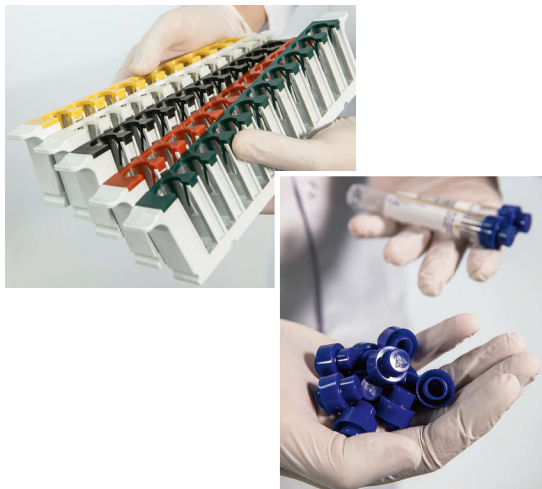
Highlights:

- Stand-alone tube decapper
- Automated decapping of all tubes of Ø 11 mm – 16 mm with push caps & stoppers
- Opening tubes with L 75 mm or 100 mm by factory default
- Can be tailored for tubes with Ø 8 mm–22 mm X L 70 mm–120 mm
- Decapping in a mixed operation
- Opening tubes in the analyser racks – no reloading is needed
- Fitting most of the universal linear racks
- Detecting tubes with no caps
- Minimising infection to staff by aerosol & splashing effect, and eliminating repetitive stress injury
- Easy operation & minimum maintenance

Sample Processing

Sample Processing

EndMed – Archiving Rack & Cap



Highlights:

The archive rack and patented recap are intended to use with Recapper RC 2000 SL. While the recap is as effective at manual closing as with the recapper, the rack is also apt for archiving purposes.

Cap

- Patented one-size-fits-all recap
- Closes all Ø 13 mm & 16 mm tubes
- Intended for use with Recapper DC 2000 SL
- Effective at manual closing

Archive Rack

- Simple rack for archiving
- Compatible with most tube types with L 75 mm & 100 mm
- Intended for use with Recapper DC 2000 SL
- Ideal solution for cost-effective archiving purposes

Sample Processing

EndMed – Recapper RC 2000 SL



Dimension: 950 × 1600 × 900 mm (w × h × d)

Sample Throughput: 1200 samples/h

Highlights:

- Automated recapping of Ø 13 mm & 16 mm tubes using the patented one-size-fits-all archive cap
- Closing tubes with L 75 mm & 100 mm in our archive racks
- Detecting tubes with caps & missing tubes in the rack
- Two Operation Modes: Connection to LIS & stand-alone
- Reading rack barcode & matching with closed tubes for sample archiving
- Preventing cross-contamination from previously used caps
- Minimising infection to staff by aerosol & splashing effect, and eliminating repetitive stress injury
- Easy operation & minimum maintenance

Sample Processing

EndMed – Smart Tube Sorter TT 2000 S - IQ Vision



Dimension: 1940 × 1200 × 720 mm (w × h × d)

Sample Throughput: up to 1600 samples/h

Number of Channels: 12 target bins +1 error bin for default / can be configured from 6 to 18 target bins + 1 error bin & TT Smartline conveyor system (optional)

Highlights:

- Continuous bulk loading of sample tubes
- Registering the samples
- Sorting tubes into assigned bins and TT Smartline conveyor system
- Working both with and without connection to LIS (bi-directional connection)
- Built-in own proprietary software allowing easy setup of sorting rules based on the barcode, tube dia & length, blood test, cap colour, and any combinations
- Responding to STAT samples
- Compatible with all standard tubes, and effortless introduction of new types with its software.
- Archiving photos of all processed tubes
- Connection to TT Smartline for accepting & transport

Sample Processing

EndMed – Smart Tube Sorter TT 2000 S



Dimension: 1940 × 1200 × 720 mm (w × h × d)

Sample Throughput: up to 2000 samples/h

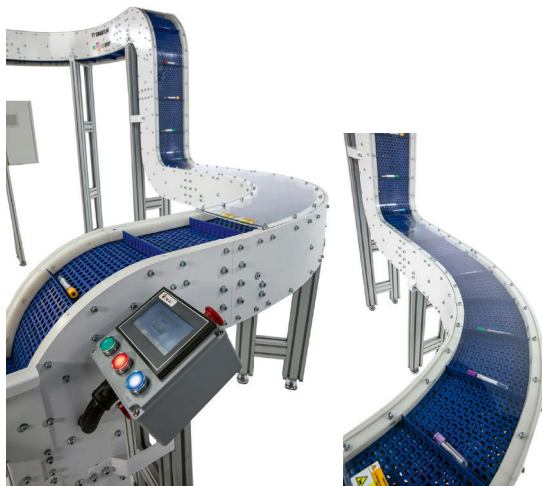
Number of Channels: 12 target bins +1 error bin for default / can be configured from 6 to 18 target bins + 1 error bin & TT Smartline conveyor system (optional)

Highlights:

- Continuous bulk loading of sample tubes
- Registering the samples
- Sorting tubes into assigned bins and TT Smartline conveyor system
- Working with a bi-directional connection to LIS
- Sorting based on the barcode - compatible with 1D & 2D barcodes
- Obtaining sorting rules from LIS
- Responding to STAT samples
- Compatible with all standard tubes
- Connection to TT Smartline for accepting and transport

Sample Processing

EndMed – TT Smartline Smart Conveyor System



Dimension: Tailored-made dimensions

Sample Throughput: up to 1600 samples/h

Highlights:

TT Smartline is a smart conveyor belt system for sample tube reception & distribution in laboratories.

- Throughput of up to 1,600 tubes/hr
- Transporting samples both horizontally and vertically
- Tailor-made dimensions
- Compatible with all test tubes
- Continuous feeding and transport of sample tubes
- Direct connection to tube sorters TT 2000 S & TT 2000 S - IQ VISION
- Compatible with laboratory automation bulk loaders
- Simple use & low maintenance
- Easy access for maintenance, service, and cleaning

Sample Processing

Sarstedt – Decapper DC 1200 / Recapper RC 1200



Highlights:

Decapper DC 1200:

- Automatic decapping of all tube diameters from 11 to 16 mm
- Processes a variety of tube types in mixed operation
- Sample pre-sorting for the decapping process is unnecessary

Recapper RC 1200:

- Automatic recapping of all tube diameters from 13 to 16 mm
- Minimises the risk of exposure
- Eliminates sample contamination
- Archiving cap fits most tubes from 13 to 16 mm diameter
- Automated decapping enabled

Sample Processing

Sample Processing

Sarstedt – Bulk Sorter BL 1200



Highlights:

- Ideal in combination with any analytical platform
- Sample throughput up to 1,200 tubes/h
- Process any tube type of 80 to 110 mm length (with cap) and 11 to 16 mm diameter, including false bottom options
- Suited for any sample type (serum / plasma, serum gel / plasma gel, EDTA, citrate, blood sugar, urine)
- Intelligent re-routing when waiting for lab order
- Automatic sample accessioning
- Customised sort rules to a variety of carrier types or bins

System range:

- BL 1200 – Bulk to Rack
- HCTS2000 MK2 – Bulk to Box
- Sort Connect – Bulk to Track

Sample Processing

Sarstedt – Sample Distribution System PVS 1625



Highlights:

The PVS 1625 is a tailor made automation system for pre- and post-analytical processing of samples. It is capable to handle most kind of rack and tray types. As an open system, it is complementary to any analytical platform or can be used independently.

Full function pre- and post-analytical system

- Modular configuration according to laboratory needs with: Loading platform / ID Module / Decapper / Recapper / Aliquoter / Sorter
- For all common tube types: 13 – 16 mm diameter, 65 – 100 mm length (without cap)
- Aliquoter for secondary tubes or multi-wells available

Sample Processing

Sarstedt – Sorter DC/RC 900 Flex



Highlights:

Pre- and post-analytics in one system:

- Processes any tube diameter from 11 to 16 mm
- Sample throughput up to 900 tubes/h
- Compatible with most racks or carrier types
- Online or offline operation
- Opens tubes with push caps, stoppers and screw caps
- Can be customised to sort by tube type, material (barcode) or test request
- Closes tubes with universal archiving caps
- Retrofitting of decapping or recapping module is possible
- Recapping with screw caps for Sarstedt tubes with 13 or 15 mm diameter

Sample Processing

Sarstedt – Sort Connect



The image shows the Sarstedt Sort Connect system, a modular laboratory workstation. It consists of several units: a BL 1200 unit on the left, followed by three SARSTEDT units, and a SORT CONNECT unit on the right. The units are white with blue accents and are mounted on wheels. Two inset images at the top show close-ups of the sorting mechanism and a robotic arm.

Highlights:

- Sort Connect – Bulk feeding of samples with universal connection to laboratory track systems
- Process optimization with pre sorting and separation of tubes not destined for testing on the track
- Modular design enables a range of configurations
- Sample accessioning
- Intelligent sample re-routing where test order is missing
- Freely configured sorting platforms
- Automatic distribution to all common makes of analyser racks or into bins
- Can handle a large number of different tube types

Sample Processing

T&O LabSystems – ATRAS Bulk Loader and Bulk/Rack Sorter – 4th generation

Dimensions: 900 – 2900 × 1150 – 1390 × 600 – 675 mm (w × h × d)

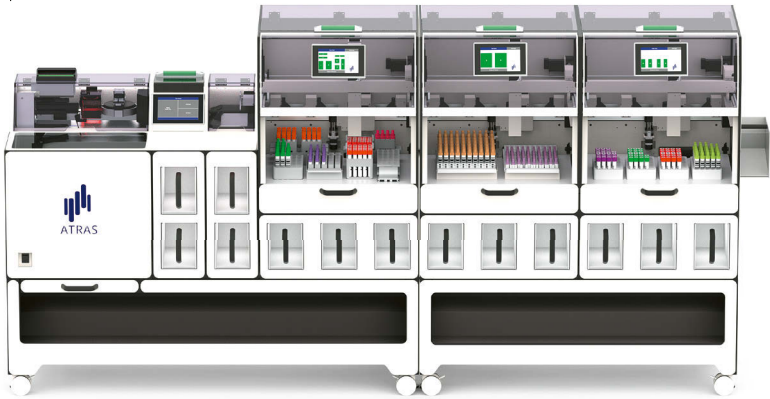
Sample throughput: 3000 samples/h

Channels: Combination of 2 to 22 bulk output bins, 1 to 3 rack sorting areas, 1 SIQ bin, InTrac Inlet & Outlet

Highlights:

The ATRAS can be configured to perfectly fit your workflow and your workload.

- Numerous output configurations for sorting into bulk bins, customer-specific racks and centrifuge buckets
- Fast bulk-to-rack sorting on a small footprint (3000 samples/h on 1.2 m²)
- Extendable by our intelligent sample transportation system InTrac



The image shows the T&O LabSystems ATRAS Bulk Loader and Bulk/Rack Sorter, a large, modular laboratory workstation. It is white with a blue logo on the front. The machine has multiple sections, including a bulk loader on the left and several rack sorting areas on the right. It is mounted on wheels and has a control panel on the left side.

Beckman Coulter installs the world's 100th DxA Automation System at Savona Hospital

Automation reimagines laboratory diagnostics service

San Paolo Hospital in Savona, Italy, has upgraded its Corelab-related analytical equipment. In collaboration with Beckman Coulter, the San Paolo diagnostic laboratory has installed Beckman Coulter's DxA 5000 Laboratory Automation System, an innovative, high-throughput automation system that rapidly increases test processing.

This latest installation of Beckman Coulter's DxA Automation System marks the 100th installation worldwide and the first in Liguria region of Italy. It will reduce manual processes, ensure consistent and rapid turnaround time, and correct pre-analytical treatment errors to help deliver a higher quality of each diagnostic test result.



DxA 5000 total laboratory automation system



DxA 5000 total laboratory automation system



San Paolo diagnostic laboratory, Savona - Italy

The DxA 5000 now makes it possible to streamline the entire pre-analytical process (access, identification, and tracking) by managing all incoming test tubes to the laboratory which has seen a surge in recent months. It features an intelligent automation system capable of prioritising each test tube according to the patient's specific needs – from emergency to routine. Thanks to this technology, it will now be possible to quickly handle the more than 15,000 tests reported daily by laboratories.

"San Paolo Hospital Diagnostic Laboratory chose to implement an intelligent system able to manage all incoming test tubes in the Corelab area, allowing for a significant improvement in the entire analytical process, starting from the phase with the highest criticality and impact (i.e. the pre-analytical phase)," explained Dr Lillo, Director of Clinical Pathology Laboratory (ASL 2) in Savona.

Dr Lillo added: "By minimising manual processes and guaranteeing the correct filtering treatment of non-conformities, this solution can ensure greater standardisation of activities and quality of diagnostic test results. Thanks to the ability to manage each individual test tube, using priority criteria configured during the design phase of the operational flows and based on the clinical needs of the patient rather than on rigidly programmed automatism, the system offers fundamental flexibility to the management of diagnostic dynamics."

As one of the first of its kind in Italy, particular attention was paid to the environmental sustainability of the automation system. As part of a commitment to sustainability, the DxA 5000 uses a solution to purify effluents that make it possible to eliminate the particular waste generated.

"In recent years, much attention has been paid to Laboratory Medicine and its importance in diagnostic and therapeutic pathways, as it has become clear that the health of every nation depends on the readiness of laboratories to analyse and react to emergencies. We are proud to provide Savona with the latest technology in line with the world's most advanced laboratories, as we believe it is essential to safeguard and improve the health of patients in the province of Savona and the whole of Liguria," emphasised Silvano Bertasini, General Manager, Southern Europe, of Beckman Coulter.

As ASL 2 General Manager, Marco Damonte Prioli, highlights, "This solution will make it possible to increase the number of examinations with the same amount of time and personnel, and ultimately speed up response times. This is a further measure put in place by ASL 2 as part of the process of continuous improvement of the company's responses to citizens' demands for healthcare."

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Automation

Automation

Beckman Coulter – DxA 5000

Sample throughput: up to 1,200 tubes/h



Highlights: The DxA 5000 helps laboratories meet the challenges of today's highly focused healthcare environment through a collection of patented innovations that deliver rapid and consistent turnaround time, provide a new level of comprehensive pre-analytical sample quality detection, and reduce the number of manual processing steps to significantly improve laboratory efficiency. Leveraging first-of-its-kind dynamic system software, the DxA 5000 utilizes Intelligent Routing to bring automated

patient-centric workflow to the laboratory. By understanding the tests requested, sample volume available and real-time analyzer capacity and status, the DxA 5000 continuously calculates the most expeditious route for every patient sample – both STAT and routine.

The DxA 5000 enhances Beckman Coulter's comprehensive portfolio of scalable solutions, and is a key component of its vision to bring workflow automation to laboratories of all sizes.

Automation

Beckman Coulter – DxA 5000 Fit

Sample throughput: up to 375 tubes/h

Highlights: At a time when up to 75 percent of lab errors take place pre-analytically, laboratories can benefit from comprehensive workflow automation. For this reason, Beckman Coulter developed the DxA 5000 Fit, an automation system that offers an improved approach to laboratory workflow by making intelligent automation accessible to labs of virtually any size. The DxA 5000 Fit leverages DxA 5000 technology, providing the benefit of intelligent automation to midsize labs in a compact footprint.



Automation

MolGen – PurePrep TTR



Dimensions: 1700 × 2030 × 1070 mm (d × w × h)
Sample throughput: 320

Highlights:

The PurePrep TTR is a high throughput, fully automated liquid handling device able to transfer samples accurately and consistently from tubes to 96 wells Deep Well microtiter plates at up to 320 samples per hour. Optimized for processing PurePrep TL+ samples, it decreases hands on time in large scale labs due to automated decapping and capping tubes and pipetting samples from tube to plate. It reduces contamination risks as the whole process is done in a closed cabinet. Sensors ensure safe and accurate processing while barcodes offer full track-and-trace of samples and plate positions throughout the workflow.

Automation

Promega – Maxprep Liquid Handler

Dimension:	1069 × 706 × 833 mm (w × h × d)
Weight:	98.6 kg
Sample throughput:	1 – 48 samples/hour; (2) 24 position Maxwell RSC 48/CSC 48 (RUO) or (2) 16 position Maxwell RSC/CSC (RUO) removable trays
Number of channels:	4
Assays:	Promega Maxwell Kits

- Highlights:** Complete nucleic acid purification system in combination with Maxwell RSC/CSC (RUO) and Maxwell RSC 48/CSC 48 (RUO)
- Automated Maxwell sample preparation
 - Hands-free nucleic acid extraction on the Maxwell RSC/CSC (RUO) or RSC 48/CSC 48 (RUO)
 - Post-extraction sample preparation for quantitation, normalization and amplification setup using the Maxprep Liquid Handler
 - UV decontamination and barcode scanner



Automation

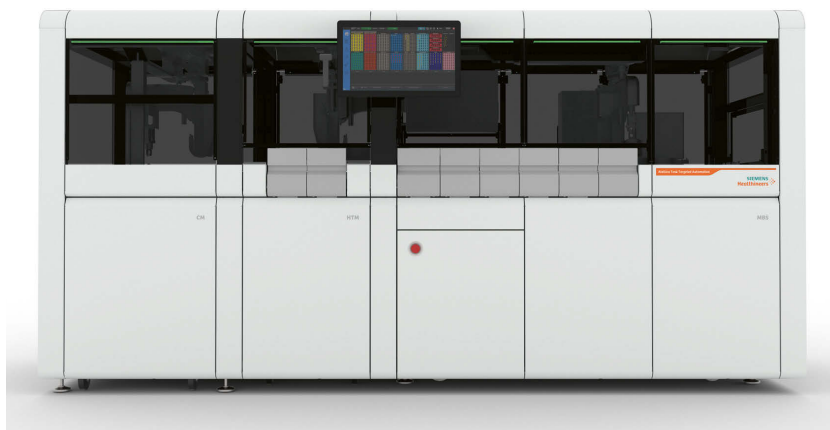
Siemens Healthineers – Aptio Automation

**Highlights:**

Aptio Automation combines intelligent technologies with Siemens Healthineers workflow expertise in adaptable, multidisciplinary track designs with intelligent routing, single-sample flow and primary tube sampling. Choose from a selection of pre- and post-analytical processing modules and automation-ready chemistry, immunoassay, hematology, hemostasis and specialty testing analyzers. Broad connectivity to third-party instruments, including molecular, is also supported. Our experts perform data-driven simulations, optimization modeling and more to design and monitor your solution for ongoing productivity.

Automation

Siemens Healthineers – Atellica Task Targeted Automation*

**Highlights:**

Atellica Task Targeted Automation* delivers one-touch sample preparation to streamline open, multidisciplinary workflows in smaller labs and hub-and-spoke laboratory networks. Customize functionality to automate up to 12 key tasks. Change predefined operating modes throughout the day. Expand, retrofit, and/or move the compact cabinet as needs change. Rely on our experienced workflow consultants, who have improved off-track processes as part of 2300+ automation projects, to streamline mixed testing in labs with limited space.

* Distributed by Siemens Healthcare Diagnostics Inc.
Product availability varies by country and cannot be guaranteed.

Automation

Automation

Siemens Healthineers – Atellica Integrated Automation



Highlights:

Atellica Integrated Automation provides integrated automation in 6 m². By integrating automation into Atellica Solution* chemistry and immunoassay analyzers with little or no additional footprint, labs can automate several tasks associated with chemistry and immunoassay testing. The system provides intelligent software, decapping, and independent control over samples with the system's revolutionary sample management, including management of samples throughout all phases of testing – from sorting through archiving.

*Product availability varies by country.

Automation

Sysmex Corporation – CN Track



Sample throughput: up to 1,000 samples/h

Highlights:

- Automate haemostasis work area by connecting up to three CN-Series or CS-5100 analysers to a track system
- Workflow automation covers sample handling, measurement and rerun
- Cap-piercing capability for extra safety, or process open tubes
- Modular and scalable configuration set-up allows for space-saving and adaptation to workflow needs
- Smart workflow supported by software solutions Extended IPU and Caresphere(TM)
- Cost-effective island solution requiring only a moderate investment
- Connectable to third-party TLA systems

Sample Logistics

Sarstedt – Tempus600 Vita



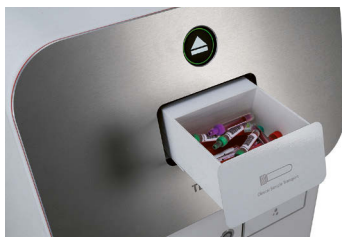
Highlights:

The Tempus600 Vita provides dedicated, direct and fast transport of blood samples to the laboratory without batching or manual packaging steps. The samples are placed in the insertion point of the Vita, transported via a pipeline \varnothing 25 mm and landed in the laboratory within seconds. Drastically reducing the total turnaround time for blood sample testing results in faster diagnosis and patient treatment.

