

BREAKING STATUS QUO



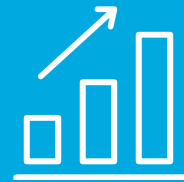
A mid-volume hospital's journey to automate all core disciplines.

In Mattoon, IL, Sarah Bush Lincoln is a not-for-profit regional hospital servicing nine counties, 28 specialties, 17 primary care sites, and 14 community clinics. It is ranked in the top 6% of rural hospitals, naming it one of the Top Rural Hospitals in the nation by the Leapfrog Group. The laboratory processes more than 500,000 clinical samples and 10,000 surgical and cytology specimens annually, equaling 1.8 million annual chemistry tests and approximately 350 CBCs daily.

When Sarah Bush Lincoln began evaluating future needs, they were using two integrated workcells, and no automation to manage their laboratory's workload. To future-proof their laboratory, Sarah Bush Lincoln desired to partner with a vendor that would provide a quality solution to manage an ever-increasing workload with a shrinking workforce, while guaranteeing test results of the highest quality. To meet these demands, Sarah Bush Lincoln adopted the Beckman Coulter DxA 5000 automation system.



Sarah Bush Lincoln's
Desires for Future State:



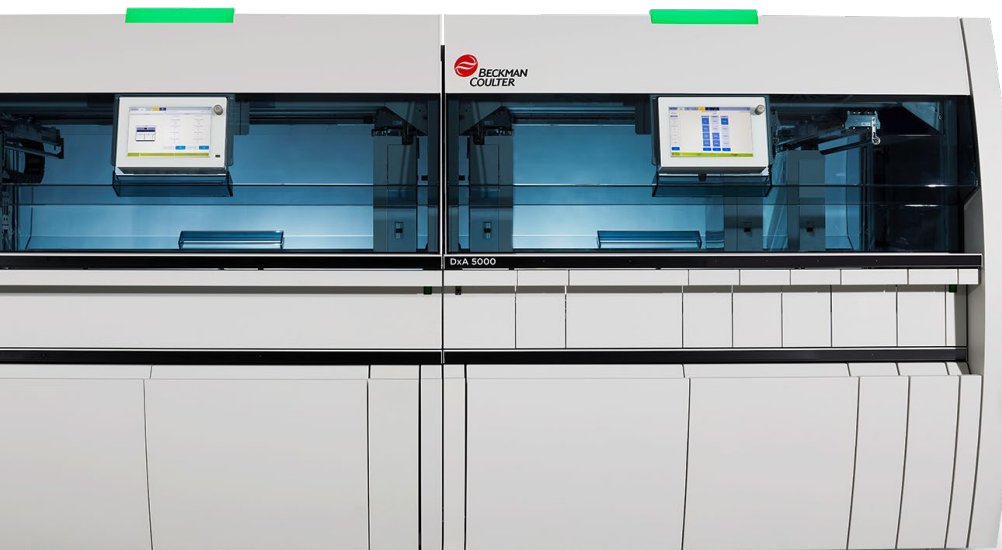
Maximize
Productivity

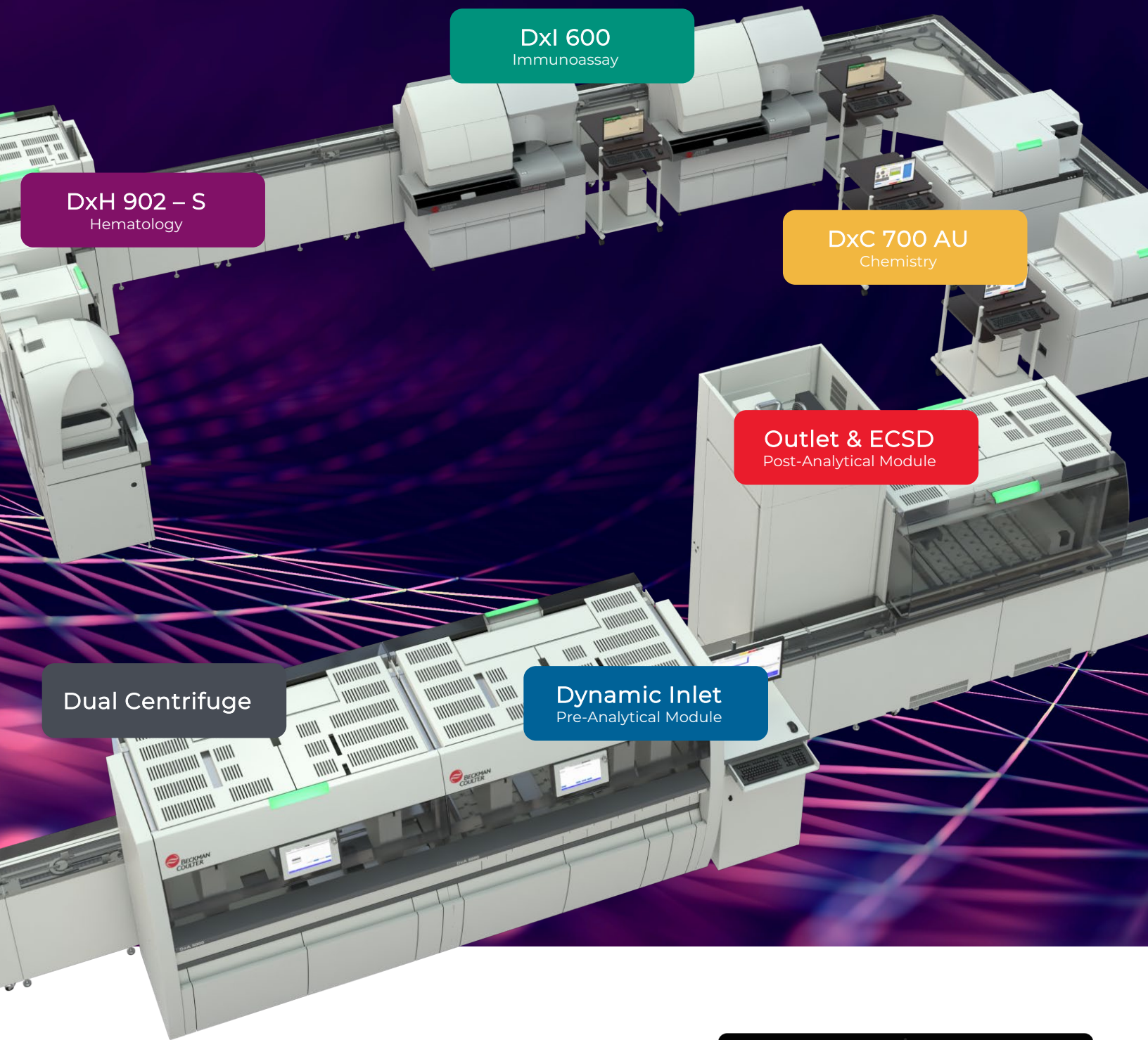


Mitigate a Shrinking
Labor Force



Minimize Sample
Error Disruptions





Dxi 600
Immunoassay

DxH 902 – S
Hematology

DxC 700 AU
Chemistry

Outlet & ECSD
Post-Analytical Module

Dual Centrifuge

Dynamic Inlet
Pre-Analytical Module

SARAH BUSH LINCOLN'S DxA 5000

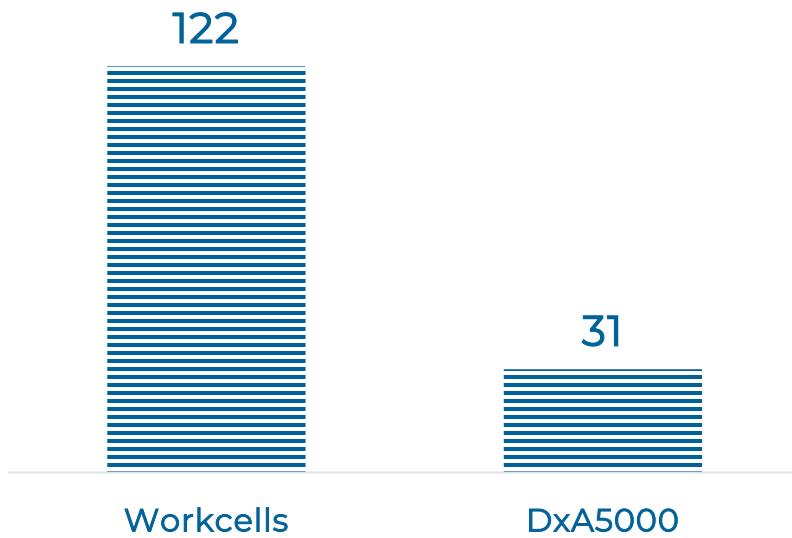
Sarah Bush Lincoln's DxA 5000 configuration includes the dynamic inlet, dual centrifuge module, two chemistry and immunoassay instruments, two connected hematology analyzers with a slidemaker stainer, and ends with a combined outlet and 6.5K tube stockyard. Their DxA 5000 is managed and integrated with Beckman Coulter's premier middleware, REMISOL Advance.



QUANTITATIVE RESULTS

