

ARCHITECT

Designed to reach

above and beyond



# Simplify your processes while elevating your productivity

Systems developed with three principles in mind:

## True Family Commonality

- Equivalent patient results
- Identical software
- Universal ARCHITECT sample carrier

## Integration Without Compromise

- Seamless integration of clinical chemistry and immunoassay
- Excellent STAT turnaround time
- No clinically significant sample-to-sample carryover

## Enhanced System and Assay Dynamics

- Excellent low-end sensitivity and expanded dynamic range
- Extended linear ranges
- Clot, bubble and insufficient sample volume detection

## Immunochemistry Systems



CLINICAL CHEMISTRY  
c16000



IMMUNOASSAY  
i1000SR\*



INTEGRATED CLINICAL CHEMISTRY AND IMMUNOASSAY  
ci8200

## Immunochemistry Assays

General chemistries  
Specific proteins  
Special chemistries

TDMs  
DOAs  
Cardiac

Hepatitis  
Retrovirus  
Cancer

Thyroids  
Metabolic  
Fertility

\*In development

# Abbott Diagnostics

partners with your laboratory to provide solutions that allow you to:

Improve patient care

Increase efficiency

Meet increasing demands with declining resources

is a global leader in the diagnostics market:

11 manufacturing locations

6 R&D locations

Customers in 130+ countries

provides a comprehensive portfolio of solutions to address your needs:

Process  
Improvement

Analytics

Informatics

Physical  
Automation

Full  
Automation



AxSYM

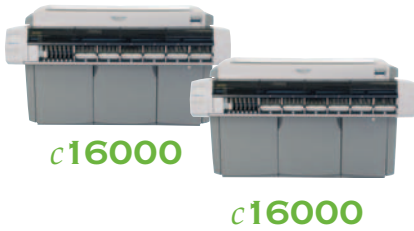


ACCELERATOR

# True Family Commonality

The ARCHITECT family delivers advanced technology with a simple and consistent user experience

## Clinical Chemistry



## Immunoassay



## Integrated



Increasing Volume ↑

\*In development

## Equivalent patient results

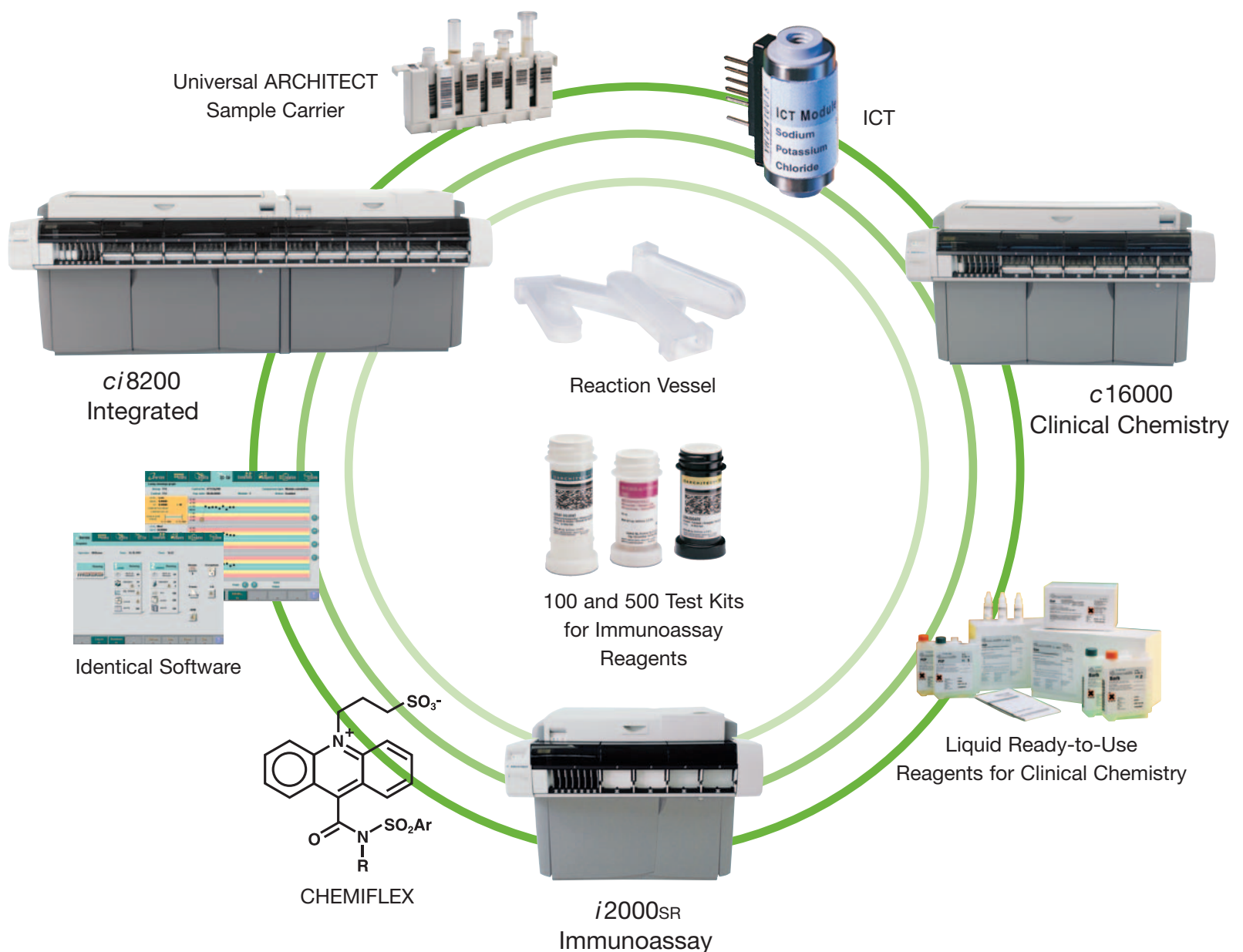
Identical technology, reagents and assay protocols generate patient results that are equivalent from system to system.