- Handles up to 810 sample tubes/hour
- Compatible with all sample tubes: length 80 – 110 mm, diameter 12 – 18 mm
- Connectable to all lab automation, sorters and bulk loaders

Sample Logistics

Sarstedt – Tempus600 Quantit

**Highlights:**

The Tempus600 Quantit provides direct and fast transport of blood samples to the laboratory without batching or manual packaging steps. The samples are placed in a drawer, transported via a pipeline \varnothing 25 mm and landed in the laboratory within seconds. Drastically reducing the total turnaround time for blood sample testing results in faster diagnosis and patient treatment.

- Sending both high volume and urgent samples
- Samples are always oriented the right way by the system
- Compatible with all test tubes: length 80 – 110 mm, diameter 12 – 18 mm
- Connectable to all lab automation, sorters and bulk loaders

Sample Logistics

Sarstedt – Tempus600 Connection Module

**Highlights:**

The Tempus600 Connection Module is part of an automated one-touch handling system for sample tubes. The sample tubes are delivered from the ward to the laboratory through the dedicated point-to-point system. The sample tubes are gently slowed down before landing in the automation module. From here they are automatically transferred e.g. onto a track system.

- Compatible with all lab automation systems including sorters and bulk loaders
- A brake module can be fitted to increase sample throughput
- and failure-free tube loading.
- Up to 8 connections

Chemistry & Immunochemistry

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Immunochemistry
Immunoassays
Integrated Systems
Mass Spectrometry
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Urine Microbiology
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Predicting Covid-19 infection severity

Report: Mark Nicholls

Using mass spectrometry and chromatography techniques, UK researchers have developed an approach to predict infection severity among Covid-19 patients, as well as potential outcomes.

Diagnosis of Covid-19 is normally based on the qualitative detection of viral nucleic acid sequences. Although metabolic profiles are well suited to capture host state, many of the early metabolomics studies suffered from methodical weaknesses, stated doctoral researcher Ivayla Roberts from the Institute of Systems, Molecular and Integrative Biology in the Centre for Metabolomics Research at the University of Liverpool.

She said that many of the early metabolomics studies were either underpowered, measured only a restricted subset of metabolites, compared infected individuals against uninfected control cohorts that are not suitably matched, or did not provide a compact predictive model. Roberts outlined how the study team had created a well-powered study focused on 'untargeted metabolomics of Covid-19 patient serum' and validated their findings in a separate blind study on an additional 90 patients.

Metabolomic profiling

High resolution untargeted LC-MS (liquid chromatography-mass spectrometry) analysis was performed on patient serum using both positive and negative ionisation modes. A subset of 20 intermediary metabolites predictive of severity and outcome were selected based on univariate statistical significance and a multiple predictor Bayesian logistic regression model.

The predictors were selected for their relevant biological function and include deoxycytidine and ureidopropionate (indirectly reflecting viral load), kynurenine (reflecting host inflammatory response), and multiple short chain acylcarnitines (energy metabolism) among others.

The study was launched in 2020 in the earlier stages of the coronavirus pandemic. Roberts said: 'Our aim was to explore how metabolomic profiles can predict disease severity and outcome in infection. The demographic reflects known trends in Covid-19 infection with cases predominant in males and poor outcomes more likely in the elderly.' Delegates heard that 74% of patients

involved in the trial were eventually discharged. The expert explained that the trial started with 9,000 compounds and looked at ways of reducing the number of predictors, initially down to 900, and then down to 20 compounds, with a known biological function.

Inflammatory process

Roberts reported that some of these markers were found to be predictive of the inflammatory process in patients. She said pyrimidine metabolism changes in severe cases and poor outcome was likely to be an indicator of higher viral replication activity, while fatty acid beta oxidation indicates energy metabolism differences and are in higher levels in more severe cases of Covid-19 in patients and those with poor outcome. Another finding of the study was that the tryptophan/kynurenine degradation was a sign of host immune response.



With untargeted metabolomics of Covid-19 patient serum revealing potential prognostic markers of both severity and outcome, the researchers believe that following the findings of the study that prognostic tests based on the markers could help lead to improvement in the planning of Covid-19 patient treatment.

PROFILE

Ivayla Roberts is doctoral researcher at the Institute of Systems, Molecular and Integrative Biology in the Centre for Metabolomics Research at the University of Liverpool. Originally with a computer science background, she transitioned to molecular biology research. Her research interests are metabolomics, mass spectrometry and the application of statistical and machine learning computational approaches to metabolomics. Her PhD is focused on metabolomics in Covid-19.



Shutterstock/Yenyu Shih

Clinical Chemistry

Advanced Instruments – OsmoPRO MAX



Highlights: The OsmoPRO MAX uses innovative flow-through technology and the gold-standard freezing point depression method to revolutionize osmolality testing.

- Eliminates the need for consumables by pipetting samples directly from primary tubes and performing testing and cleaning within the device.
- Continuous loading and unloading removes the need to batch test, allowing staff to begin a test and walk away.

Experience unparalleled automation, workflow flexibility, and data management with the OsmoPRO MAX.

Clinical Chemistry

Beckman Coulter – AU5800 Series



Dimensions: 1260 × 2600 × 1580 mm (h × w × d)
Weight: 1,070 kg
Sample throughput: 2,000 – 9,800/h
Power consumption: 200 – 240 W

Highlights: The AU5800 series represents the highest throughput and fastest turnaround time in the Beckman Coulter AU chemistry analyzer family. With true random-access capabilities, the AU5800 series is available in four different scalable models, which are designed to meet the needs of the high-volume core hospital laboratories, as well as the ultra-high-volume commercial laboratory market segment.

- Maximize throughput with an intelligent sample management system that optimizes the processing of racks based on the tests ordered
- Ensure quick turnaround time for critical patients with STAT priority testing and auto-repeat of abnormal results

Clinical Chemistry

Beckman Coulter – Diazyme Human Kappa & Lambda FLC assays



Highlights: The worldwide incidence of patients with multiple myeloma is increasing due to population aging and growth, making early detection crucial. The levels of Kappa or Lambda Free Light Chains in serum are often abnormal in plasma cell disorders, such as multiple myeloma, Waldenström's macroglobulinemia, Lymphocytic neoplasms and AL amyloidosis. The Human Kappa and Lambda Free Light Chain (FLC) Assays are intended for the quantitative determination of Kappa Free Light Chain and Lambda Free Light Chain concentration in serum and can be integrated seamlessly on routine AU or DxC/AU analyzers negating the need for a separate platform or batch testing.

- Excellent performance and ease of use with liquid, ready-to-use reagents
- Provides automated screening of serum free light chains for Multiple Myeloma
- Delivers confidence with clinical diagnosis decisions for multiple myeloma
- Available on all Beckman Coulter Clinical Chemistry Analyzers, AU480/AU680, DxC700AU and AU5800 Series stand alone or connected to automation

Clinical Chemistry

Beckman Coulter – DxC 700 AU



Dimensions: 1300 × 1250 × 890 mm (h × w × d)
Weight: 460 kg
Sample throughput: 800 – 1,200/h
Power consumption: 200 – 240 W

Highlights: Designed to meet the needs of mid- to high-volume clinical laboratories, the DxC 700 AU reduces the number of test-processing steps by 30 percent due to its intuitive user-interface that allow operators to spend less time on daily tasks and more time producing the quality results that empower better decision-making.

- Simple, intuitive design of the DxC analyzer with the robust throughput capabilities of the AU analyzer
- Configurable with a total laboratory solution option to connect the DxC 700 AU with pre-analytical automation, immunoassay and clinical IT

Clinical Chemistry

Beckman Coulter – HbA1c Advanced



Highlights: The fully automated HbA1c Advanced assay enables mid- to high-volume laboratories to provide physicians with state-of-the-art precision and accuracy for diagnosing diabetes mellitus, monitoring long-term glucose control in individuals with diabetes mellitus and identifying patients who may be at risk of developing diabetes mellitus.

- National Glycohemoglobin Standardization Program (NGSP) certified/DCCT standardized and precise, providing clinically relevant results for diagnosing and monitoring diabetes
- Unaffected by common hemoglobin variants, minimizing misdiagnosis or missed diagnosis for patients with these blood conditions
- Easy to implement and integrate into the laboratory's existing chemistry testing practices, providing workflow efficiency
- Available in a single all-in-one kit for Beckman Coulter Dx C 700 AU analyzers

Clinical Chemistry

Beckman Coulter – Psychiatry Antipsychotic Assays



Assays: Clozapine, Risperidone, Aripiprazole, Olanzapine, Quetiapine, Paliperidone

Highlights: Antipsychotic drug monitoring provides healthcare professionals accurate and vital information. Testing of antipsychotic drugs can help manage patient therapy by providing greater clarity on the causes of treatment failure (i.e., adherence, drug resistance, drug-drug interactions and drug metabolism) and may help to establish the right medication at the right dose more quickly. Liquid, ready-to-use reagents for immediate and easy use to provide faster, actionable insights across the care continuum for patients with serious mental illness. Psychiatry antipsychotic assays integrate seamlessly into established workflows with no special training required and can be performed on any of Beckman Coulter's Clinical Chemistry AU and Dx C/AU systems.

Clinical Chemistry

ELITechGroup – Selectra Mach5



Dimensions: 1050 × 650 × 700 mm (w × h × d)
Weight: 110 kg
Sample throughput: 250-500 tests/hour (workflow dependent)
Assays: Selectra Reagents Line; Anaemia, Cardiac, Diabetes, General Chemistry, Specific Proteins, Special Chemistry

Highlights:

- Economical fully automated benchtop solution
- Efficiency through consolidation of routine and special testing
- Up to 65 barcode readable reagent positions
- Accessible sample area with 85 primary tube positions; 65 barcode readable
- Sustainability through optimized water consumption, LED-based photometric cartridges and reusable cuvette rotor
- Broad reagent menu and state-of-the-art analytical quality with Selectra Reagents

Clinical Chemistry

ELITechGroup – Selectra ProM



Dimensions: 1220 × 750 × 610 mm (w × h × d)
Weight: 95 kg
Sample throughput: Typically 180 tests/hour; Up to 266 ISE tests/hour (optional ISE)
Assays: Selectra Reagents Line; Anaemia, Cardiac, Diabetes, General Chemistry, Specific Proteins, Special Chemistry

Highlights:

- A fully automated integrated chemistry solution
- Effective use of consumables to reduce operational cost
- Reusable economical cuvette rotor with washer and optical systems
- 62 sample positions; 50 barcode readable for positive sample identification
- 32 cooled reagent positions for extended onboard stability
- A smart choice when growing into a midsized laboratory
- Board menu and state-of-the-art analytical quality with Selectra Reagents

Clinical Chemistry

ELITechGroup – Selectra ProS



- Dimensions:** 900 x 750 x 600 mm (w x h x d)
- Weight:** 75 kg
- Sample throughput:** Up to 133 tests/hour; Up to 266 ISE tests/hour (optional ISE)
- Assays:** Selectra Reagents Line; Anaemia, Cardiac, Diabetes, General Chemistry, Specific Proteins, Special Chemistry
- Highlights:**
- Compact automated system with a small footprint for efficiency
 - Reagent and sample handling combined within one module
 - 30 cooled reagent positions for extended onboard stability
 - 25 barcode readable sample positions
 - Effective use of consumables for cost-efficiency
 - The ideal benchtop workhorse for primary, STAT, or backup testing needs
 - Board menu and state-of-the-art analytical quality with Selectra Reagents

Clinical Chemistry

ELITechGroup – Selectra System Reagents



- Assays:** Anaemia, Cardiac, Diabetes, General Chemistry, Specific Proteins Et Special Chemistry, Ion Selective Electrodes, Consumables, Calibrators and Controls
- Highlights:**
- Ready-to-use, liquid stable, barcoded reagents to minimize errors
 - European design and manufactured; CE-IVD validated
 - Referenced and traceable to industry standards
 - Reproducible performance across the Selectra analyzers
 - Forms the foundation of consistent, accurate, and reliable results
 - Assay menu continues to broaden through ongoing development

Clinical Chemistry

Fujifilm Wako – Hyaluronic Acid LT Assay



- Assays:** Quantitative determination of Hyaluronic Acid (HA) based on the latex agglutination method
- Highlights:**
- Measurement of key marker for fibrotic stage of chronic liver diseases
 - Method applicable to general analyzers of clinical chemistry
 - Fast determination of hyaluronic acid in serum or plasma (10 min)
 - High precision

Clinical Chemistry

Fujifilm Wako – NEFA-HR(2) Assay



- Assays:** Quantitative determination of non-esterified fatty acids (NEFA) in serum
- Highlights:**
- Applicable to all common clinical chemistry analyzers and manual methods
 - Reliable results without interference from ascorbic acid and bilirubin
 - High linearity
 - Accurate, precise, simple and fast
 - Also applicable in veterinary samples

Clinical Chemistry

Fujifilm Wako – Autokit Total Ketone Bodies Assay



- Assays:** Quantitative determination of total ketone bodies [acetoacetate (AcAc) + 3-hydroxybutyrate (3-HB)] in serum or plasma
- Highlights:**
- Enzymatic colorimetric test, applicable to clinical chemistry analyzers
 - Recognition of pediatric metabolic disorders
 - Monitoring of liver transplants
 - Monitoring of diabetic patients
 - Reliable results without interference from ascorbic acid and bilirubin

Clinical Chemistry

Greiner – Vacuette CAT Serum Fast Tube



- Highlights:**
- Tube combines the speed of a plasma tube with the properties of serum
 - Shorter preanalytical process
 - Full coagulation in just 5 minutes
 - Improved turnaround time
 - Blood collection can be performed shortly before transport of the blood samples
 - Quicker lab results with on-site analysis

Clinical Chemistry

Mindray – BS-240Pro Clinical Chemistry Analyzer



- Dimensions:** 860 × 550 × 660 mm (w × h × d)
- Weight:** 115 kg
- Sample throughput:** Constant 240 tests/h, up to 400 tests/h with ISE
- Highlights:**
- Constant throughput with 240 photometric tests/h, up to 400 tests/h with ISE module
 - Large and flexible capacity: up to 100 sample/reagent positions (50 fixed + 50 interchangeable)
 - Reduced reagent consumption: 100 µl minimum reaction volume
 - Intelligent probe with liquid level detection, V&H collision detection, inventory monitoring, reagent pre-heating and optional clog detection
 - Grating photometer with 12 wavelengths, dual-diaphragm and dual-lens
 - HbA1c smart-sampling function, automatic hemolysis

Clinical Chemistry

Mindray – BS-430 Clinical Chemistry Analyzer



- Dimensions:** 1050 × 1150 × 720 mm (w × h × d)
- Sample throughput:** Constant 420 tests/h, up to 625 tests/h with ISE
- Highlights:**
- Large loading capacity: 92 reagent positions, 102 sample positions
 - Whole blood HbA1c: supports HbA1c onboard hemolysis
 - Advanced software platform: auto QC, auto reflex, substrate depletion & enzyme linearity extension, etc.
 - Quick start-up time: 5 minutes system initialization, 1 minute system wake-up
 - Low reagent consumption: minimal 100µl reaction volume

Clinical Chemistry

Mindray – BS-600M Chemistry Analyzer



- Dimension:** 1380 × 1200 × 860 mm (w × d × h)
- Throughput:** 600 photometric tests per hour, up to 800 tests per hour with ISE
- Number of Parallel Tests:** up to 77 photometric tests + 3 ISEs + 3 serum indices
- Highlights:** BS-600M is a powerful yet efficient chemistry analyzer. It can deliver a maximized throughput in a minimal footprint of 1.2 m², helping laboratories perform more tests in a smaller space and with a shorter TAT. It also features continuous sample loading, whole-blood HbA1c function, STAT Priority, integrated ISE module. With excellent sigma metric performance, BS-600M helps deliver reliable chemistry test results.

Clinical Chemistry

Mindray – BS-800M Clinical Chemistry Analyzer



- Dimensions:** 1600 × 1200 × 1015 mm (w × h × d)
- Weight:** ≤ 450 kg for analytical unit, 150 kg for SDM
- Sample throughput:** Constant 800 tests/h, up to 1,200 tests/h with ISE
- No of parallel samples:** up to 68 on-board chemistry tests
- Highlights:**
- Modular system: flexible connection
 - Whole Blood HbA1c, automatic hemolysis
 - Accurate: high pipetting precision, coolant circulation reagent refrigeration, direct solid-heating system, effective mixing unit and intelligent clot detection
 - Innovative: reagent bubble detection, dot light source and water quality Monitoring
 - Cost-efficient: large capacity with SDM racking system, 100 µl minimum reaction volume, one key STAT, Onboard reagent loading and unloading
 - Original calibrators with traceability



Do More With Less. Osmolality Testing Just Got Easier.

Introducing the NEW OsmoPRO® MAX Automated Osmometer

- Automated pipetting directly from primary tubes reduces errors
- Continuous loading improves result turnaround time
- Testing without plastic cups minimizes user intervention and frees up tech time
- Onboard video instruction enhances ease of use
- Automatic peer group data upload ensures effortless compliance

Simply begin a test and walk away!



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Clinical Chemistry

Sarstedt – S-Monovette GlucoExact



- Highlights:**
- The S-Monovette GlucoExact stands for precise determination of glucose and stabilizes the glucose concentration immediately for up to 96 hours at room temperature.
 - It meets the Gestational Diabetes Guidelines of the German Diabetes Association (DDG) and the German National Disease Management Guidelines (NVL) for type 2 diabetes.
 - Gold standard for glucose determination.

Clinical Chemistry

Sarstedt – S-Monovette Lithium Heparin Gel⁺



- Highlights:**
- Laboratory results influence therapy decisions by 70 to 85 percent. For both the doctor and the patient, it is important that laboratory results are incorporated into therapy decisions quickly and without compromise.
 - The S-Monovette Lithium Heparin Gel⁺ guarantees reliable sample quality at a reduced TAT: The centrifugation time is reduced by up to 50 percent which enables faster therapy decisions. Also the equipment utilization is optimized at an improved workflow.

Clinical Chemistry

Sarstedt – S-Monovette – Venous Blood Collection



- Highlights:**
- S-Monovette – the Revolution in blood collection. A blood collection system that combines two blood collection techniques – the aspiration technique and the vacuum technique.
 - The S-Monovette is suitable for all vein conditions and achieves an optimal sample quality, thereby producing the best results.
 - The aspiration technique is a gentle technique for routine blood collection. Using the vacuum technique, a "fresh" vacuum is always available.
 - Suitable for all ages, from young to old, the S-Monovette is as individual as your patients.

Clinical Chemistry

Sarstedt – Microvette – Capillary Blood Collection



- Highlights:**
- Flexible capillary blood collection systems such as the Microvette – tailor-made to the individual needs of each patient group.
 - Different patient groups and collection techniques require different collection systems.
 - With a nominal volume range from 100 – 500 µl, the capillary blood collection systems product range is one of the most extensive in the entire market.
 - Depending on the requirements, our portfolio includes Microvettes with conical or round bottom inner tubes and the option for various different collection techniques, end-to-end or with a collection rim.

Immunoassays

Beckman Coulter – Access Procalcitonin (PCT)



Highlights: Access PCT aids physicians in the risk assessment of critically ill patients for progression to severe sepsis or septic shock. With results you can trust in approximately 20 minutes. Access PCT allows healthcare providers to integrate procalcitonin testing into their routine sepsis workups on core laboratory analyzers as a primary or reflex test programmed through Beckman Coulter's REMISOL Advance middleware. Such integration simplifies laboratory workflow and optimizes institutional sepsis management protocols while reducing the operation expense of maintaining costly dedicated instrumentation.

