



bioMérieux systems

September 2011

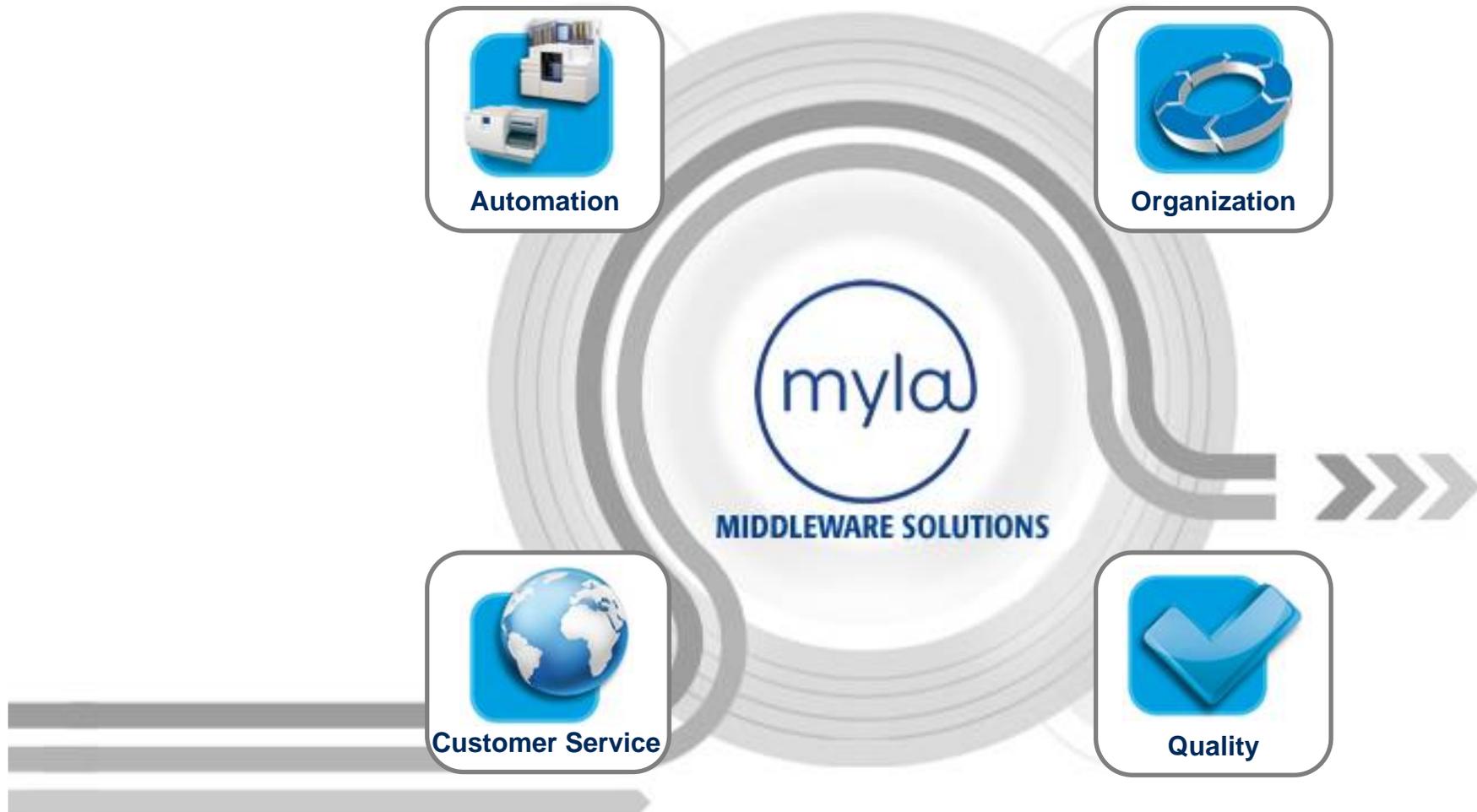




Overview

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Microbiology: FMLA™ - Full Microbiology Lab Automation



Reducing time-to-results
so clinicians can select treatment faster

Microbiology: Urinary screening - UF-1000i/500i



Advanced flow cytometry technology with hydrodynamic focusing for urinary screening

- ▶ Distribution agreement in France, Germany, the Netherlands, UK, South Korea, and Australia
- ▶ High quality by accurate detection and enumeration of urine particles
- ▶ Standardized results with capabilities to screen out negative samples
- ▶ In line with customer needs
 - ▼ Standardization
 - ▼ Time-saving
 - ▼ Traceability