## Identical software

ARCHITECT offers identical software across the entire family of instrumentation.

## Universal ARCHITECT sample carrier

A universal sample carrier and common reagent packs are utilized on all ARCHITECT systems.



# Integration Without Compromise

ARCHITECT integration of clinical chemistry and immunoassay testing delivers excellent STAT turnaround time while ensuring no clinically significant sample-to-sample carryover

## Clinical Chemistry



c16000

## Immunoassay



i2000SR

### Testing consolidation with ARCHITECT integration

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Excellent STAT turnaround time

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Ease-of-use

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Improved workflow

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Confidence in results

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Reduced costs

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## Integrated Clinical Chemistry and Immunoassay



ci16200

## Robotic Sample Handler (RSH)

Unique design handles the complex workload demands of your clinical laboratory.



Dynamically prioritizes and transports samples



Achieves consistent STAT turnaround time regardless of routine workload



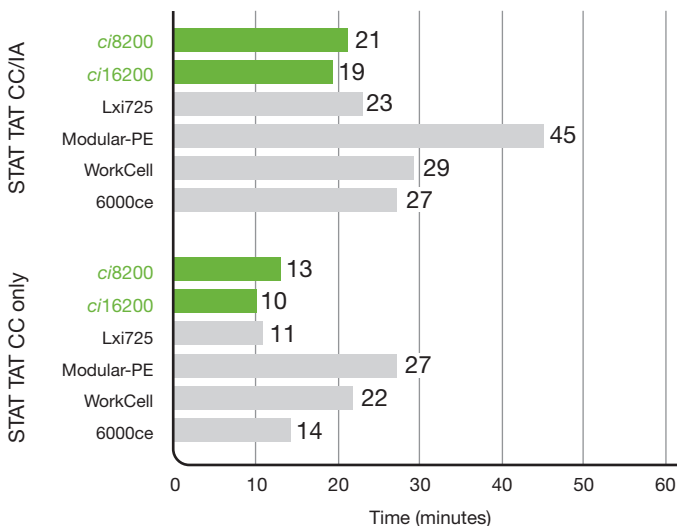
Provides easy access to samples at all times

## Excellent STAT turnaround time

Fastest turnaround time and total throughput in an independent study of comparable analyzers.