Access PCT provides confidence in results and improved patient care through:

- > 95 percent overall agreement with predicate method for accurate assessment of patients at risk of progression to severe sepsis and septic shock
- State-of-the-art sensitivity and low-end precision
 - 20 percent CV LoQ of 0.02 ng/mL
 - CV ≤ 8 percent at concentrations ≥ 0.150 ng/mL
- Minimal sample draw of 35 µl pick-up volume

Immunoassays

Beckman Coulter – Access 2 Immunoassay System



Dimensions: 500 × 900 × 610 mm (h × w × d)
Weight: 91 kg
Sample throughput: up to 100/h
Assays: > 50 pre-programmed, bar-coded immunoassay methods

Highlights: Designed to have the robustness of a reference-lab immunoassay analyzer in the convenient size of a benchtop instrument, the Access 2 delivers quality, reliability and speed without sacrificing valuable floor space. The Access 2 features an extensive immunoassay diagnostic-testing menu of more than 50 tests including AMH and TSH (3rd IS).

- Standardized reagent and assay testing menus can be used across all immunoassay platforms to drive laboratory efficiency and provide consistent results across healthcare networks

FUJIFILM
 Value from Innovation

Wako

NEW GENERATION of β -D-GLUCAN TESTING – LIMUSAVE MT-7500

EARLY DETECTION OF INVASIVE FUNGAL INFECTION

- + Single test format for fast on-site measurements
- + Early detection of invasive infection by *Candida sp.*, *Aspergillus sp.* and *Pneumocystis jirovecii*



For more product information, please contact us at diagnostics_wkeu@fujifilm.com
www.wako-chemicals.de

Immunoassays

Beckman Coulter – UniCel Dxl 800 Access Immunoassay System



Dimensions: 1700 × 1710 × 970 mm (h × w × d)
Weight: 630 kg
Sample throughput: up to 400 tests/h
Assays: > 50 preprogrammed, bar-coded immunoassay methods

Highlights: The UniCel Dxl 800 includes proven chemiluminescent technology and one of the highest throughput systems available on the market. High volume labs can decrease process steps and improve turnaround time by simplifying and automating immunoassay testing to a single platform.

- Beckman Coulter's immunoassay instruments have common software interfaces and consumables across the whole family, enabling operators to train more quickly, minimize inventory, and ensure consistency in results across platforms

Immunoassays

DRG Instruments – DxDATA



Dimensions: 610 × 410 × 520 mm (h × w × d)
Weight: 35 kg
Number of Channels: 8

Highlights: DxDATA is an automated chemiluminescence enzyme-linked immunosorbent assay (CLIA) and magnetic particle separation Analyzing System that uses indirect chemiluminescence based on a chemiluminescent substrate (APS-5) and alkaline phosphatase for qualitative or quantitative testing. It offers a wide range of applications, and it can aid the detection of analytes in human serum, plasma, and whole blood samples for a variety of diseases, like TBI (Traumatic Brain Injury), COVID-19, Cytokine Storm, Inflammation, Cardiovascular & Cerebrovascular Disease, Diabetes, and many more.

Immunoassays

Beckman Coulter – Access High Sensitivity Troponin I (hsTnI)



Highlights: The Access hsTnI assay provides the advanced diagnostic capabilities necessary to aid physicians in diagnosing at risk patients for acute myocardial infarction earlier and discharging non-acute patients faster. In comparison to standard troponin assays, high-sensitivity assays demonstrate significantly improved precision at and below the 99th percentile upper reference limit (URL), allowing better discrimination of small differences in troponin values between serial measurements.

- Aids in rapid diagnosis of AMI and confidently excludes AMI in as little as one hour after patient presentation
- Provides optimal precision at concentrations about 10x lower than previous generation troponin assays. Improved precision at the clinical cutoff reduces chance of misclassifying patients in the Emergency Department

Immunoassays

Fujifilm Wako – Autokit CH50 Assay



Assays: Quantitative determination of total complement activity (CH50) in human serum

- Highlights:**
- In vitro diagnostic homogeneous liposome immunoassay
 - Applicable to automated analyzers
 - Precise and accurate
 - Stable, extended calibration stability
 - Good correlation with Mayer's hemolytic method

Immunoassays

Fujifilm Wako – μ TASWako i30



Dimensions: 520 × 550 × 600 mm (w × h × d)
Weight: 71 kg
Sample throughput: 25 tests/h
Assays: AFP/AFP-L3, DCP

- Highlights:**
- Electrokinetic Analyte Transport Assay (EATA)
 - High sensitive fluorescence detection
 - Assay precision less than 3% CV for AFP-L3
 - Increased sensitivity of liver cancer (HCC) detection by combined use of AFP, AFP-L3 and DCP
 - Unique system to calculate the GALAD score (Gender, Age, AFP-L3, AFP, DCP) for outstanding performance regarding early HCC recognition
 - Improved chance of detecting HCC early during surveillance of patients at risk

Immunoassays

Mindray – CL-900i Chemiluminescence Immunoassay Analyzer



Dimensions: 860 × 740 × 560 mm (w × h × d)
Weight: 130 kg
Sample throughput: up to 180 tests/h
Reagent Positions: 15
Assays: 79

- Highlights:**
- High throughput up to 180 tests per hour
 - One of the smallest benchtop CLIA analyzer
 - Reagent capacity with 15 positions
 - Single cuvette system
 - Dual substrate and automatically switch the empty one
 - Intuitive software interface, easy access to all functions
 - Continuously loading of Intelligent consumables management

Immunoassays

Mindray – CL-1000i/1200i Chemiluminescence Immunoassay Analyzer



Dimensions: 1400 × 760 × 600 mm (w × h × d)
Weight: 225 kg
Sample throughput: up to 180 tests/h
Reagent Positions: 25
Assays: 79

- Highlights:**
- High throughput up to 180 tests per hour
 - Benchtop analyzer
 - Large reagent capacity with 25 positions
 - Sample rack system
 - STAT lane
 - Single cuvette system
 - Dual substrate and automatically switch the empty one

Immunoassays

Mindray – CL-2000i Chemiluminescence Immunoassay Analyzer



Dimensions: 2150 × 1020 × 1200 mm (w × h × d)
Weight: 750 kg
Sample throughput: up to 240 tests/h
Reagent position: 36
Assays: 79

- Highlights:**
- up to 240 tests per hour
 - Measurement principle: enhanced ALP-AMPPD method
 - Reagent carousel: 36 reagent positions with non-stop refrigerating
 - Sample handling: up to 300 samples can be loaded in one batch, sample loading and offloading continuously by sample racks, fast prioritizing STAT samples
 - Continuously loading of reagents, substrate, cuvettes, wash buffer and waste bags

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Immunoassays

Mindray – CL-6000i Chemiluminescence Immunoassay Analyzer



Dimensions:	2150 × 1166 × 1300 mm (w × h × d)
Weight:	580 kg
Sample position:	up to 480 tests/h
Reagent position:	36
Assays:	79

- Highlights:**
- Industrial highest throughput: up to 480 tests per hour
 - Measurement principle: enhanced ALP-AMPPD method
 - Reagent carousel: 36 reagent positions with non-stop refrigerating
 - Sample handling: up to 300 samples can be loaded in one batch, sample loading and offloading continuously by sample racks, fast prioritizing STAT samples
 - Continuously loading of reagents, substrate, cuvettes, wash buffer and waste bags
 - Zero daily maintenance

Immunoassays

Mindray – CL-8000i Chemiluminescence Immunoassay Analyzer



Dimensions:	2305 × 1150 × 1180 mm (w × h × d)
Weight:	789 kg
Sample throughput:	up to 500 tests/h
Reagent position:	36
Assays:	79

- Highlights:**
- Industrial leading throughput: up to 500 tests per hour
 - Sample handling: up to 300 samples can be loaded in one batch, sample loading and offloading continuously by sample racks, fast prioritizing STAT samples
 - Improving test result reliability and operational efficiency with new technologies such as Vortex-Ultrasound Mixing and FS-Sampling
 - Easy-to-use design: Ready-to-use calibrators/control, dedicated reagent management screen etc.
 - Flexible scalability: can integrate with BS-2800M

Immunoassays

Siemens Healthineers – Immulite 2000 XPi Immunoassay System



- Highlights:** Providing multiple tests on a single, easy-to-use analyzer – including allergy, specialty, and routine immunoassay testing – the IMMULITE 2000 XPi Immunoassay System makes it simple to scale your capabilities without disrupting regular day-to-day operations.
- Product availability varies by country.

Immunochemistry

Sarstedt – ELISA Plates / Micro test plates for immunoanalytics



- Highlights:** One of the analyses most commonly used is the Enzyme-Linked Immunosorbent Assay (ELISA). With this method, even the smallest concentrations of a range of substances (proteins, peptides, antibodies, hormones etc.) can be detected and quantified from complex solutions.

Integrated Systems

Mindray – M1000 Chemistry and Immunoassay Integrated System



- Dimension:** CC: 2450 × 1150 × 1300 mm (w x h x d)
IM: 2305 × 1150 × 1180 mm (w x h x d)
- Throughput:** CC: 2,000 tests/h, up to 24,00 tests/h with ISE
IM: up to 500 tests/h
- Number of Parallel Tests:** CC: up to 69 tests
IM: up to 36 tests
- Highlights:** M1000 is a chemistry and immunoassay integrated system for large laboratories, with high efficiency and accuracy. It supports up to 600 samples continuous loading at one time, and creative sample auto de-capping function. It adopts innovative technologies like 360-degree sample barcode scanning, PDR optical platform, HIL.L SI solution, timely environment pressure and CO2 monitoring, VU-Mix and FS-sampling, whole blood HbA1c with auto sample increment tests, delivering high efficiency and reliable patient reports in a short TAT.

Integrated Systems

Mindray – SAL 6000 Modular System



- Sample throughput:** Chemistry up to 1,200 tests/h (including ISE),
Immunology up to 240 tests/h
- No of channels:** 68 (Chemistry) / 36 (Immunology)
- Assays:** 132
- Highlights:** The SAL 6000 is a high performance chemistry and immunology integrated system, combining BS-800 chemistry analyzer, CL-2000i immunology analyzer and the SPL 1000 sample process line. The system offers a large capacity of 300 samples with continuous loading by racks. It supports onboard sample pretreatment for HbA1c testing.

Integrated Systems

Mindray – SAL 9000 Modular System



- Sample throughput:** Chemistry up to 2,200 tests/h (including ISE),
Immunology up to 480 tests/h
- No of channels:** 67 (Chemistry) / 36 (Immunology)
- Assays:** 132
- Highlights:** The SAL 9000 is a high performance chemistry and immunology integrated system, combining BS-2000 chemistry analyzer, CL-6000i immunology analyzer and the SPL 1000 sample process line. The system offers a large capacity of 300 sample positions and supports non-stop continuous sample loading. It offers a large capacity of 600 samples with continuous sample loading by racks, dedicated STAT channel, and sample tray direct loading and offloading.

Integrated Systems

Siemens Healthineers – Atellica Solution



- Highlights:** Seamlessly integrating immunoassay and clinical chemistry analysis— Atellica Solution analyzers allow for over 300 customizable configurations for unmatched flexibility, independent control over every specimen, including STAT and precious samples, integrated automation (Atellica Integrated Automation) of manual tasks (e.g. decapping), and a redesigned user interface that's as intuitive and easy to use as a smartphone. Experience workflow excellence combined with data-driven insights to enhance overall clinical value – in just 6m² .
Product availability will vary by country.

Integrated Systems

Siemens Healthineers – Dimension EXL 200 Integrated Chemistry System

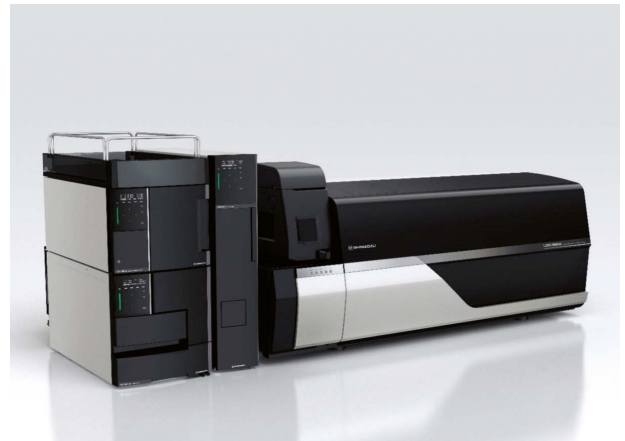


Highlights: Dimension EXL 200 Integrated Chemistry System integrates chemistry and immunoassay testing in a compact system ideal for smaller-sized laboratories. Consolidate testing with a broad menu, including cardiac, thyroid, and automated-pretreatment immunosuppressive drug assays. Transition easily and correlate results between core and satellite labs using the partnership of the Atellica Solution and the Dimension EXL 200 Integrated Chemistry System.

Product availability varies by country.

Mass Spectrometry

Shimadzu – LCMS-8060NX CL (IVD) / LCMS-8060 NX (RUO)



Dimensions: 1180 × 540 × 610 mm (w × d × h)

Weight: 140 kg

Highlights: The LCMS-8060NX delivers high sensitivity and ultra fast analysis speed together with robustness and high flexibility. Developed on the base of the LCMS-8060, it incorporates a newly designed ion source IonFocus to boost ion transfer to the mass spectrometer and increase even more the robustness of the system for complex biological matrices in daily analysis. The system perfectly suits to high sensitivity applications like steroids, catecholamines, and metabolomics studies in clinical research.

Mass Spectrometry

Shimadzu – CLAM-2030 CL (IVD) / CLAM-2030 (RUO)

Dimensions:

670 × 700 × 1190 mm (w × d × h)

Weight:

185 kg

Assays:

Immunosuppressants, vitamin D, steroids, antiepileptics, antiarrhythmic drugs, amiodarone, drugs of abuse, antidepressants, neuroleptics



Highlights: CLAM-2030 provides users seamless integration of automated sample preparation with LC-MS/MS to improve data quality, sample throughput, laboratory efficiency and safety. Simple workflows allow users to go from blood collection tubes to results without any additional sample handling. Each sample is processed successively in parallel, to optimize instrument usage. Easy to access software for management of reagents, calibration curves, control samples and maintenance ensure reliability and quality of results.

Mass Spectrometry

Shimadzu – LCMS-8060 CL (IVD) / LCMS-8060 (RUO)



Dimensions: 1180 × 540 × 610 mm (w × d × h)
Weight: 140 kg

Highlights: The LCMS-8060 CL delivers the highest sensitivity and fastest analysis speed of any LCMS on the market today. A newly developed UF-Qarray boosts ion intensity but suppresses noise. By improving the ion sampling device, the ion guide, and vacuum efficiency, Shimadzu has achieved an unprecedented sensitivity in quantitative analysis by LC/MS/MS while keeping high robustness for daily analysis.

Mass Spectrometry

Shimadzu – LCMS-8050 CL (IVD) / LCMS-8050 (RUO)



Dimensions: 1180 × 540 × 610 mm (w × d × h)
Weight: 140 kg

Highlights: Triple Quadrupole Mass Spectrometry is the method of choice for quantification of trace-level analytes in complex samples for a variety of applications including clinical research, forensic, toxicology, pharmacokinetics. Combined with our world-leading UHPLC systems, and maintaining Shimadzu's proprietary ultrafast technologies (UFMS), which include high-speed MRM transitions, MS/MS acquisition, and ultra-high speed polarity switching, the LCMS-8050 can dramatically improve analytical throughput.

Mass Spectrometry

Shimadzu – LCMS-8045 CL (IVD) / LCMS-8045 (RUO)

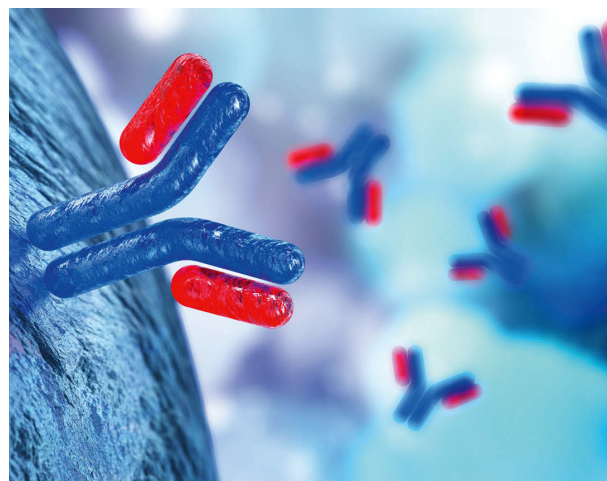


Dimensions: 1180 × 540 × 610 mm (w × d × h)
Weight: 140 kg

Highlights: The LCMS-8045 offers the proven high sensitivity, high speed and robustness of Shimadzu's UFMS series to provide highly reliable data for applications that demand the sensitivity and speed of a mass spectrometer, such as for simultaneous analysis used in the clinical research field. Due to the heated-ESI probe and UFsweeper II collision cell, it offers the highest sensitivity in the middle-range class (UFsensitivity).

Mass Spectrometry

Shimadzu – nSMOL Antibody BA Kit



Assays: 100

Highlights: nSMOL is a proprietary, innovative technique from Shimadzu, enabling selective proteolysis of the Fab region of monoclonal antibodies. The nSMOL Antibody BA Kit is a ready-to-use reagent kit for collecting monoclonal antibodies from blood or other biological samples using immunoglobulin collection resin, and then performing selective proteolysis of the Fab region of these antibodies via FG beads Trypsin DART. Fab-derived peptide fragments produced by limited digestion can then be quantified via LC-MS/MS.

Electrophoresis / Chromatography

Shimadzu – HPLC/UHPLC (RUO or CE-IVD)



Highlights: Shimadzu is offering a wide range of solutions in liquid chromatography starting from standard HPLC systems to high end UHPLC systems including compact configurations. Available with several options for columns switching, pre-concentration, online SPE, etc, the systems are also well recognized for coupling with highly sensitive detectors like fluorescence, radio-activity, electrochemical, or mass spectrometry. To increase throughput with mass spectrometers, Shimadzu offers the Nexera-MX configuration.

Plasma Protein Testing

Siemens Healthineers – BN II System



Sample throughput: Effective: approx. 130 tests/h
depending on the assay mix
Nominal: 225 tests/h

Assays: More than 70 programmed assay protocols

Weight: Analyzer: 150 kg

Highlights: The BN II System is an easy-to-use, reliable nephelometric analyzer that offers a broad range of protein assays.

- Connectivity options to Aptio Automation and FlexLab Automation solutions
- Fully automated assay processing: from reading of sample tube bar codes to reporting of results
- Routine and specialty assay consolidation
- Innovative markers including monoclonal kappa and lambda free light chains (FLC), cystatin C, beta-trace protein (BTP), and carbohydrate-deficient transferrin (CDT)

Plasma Protein Testing

Siemens Healthineers – Atellica NEPH 630 System



Sample throughput: Effective: approx. 65 tests/h
depending on the assay mix
Nominal: 100 tests/h

Assays: More than 70 programmed assay protocols

Weight: Analyzer: 115 kg

Highlights: The Atellica NEPH 630 System is a mid-volume dedicated nephelometric analyzer that simplifies lab operations in specialty protein testing.

- Innovative assays including free light chains (FLC), carbohydrate-deficient transferrin (CDT), and beta-trace protein (BTP)
- Sophisticated antigen-excess pre-reaction protocols provide more accurate results and fewer repeats

Not available for sale in the US. Product availability may vary from country to country and is subject to varying regulatory requirements

Drug Testing

Siemens Healthineers – Viva-ProE System



Sample throughput: up to 133 EMIT tests per hour with two reagents;
up to 65 EMIT tests per hour with three reagents

Weight: approx. 93 kg / 205 lbs
(excl. monitor arm and panel PC)

Highlights: A flexible approach to dedicated drug-testing analysis, the Viva-ProE System provides greater ease of use, workstation efficiency, and a full drug-testing menu, all in one powerful benchtop system that is supported by unrivaled Syva experts. The system offers peltier cooling for efficient reagent use, can run up to 133 Emit tests per hour and 12 Emit assays simultaneously; 120 tests can be programmed with 10 open test channels. Results available within 10 minutes of processing.

Urine Screening

Sarstedt – Urine V-Monovette, Monovette, tubes & containers



Sarstedt NFT Urine collection system

The first enclosed urine collection system from Sarstedt for hygienic and needle-free sample collection (NFT = Needle Free Transfer).