After installation, Sarah Bush Lincoln was able to reap the benefits of the industry leading automation system, the DxA 5000. The laboratory experienced reduced turnaround times for important laboratory tests and the elimination of non-value-added steps and hazards (illustrated below). Through standardization of processes, implementation of automation and informatics, and the utilization of Six Sigma methodologies, the laboratory is positioned to handle substantial year over year growth. During the COVID-19 pandemic, the laboratory at one point received a daily total volume of 2,200 tubes, which is 32.7% greater than the number of tubes observed pre-automation.¹

Number of Manual Steps Comparison



Turnaround Times Comparison (Receive to Result)

	Workcell	DxA5000	
in minutes	STAT K ⁺	34:50	↓
	Routine K ⁺	50:08	
	STAT Tnl	36:48	↓
	Routine Tnl	36:05	
	STAT CBC	14:17	↓
	Routine CBC	19:36	

Percentage Reduction In...

34%

Process Wait Steps



11%

Biohazard Exposure



17%

Opportunities for Medical Mistake



31%

Repetitive Motion Injuries



20%

Unnecessary Employee Travel/Movement



¹Dark Report, R. Mitchell, *Rural Hospital Lab Hits Automation Home Run*, 1.10.2022

THE POSITIVE IMPACT OF AUTOMATION



With automated processes, the improved level of service the laboratory can provide their clinicians was demonstrably positive through sustained TAT reductions.



The DxA 5000 allowed the laboratory to profitably grow while removing and reallocating existing FTEs; increasing the hiring of lab assistants and allowing medical technologists to focus on more complex tasks.



By being innovative and employing automation, the laboratory has observed improved staff satisfaction, engagement, and retention. The DxA 5000 has become a recruiting tool for this rural hospital facility.



With the addition of DxA 5000, the Sarah Bush Lincoln laboratory has fostered a culture built on excellence and continued process improvement.



Learn more about Beckman Coulter's automation portfolio
<https://www.beckmancoulter.com/automation>

“ As the number of available laboratory scientists continues to decrease, Sarah Bush Lincoln laboratory is able to accommodate growth without the need for additional staff by implementing the Beckman Coulter DxA 5000. It is with this solution, we have been able to sustain reduced turnaround times, ensure sample quality, and reduce our manual process steps by 75%. ”

Jodie Warner MBA, MT (ASCP), DLM

Director of Laboratory Services, SBL