Launched in September 2007

Microbiology : PREVI™ Color Gram



- ▶ Full automated Gram staining system :
from fixation to the slide ready for
reading
- ▶ Direct analysis

- ▶ A fast, reliable & user friendly system
 - ▼ Result in less than 5 minutes
- ▶ Accurate standardized results
 - ▼ No cross contamination
- ▶ Clean and Safe
 - ▼ System entirely enclosed with
a waste container
- ▶ Environmentally friendly system
 - ▼ Spray nozzles
 - ▼ Less consumption and waste

- ▶ Pre-launch in about 10 European countries in 2008
- ▶ Global launch in 2009

Microbiology: PREVI™ Isola

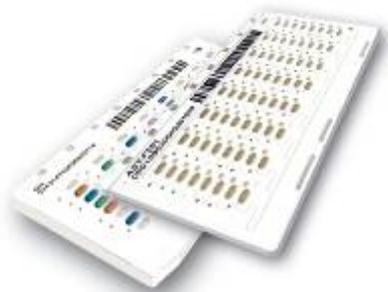


- ▶ Pre-analytical processing
- ▶ Specimen inoculation automation

- ▶ Standardized plate inoculation
- ▶ Time saving with high throughput
180 plates / hour
- ▶ No cross contamination
- ▶ Optimized colony isolation
- ▶ High quality for plate streaking
- ▶ Enhanced productivity
- ▶ Breakthrough technology for
innovation in plate streaking

- ▶ Pre-launched in 2008 in the Netherlands, Germany
and the U.S.
- ▶ Gradual rollout to other regions in 2009

Microbiology: VITEK®



Launched:

- ▶ 1977 - VITEK
- ▶ 1997 - VITEK®2
- ▶ 2004 - VITEK®2 Compact

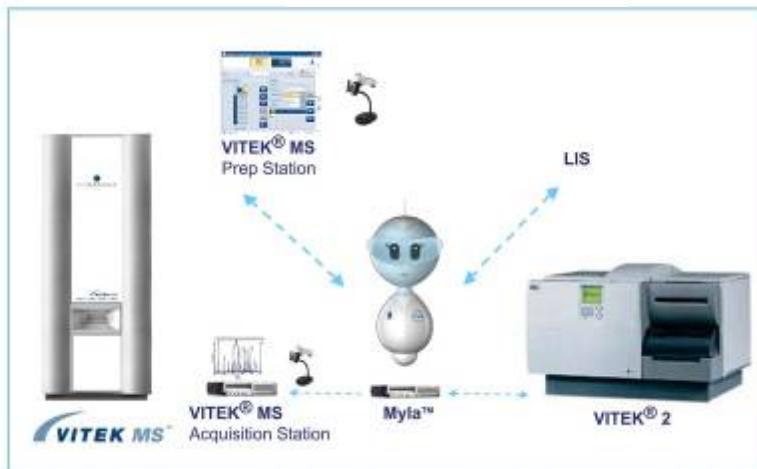
- ▶ Fully automated identification (ID) and antibiotic susceptibility testing (AST)
- ▶ Featuring Advanced Expert System™ result interpretation software

- ▶ The standard for routine identification
 - ▼ Coverage: 90% of the routine work in a normal clinical laboratory
 - ▼ 64-well cards with proprietary and innovative substrates
- ▶ The highest level of automation
 - ▼ Full automation and safety (inoculation, sealing, and incubation of the card)
 - ▼ Accuracy
 - ▼ Rapid reporting (same day ID / AST results)
 - ▼ Resistance detection
 - ▼ Separate ID / AST testing
 - ▼ Reduced waste
 - ▼ After-sale service and high level of technical support
 - ▼ 21 CFR Part 11 compliant



▶ MALDI-TOF mass spectrometry (MS)

- ▶ Extract the ions from the sample: Matrix-Assisted Laser Desorption / Ionization (MALDI)
- ▶ Separate the ions by m/z: Time-of-Flight Analysis (TOF)
- ▶ Detect the ions



▶ Mass spectrometry for identification of bacteria, yeast, fungi, and mycobacteria

- ▶ Fast ID
- ▶ Broad range of organisms
- ▶ Cost-effective solution for large laboratories

▶ Workflow integration via Myla™

- ▶ Integrated with VITEK® 2 for antibiotic susceptibility testing (AST)