- Highlights:**
- A needle is no longer needed – the Urine-Monovette easily pierces the innovative NFT membrane for closed urine transfer
 - No risk of needlestick injury
 - No sharps container needed to dispose of the NFT products
 - Available as Urine Cup NFT and 3-litre Urine Container NFT

Urine Microbiology

Greiner – Vacuette Urine CCM Tube



- Highlights:**
- For use in microbiology testing
 - Stabilizes sample for up to 48 hours at room temperature
 - Easily soluble powder additive
 - Immediate stabilization of sample after gentle mixing

Rapid Testing

Sarstedt – Blood gas Monovette and capillaries



- Highlights:**
- Blood gas collection systems for arterial, venous and capillary sampling with the smallest sample volumes and Ca²⁺ balanced heparin.
 - The Ca²⁺ balanced heparin in spray-dosed droplet form enables rapid and optimal mixing of blood and anticoagulants.
- The Blood gas Monovette is available in 1 and 2 ml options and has been designed for venous and arterial blood collection. The blood gas capillaries offer a nominal volume range of 100 – 175 µl.

CSF and Alzheimer's Disease Diagnostics

Sarstedt – CSF false-bottom tube



- Highlights:**
- Excellent recovery thanks to low-binding properties
 - Routine-use primary container for sample collection and automated analytics
 - Patient-friendly sample volume of 2.5 ml
 - Cost-effective alternative to PET scan
 - Reliable pre-analytics for optimum sample integrity

The new CSF false-bottom tube (art. no.: 63.614.625) meets the requirements for reliable pre-analytics in Alzheimer's disease diagnostics. The tube combines optimum low binding properties with standardized 75 × 13 mm dimensions for ideal handling and processing of this very special sample material. Thanks to the special low binding property, the high-quality material prevents the binding of Alzheimer's disease biomarkers and allows for maximum recovery in the sample material for reliable dementia diagnostics. The CSF false-bottom tube is recommended as standard in the pre-analytical consensus protocol and has already been validated for the new immunoassay generation from Roche.



Perfect interaction for imaging

Together with its subunits, iMScope QT provides the only system that integrates the whole workflow of mass spectrometry imaging. From sample preparation to image acquisition to data analysis: It combines top performance with ease of use and allows great flexibility in application including the exchangeable MALDI source.

Histological and MSI analysis are combined thanks to an integrated microscope. The software guides the user through every step and leads easily to high resolution, speed and accuracy.



Subunits
iMLayer
iMLayer AERO
IMAGEREVEAL



Research Use Only

Shimadzu – MALDImini-1



Dimensions: 309 × 385 × 320 mm (w × d × h)

Weight: 25 kg

Highlights: With its simple configuration and compact size, it is possible to install the MALDImini-1 in places where mass analysis devices could not previously be used. Through ingenious engineering and innovation its footprint has been reduced to the size of a piece of paper. The MALDImini-1, with its MS3 capabilities, can be used in research facilities, educational organizations and private structures involved in biomedical science or which carry out research on the structure of glycans.



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Hematology

Blood Cell Counter
Integrated Hematology
Microscopy
Hemostaseology



Blood Cell Counter

Beckman Coulter – DxH 690T

Dimensions:

755.7 × 1740 × 828 mm (w × h × d)

Weight:

254 kg

Sample throughput:

up to 100 samples/h

Power consumption:

520 W*



Highlights: The DxH 690T offers all the benefits of Beckman Coulter's flagship DxH 900 hematology analyzer to mid-size labs, including an industry leading 93% first pass yield and the Early Sepsis Indicator. The only FDA-cleared hematology biomarker for sepsis, the ESId measures monocyte distribution width to support early detection of life-threatening sepsis for patients in the ED.

- Automate QC processes to complete tasks with 75% fewer steps, and 40% faster software response time, than previous generation mid-volume hematology analyzers
- Apply extensive sample-specific rule-writing capabilities to automate analysis and standardize SOP sample handling – without the need for middleware

Blood Cell Counter

Beckman Coulter – Early Sepsis Indicator



Highlights: A first-of-its-kind, hematology-based cellular biomarker, the FDA cleared Early Sepsis Indicator is designed to help emergency department physicians identify patients with sepsis or at risk of developing sepsis within 12 hours of ED presentation.

- Results are automatically reported as part of a routine complete blood count (CBC) with differential for adult emergency department patients
- Combined with clinical signs and symptoms and WBC results, the Early Sepsis Indicator can inform critical decision making in adults in the emergency care setting

Blood Cell Counter

Greiner – Vacuette EDTA Tube



- Highlights:**
- Vacuette K2E K2EDTA tubes and K3E K3EDTA tubes are used for testing whole blood in haematology.
 - Evacuated tubes for a clearly defined quantity of blood sample material
 - Nominal volume between 2 and 9 ml according to the application
 - Made out of virtually unbreakable PET plastic
 - Selected tubes are available as premium tubes with screw thread for a safe sample transfer and easy opening. Several premium tubes can also be ordered with transparent labels.
 - The colour coded caps fit the international standard according to ISO 6710.

Blood Cell Counter

Mindray – BC-700 Series Hematology Analyzers with ESR



Sample throughput: CD (CBC+DIFF): 80 t/h CD + ESR: 40 t/h

- Highlights:**
- Revolutionary hematology analyzers integrated with ESR measurement function.
 - Adopting the high-end SF-Cube 3D analysis technology, delivering extraordinary performance in reliable counting and differentiation of abnormal samples.
 - The innovative parameter – optical PLT-H in every CBC & DIFF test, delivering reliable platelet counts event with interference.

Blood Cell Counter

Mindray – BC-6800Plus Auto Hematology Analyzer



Sample throughput: CBC+DIFF 200 t/h, RET 120 t/h, BF 40 t/h

Highlights: BC-6800Plus is currently the fastest standalone hematology analyzer in the world, which can process 200 CBC+DIFF samples/h and 120 RET samples/h. Notably, the ERP channel can provide more research parameters such as MChR and HDW, which can help early diagnosis of various types of anemia.

Blood Cell Counter

Mindray – BC-6200/6000 Auto Hematology Analyzer



Sample throughput: up to 110 t/h

Highlights:

- Unique SF Cube 3D cellular analysis technology for WBC 6-part diff count including IMG
- NRBC in every CBC+DIFF result
- Automatic rerun & reflex in case of abnormal results
- BC-6200 with RET channel can provide optional Reticulocytes and PLT-O parameters and perform automatic 8-times PLT-O counting for thrombocytopenia samples.

A New Era in Digital Morphology

MC-80

Automated Digital Cell Morphology Analyzer

- Clearer images to capture abnormalities in details
- More intelligent algorithm to ensure reliable cell pre-classification
- Industry-leading throughput of **60 slides/hour**
- Total hematology solution with Mindray CAL 8000 Line



Blood Cell Counter

Sarstedt – S-Monovette ThromboExact – Pseudothrombocytopenia



Highlights: The S-Monovette ThromboExact has been developed especially for anticoagulant-induced pseudothrombocytopenia. Generally, pseudothrombocytopenia is caused by thrombocyte aggregation. Early detection avoids the consequences of a thrombocytopenia misdiagnosis.

This blood collection tube is validated internally by Sarstedt and externally at the University Hospital Rostock, Germany.

Blood Cell Counter

Sarstedt – Microvette APT – for routine capillary blood analysis



Highlights:

- Capillary blood collection system specially developed for automated processing in blood count analysis systems
- Greater flexibility thanks to two collection techniques – precise filling volume with end-to-end capillary (250 µl) and entire collection rim (250 – 500 µl) for optimum mixing with a K2 EDTA preparation
- Meets all the important processing requirements for a primary container and has a leak-proof cap with pierceable membrane for safe transportation and shipping
- Improves the turn-around time in capillary blood analysis and reduces the need for repeated blood collection
- Available in ISO and EU colour code

Blood Cell Counter

Siemens Healthineers – Advia 360, 560, and 560 AL Hematology Systems



Dimensions: 360 × 316 × 492 mm (h × w × d)
520 × 410 × 490 mm (h × w × d)

Sample throughput: approx. 60 tests/h

Parameters: 22 – 26 parameters*
3- or 5-part white cell differential

Highlights: The ADVIA 360, 560, and 560 AL Hematology Systems provide laboratories with intuitive, easy-to-use, and scalable hematology solutions designed to offer the right fit for every lab. Each system delivers fast, reliable, and accurate CBC and white cell differential testing with the performance and adaptability that low- and mid-volume labs need. The optional autoloader on the ADVIA 560 AL System streamlines automatic sampling for even greater workflow efficiency.

*Not all parameters are available in the U.S.

Blood Cell Counter

Siemens Healthineers – Advia 2120i Hematology System



Dimensions: 860 × 1410 × 680 mm (h × w × d)

Sample throughput: up to 120 samples/h

Parameters: CBC incl. NRBC, 6-part white cell differential, reticulocytes, body fluids, and comprehensive morphology results

Highlights: The ADVIA 2120i Hematology System with Autoslide streamlines workflow by eliminating the majority of manual steps commonly performed to maximize productivity. Its unique testing methodology optimizes results while offering the simplicity and flexibility you need for easy integration into your lab. With connectivity to Aptio Automation, it supports accurate, fast, sample processing with fully customizable, user-defined features.

Blood Cell Counter

Sysmex Corporation – XN-L Series



Sample throughput: CBC + DIFF up to 70 samples/h with optional Speed-up licence
CBC + DIFF up to 60 samples/h on XN-L Pure Series (XN-330, XN-430 and XN-530)

Dimensions: 440 x 440 – 510 x 460 – 660 mm (w x h x d) (depending on the model)

Weight: 35 kg (XN-330/350, XN-430/450);
53 kg (XN-530/550 incl. sampler);
3 kg (XN-530/550 monitor)

Highlights:

- XN-330, XN-350: Single sample analysis in open mode
- XN-430, XN-450: Single sample analysis in closed or open mode
- XN-530, XN-550: Automated sample analysis for increased workflow productivity (rerun, reflex and continuous loading)
- Upgrade from three-part to five-part differential at an affordable price
- WBC differential includes immature granulocyte count
- Add reticulocyte and body fluid analysis as needed*
- Suitable as a secondary analyser*

*excluding XN-330/430/530

Blood Cell Counter

Sysmex Corporation – XQ-Series



Sample throughput: XQ-320: up to 70 samples/h (manual measurement)
XQ-520: up to 65 samples/h (fully automated or manual)

Dimensions: XQ-320: 365 x 440 x 450 mm (w x h x d)
XQ-520: 450 x 450 x 660 mm (w x h x d)

Weight: XQ-320: 22 kg
XQ-520: 41 kg

Highlights:

- 20 parameters including a dedicated neutrophil count
- Optional manual discrimination within histograms for challenging samples
- Flagging system with 20 messages, providing in-depth information about potential abnormalities detected by the analyser
- Very low aspiration volume of 16 µL
- Very little maintenance (once weekly shutdown)
- Easy-to-perform QC: conveniently scan all QC parameters in one go
- Advanced QC settings
- Quick sleep shutdown and start-up function
- Seamless integration into networks, including HL7 support

Integrated Hematology

Sysmex Corporation – XN-3100 DI



Sample throughput: CBC+DIFF: up to 200 samples/h in whole blood (WB) mode; up to 40 samples/h in body fluid (BF) mode per module; SP-50: up to 30 slides/h in standard mode, up to 75 slides/h with the optional high-throughput licence

Dimensions: 3000 x 1626 x 1150 mm (w x d x h)

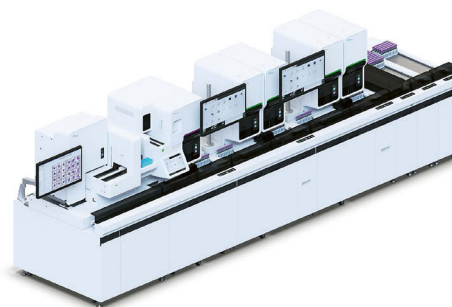
Weight: 992 kg

Highlights:

- Fully integrated slide maker and stainer
- Choose advanced clinical parameters as needed
- Flexible throughput of smear preparation depending on the workload
- Automatic rerun and reflex measurement for challenging samples
- Integrated backup concept
- Digital imaging (DI) module:
 - Seamless integrated morphology analysis of slides
 - Efficient, detailed review and validation for greater accuracy
 - Faster, improved workflow
 - Long-term storage and archiving of cell images
 - Consistency in analysis quality

Integrated Hematology

Sysmex Corporation – XN-9100



Sample throughput: From 200 samples/h in whole blood (WB) mode; Up to 40 samples/h in body fluid (BF) mode per module

Dimensions: Depending on configuration

Weight: Depending on configuration

Highlights:

- Scalable and modular haematology automation line
- Flexible configuration of XN analysis modules and rack entry and exit positions
- Discrete rack management
- Uninhibited workflow from routine to specialised testing
- Automatic reflex measurement in case of challenging samples
- Choose advanced clinical parameters as needed
- Fully integrated slide maker and stainer and (optional) digital imaging module
- Optional advanced sample management with TS-10: sorting for subsequent destinations and automated archiving of samples
- Optional integration of ESR and HbA1C analysis

Integrated Hematology

Beckman Coulter – DxH 900 Hematology Analyzer

Dimensions:

755.7 × 1740 × 828 mm (w × h × d)

Weight:

254 kg

Sample throughput:

up to 100 samples/h

Power consumption:

520 W



Highlights:

The DxH 900 hematology analyzer is ideal for mid- to high-volume clinical laboratories performing complete blood count and white blood cell differential tests while minimizing repeat testing, allowing you to deliver the right results the first time.

Achieve superb RBC, PLT and WBC differentials through near native-state cellular characterization and precise flagging

- Optimized processes help your laboratory maximize staff time through fewer slide reviews, automated QC, and longer walkaway and system uptime

- Most reportable results per square meter with industry-leading 93 percent first-pass yield and a > 40 percent smaller footprint than competitive instruments
- Exclusive Early Sepsis Indicator: a one-of-a-kind FDA cleared hematologic biomarker designed to help emergency department physicians identify sepsis sooner
- The analyzer features a variety of workcell configurations to match laboratory workload, with a mounted user interface, onboard power computer and wireless peripherals, eliminating the need for extra hardware, such as a cart.

Integrated Hematology

Mindray – CAL 6000/8000 Cellular Analysis Lines

Dimensions:

Depending on configuration

Weight:

Depending on configuration

Sample throughput:

CBC+DIFF: up to 1000 samples/h

SC-120: up to 240 slides/h

MC-80: up to 120 slides/h



Highlights:

- Fully Integrated with Mindray hematology analyzers, slide maker & stainer and new digital cell morphology analyzer
- Flexible configuration with buffer module, start / stock yard and turn module
- Accurate results of abnormal cells with advanced detection technology SF-Cube
- Streamlined laboratory workflow with automatic rerun and reflex measurement

- For digital cell morphology
- The cell images look more three-dimensional, sharper in color, and clearer
- Automatically choose the optimal mode for pre-classification of cells with higher efficiency
- up to 60 slides/h

Microscopy

Olympus – SC180



- Highlights:**
- 18-megapixel camera with fast 4K Live image
 - Dedicated to precise sample documentation even at low magnifications
 - Assisted sample focusing and image noise cancellation

The high-resolution, 18-megapixel SC180 color camera reveals your sample's fine details and structures. The 18 million pixel count exploits the full optical resolution of the objectives, enabling you to make observations exclusively on-screen without using the eyepieces and fostering effective collaboration and audience engagement during full-screen presentations. With a fast 4K live image, the SC180 camera accelerates routine work, increases throughput in various applications through fast assisted focusing and noise cancellation, and makes the screen the new standard for documentation, evaluation, and discussion.

Microscopy

Olympus – BX53LED



- Highlights:**
- Dedicated LED light source for microscopy (Olympus True Color LED)
 - Ergonomic design for intensive daily usage
 - Highly expandable frame to follow evolving application needs

The BX53 microscope's ergonomic design helps you stay comfortable during extended periods of use while the intuitive control layout enables fast, efficient observation and imaging. Optimized for laboratory applications, Olympus exclusive True Color LED illumination has a high luminosity and color rendering index so you can see samples in real-to-life colors avoiding color casts of generic LED light sources.

Hemostaseology

Greiner – Vacuette Coagulation Tube



- Highlights:**
- With safety twist cap for an easy manual opening as well as automated opening using decapping instruments
 - Correct mixing ratio of venous blood a sodium citrate is ensured during blood collection, so that the tube contains one part sodium citrate solution to nine parts blood
 - Double-walled technology: the inner tube is made out of polypropylene (PP) and prevents the citrate solution from evaporating; the outer tube is made of polyethylene terephthalate (PET) and ensures a long shelf-life for the vacuum

Hemostaseology

Siemens Healthineers – Sysmex CN-3000 and CN-6000 Systems*



- Sample throughput:** PT and APTT: 215 (CN-3000) / 400 (CN-6000) (per hour, simultaneous analysis)
- Dimensions:** Main unit: 720 × 906 × 1350 mm (w × d × h)
Opt. Sampler: 330 × 1030 × 830 mm (w × d × h)
- Weight:** Main unit: 230 kg / Optional sampler: 81 kg

- Highlights:**
- The Sysmex CN Systems* combine speed, flexibility, and intelligence with a small footprint to accelerate hemostasis workflows
 - High throughput in a small footprint for enhanced productivity
 - Flexible, modular connectivity options for automated testing in mid- to high-volume labs
 - Onboard predictive calculation of reagent use for fewer interruptions
 - Cutting-edge sample management and automatic gain switching for improved pre-analytical handling

* Not available for sale in the U.S. The products/features mentioned here are not commercially available in all countries and are subject to local regulations. Their future availability cannot be guaranteed.

Hemostaseology

Siemens Healthineers – Atellica COAG 360 System*



- Sample throughput:** PT and APTT: 350 (simultaneous analysis)
- Dimensions:** 1858 × 1042 × 1415 mm (w × h × d), without LAS connection
2156 × 1042 × 1415 mm (w × h × d), with LAS connection
- Weight:** 600 kg (without LAS connection)
617 kg (with LAS connection)
- Highlights:** The Atellica COAG 360 System* offers high-volume specialty hemostasis labs a transformative array of capabilities to streamline and unify hemostasis testing
- Five methodologies—clotting, chromogenic, immunologic, platelet aggregation and high-sensitivity immunoassay (LOCI) testing
 - Primary-tube sample-volume checks, advanced assay-specific sample quality checks for hemolysis, icterus and lipemia (HIL) interference.
 - Intelligent reagent and consumable management

*Not available for sale in the US

Hemostaseology

Siemens Healthineers – Sysmex CS-5100 System



- Dimensions:** approx. 1280 × 1,576 × 1150 mm (h × w × d)
- Sample throughput** approx. 400 simultaneous PT/APTT tests/h
- Weight:** approx. 362 kg
- Highlights:** The Sysmex CS-5100 System offers high-volume and multisite labs smartly designed PSI technology and automation connectivity for streamlined workflow and high-quality test results on the first run. Simultaneous, multiwavelength PSI technology helps labs to identify and manage unsuitable test specimens prior to analysis. The Sysmex CS-5100 System offers an expansive test menu of routine and specialty hemostasis assays (including several INNOVANCE assays).

Hemostaseology

Siemens Healthineers – Sysmex CS-2500 System



- Dimensions:** approx. 685 × 1113 × 895 mm (h × w × d)
- Sample throughput** approx. 180 simultaneous PT/APTT tests/h
- Weight:** approx. 140 kg
- Highlights:** The Sysmex CS-2500 System offers mid-volume and multisite hemostasis labs smartly designed technologies for improved efficiency, exceptional accuracy, and reliable first-run results. Equipped with next-generation PSI technologies, the system takes hemostasis testing to the next level. The Sysmex CS-2500 System offers an expansive test menu of routine and specialty hemostasis assays (including several INNOVANCE assays), all on a single instrument.

Hemostaseology

Siemens Healthineers – Sysmex CA-600 Systems



- Dimensions:** approx. 490 × 566 × 490 mm (h × w × d)
- Sample throughput:** approx. 60 PT tests/h
- Weight:** approx. 43 kg
- Highlights:** The Sysmex CA-600 Systems – with the smallest footprint in their class – are built on a history of proven reliability and provide scalable options for routine and specialty* coagulation testing.
- Features clotting, chromogenic*, and immunologic* measurements with true random access
 - Enables critical tests to be processed at any time via STAT sample processing
 - Offers the most frequently requested routine and specialty tests, including INNOVANCE D-Dimer*

*Sysmex CA-660 System only.