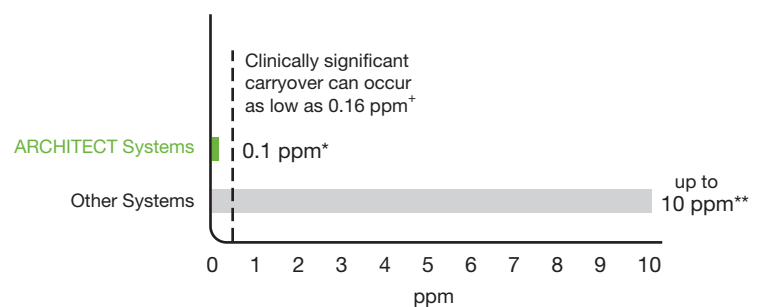
## No clinically significant sample-to-sample carryover

SmartWash technology ensures <math><0.1\text{ ppm}</math> carryover while reducing sample volume requirements.



Source: "Comparative Performance of Integrated Systems When Challenged to Complete Standard Workload of STAT and Routine Specimens", EAC, Enterprise Analysis Corp., Stamford, CT, 2007.

## Carryover



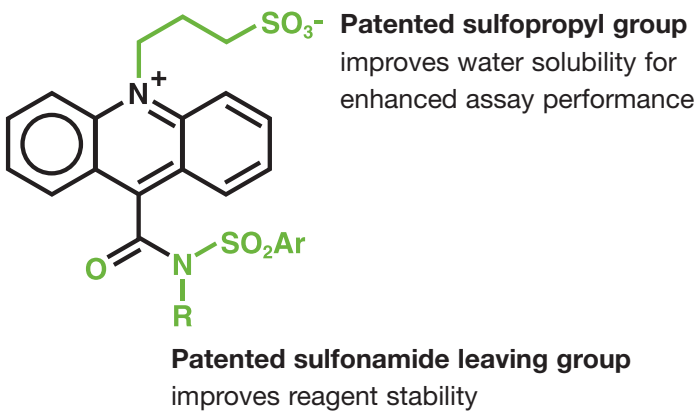
\*Source: The National Research Laboratories, Australia 2005.  
 \*\*Source: CAP Today, June 2007

# Enhanced System and Assay Dynamics

Abbott's patented technologies deliver excellent sensitivity and extended dynamic ranges for better patient care and improved cost efficiencies

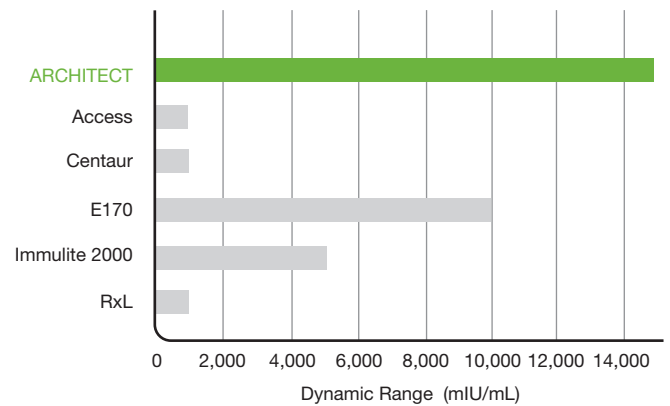
## CHEMIFLEX

ARCHITECT utilizes a unique combination of refined chemiluminescence detection technology with flexible assay protocols. CHEMIFLEX, when combined with optimized assay design, provides enhanced assay performance.



ARCHITECT utilizes a patented acridinium derived chemiluminescence.