European commercial launch in Q1 2011

Microbiology: BacT/ALERT®



Launched:

- ▶ BacT/ALERT® in 1991
- ▶ BacT/ALERT® 3D in 1997

- ▶ Bloodculture
- ▶ Direct culture of blood samples and other fluids

- ▶ Early detection of septicemia and industrial sterility control
- ▶ “Yes – No” test for bacteria
 - ▼ Automated colorimetric detection system - with visual positive signal
 - ▼ Immediate notification of results
- ▶ Plastic bottles to ensure safety
- ▶ New media: synthetic resin beads to replace activated charcoal suspension in Q4 2011
 - ▼ Neutralization of antibiotics in clinical samples and industrial products
 - ▼ A clear Gram stain

Immunoassays : VIDAS® and mini VIDAS®



- ▶ Launched in 1991 for VIDAS®
- ▶ Launched in 1992 for mini VIDAS®

- ▶ Antigen-antibody reaction
- ▶ Detects and measures infectious agents: bacteria, viruses, parasites, hormones, proteins
- ▶ ELFA - Enzyme Linked Fluorescent Assay technology

- ▶ The world's largest installed base* in IA laboratories, with more than 25,000 VIDAS® and mini VIDAS® clinical systems
- ▶ Multi-parameter instrument
- ▶ Large menu with > 90 parameters
- ▶ One of the most reliable instrument: MTBF**
VIDAS® = 660 days / mini VIDAS® = 1,150 days
- ▶ Flexible and easy-to-use
- ▶ Single test concept tailored to the small volume market

* College of American Pathologists: Automated Immunoassay Analyzers – June 2009

Immunoassays: DA VINCI®



DA VINCI® QUATTRO™



Launched in 2003

Microplate immunoassay tests

- ▶ Up to 192 sample tubes loaded at one time
- ▶ Used by medium-sized blood banks and large laboratories
- ▶ Extensive set of in-process controls
- ▶ Loading tower: 15 microplates
- ▶ Traceability
- ▶ Easy to operate
- ▶ « Open » system: possibility of adding other assays

Molecular Biology: NucliSENS® easyMAG®



- ▶ Simplification and automation of sample preparation in molecular biology laboratories
- ▶ BOOM® technology: the reference technology in extraction
- ▶ Automated nucleic acid extraction - magnetic extraction



- ▶ A single generic protocol for all samples
- ▶ Up to 240 extractions in an 8-hour shift
- ▶ Less than 15 minutes of hands-on-time per 24 extractions
- ▶ Simultaneous processing different samples and volumes
- ▶ User comfort
 - ▼ Simplicity
 - ▼ Flexibility
 - ▼ Quality
 - ▼ Time saving

Launched in 2005

Molecular Biology: NucliSENS EasyQ®



Launched in 2002

- ▶ First automated system to combine NASBA™ technology, amplification technology - and real-time molecular beacon detection
- ▶ Amplification process at the same temperature
- ▶ Nucleic acid amplification and detection of infectious disease agent

- ▶ 8 - 48 tests per run
- ▶ Throughput: 48 sample results with amplification times from 60 to 150 minutes
- ▶ Main targeted pathologies:
 - ▼ Therapeutic monitoring - HIV viral load
 - ▼ Respiratory panel
 - ▼ Central Nervous system
 - ▼ Basic Kit
 - ▼ HPV detection

Molecular Biology: DiversiLab®



Launched in 2007

- ▶ Microbial genotyping of bacteria and fungi
- ▶ Based on patented rep-PCR technology

- ▶ For tracking the spread and source of microbial infection, contamination, or epidemics
- ▶ Microbial isolates to be quickly and accurately distinguished at the subspecies and strain level
 - ▼ Precise and economical solution
 - ▼ Results in 4 hours

Industrial Applications

VIDAS® and
mini VIDAS®



VITEK® compact



TEMPO®



BacT/ALERT® 3D Dual-T



Industrial applications : TEMPO®



▶ Automated solution for the enumeration of quality indicator microorganisms

- ▶ Ease of use
- ▶ Fast turnaround time for accurate and standardized results
- ▶ Standardization of numerous preparation steps, interpretation, and test results
- ▶ TEMPO® system's menu: a broad range of tests to answer different needs
- ▶ Incubation of 24 to 48 hours

Launched in 2005




BIOMÉRIEUX