Hemostaseology

Sysmex Corporation – CN-Series Analysers



- Sample throughput:** CN-6000/6500 Approx. 450 tests/h (PT)
CN-3000/3500 Approx. 225 tests/h (PT)
Immunology function : up to 26 tests/h
- Dimensions:** CN-3000/6000: 595 x 1350 x 906 mm (w x h x d)
excluding cuvette waste box
CN-3500/6500 : 1055 x 1350 x 906 (w x h x d)
- Weight:** CN-3000/6000: 230 kg
CN-3500/6500: 390 kg
- Assays:** Coagulation function: 60 simultaneously
Immunology function: up to 5 parameters
- Highlights:**
- Small footprint coupled with the highest productivity of a Sysmex haemostasis analyser
 - Four different models: CN-3000, CN-3500, CN-6000, CN-6500
 - Consolidates routine and specialised testing in a single system, including immunochemistry assays with the CLEIA method (CN-3500/6500)
 - Reliable and high-quality results thanks to proven multi-wavelength technology and pre-analytical checks
 - Smart workflow management with test count prediction function, automated dilution platelet aggregation agonists and auto QC
 - Scalable: stand-alone model or track with up to three analysers connected

Pathology

Printer
Histology Equipment
Microscopy
Information Technology
Sample Collection
MALDI-MS
MALDI-MSI

clinisys

Enabling healthier communities

DTM
medical

HAMAMATSU
PHOTON IS OUR BUSINESS

KABE
LABORTECHNIK

SHIMADZU
Excellence in Science

SARSTEDT

OLYMPUS
Your Vision, Our Future

Printer

DTM Medical – Primera Signature Cassette Printer



Highlights: The Signature Cassette Printer is designed for printing text, graphics or bar codes directly onto cassettes, helping to reduce the risk of misidentification of specimens. It is available as a stand-alone, manual printer (printer on the right side) or as a completely automated system consisting of a printer and a robotic picking system called Autoloader (system on the left side).

- On-demand or batch mode printing
- Black or colour printing
- Cost reduction by inventorying only white cassettes
- Chemical-resistant ink – ensures reliable identification of cassettes
- Ability to integrate with LIS
- Two years warranty (After completed free product registration)

Printer

DTM Medical – Primera Signature Slide Printer



Highlights: The Signature Slide Printer can significantly increase the efficiency of labs while helping to reduce the risk of misidentification of specimens.

- On-demand, full-colour printing – prints only the number of slides needed
- Prints directly onto slides – eliminates handwriting that is hard to read and labels that are hard to apply
- Cost reduction by inventorying only white-frosted slides
- Xylene-, alcohol-, heat- and chemical-resistant ink – ensures reliable identification of slides
- PTSlide Software allows connection to LIS systems
- Compact design
- Two years warranty (After completed free product registration)

Histology Equipment

KABE Labortechnik – Consumables for pathology / histology



Highlights:

- Tissue embedding cassettes
- Different variants: standard, universal, biopsy, bionet and each type also for laser printers
 - Available in different colours
 - Without, with separate or with pre-attached hinged lid
 - Available pre-stacked: ready for use in cassette printers
 - High quality material is resistant to solvents, guarantees dimensional stability and offers good writing and printability
 - Comprehensive range of accessories
- Test tubes with formalin solution
- Prefilled with 4% formalin solution
 - Available in different sizes
 - Individual labelling possible

New:

- Tissue embedding biopsy cassettes with filter paper in sterile packaging
- For use in sensitive environments such as the OR
 - Safety improvement in histological tissue collection
 - Prevents contamination of instruments



Microscopy

Olympus – BX53LED



- Highlights:**
- Dedicated LED light source for microscopy (Olympus True Color LED)
 - Ergonomic design for intensive daily usage
 - Highly expandable frame to follow evolving application needs

The BX53 microscope's ergonomic design helps you stay comfortable during extended periods of use while the intuitive control layout enables fast, efficient observation and imaging. Optimized for laboratory applications, Olympus exclusive True Color LED illumination has a high luminosity and color rendering index so you can see samples in real-to-life colors avoiding color casts of generic LED light sources.

Microscopy

Olympus – UC90 4K Microscopy



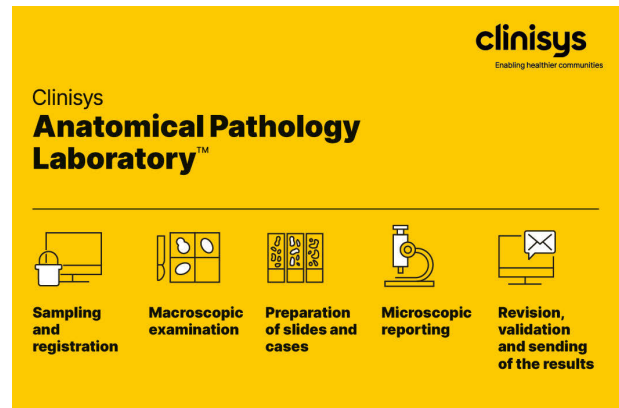
Highlights:

- Up to 4K UHD image capturing
- One Camera for Multiple Applications
- 9-megapixel CCD camera

The 9-megapixel UC90 camera captures it all: brightfield images of superior quality, and up to 4K UHD imaging. Whatever your imaging needs are, expect no less than exceptional results in image quality, sensitivity, dynamic range, and color fidelity. The UC90 offers fluid sample navigation and focusing, making it effortless and convenient to locate regions of interest right on your screen. Excellent microscope imaging has never been as easy and versatile as with the UC90.

Information Technology

Clinisys – Clinisys Anatomical Pathology Laboratory



Highlights:

Clinisys Anatomical Pathology Laboratory – user-friendly solution designed by pathologists for increased productivity

With our anatomical pathology solution you can optimise your pathology processes, and your employees can work more efficiently and more collaboratively. Results are available quicker and, of course, this benefits the patients. Our solution supports all traditional pathology processes, with user-friendly and task-oriented workflows – starting from order communication and registration all the way to the delivery of the results.

clinisys
Enabling healthier communities

Powering modern laboratories

Clinisys' intelligent informatics solutions and expertise redefine the modern laboratory across healthcare, life sciences and public health.

clinisys.com

Sample Collection

Sarstedt – Digitising Pre-Analytics with S4DX System



Highlights:

- Established pre-analytical quality monitoring
- Document transport time and temperature
- Monitor sample quality digitally according to ISO 15189
- Link pre-analytical data such as the time of sampling, the verification of the patient and, if necessary, his or her condition to the diagnostic process

Optimised work processes and reduce laboratory costs

- Reduce costs in sample logistics
- Automate sample receipt procedures
- Minimise repeated measurements
- Reduce training outlay for collection sites
- Optimise customer communication

Reduced pre-analytical errors

- Avoid errors such as "wrong patient", "wrong blood in tube" and "missing material"

MALDI-MS

Shimadzu – Axima iDplus Performance



Dimensions: 700 × 1920 × 850 mm (w × h × d)

Weight: 375 kg, excluding data system

- Highlights:** iDplus Performance – application-centric solutions:
- Rapid microbial identification for research use
 - Identifies and classifies strains based on phenotype characteristics
 - SuperSpectra reduce the incidence of false positives and ensure robustness and reproducibility
 - Open system allows addition of new species / entries to the database or the creation of new databases
 - Clustering allows molecular profiling and tracking of change or evolution
 - High performance MS for large molecule analysis
 - MS/MS

MALDI-MSI

Shimadzu – iMScope QT



Dimensions: 670 × 1520 × 2060 mm (w × h × d)

Weight: 770

- Highlights:** The iMScope QT combines in one system mass spectrometry and microscopy to achieve the perfect interaction for MS imaging. With its subunits for sample preparation and data analysis, a full solution for MALDI-MS imaging at high speed, resolution and accuracy is provided by the iMScope QT. Thanks to the flexibility of the QTOF, the MALDI source can easily be exchanged to perform LCMS analysis on the same system.

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DNA



Singuway



MOLGEN



SIEMENS
Healthineers



QUIDEL



Molzylm



Promega



SARSTEDT

Amplification
Amplification / Detection
Detection
Extraction
Infectious Disease
Sample Collection
Research Use Only



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The complexities of drug testing in urine and hair

Report: Cynthia E. Keen

Urine screening tests using only immunoassays are the most common procedures used to identify drug abuse. They are inexpensive, automated, and produce rapid results. But they may produce false-positive or false-negative results, which vary based on the drug, drug class, and the assay used. Hair toxicology analysis is another form of drug testing, which unlike urine tests, enable analysis of drug use over a period of time. Hair toxicology tests complement urine tests but can be just as challenging to interpret.

Mass spectrometry, specifically liquid chromatography with tandem mass spectrometry (LC-MS/MS), is a powerful tool for toxicology analysis. Although more labour intensive, more time consuming, and much more expensive than hair and urine tests, LC-MS/MS is recommended for drug confirmation testing following a positive or inconclusive immunoassay screen. It is highly complex and requires significant expertise but provides definitive results due to its superior sensitivity and specificity.

As part of a scientific session on unusual toxicology at the 2022 AACC Annual Scientific Meeting in Chicago, Joe M. El-Khoury, PhD, director of the Clinical Chemistry Laboratory at Yale-New Haven Health and Associate Professor of Laboratory Medicine at Yale School of Medicine in New Haven, Connecticut, discussed the challenges of interpreting complex urine toxicology cases.

'When in doubt, mass spec it out'

El-Khoury discussed a routine urine test ordered for a patient prescribed opioids and other medications for multiple, chronic, and complex medical problems. Her physician wanted to verify that this patient was not taking additional types of painkillers. The test results were positive for heroin, but other findings were contradictory and confusing. 'Immunoassay screening may not produce accurate results, because antibodies used in the assays for the targeted drug may exhibit cross-reactivity toward other closely related compounds,' said El-Khoury. 'Patients maintained on chronic opioids are often at risk of false positives. The LC-MS/MS test determined that the patient was only taking exactly what she'd been prescribed. When in doubt, mass spec it out.'

He noted that patients taking Suboxone, a drug widely used for treatment of patients with opioid use disorder, are high-risk, and may attempt to stimulate compliance by spiking the pill in urine to pass the screening test. Immunoassays are not specific enough to detect this sample adulteration and patients may get away with it. El-Khoury recommends that quantitative LC-MS/MS testing be the only method used for assessing adherence in patients taking Suboxone. When concentrations of drugs in urine are high, he advised the audience to make sure to rule out pharmaceutical impurities, and to rule out enzyme inhibitors when metabolite patterns are unusual.

Hair toxicology: useful, but not perfect

Jacqueline Hubbard, PhD, the Laboratory Director of Three Rivers Diagnostics in Pittsburgh, Pennsylvania, gave deeper insights into hair toxicology analysis. Hair grows an average of 1 cm each month. When hair samples are segmented into sections, it is possible to obtain a detailed historic profile of an individual's drug exposure over a specified amount of time. However, the accuracy of the analysis may be impacted by ultraviolet light exposure and diffusion of sweat, which may occur at any time. Cosmetic hair treatments may strip analytes or increase environmental contamination. A person with higher melanin may show a greater accumulation of drugs compared to a person with low melanin, so this needs to be considered when testing dark hair.

Hubbard explained that the Society of Hair Testing (SHT) recommends that hair first be segmented prior to decontamination. The Society recommends use of aqueous washes and an organic

solvent to remove oil and external contaminants from the hair. But these processes may still be insufficient. Recent research has suggested that such procedures may lead to the swelling of the hair and may promote incorporation of analytes into the hair itself. Cleansed hair samples need to be cut, ground, and pulverized before they are analysed.

'When drugs are detected in a panel, I recommend metabolite detection to confirm ingestion,' she said. 'The detected presence of drugs in hair may be due to ingestion, incidental exposure from contaminated surfaces, impurities found in the drug, and/or decomposition products of drugs.'



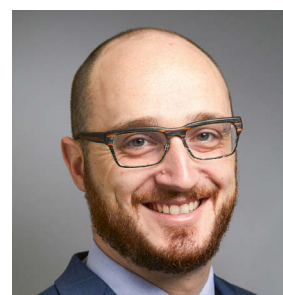
'Hair toxicology interpretation to determine the frequency of use and if a person used specific drugs is not that simple. The amount of drugs detected in hair may not be equivalent to the actual concentration present in hair, and the relationship between the concentration in hair and the amount ingested is not well established,' cautioned Hubbard.

Indicators for an unstable home

'Drugs in hair are indicative of repeated use and/or exposure, and not of a single use or recent use. Hair as a matrix for toxicology testing has implicit biases, including seeing higher drug concentrations in pigmented versus non-pigmented hair after the same systemic exposure. This test frequently has a longer turnaround time compared to urine tests. But it may be useful to identify if children who have unexplained conditions or may be experiencing developmental delays are living in unhealthy situations,' she said.

Hubbard described two cases that demonstrate the utility of hair toxicology testing. A malnourished two-year-old girl showing signs of neglect and developmental delays had a negative urine drug screening test for 11 drugs. However, hair toxicology analysis showed that the child had ingested two drugs, including methamphetamine. A two-year-old boy was admitted to a hospital emergency department with acute encephalopathy and seizures. His urine and lab tests were negative, but when the hair toxicology reports became available 30 days later, they had tested positive for exposure to oxycodone and methamphetamine.

'Hair toxicology helped identify an unstable home situation from drug use for both children. For the boy, whose parents were separated, it provided definitive evidence that the mother of the child was a drug abuser, enabling the child to stay with his father. These tests can be invaluable in help keeping vulnerable children safe,' she concluded.



PROFILE

Joe El-Khoury is Director of the Clinical Chemistry Laboratory at Yale New Haven Health in New Haven, Connecticut, and Associate Professor of Laboratory Medicine at Yale University School of Medicine. A fellow of the AACC Academy, his research interests include indicators for monitoring clinical laboratory performance, investigating biomarkers of acute kidney injury and chronic kidney disease, and development of new mass spectrometry-based methods for the measurement of markers in biological fluids.



PROFILE

Jacqueline Hubbard, PhD, joined QualiTox Laboratories, now Three Rivers Diagnostics, in 2022 as its Laboratory Director. Her interests include toxicology interpretations, test utilization, and mass spectrometry. She also serves as an MSACL Practical Training scientific committee member and is actively involved in training new users on mass spectrometry. Her research has also focused on developing and validating drugs of abuse assays, driving under the influence of marijuana, and Covid-19 serology research.

Amplification

Sarstedt – White Multiply PCR Plates



Highlights: In addition to a generally improved quality, Sarstedt now offers optimized white color variants for better detection sensitivity in qPCR. In addition, we have expanded our PCR plate range with high-purity EtO-treated variants (Biosphere plus quality) as well as DNA & protein low binding variants. With our Biosphere plus variants, we offer the maximum and unsurpassed purity standard for an absolutely reliable absence of DNA or other biomolecules. The low binding variants are our contribution to the increasing use of PCR consumables for other applications, e.g. for sample storage of smallest volumes or for preparing dilution series so that all biomolecules can be recovered from the wells.

Amplification/Detection

MolGen – MoeA kit



Highlights: The MolGen MoeA kit is a 1 well, sensitive multiplex RT-qPCR targeting the most common respiratory viral threats, such as Influenza A and B virus, Respiratory syncytial viruses (RSV) type A and B and SARS-CoV-2. Requiring only one PCR reaction to detect any of these highly infectious diseases, saves time and money. Utilizing PlexZyme technology for high specificity it is compatible with the ABI QuantStudio and ABI 7500 platforms and commercial magnetic bead extraction systems such as the PurePrep 96.

Amplification/Detection

Quidel – Savanna – Multiplex Real-time PCR technology



Dimensions: 254 × 254 × 210 mm (w × d × h) – small size

Test panels: RVP4 (SARS-CoV-2, Influenza A, Influenza B, RSV), RVP11*, GI Panel*, STI Panel*
*New test in development

Highlights:

- True sample to result platform with no up-front sample or reagent preparation
- One sample with multiple results
- Fast turnaround time (<25 min RVP4) with test select feature – select parameters now and recall other results within 48 hours
- Delivering customized rapid, molecular results
- Efficient nucleic acid isolation via magnetic beads
- Room temperature storage
- Low capital and disposable costs

Amplification/Detection

Singway – AccuRa-32 - Fast Real-Time Quantitative PCR System



Dimensions: 316 × 340 × 220 mm (w × d × h)

Weight: 8 kg

Sample Throughput: 32 Samples/h (4×8 wells, dual module)

Number of Channels: 4

Highlights:

The AccuRa-32 is specifically designed for rapid nucleic acid testing in applications such as clinical, food, environmental and research. It is supported by highly sensitive fluorescence measurements in real time. The instrument can test 32 samples simultaneously. Up to 4 fluorescence detection channels enable multiplex PCR. Effective reduction of "crosstalk" interference and edge effects, no ROX correction required.

New optical scanning detection system
Method: Magnetic Bead
Suitable sample types: Whole blood, serum, plasma, nasal swab, throat swab, puncture fluid, etc.

Amplification/Detection

Singuway – Autoguard 96A



Dimensions: 800 x 731 x 602 mm (w x h x d)
Weight: 95 kg

Features:

- Fully Automated
- Automatically open cover
- Automatic sampling
- Automatically close cover
- Automatic extraction

Specifications:

- Amount of Samples: 96 samples
- Sample Volume: 20µL – 1000µL
- Repeatability: <5%
- Extraction Time: ≤35 minutes
- Sensitivity: Detection rate of 100 copies/ml positive samples is ≥96%
- Operation Interface: 10.4 inch LED high-definition colored touch screen
- Disinfection Sterilization: Ultraviolet sterilization

Amplification/Detection

Singuway – Singu 9600 - Fast Real-Time Quantitative PCR System



Dimensions: 500 x 360 x 380 mm (w x h x d)
Weight: 25 kg
Number of Channels: 4-6

Highlights:

High Sensitivity: New optical signal detecting technology based on Fresnel lens, special high-efficiency PMT and long-life maintenance-free LED, further improves the detection sensitivity of the prior technology.

High Accuracy: Innovative scanning mode and time-resolved signal separating technology can effectively avoid cross-interference of inter-hole signals and multi-color fluorescence.

Multiple Detection: Up to 4/6 fluorescence detection channels meet the requirement of multiplex PCR.

Pursuing Quality: Internationalized product design ensures the superior performance of each instrument.

Detection

Singuway – Nucleic Acid Detection Kit (PCR Fluorescence Probe)



Detecting: ORF1ab, N gene, E gene, Inner Control
Sample Type: Oral swab/Nasal swab
Storage: -20°C
Reaction Volume: Volume: 30µl
Sensitivity: 200 copies/ml

Highlights:

Maximize your testing capacity with Super Fast PCR Kit 3 times more efficient than regular kits

Features:

Fast: Complete all steps within 30 minutes by Singu9600 Pro

Accurate: Detecting multi-target

Specific: Strong ability of anti-interference

Strong compatibility: Suitable for a variety of fluorescence PCR instruments

Applicable instruments: PCR machines with at least 4 fluorescent channels

Items: 1x PCR Buffer, 1x Polyase Mix, 1x Positive Control, 1x Negativ Control

Extraction

MolGen – Extraction Kit



Highlights:

MolGen's DNA/RNA kits are optimized for high-quality, high throughput DNA/RNA extraction and purification to isolate NA. The Pathogens kit isolates DNA or RNA from a large variety of sample matrices like blood, plasma, serum, urine, swab washes, tissue samples and feces. Our animal, seed, and leaf kits can be customized to extract DNA/RNA from a large variety of sample matrices. Its low processing time (under half an hour) makes this kit ideal for research applications with small, medium, and high throughput automation.

Extraction

MolGen – PurePrep 24D



Dimensions: 700 × 500 × 470 mm (w × h × d)
Sample throughput: 24 – 144

Highlights: PurePrep 24D is a convenient bench top, open system for DNA and RNA purification that uses magnetic beads separation technology of various matrices, such as blood, cultured cells or bacteria, tissues, body fluids and plant samples and can be used in low-medium throughput settings. The PurePrep 24D leverages special sample strips for 5 or 10 ml sample volume and a separate 2 ml tube for elution and is capable of extracting 1~24 samples per run. Used in combination with our PurePrep kits, it offers an extraction protocol of 15~40 minutes per cycle depending on sample type and method.