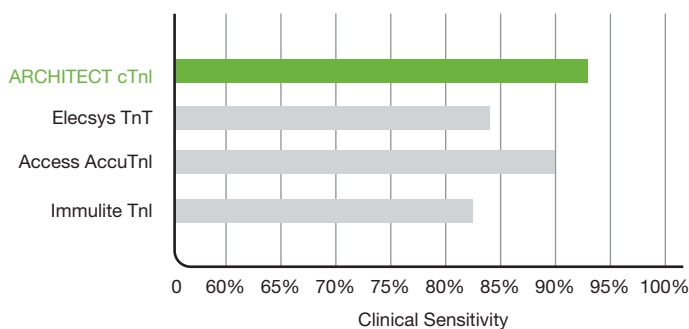
## $\beta$ -hCG Dynamic Ranges



Source: Package Insert Data

Extended linear range reduces the need for dilutions and delivers excellent turnaround time.

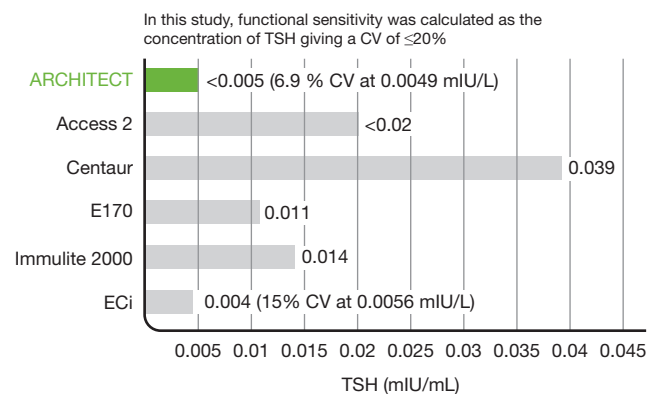
## Clinical Sensitivity of Troponin Impacted by Assay Design



Source: Data adapted from James S, et. al. *Clin Chem.* 2006;52:5:832-837.

In this study, the choice of antibodies demonstrates a great impact on the clinical performance of cTn assays.

## Low-end TSH Assay Performance



In this study, "the ARCHITECT i2000 and Vitros ECI demonstrated the lowest functional sensitivities, but the ARCHITECT i2000 was the most precise of the methods evaluated, with a CV of 6.9% at a TSH concentration of 0.0049 mIU/L".

Source: Rawlins ML, Roberts WL. *Clin Chem* 2004;50:2338 – 2344.

"...ARCHITECT i2000 was the most precise of the methods evaluated..."





Shown actual size

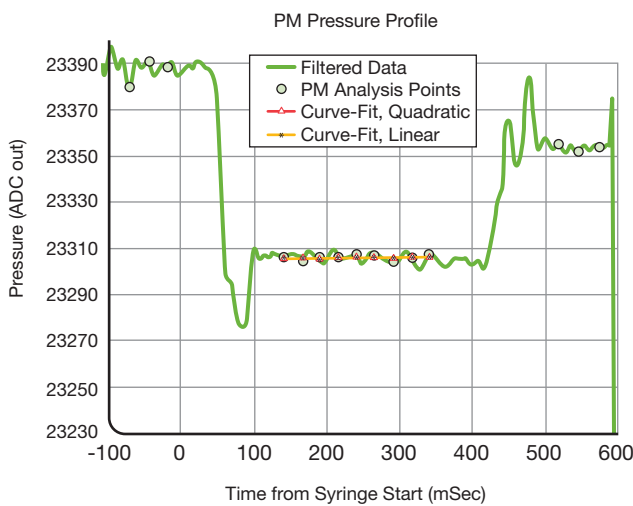
## Integrated Chip Technology (ICT)

Only 15  $\mu\text{L}$  of sample is required to generate  $\text{Na}^+$ ,  $\text{K}^+$  and  $\text{Cl}^-$  results with CVs of 1.0% or less. Each module delivers 45,000 determinations and maintenance is automated.