Extraction

MolGen – PurePrep 96



Dimensions: 650 × 530 × 700 mm (w × h × d)
Sample throughput: 96 – 576

Highlights: PurePrep 96 is a user-friendly, automated DNA/RNA purification system, suitable for high throughput workflows featuring 96 wells and a wide volume range of 50 – 1000 µL. The high-speed, high-quality device uses magnetic separation technology for various matrices and has an extraction protocol of 15~40 minutes – per cycle depending on sample and method. It's accurate temperature control system (±1°C) ensures stability purification performance while its open, multi-function design provides more methods for reagent optimization. The PurePrep 96 is compatible with MolGens extraction kits and can be used in a wide range of laboratories, such as diagnostic, agricultural, biotech and animal diagnostic- or research laboratories.

Extraction

Molzym – SelectNAplus



Dimensions: 650 × 600 × 690 mm (w × h × d)
Weight: 60 kg
Sample throughput: flexible: 1 to 12 samples/run

Highlights: SelectNAplus is Molzym's unique bench top instrument for the automated enrichment and isolation of bacterial & fungal DNA from complex specimens.

- Walk-away pathogen DNA isolation
- Human DNA depletion (MolYsis technology) for enhanced sensitivity
- For body fluids, tissue biopsies and swabs
- DNA-free consumables & reagents

Extracted DNA is suitable for all downstream applications such as NGS-based Microbiome and Metagenome sequencing, PCR and Real-Time PCR. For clinical routine diagnostics Molzym offers a CE IVD marked kit including the broad-range detection of bacteria and fungi.

Extraction

Promega – Maxwell CSC Instrument



Dimensions: 330.2 × 299.7 × 345.2 mm (w × h × d)
Weight: 11 kg
Sample throughput: up to 16 samples/25 – 75 minutes
Assays:

Blood, FFPE, buffy coat, bone marrow, cells, serum, urine etc. (CE-IVD) or stool, tissue, food, and many more (RUO)

Highlights: Automated DNA and RNA extraction – IVDR-compliant

- Generates consistent, high-quality nucleic acid for use in downstream diagnostic amplification assays
- Works with multiple sample types, e.g., blood, FFPE, tissue, buccal swabs etc. (CE-IVD) or cells, saliva, food, plants and many more (RUO)
- Paramagnetic particle use = no cross-contaminations
- Reliable sample tracking with integrated barcode scanner
- Flexible, dual-mode software with separate RUO mode for research-based DNA & RNA extractions
- Designed and manufactured under cGMP

Extraction

Promega – Maxwell CSC 48 Instrument



Dimensions: 533.4 × 355.6 × 533.4 mm (w × h × d)
Weight: 27 kg
Sample throughput: up to 48 samples / 25 – 75 minutes
Assays: Blood, FFPE, buffy coat, bone marrow, buccal swabs, urine etc. (CE-IVD) or stool, tissue, food, and many more (RUO)

- Highlights:**
- Automated nucleic acid extraction – IVDR-compliant
 - Extraction of high-quality nucleic acid with minimal hands-on time
 - Processes different sample types for downstream applications in molecular diagnostics
 - Paramagnetic particle use = no cross-contaminations
 - Integrated vision system for error prevention
 - Reliable sample tracking with integrated barcode reader
 - Dual-mode software for both molecular diagnostics (IVD-mode) and research applications (RUO-mode)
 - Designed and manufactured under cGMP

Extraction

Singuway – Singu 32 - Nucleic Acid Extractor

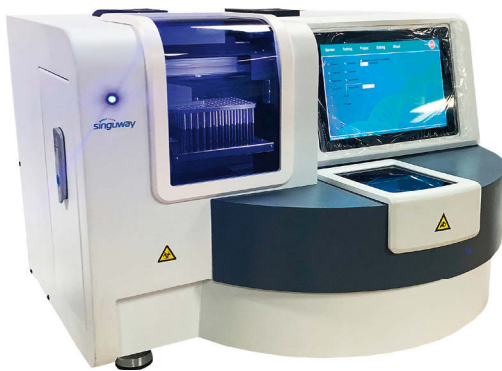


Dimensions: 380 × 370 × 400 mm (w × h × d)
Weight: 23 kg
Number of Parallel Samples: 32

- Highlights:**
- Efficient:** Unique extraction mode, easy and high efficiency of batch operation with short extraction Time (9-18 minutes).
 - Precision:** Precise constant temperature control system and precise design of magnetic beads to assure the high purity extraction.
 - Safety:** Extraction process is completed in a closed environment and disinfected aby ultraviolet lamp to avoid pollution.
 - Convenient:** Friendly-use software and different extraction methods can be set according to the sample type.

Extraction

Singuway – Singu 96 Nucleic Acid Extractor

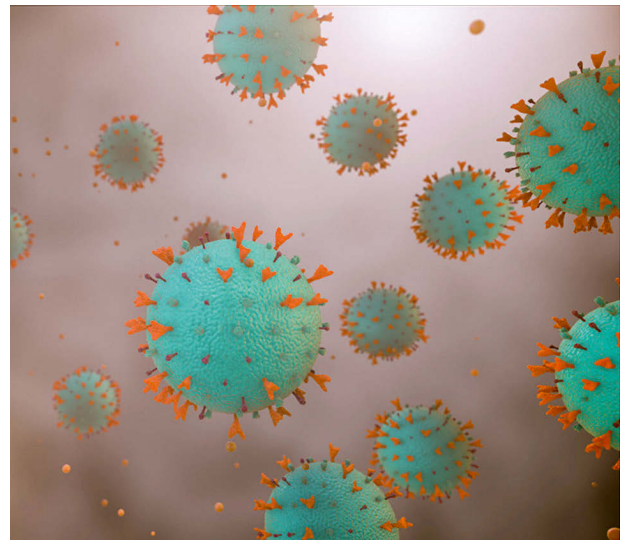


Dimensions: 655 × 525 × 450 mm (w × h × d)
Weight: 50 kg

Specifications:
 Amount of Samples: 96 samples
 Sample Volume: 20µL – 1000µL
 Repeatability: <3%
 Extraction Time: 15-25 minutes
 Sensitivity: Detection rate of 100 copies/ml positive samples is ≥95%
 Operation Interface: 10 inches color touch screen
 Disinfection Sterilization: Ultraviolet sterilization

Infectious Disease

Siemens Healthineers – Fast Track Real-time PCR assays



- Highlights:**
- Siemens Healthineers enables precision medicine, with molecular testing solutions for the detection of major infectious diseases; monitoring of treatment efficacy; and selection of individualized treatment options. Our one-step syndromic real-time PCR products* simultaneously detect viruses, bacteria, and parasites, allowing molecular laboratories to lower cost and drive better outcomes.

*Product availability will vary by country.

Sample Collection

MolGen – Saliva Collector



Highlights: Part of our MegaPrep workflow, the MolGen Saliva Collector is an easy-to-use device that collects saliva through a one-way tube. Locally produced, it's available as a complete collection kit or as a stand alone product, and is CE-IVD marked. The Saliva Collector contains a transport lysis buffer, the PurePrep TL-Pro, which lysate the sample during transport and keeps the sample stable up to 6 days at 4°C post sampling. At room temperature, it has a 1-year shelf life and features a colour addition for safety and quality control.

Research Use Only

Sarstedt – Low DNA Binding Micro Tubes



Highlights: As the trend towards decreasing sample volumes continues, it is increasingly important to minimize potential interaction between the analyte and tube. Our low protein and new low DNA binding micro tubes are specifically designed to meet the requirements in protein and DNA analytics while maximizing recovery rates.

Microbiology

Automation
Mass Spectrometry
Microscopy



**BECKMAN
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OLYMPUS

Your Vision, Our Future



SHIMADZU

Excellence in Science



Visualisation of DNA methylation: Markers on DNA can increase or decrease certain expressions in the cell and leave a corresponding signature on the DNA.

Image source: EUTOPS/Uni Innsbruck

New test detects four women's cancers from cervical screening samples

What if a test analysing cervical cells from a gynaecological swab could be used to detect four different female cancers at an early stage and also predict cancer risk over a healthy woman's lifetime? Researchers at the European Translational Oncology Prevention and Screening (EUTOPS) Institute in Innsbruck, Austria, are developing tests to do just that for breast, ovarian, cervical, and endometrial cancer detection.

Report: Cynthia E. Keen

These four cancers account for more than 50% of all cancers in women in Europe. Globally, the World Health Organization's International Agency for Research on Cancer reports that breast cancer was the world's leading cause of cancer incidence in 2020, with an estimated 2.3 million new cases and 685,000 deaths. It also estimated 604,000 new cases of cervical cancer, 417,000 of endometrial cancer, and 314,000 of ovarian cancer.

Ovarian cancer is especially deadly because it tends to be asymptomatic until reaching an advanced stage, when the cancer has spread within the abdominal cavity or beyond. Over half of ovarian cancer patients die within five years after their initial diagnosis.

Once fully developed and clinically approved, the Women's risk Identification for Ovarian Cancer Test (WID-OC-Test) has the potential to change these sobering statistics by using DNA methylation analysis from a single cervical smear sample taken during a routine screening.

Prof Dr Martin Widschwendter, principal investigator and director of the EUTOPS Institute, says: 'The identity of a cell is defined by its epigenome, which consists of thousands of tags on the DNA called DNA methylation. These tags integrate all factors a cell has been exposed to over a lifetime, leaving a unique "footprint" on the DNA. Examples are hormonal exposures due to childbirth and environmental factors including diet and exercise, the expert explains. 'Changes in the epigenome can increase or reduce the risk of developing cancer. The WID-Test analyses DNA methylation footprints, which can indicate increased cancer risk during a women's lifetime.'

The researchers explain in detail how they developed and validated each test in articles published in Nature Communications.* Samples were assessed from over 3,000 women with and without breast/ovarian cancer from 15 centres in Europe. They obtained samples from women over the age of 18 years and evaluated the performance of the WID-Test in different age groups, including pre- and post-menopausal women. Their studies are evaluating an individual's risk for more than one cancer by assessing several different epigenetic footprints in a single cervical screening sample.

'The results were much better than we hoped for,' said Prof Dr Widschwendter. 'The WID-OC methylation test allowed us to identify 71.4% of women under 50 years of age and 54.5% of women over 50 with ovarian cancers with 75% specificity. The fact that the test is not driven by the presence of tumour DNA in the sample suggests that the WID-OC test would have identified women well in advance of their diagnosis.'

Samples were evaluated with the WID-BC test and with a current method for determining breast cancer risk that combines information on genetic variants. The WID test identified 76.6% of women in the highest risk group, compared with 47.5% using the current method.

Prof Dr Widschwendter tells European Hospital that 'the next research steps will be to demonstrate that the WID-OC and WID-BC tests are able to identify healthy women at risk of developing ovarian or breast cancer in future years. The only way to achieve this is to collect thousands of cervical samples from an entire population, test them, and assign a risk score. After



PROFILE

Prof Dr Martin Widschwendter, is Director of the EUTOPS Institute and Professor for Cancer Prevention and Screening at the Leopold-Franzens-University of Innsbruck. He is a Consultant Gynaecological Oncology Surgeon and also holds the position of Professor in Women's Cancer at University College London. In July 2020, he was conferred a Guest Professorship at the Karolinska Institutet in Stockholm. Dr Widschwendter has spent decades researching the role of early detection, risk prediction and prevention of breast and gynaecological cancers.

waiting for a number of years to identify women in the study cohort who had developed ovarian or breast cancer, we would analyse samples of these women and a control group of samples of healthy women to determine if our test could have predicted which women developed cancer.' Currently, the team is working on the logistics and funding for this large-scale initiative, he reports.

'Our goal is to identify women at risk for cancer independently of a BRCA mutation, so that they can take preventative measures potentially decades before they would develop cancer. This could include lifestyle changes as well as regularly scheduled screening tests and preventative medication like tamoxifen for women with breast cancer risk,' Widschwendter adds. 'We also will be conducting research to determine if the WID-Test can be used to monitor cancer risk over time.'

The vision of the EUTOPS Institute is to integrate cutting-edge research in systems biology and oncology to enable real-world implementation of the concepts of P4 medicine (predictive, preventive, personalized, and participatory) and drastically reduce cancer mortality. It was established in 2020 at the Leopold-Franzens-University of Innsbruck.



PUBLICATIONS

<https://doi.org/10.1038/s41467-021-27918-w>
<https://doi.org/10.1038/s41467-021-26615-y>

Automation

Beckman Coulter – DxM Autoplak Automation



Dimensions: 1850 × 2000 × 920 mm (w × h × d)

Weight: 500 kg

- Highlights:** Robust microbiology automation in a flexible and compact footprint
- Increased Productivity**
- Inoculate and streak up to 125 plates per hour
 - Load up to 120 samples in various sizes continuously with random access capability
- Automated Process**
- De-cap and re-cap multiple specimen containers
 - Implement plate streaking with various streaking patterns to fit your laboratory needs
- Reduced Errors and Improved Efficiency**
- Ensure standardized technique and improve colony isolation with automated streaking. Minimize cross-contamination with loop incineration, HEPA filtration and one-way sample flow

Automation

Beckman Coulter – DxM 1096 MicroScan WalkAway system



Dimensions: 977 × 939 × 863 mm (w × h × d)

Weight: 186 kg

- Highlights:** The DxM MicroScan WalkAway system uses direct MICs, providing greater confidence in results and the broadest breadth of first-time reporting.
- Automated ID and AST testing for a final report**
- Flexible use of different panel types**
- ID and MIC separately or combined as Combo-Panel
 - One system for automation of rapid and conventional tests
 - Easy-to-view external LED indicators show status at a glance
 - Continuous loading 96 Panels
- Bi-directional connectivity to LIS systems**

Mass Spectrometry

Shimadzu – Axima iDplus Assurance



Dimensions: 700 × 1920 × 850 mm (w × h × d)

Weight: 330 kg, excluding data system

- Highlights:** Axima Assurance – flexibility and quality: The Axima Assurance is designed with the general analytical and life science laboratory in mind. Incorporating a variable repetition rate 50 Hz N₂ laser, the system provides high quality and high sensitivity rapid MALDI mass spectra and is particularly suited to identification in the microbiology field. Positive and negative ion modes are included as standard, allowing greater flexibility and extending the compound categories that may be analysed.

Mass Spectrometry

Shimadzu – Axima iDplus Confidence



Dimensions: 700 × 1920 × 850 mm (w × h × d)

Weight: 330 kg, excluding data system

- Highlights:** iDplus Confidence – sensitivity and flexibility:
- Rapid microbial identification for research use
 - Identifies and classifies strains based on phenotype characteristics
 - SuperSpectra reduce the incidence of false positives and ensure robustness and reproducibility
 - Open system allows addition of new species / entries to the database or the creation of new databases
 - Clustering allows molecular profiling and tracking of change or evolution
 - High performance MS for large molecule analysis
 - MS/M

Mass Spectrometry

Shimadzu – MALDI-8030



Dimensions: 450 × 1055 × 745 mm (w × h × d)

Weight: 86 kg

Highlights: The Maldi-8030 is a benchtop, linear-only MALDI-TOF mass spectrometer designed to meet the needs of laboratories requiring a cost-effective MALDI-TOF platform. This newly designed MALDI-TOF mass spectrometer is functionally simple but provides outstanding MS performance in a compact footprint.

Microscopy

Olympus – CX33



- Highlights:**
- Maintenance-free Koehler illumination with LED
 - Fully ergonomic design

The CX33 microscopes enable users to remain comfortable during long periods of routine microscopy observations. The microscope frame conforms to the user's hands and the location of the control knobs maximize ergonomics to improve work efficiency. Users can quickly set a specimen with one hand, while adjusting the focus and operating the stage with the other hand with minimal movement.

A fixed Koehler illumination system provides detailed images while minimizing the need for maintenance and the possibility of operator errors. The microscope also features an optional camera port for digital imaging.

POCT



Blood Glucose
Immunoassays
Cardiology
Blood Gases/Electrolytes/
Metabolites/Oximetry
Urinalysis
Information Technology
Endocrine
Clinical Chemistry
Other



Transforming healthcare by
redefining diagnostics™

nova[®]
biomedical



QUIDEL



SARSTEDT

SIEMENS
Healthineers

Blood Glucose

Nova Biomedical – StatStrip Glucose/Ketone*



Highlights: The only glucose meter technology cleared by the US FDA across all professional and healthcare settings, including critical care.

- Measures and corrects glucose errors caused by abnormal haematocrit levels
- Measures and corrects errors caused by electro-chemical interferences
- Measures blood beta-hydroxybutyrate, the preferred ketone for diagnosing ketoacidosis
- Available as a fully connected, wi-fi meter, or a smaller Xpress* style meter

**StatStrip Glucose only in the US*

Blood Glucose

Siemens Healthineers – DCA Vantage Analyzer



Dimensions: 287 × 254 × 277 mm (w × h × d)
Weight: 3.88 kg

Highlights: The DCA Vantage Analyzer makes in-office diabetes testing easy, with accurate, clinically trusted results shown to improve decision making, patient compliance, and outcomes. Get precise HbA1c, albumin, creatinine, and A:C ratio results in minutes with good correlation to laboratory methods and simplify management for POC coordinators with advanced operator, data-management, and security capabilities.

Product availability varies by country.

Immunoassays

Quidel – Sofia 2 – Fluorescent Immunoassay Analyzer



Dimensions: 120 × 220 × 120 mm (w × d × h)
Weight: 1 kg
Assays: C. difficile GDH+Toxin, Influenza A+B & SARS-CoV-2, RSV, Strep A, Legionella, S. pneumoniae, Lyme, SARS-CoV-2 Antibody IgG

Highlights: Proven lateral-flow technology, proprietary advanced fluorescence chemistry and assay development techniques, all in a small bench-top analyzer that can be used near patient and in laboratory settings.

- Intuitive, fast and easy-to-use interface allows operator to quickly run patient samples or navigate stored data
- Test results in as few as 3 – 15 min (depends on assay)
- Hands-on-Time: < 1 min
- Walk Away- and Read Now-mode can be used depending on workflow requirements
- Room temperature storage

Cardiology

Quidel – Triage MeterPro



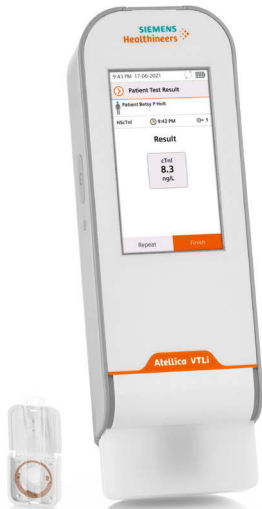
Dimensions: 120 × 225 × 70 mm (w × d × h)
Assays: High Sensitivity Troponin I, BNP, NT-proBNP, Troponin I, D-dimer, CK-MB, Myoglobin, PIGF, qualitative Drug Screen (urine)

Highlights: Quidel Triage MeterPro is designed to provide diagnostic results quickly and easily. With a variety of immunoassays the Quidel Triage MeterPro gives you a flexible solution at the point-of-care.

- Quantitative test results in about 15 – 20 minutes
- Single- and multimarker panels available
- Built in quality controls into the meter, software, and test device
- Interface with any LIS solution
- Can improve clinical, economic and operational outcomes

Cardiology

Siemens Healthineers – Atellica VTLi Analyzer



Assays: hs-cTnI
Dimensions: 85 × 52 × 250 mm (w × h × d)
Weight: 0.46 kg

Highlights: The Atellica VTLi Patient-side Immunoassay analyzer delivers lab-comparable, hs-cTnI results in 8 minutes on a fingerstick sample at the point of care. Leverage cardiac solutions that offer both speed and accuracy from the laboratory to the point of care.
 Not available for sale in the U.S. Product availability varies from country to country and is subject to local regulatory requirement.

Cardiology

Siemens Healthineers – Stratus CS 200 Acute Care Diagnostic System



Assays: Troponin I, D-dimer, NT-proBNP, CKMB, hsCRP, Myoglobin, bhCG
Dimensions: 460 × 580 × 710 mm (w × h × d)
Weight: 68 kg

Highlights: The Stratus CS 200 Acute Care Diagnostic System delivers lab-quality results at the point of care with the speed that is needed for cardiac patients. Its broad menu of tests helps physicians to make more timely assessments, enabling rapid decision making for better patient care.
 Not available for sale in the U.S. Product availability varies from country to country and is subject to local regulatory requirement.

Blood Gases/Electrolytes/Metabolites/Oximetry

KABE Labortechnik – Consumables for blood gas analysis



Highlights: The best sampling system in every situation

Plastic blood gas capillary:

- Unbreakable plastic
- Fast drawing
- Crystal clear
- Numerous drawing volumes and diameters available
- Minimum gas permeability for oxygen and carbon dioxide
- Comprehensive range of accessories

Blood gas tube:

- Rapid anticoagulation thanks to liquid preparation
- Optimal filling with special piston geometry
- Individual sterile packing

Both sampling systems are prepared with balanced heparin and are ideal for blood gas and electrolyte analyses on all common blood gas systems.

Blood Gases/Electrolytes/Metabolites/Oximetry

KABE Labortechnik – Pipette-Adapter for Capillaries (PAC)



Highlights: Assists in the handling of capillaries and their targeted draining on POCT-analysers and test strips or into vessels

- Suitable for different capillaries regarding measurements and preparations
- Available individually or completed with capillary

Handling:

- Fix capillary in the PAC while using oneway gloves
- The capillary is filled as usual – afterwards the thumb is put gently on the upper mouth of the PAC
- The (dropwise) draining is carried out by generating a slight gauge pressure with the thumb

Blood Gases/Electrolytes/Metabolites/Oximetry

Nova Biomedical – Prime Plus Critical Care Analyser



Assays: PO₂, PCO₂, pH, Hct, tHb, MCHC, Na, Cl, K, iCa, TCO₂, iMg, Glu, Lac, Urea (BUN), Creat, ePV, SO₂%, O₂Hb, COHb, MetHb, HHb, HbF*, tBil*

Highlights: Stat Profile Prime Plus offers a complete test menu panel in about one minute, along with bidirectional connectivity, a robust data management system, and comprehensive cybersecurity protection. This comprehensive critical care menu includes iMg, urea and creatinine and calculated tests for ePV, MCHC and OI. **Not available in the US or Canada*

Blood Gases/Electrolytes/Metabolites/Oximetry

Siemens Healthineers – epoc Blood Analysis System

Assays: pH, pCO₂, pO₂, TCO₂, Na⁺, K⁺, Ca⁺⁺, Cl⁻, Hct, Glu, Lac, Crea, BUN

Dimensions:
Host: 78 × 160 × 16 mm (w × h × d)
Reader: 85 × 50 × 215 mm (w × h × d)

Weight:
Host: 0.25 kg / Reader: <0.5 kg



Highlights: The epoc Blood Analysis System with epoc NXS Host is a market-first to be powered by Android. The System provides comprehensive critical care results at the patient's side in less than 1 minute and is integrated for patient safety. The system delivers a streamlined patient testing process that advances care delivery and accelerates clinical decisions while empowering the laboratory and caregivers to optimize their use of time and resources. It also serves as the nexus of care—connecting the patient and test results to caregivers and the laboratory and delivering a complete, comprehensive clinical picture. Product availability varies by country

Blood Gases/Electrolytes/Metabolites/Oximetry

Siemens Healthineers – RapidLab 1200 Blood Gas System



Parameters: pH, pCO₂, pO₂, Na⁺, K⁺, Ca⁺⁺, Cl⁻, Glu, Lac, tHb, CO-oximetry, Neonatal Total Bilirubin

Dimensions: 535 × 610 × 585 mm (w × h × d)

Weight: 29.5 kg

Highlights: Siemens RAPIDLab 1200 Blood Gas System is uniquely designed to meet high-volume critical care testing needs. The system reports patient results in just 60 seconds and offers microsampling capability. Cartridge-based reagent system simplifies operation, and Ready Sensor technology provides reliability with minimal maintenance. Product availability varies by country.

Blood Gases/Electrolytes/Metabolites/Oximetry

Siemens Healthineers – RapidLab 348EX Blood Gas System



Parameters: pH, pCO₂, pO₂, Na⁺, K⁺, Ca⁺⁺ / Cl⁻, Hct

Dimensions: 500 × 382 × 353 mm (w × h × d)

Weight: 9.8 kg

Highlights: The RAPIDLab 348EX Blood Gas System is a cost-effective solution for low-volume laboratory and point of care settings. Report accurate patient results from a whole blood sample in 60 seconds, with minimal operator interaction. Increase operator efficiency with bar-code data entry of patient and operator IDs, automatic sample aspiration and calibrations. Product availability varies by country.

Blood Gases/Electrolytes/Metabolites/Oximetry

Siemens Healthineers – RapidPoint 500e Blood Gas System



Parameters: pH, pCO_2 , pO_2 , Na^+ , K^+ , Ca^{++} , Cl^- , Glu, Lac, tHb, CO-oximetry, Neonatal Total Bilirubin

Dimensions: 300 x 550 x 420 mm (w x h x d)

Weight: 16.55 kg

Highlights: The RAPIDPoint 500e Blood Gas System features a redesigned user interface and upgraded hardware and software in a cartridge-based, no maintenance analyzer. It incorporates Siemens Healthineers proprietary Integri-sense Technology to deliver confidence with every result and elevates your blood gas solutions to a new level, allowing more time for patient care.

Product availability varies by country.

Urinalysis

Siemens Healthineers – Clinitek Status Connect System



Assays: Albumin, Bilirubin, Creatinine, Glucose, Ketone, Leukocytes, Nitrite, pH, Protein, Specific gravity, Urobilinogen, Albumin-to-creatinine, hCG

Dimensions: 171 x 185 x 272 mm (w x h x d)

Weight: 2.3 kg

Highlights: The CLINITEK Status Connect System with Auto-Checks Technology simplifies and streamlines your daily operations. This automated point-of-care urinalysis and hCG pregnancy testing solution eliminates the subjectivity of a visual read, helps improve accuracy, saves time, and allows for increased productivity. This system provides flexible data management and connectivity through bi-directional connectivity and on-board Wi-Fi with expanded network compatibility.*

*Feature not available in all countries.

Urinalysis

Siemens Healthineers – Atellica 1500 Automated Urinalysis System



Sample Throughput: 106 – 240 samples /h

Assays: Bilirubin, Clarity, Color, Glucose, Ketone, Leukocyte esterase, Nitrite, Occult blood, pH, Protein, Specific gravity, Urobilinogen, Albumin, Albumin-to-creatinine ratio, Creatinine, Protein-to-creatinine ratio

Dimensions: 1260 x 625 x 680 mm (w x h x d)

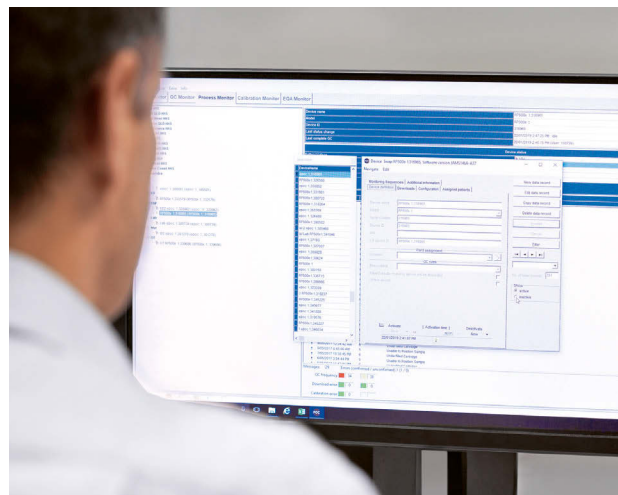
Weight: 114 kg

Highlights: Combining the CLINITEK Novus Analyzer and the Atellica UAS 800 Analyzer* into one completely automated unit, the Atellica 1500 Automated Urinalysis System sets the new standard for accuracy and efficiency. It is a truly digital automated urinalysis system, and lets you manage more samples with less staff in shorter time, while never compromising on high-quality results.

Not available for sale in the U.S. Product availability varies by country.

Information Technology

Siemens Healthineers – POCcelerator Data Management System



Highlights: Connect securely with an open, reliable POC informatics platform. Gain vendor independence and free choice in selecting the appropriate POCT device to meet your clinical requirements. Confirm that your POC devices are online, operational, and properly maintained with immediate oversight and control. Includes data analytics, operator management, quality assurance, and eLearning integration. Create a long-term solution that saves time and money by simplifying the complexity and cost of maintaining multiple IT systems.

Product availability varies by country.

Endocrine

Nova Biomedical – Allegro* – a fast simple capillary blood analyser



Assays: HbA1c, Lipids panel, PT/INR, CRP, blood glucose and creatinine, urine albumin and creatinine

Highlights: Allegro* offers a clinically important menu of 10 measured and individually selectable tests, plus 7 calculated tests. All tests are measured with disposable, ready-to-use cartridges or test strips, and are easily performed by non-technical personnel.

- Capillary fingerstick samples for all blood tests
- Immediate test results during the patient visit
- Reduces patient follow-up visits and costs

**Not available in the US or Canada*

Clinical Chemistry

Nova Biomedical – StatSensor Creatinine



Highlights: Fingerstick capillary testing for creatinine
The StatSensor Creatinine is a handheld analyser and miniaturized, single-use biosensor for whole blood creatinine testing. StatSensor Creatinine's advanced technology enables simple, rapid, and accurate assessment of renal function by fingerstick capillary blood sampling at the point of care. Available as a fully connected meter, or a smaller Xpress* style meter.

- Capillary sampling
- Creatinine and eGFR results in 30 seconds
- 1.2µL sample
- Calculates eGFR by CKD-EPI and MDRD equations

**Not available in the US and Canada*

Other

Nova Biomedical – StatStrip Lactate / Haemoglobin/Haematocrit*



Highlights: Fingerstick capillary testing for Lac, Hb, and Hct
The StatStrip LAC/Hb/Hct is a handheld, easy-to-use meter that measures lactate, haemoglobin and haematocrit at the point-of-care using two disposable biosensors and tiny capillary blood samples for all tests. Available as a fully connected, wi-fi meter, or a smaller Xpress style meter.

- Capillary sampling
- Measured Hb and measured Hct in 40 seconds from 1.6µL blood
- Measured lactate in 13 seconds from 0.6 µL blood

**StatStrip Lactate only in the US and Canada*

Other

Nova Biomedical – EMS Stat*



Highlights: Lactate, haemoglobin, haematocrit, glucose, and ketone for early patient assessment and treatment

- Fingerstick capillary sample
- Results as fast as 6 seconds
- Laboratory-quality accuracy
- Durable carrying case holds meters, single-use biosensors, controls, and lancets

EMS Stat* offers simple, fast, and accurate testing in the field. Two meter systems are available. One provides patient data storage plus wireless connectivity to external data managers, the other provides data storage only.

**Not available in the US and Canada*

Other

Sarstedt – Minivette POCT / Capillary Blood Collection



- Highlights:**
- Collection devices for Point-of-Care tests
 - Easy sample recovery
 - Precise and dispensing of small whole blood volumes
 - Prevents spillage during transfer
 - Volume range: 10 µl – 200 µl
 - Preparations: neutral, heparin and EDTA

Other

Sense Biodetection – Veros Covid-19



- Highlights:**
- Molecular test with lab-quality results with no instrument.
 - Veros Covid-19 is the only fully integrated molecular diagnostic test that provides laboratory-quality molecular results in about 15 minutes, right at the point of care.
 - In about 15 minutes
 - 97.9% accuracy
 - Easy-to-use, single-use test
- Product is CE marked and available in select EU markets.*

Other

Siemens – Clinitest Covid-19 Antigen Test



- Highlights:**
- The lateral flow Clinitest Rapid Covid-19 Antigen Test, distributed by Siemens Healthineers, is so easy to use that any trained professional can administer it in virtually any setting, without special equipment, at a fraction of the cost of laboratory PCR testing. When used as part of a comprehensive strategy, the Clinitest Rapid Covid-19 Antigen Test can help communities stay ahead of the spread of Covid-19, even in the face of emerging variants.

Other

Siemens – Clinitest Covid-19 + Influenza A/B Antigen Test



- Highlights:**
- One swab, three results—know with confidence
 - Reliable results in 15 minutes to facilitate immediate patient treatment.
 - When your patients present with a fever, cough, and other common respiratory symptoms, choosing the appropriate treatment requires determining the cause of their illness. The Clinitest Rapid Covid-19 + Influenza Antigen Test, distributed by Siemens Healthineers, enables you to detect and differentiate infections involving any combination of these three respiratory viruses at the point of care.

Information Technology

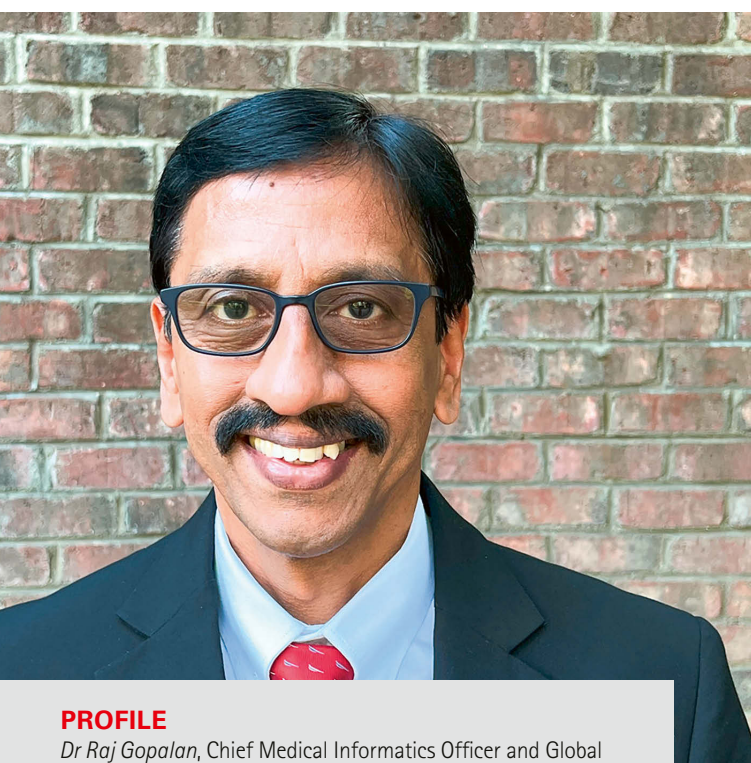
LIS / Middleware / POCT
Inventory Management



Earlier disease prediction and identification

The potential of AI in routine blood testing

By Dr Raj Gopalan



PROFILE

Dr Raj Gopalan, Chief Medical Informatics Officer and Global Head of Clinical Decision Support, Siemens Healthineers, Diagnostics

It's widely known that more than 70% of today's medical decisions involve the results of laboratory tests¹, but the insights clinicians derive from these tests today may only be scratching the surface of their potential. Routine blood tests may also offer opportunities for earlier identification of patients at risk for complex diseases such as cancer, other silent chronic diseases, acute life-threatening infections, and severe Covid-19.

Clinical laboratories have transformed over the years, becoming more efficient, accurate, and consistent. These advances have helped clinicians to better manage large volumes of lab test results, enabling them to more quickly identify results that require further review. The lab's role in offering decision support to physicians, predominantly, has not expanded much beyond providing basic reference intervals and highlighting the results that fall outside of those intervals.²

The development and implementation of more nuanced clinical decision support in the laboratory remains a tremendous opportunity with the potential to help identify risk of diseases sooner and ultimately support physicians in enhanced triage, advanced testing, and management of patients' conditions.

Clinical decision support (CDS) as a potential aid in patient management and triage protocols

The biochemical process of any disease is a complex mechanism, and the early signs of many diseases are often evident by changes in blood parameters that occur even before the first symptoms appear. Combined changes in the parameters of commonly ordered routine blood panels may offer clues to underlying disease processes, in order to provide an opportunity for clinicians to consider specific additional tests to confirm or rule out potential diseases.

With the help of artificial intelligence (AI) and machine learning (ML) technologies, it may be possible, for example, to develop and implement algorithms that automatically compare the results of various defined analytes and aggregate that data with the patient's age and gender (or other dimensions) to generate more advanced insight into a patient's condition. Taking this example a step further, such an advanced algorithm could potentially generate disease-specific likelihood scores to help the clinician focus on the most probable potential diagnoses or further inform the probability of risks for specific diseases.

The increasing prevalence of widespread cancers, progressive chronic diseases, and acute infections underscores the need for such models. It isn't long ago that various countries were forced to grapple with the awful decisions of how best to triage thousands of Covid-19 patients flooding hospital EDs and ICUs in the face of inadequate supplies and limited clinical care space. It was clear that physicians and hospitals could have then benefited

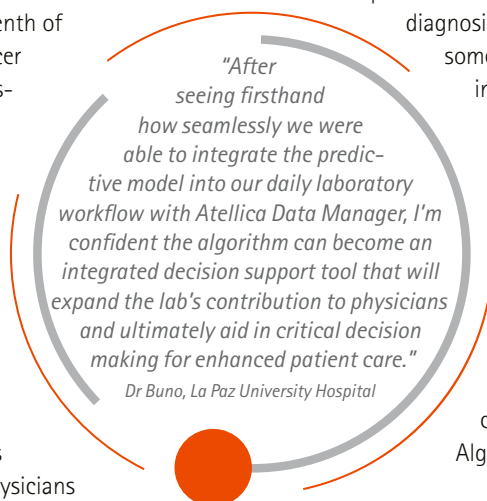
from advanced tools that provided likelihood-based information based on objective clinical data, namely lab test results.

Testing the theory with the Atellica Covid-19 Severity Algorithm

The Atellica Covid-19 Severity Algorithm* is Siemens Healthineers first educational-use-only, AI-based predictive model. The algorithm was developed to help clinicians predict the likelihood of individual patient progression to acute respiratory failure, end-organ dysfunction, and in-hospital 30-day mortality. Combining data from nine specific lab parameters, the model was developed with retrospective data from more than 14,500 Covid-19 patients from research partners at Houston Methodist Hospital (TX, U.S.), Emory University Healthcare (GA, U.S.), and La Paz University Hospital (Spain). Research findings demonstrated that the algorithm was able to predict patient outcomes with good accuracy, even when Delta was largely supplanted by Omicron, and was also a reliable predictor of outcomes in individuals with and without vaccinations.³

Exploring the potential role of AI-based CDS in early identification of cancer and other complex diseases

European residents represent about one-tenth of the global population, yet 1 in 4 of all cancer diagnoses occur in this region. Breast, prostate, lung, and colorectal cancers account for half of all cancers there.⁴ Liver disease is a leading cause of years of working life lost in Europe.⁵ As we enter a post-Covid-19 era, we are expanding our AI-based predictive model development with a view to supporting clinicians grappling with other prominent health burdens, namely hepatocellular, lung, and colon cancer; liver disease; chronic kidney disease; and sepsis. We anticipate that this could, for example, enable primary care physicians at outpatient clinics and emergency physicians to earlier identify patients at risk of these life-threatening conditions and support more timely referrals to specialists for special blood marker testing or advanced imaging. We are consciously working on developing these algorithms based on data from routine blood tests with the view to the algorithms also supporting the needs of patient populations lacking access to advanced diagnostics for early detection due to socioeconomic status, lack of insurance for preventive care, or lack of access to care.



While we believe that CDS creates a significant opportunity to help clinicians rule in or rule out potential candidates for diagnosis, we are mindful that its success will to some degree also depend on proper integration into the existing physician lab test order/result review workflow. This integration comes with its own set of unique challenges, but we believe that it is possible to overcome them by utilizing laboratory middleware such as Atellica Data Manager as a liaison between the Electronic Medical Record (EMR) and the analyzers. This scenario was tested in connection with our feasibility research conducted for the Atellica Covid-19 Severity Algorithm.

In closing, AI/ML have immense potential to help identify at-risk patients early in disease processes through routine blood examinations. While more research is needed, early findings suggest that predictive models may potentially support a clinician's interpretation of lab test results to aid in the earlier diagnosis and management of patients and stratification of risk.

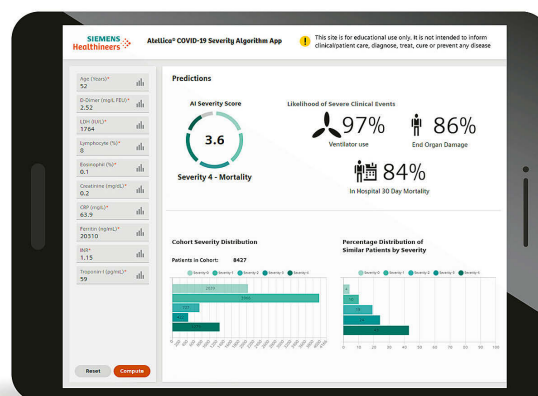


Figure 1. The Siemens Healthineers educational-use-only Atellica Covid-19 severity algorithm uses patient data to assign severity scores, including the likelihood of individual patient progression to acute respiratory failure, end-organ dysfunction, and in-hospital 30-day mortality.