## Liquid-level sensing and clot detection

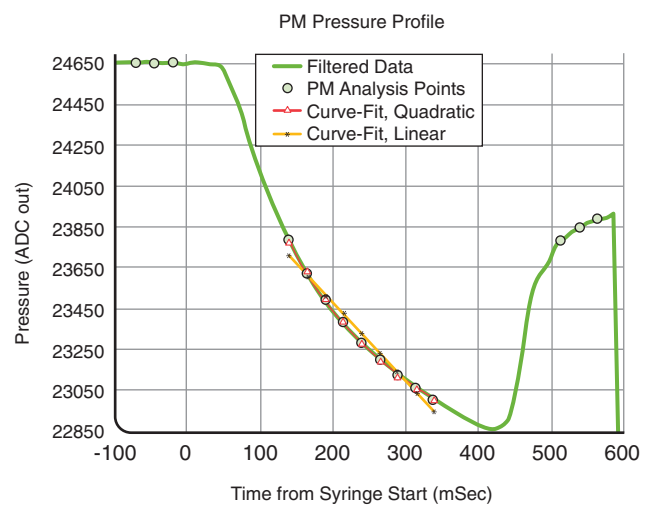
Pressure differential technology accurately distinguishes between a normal sample, a bubble and a clot. ARCHITECT software notifies the operator while the instrument attempts to remove a clot and clear the probe.

### Normal Sample



Source: Data on file at Abbott Laboratories

### Soft Clot

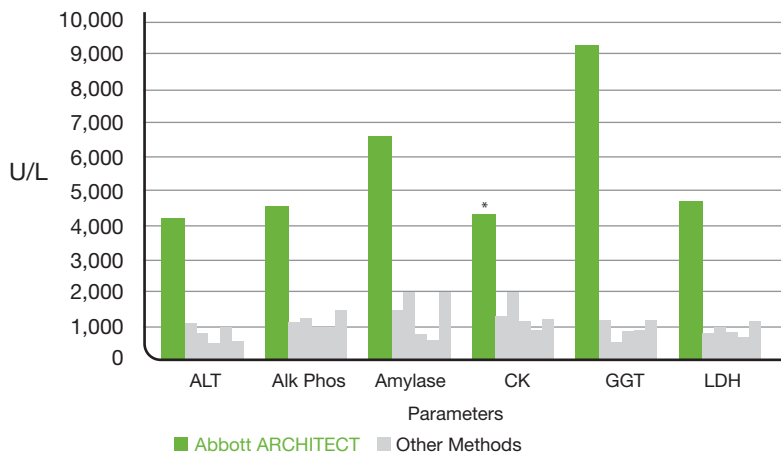


Source: Data on file at Abbott Laboratories

## FlexRate

Extends the linear ranges of enzyme assays for better first-time results and fewer reruns.

### Assay Linearity

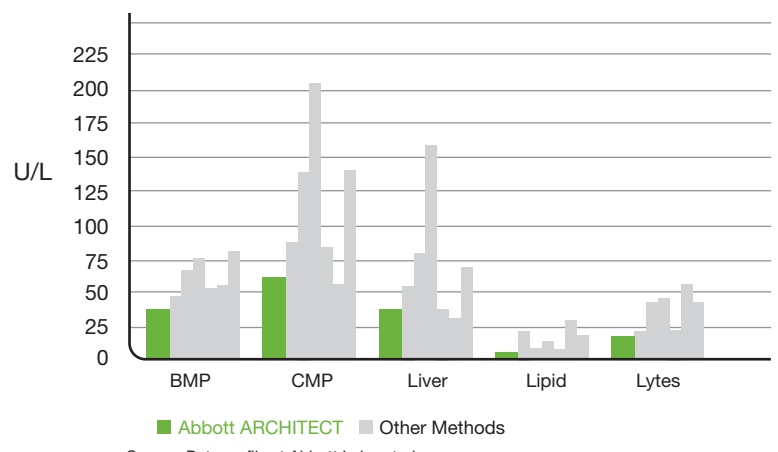


Source: Data on file at Abbott Laboratories  
\*Actual assay linearity

## Small Sample Volumes

Sample volumes as low as 2  $\mu\text{L}$  and an average sample volume of 7  $\mu\text{L}$  are ideal for pediatric and geriatric testing.