References

- 1 Strengthening the clinical laboratories. Centers for Disease Control and Prevention. Accessed on 8/29/2022.
 - 2 Artificial intelligence in pathology and laboratory medicine. TS Pillay. Journal of Clinical Pathology, 2021 – jcp.bmj.com. Accessed on 8/29/2022.
 - 3 A deep learning approach for predicting severity of COVID-19 patients using a parsimonious set of laboratory markers. V Singh, R Kamaleswaran, D Chalfin, A Buño-Soto... – Iscience, 2021 – Elsevier. Accessed on 8/29/2022.
 - 4 Breast, prostate, lung, and colorectal cancers represent over half of all cancer diagnoses in Europe. The Cancer Atlas. Accessed on 8/29/2022.
 - 5 Liver disease in Europe. The Lancet. Accessed on 8/29/2022.
- * The Atellica Severity Algorithm is intended for educational purposes only. It is not for clinical or patient care, diagnosis, treatment, or to cure or prevent any disease.

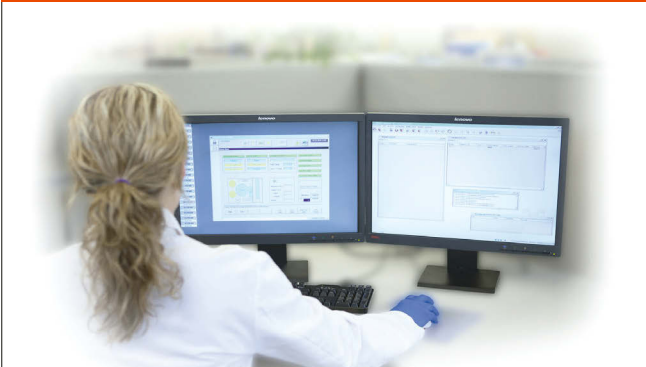


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LIS/Middleware/POCT

Beckman Coulter – DxONE Command Central Workstation



Highlights: Beckman Coulter's DxONE Command Central remote monitoring system helps manage lab workflow and improve decision-making steps. The system can connect up to 18 instruments or automation systems, and up to five networked DxONE Command Central workstations within a single laboratory, allowing the operator to place DxONE Command Central workstations in prime laboratory locations for increased flexibility.

DxONE Command Central maximizes workflow efficiencies by providing lab technicians with a real-time view of laboratory systems from a single point of control. DxONE Command Central works with data managers such as Remisol Advance to achieve workflow efficiencies, or can serve as a stand-alone product for users to monitor automation and/or multiple analyzers and quickly respond to any instrument issues.

LIS/Middleware/POCT

Beckman Coulter – Remisol Advance



Highlights: Remisol Advance is an enterprise data management solution that can help improve sample workflow through consolidated management, drive consistency through network standardization across multiple sites, create efficiency through autoverification, and improve reliability by integrating quality control management. It is a unique software product that consolidates patient test information from multiple instruments in the lab or from multiple labs in the hospital network. Remisol Advance features virtualization capability to help reduce failure points and increase uptime.

LIS/Middleware/POCT

Clinisys – Clinical Laboratory

clinisys
Enabling healthier communities

Clinisys
Clinical Laboratory™

- +1000 laboratories**
- +20,000 users**
- 100% compliance**
With national guidelines and standards

Highlights: Clinisys Clinical Laboratory - high efficiency, rapid communication of results, standardised workflows

Our clinical laboratory solutions are high-performance laboratory information systems (LIS) that allow you to organise and automate all processes exactly as you want them: from order entry and instrument control to results reporting, invoicing and statistics. Thanks to the rich functionality of our solutions your laboratory can work more efficiently.

You save costs and resources, while offering an enhanced service for requesters and patients – today and tomorrow.



Integrated
solution management
for your laboratory

dr. neumann&kindler

www.labcore.de

LIS/Middleware/POCT

Clinisys – Genetics Laboratory



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Enabling healthier communities

Clinisys
Genetics Laboratory™



Complete genetics workflow



Family management with a drawing pedigree solution



High-level automation



Shortest configuration time

Highlights: Clinisys Genetics Laboratory – digital workflows for the entire genetic spectrum

Our genetics laboratory solution covers the entire genetic spectrum including the latest methods such as next-generation sequencing. It can be used as a standalone solution with a gene panel and variant results management, interconnected with other LIS systems and essential interfaces to all common expert systems. It can also be configured as part of a complete diagnostics LIS or be connected to order entry and result reporting systems such as Clinisys Order & Results Management.

LIS/Middleware/POCT

Clinisys – Order & Results Management



clinisys
Enabling healthier communities

Clinisys
Order & Results Management™



Easy, error-free order entry



Flexible sample collection workflows



Feature-rich result consultation



Intelligent and secure guidance

Highlights: Clinisys Order & Results Management – streamline communications between healthcare providers and laboratories

Our solution is a customisable, intelligent order entry and result consultation solution, helping you provide high quality patient care. Clear, fast and correct communication between care providers and laboratories is key in enabling high-quality patient care. From order entry, through sample collection, to result consultation, Clinisys Order & Results Management keeps you connected – anytime, anywhere.

LIS/Middleware/POCT

Medat – Laboratory Information System



medat
Laborinformationssystem

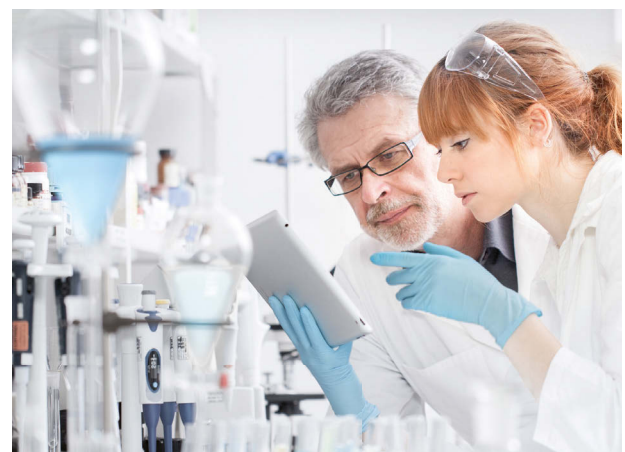
A laboratory technician in a white coat is working at a computer workstation. The background is a laboratory setting. Overlaid on the left side is a cluster of green hexagonal icons representing various laboratory functions: a test tube, a biohazard symbol, a DNA helix, a microscope, a house, a cross, a biohazard symbol, and a biohazard symbol.

Highlights:

- Complete solution from order entry to billing.
- Highly customisable modules for microbiology, virology, environmental hygiene, cytopathology, histopathology, clinical chemistry, serology/toxicology, blood bank and human genetics.
- Single, integrated system for all divisions and sites.
- Reliable operation in some of Europe's biggest laboratories.

LIS/Middleware/POCT

Mesalvo – LabCentre



Highlights: LabCentre is a laboratory and pathology information management system. It helps doctors, scientists, technologists and management staff to track samples and testing processes, communicate results to other health professionals, and monitor costs and reporting.

LabCentre supports the following disciplines:

- Blood sciences
- Microbiology
- Hygiene
- Transfusion medicine
- Pathology
- Billing

LIS/Middleware/POCT

Siemens Healthineers – Atellica Process Manager



Highlights: Uncover inefficiencies and optimize clinical operations with built-in analytics and business intelligence. Identify and resolve pre-analytic, analytic and post-analytic problems with advanced performance metrics. Increase productivity with centralized oversight to control systems*, view reagent levels and review exceptions from one screen. Deliver transparent, predictable TAT using rules and at-risk sample alerts.

*Instruments require VNC or Remote Desktop capability. Not available on all systems.

LIS/Middleware/POCT

Siemens Healthineers – Atellica Data Manager



Highlights: Open, scalable, easy-to-use solution with powerful rules to standardize testing, enhance QC and streamline result management. Enhance visibility, automate processes, autoverify results and centralize management of analyzers, automation, sites and networks to increase productivity. Reduce errors and process variation with consistent review/reporting. Sharpen clinical focus with details needed to make informed, accurate decisions.

Product availability varies by country.

Inventory Management

Siemens Healthineers – Atellica Inventory Manager



Highlights: Get the right materials at the right time – Atellica Inventory Manager* provides automated, real-time control of reagents and consumables across multiple locations to reduce costs, save time, and improve lab quality.

*Product availability varies by country.

clinisys

Enabling healthier communities



Powering modern laboratories

Clinisys' intelligent informatics solutions and expertise redefine the modern laboratory across healthcare, life sciences and public health.

clinisys.com



Other Applications

Blood Collection
Pipette Tips
Saliva Collection
Centrifuges
Nitrogen Generators
Compressors
Incubators
Specialties



Other Applications

Blood Collection

Greiner – MiniCollect Capillary Blood Collection System



- Highlights:**
- A gentle way to collect small blood samples for a wide range of analyses
 - Perfectly suited for young children, geriatric patients as well as patients with fragile veins
 - Small quantities are sufficient to enable a variety of parameters to be tested
 - For delicate vein conditions, patients who often have blood samples taken, or people with severe burns
 - The MiniCollect® safety lancets are available with a wide range of puncture depths and blade sizes/needle gauges to ensure that the puncture wound can be kept as small as possible while achieving the targeted sample volume

Blood Collection

Greiner – Vacuette Safety Blood Collection Sets



- Highlights:**
- Specially developed for blood collection from patients with difficult vein conditions
 - Protection from the risk of needlestick injuries
 - Simple activation of safety mechanism
 - Transparent view window provides clear vein entry indication
 - Particularly safe due to activation of the safety mechanism while the needle is still in the vein
 - More flexibility due to assorted tube lengths for blood collection
 - Optional use as an infusion set

Blood Collection

KABE Labortechnik – Capillary Blood Collection GK



- Highlights:** Capillary Blood Collection GK – for small amounts of blood
- The system offers special advantages for the collection of blood samples from new-borns, children, elderly people and emergency patients, thus everywhere, where only small amounts of blood are available
- The test vessel is prepared on the entire inner surface. Besides it can be used as centrifugal vessel
 - The capillary is coated on the entire inner surface and guarantees an exact filling volume
 - The attached stopper, which is optionally available with an integrated elastically resealable rubber membran, offers perfect tightness
 - Different measurements and preparations are available

Blood Collection

KABE Labortechnik – Primavette S and V



- Highlights:** The safe and variable blood collection system
- Gentle – aspiration technique suitable for all vein conditions
 - Safe – unbreakable, high quality plastic ensures maximum user and patient safety
 - Clean – the high grade rubber membrane closure guarantees absolute tightness
 - Flexible – vacuum technique possible
 - Versatile – available in different tube sizes and preparations
 - Comprehensive – offered with a broad range of accessories

Blood Collection

KABE Labortechnik – Consumables Test Tubes



- Highlights:** Test tubes and reaction vessels in various dimensions and versions
- Different sizes and bottom shapes
 - Various stopper types and colours, such as screw caps, pressed-on stoppers and more
 - Tubes available with (individual) label with /without barcode and tear-off label
 - Tubes with preparations for common blood analyses available, such as serum and plasma collection or haematological analyses
- Furthermore: precise filling of customers' reagents possible on in-house filling-systems

Blood Collection

Sarstedt – Multi-Safe Disposal Boxes



- Highlights:**
- Our wide, tailor-made range of Multi-Safe disposal boxes corresponds to the current ISO 23907-1:2019 on the prevention of needle stick injuries.
 - With our extensive product range of Multi-Safe boxes we are able to meet any disposal need in the field of medicine and laboratory.
 - With the various options, from the convenient 200 ml format to the autoclavable 60 l disposal box for clinical waste, we offer an optimal solution for every need.

Pipette Tips

Sarstedt – Low Retention Pipette Tips



- Highlights:**
- Minimising sample loss
 - Optimised surface for enhanced dispensing behavior
 - Improved sample recovery
 - Minimal sample loss of highly viscous liquids or samples containing detergents
 - Cost savings in valuable reagents

Saliva Collection

Sarstedt – COVID-19 virus diagnostics products



- Highlights:**
- Validated containers for saliva collection for virus diagnostics: Monovette VD, V-Monovette VD and Salivette VD.
 - Saliva testing has become particularly important and is ideal for screening for SARS-CoV-2. Saliva collection using gargling and/or the Salivette offers the key advantage that the user can collect the saliva themselves under supervision.
 - Both the gargling and the Salivette saliva collection methods are a more pleasant experience for the patient than the commonly used nose and throat swab method.
 - The sample collected can be transported to the laboratory securely sealed in a secondary container.
 - Acute infections can be directly detected using the molecular biological PCR method. There are also rapid tests that use saliva as the sample material.

Other Applications

Centrifuges

Hettich – Mikro 220 | 220 R

Dimensions:
330 × 420 × 313 mm (w × h × d)

Weight:
21 kg / 42 kg

Rotational frequency:
18,000 min⁻¹

Relative centrifugal force:
31,514



- Highlights:**
- Compact, high-performance microlitre centrifuge
 - Choice of seven rotors
 - IvD-conform according to directive 98/79/EC
 - Impulse key for short cycle mode
 - Nine program memories for more individuality
 - Nine individual acceleration and deceleration stages
 - Model 220 R coolable from -20 to +40 °C with pre-cooling function
 - Max. number of tubes: 60 × 2.0 ml

Centrifuges

Hettich – Universal 320 | 320 R

Dimensions:
401 × 529 × 346 mm (w × h × d)

Weight:
31 kg / 52 kg

Rotational frequency:
16,000 min⁻¹

Relative centrifugal force:
24,900



- Highlights:**
- The universal choice among the benchtop centrifuges
 - Choice of 18 rotors
 - IvD-conform according to directive 98/79/EC
 - Impulse button for short centrifugation
 - Impulse key for short cycle mode
 - Nine program memories
 - Nine individual acceleration and ten deceleration stages
 - Model 320 R coolable from -20 to +40 °C with pre-cooling function
 - Max. number of tubes: 4 × 200 ml / 6 × 94 ml

Centrifuges

Hettich – Rotina 420 | 420 R

Dimensions:
506 × 650 × 423 mm (w × h × d)

Weight:
75 kg / 108 kg

Rotational frequency:
15,000 min⁻¹

Relative centrifugal force:
24,400



- Highlights:**
- High-performance with first-class equipment
 - Choice of five rotors
 - IvD-conform according to directive 98/79/EC
 - Max. noise level of 51 dB(A) with rotor 4790-A
 - 98 program memories for more individuality
 - Nine individual acceleration and deceleration stages
 - Model 420 R coolable from -20 to +40 °C with pre-cooling function
 - Max. number of tubes: 4 × 600 ml

Centrifuges

Sarstedt – SC 2700 Centrifuge



- Highlights:**
- Centrifugation at up to 2,700 x g with swing-out rotor
 - Easy operation with pre-installed programs
 - Variable program for individual settings is available
 - High quality and quiet

The SC 2700 centrifuge has been specially designed for use in physician's consultancies or small laboratory units and can be used with all standard samples tubes.

Intuitive operation to centrifuge the most common types of sample materials at the push of a button is guaranteed by pre-set programs for blood and urine.

The settings tailored to the specific sample materials of blood and urine make it virtually impossible to operate the centrifuge incorrectly.

Nitrogen Generators

Chromalytic – Nitrogen generators for LC-MS



Nitrogen flow: up to 64 l/min at 0 bar

Nitrogen purity: up to 99.5%

- Highlights:**
- Nitrogen generator with integrated compressor HF30A and without compressor HF30N/HF60N available
 - Lowest life cycle costs on the market
 - Oil-free Dürr Technik compressor integrated (HF30A)
 - Easy usability / plug & play
 - Developed for continuous operation

Compressors

Dürr Technik – Sicolab – Compressor stations



Air flow: up to 145 l/min at 5 bar

Compressed air quality: up to 1:3:1 (according to ISO 8573-1)

- Highlights:**
- Oilfree compressed air for many applications
 - Silent – thanks to excellent soundproofing (48 – 54 db [A])
 - Compact – fits under the laboratory bench
 - Mobile – with wheels or handling grips
 - Wide variety of versions
 - Membrane dryer and filters as options

Incubators

Hettich – HettCube 600 R

Dimensions:

710 × 825 × 1990 mm (w × h × d)

Weight:

175 kg

Temperature range:

0 °C to +65 °C

Internal volume:

520 l

Energy consumption at 37°:

0.056 kWh/h



- Highlights:**
- Only 0.6 m² footprint
 - Up to 67 percent of usable volume
 - Fast and easy access, one-hand operation door
 - Perfect conditions with unique temperature regulation
 - Real-time calendar
 - Week programming with holiday function
 - Flexible alarm settings
 - Wide range of program functions (Start after time, start after temperature etc.)
 - Up to four shelves included in standard
 - Automatic door closure with magnetic seals
 - Low noise level of ≤ 44 dB(A)










Specialties










Sarstedt – Cell Culture Products






- Highlights:** For over 25 years Sarstedt has produced a wide range of high quality cell culture products which are distributed worldwide. These many years of experience and knowledge of the needs of users have allowed us to optimise and continually expand the product range.

Companies & Suppliers

	Sample Processing	Automation	Chemistry & Immunochemistry	Mass Spectrometry	Hematology	Pathology	DNA	Microbiology	POCT	Information Technology	Other Applications
<p>Advanced Instruments 2 Technology Way 02062 Norwood, USA phone: +1 800-225-4034 orders@aicompanies.com www.aicompanies.com</p> 			■								
<p>ASP Lab Automation AG Heinrich-Hertz-Straße 32 25336 Elmshorn, Germany phone: +49 4121 264 731-0 info@asplabauto.com www.asplabauto.com</p> 	■										
<p>Beckman Coulter Diagnostics 22, Rue Juste-Olivier 1260, Nyon, Switzerland phone: +41 22 365 38 08 EUPublicRelations@beckman.com www.beckmancoulter.com</p> 	■	■	■		■			■		■	
<p>Chromalytic LTD Cranleigh Road Fareham PO16 9DR phone: +49 7142 9022-0 office@chromalytic.com www.chromalytic.com</p> 											■
<p>Clinisys Deutschland GmbH Am Klingenweg 6 65396 Walluf, Germany phone: +49 6123 7016-222 info-de@clinisys.com www.clinisys.com</p> 						■				■	
<p>DRG Instruments GmbH Frauenbergstraße 18 35039 Marburg, Germany phone: +49 6421 1700-0 drg@drg-diagnostics.de www.drg-diagnostics.de</p> 			■								
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	Sample Processing	Automation	Chemistry & Immunochimistry	Mass Spectrometry	Hematology	Pathology	DNA	Microbiology	POCT	Information Technology	Other Applications
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<p>Hamamatsu Photonics Deutschland GmbH Arzbergerstraße 10 82211 Herrsching, Germany phone: +49 8152 375-203 info@hamamatsu.de www.nanozoomer.com</p> 						■					
<p>Andreas Hettich GmbH & Co. KG Föhrenstraße 12 78532 Tuttlingen, Germany phone: +49 7461 705-0 info@hettichlab.com www.hettichlab.com</p> 											■
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	Sample Processing	Automation	Chemistry & Immunochemistry	Mass Spectrometry	Hematology	Pathology	DNA	Microbiology	POCT	Information Technology	Other Applications
<p>Siemens Healthineers Laboratory Diagnostics 511 Benedict Avenue 10591 Tarrytown, NY, USA phone: +1 914 631 8000 www.siemens-healthineers.com/laboratory-diagnostics</p> 		■	■		■		■		■	■	
<p>Sysmex Europe SE Bornbarch 1 22848 Norderstedt, Germany phone: +49 40 527 26-0 info@sysmex-europe.com www.sysmex-europe.com</p> 		■			■						
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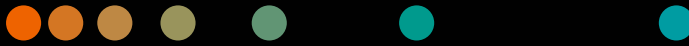
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Continuous innovation for a lifetime of answers

Integrated, intelligent, and fully customizable solutions to enhance diagnostic potential—for every patient and clinical environment



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