### Sample Volume



Source: Data on file at Abbott Laboratories

# Automation

ACCELERATOR – automation solutions that offer you the power of choice



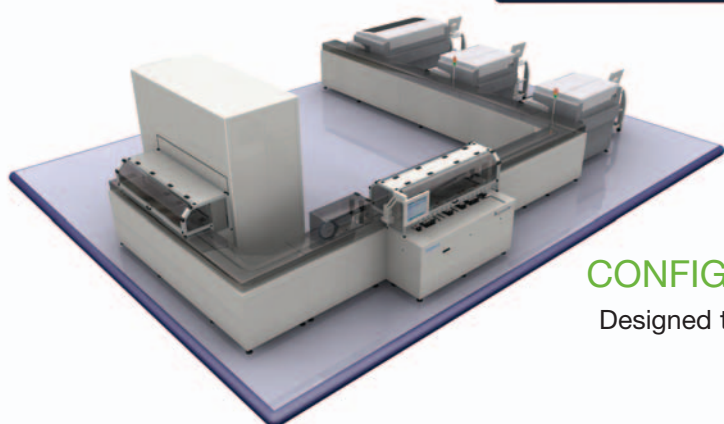
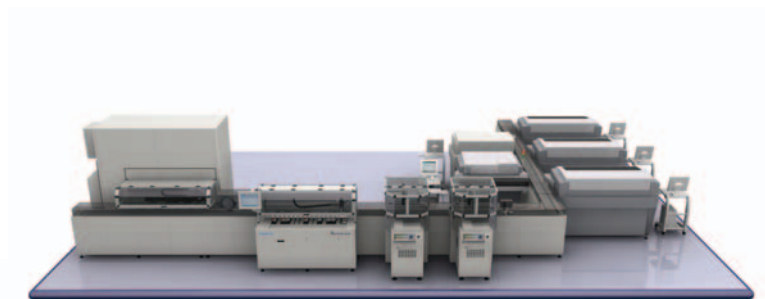
## PREANALYTIC WORKCELL

Automates front-end processes



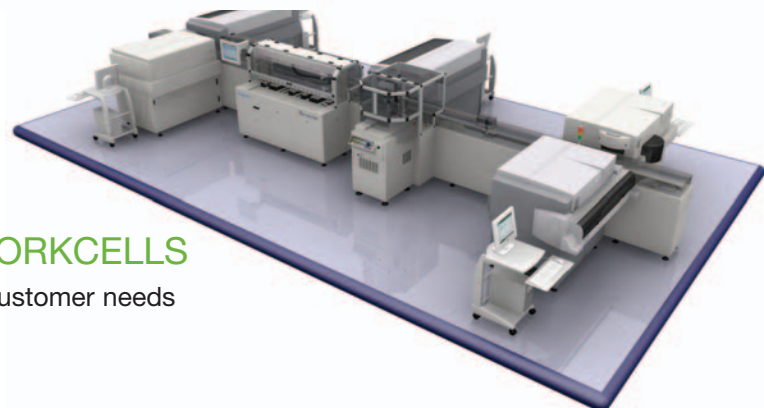
## ARCHITECT WORKCELL

Connects multiple ARCHITECT instruments



## CONFIGURABLE WORKCELLS

Designed to meet unique customer needs



# ARCHITECT Immunochemistry Solutions Summary

## True Family Commonality

- Equivalent patient results
- Identical software
- Universal ARCHITECT sample carrier

## Integration Without Compromise

- Seamless integration of clinical chemistry and immunoassay
- RSH delivers excellent and consistent STAT turnaround time
- SmartWash ensures no clinically significant sample-to-sample carryover

## Enhanced System and Assay Dynamics

- CHEMIFLEX provides excellent low-end sensitivity and expanded dynamic ranges
- FlexRate delivers extended linear ranges for enzyme assays
- Pressure differential technology detects clots, bubbles and insufficient sample volume

Business Card

ARCHITECT, *ci8200*, *c8000*, *i2000*, *i2000<sub>SR</sub>*, *i1000<sub>SR</sub>\**, AxSYM and CHEMIFLEX are registered trademarks of Abbott Laboratories.  
FlexRate, SmartWash, *i4000<sub>SR</sub>*, *c16000*, *ci16200*, *c4000\** and *ci4100\** are trademarks of Abbott Laboratories.

\*In development

[www.abbottdiagnostics.com](http://www.abbottdiagnostics.com)  
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