

Agilent case study: Hospital Universitario de Jaén

# Managing Rising Demand and Expanding Services with Agilent Dako Omnis Family of Instruments

Agilent  
Dako

In the heart of Andalusia, Spain, four provincial hospitals faced a pressing challenge: a 12% year-over-year increase in slide volume was straining their pathology services. The existing infrastructure lacked the digital capabilities needed for remote consultation, advanced diagnostics, and scalable workflows. The pathology teams, led by Dr. Rafael Luque at Hospital Universitario de Jaén, working closely with his colleagues from Regional Hospitals, recognized the urgency to modernize and unify diagnostic services across the province.

## Building a fully connected solution

Agilent partnered with the pathology departments' leaderships to design a comprehensive pathology solution tailored to the province's needs. The solution included:

- Agilent Dako Omnis 165 Duo and Agilent Dako Omnis 110 instruments across all four hospitals
- Agilent Dako Coverstainer and Agilent Artisan Link Pro instruments for primary and special stains, respectively
- NanoZoomer scanners (S20, S60, S360) for high-resolution slide digitization
- Full LIS integration and remote consultation capabilities
- Expanded testing portfolio

This solution enabled real-time collaboration between regional hospitals, standardized staining protocols, and optimized urgent case handling, thereby transforming the province's pathology services into pathology excellence.

*"We saw improvements almost immediately after training."*

- **Dr. Rafael Luque,**  
Head of Pathological Anatomy Service  
Hospital Universitario de Jaén



Four hospitals in the region of Jaén, Spain upgraded their pathology solution with Dako Omnis family of instruments, a digital pathology solution, LIS integration, and remote consultation capabilities to improve staining capacity, diagnostic accuracy, and enabling remote work.

## A conversation with Dr. Rafael Luque

In a candid interview, Dr. Luque, Head of the Pathological Anatomy Service at Hospital Universitario de Jaén, shared the journey that led to the province-wide adoption of Agilent's Dako Omnis platform.

"The system we had in place was no longer sufficient," Dr. Luque explained. "We needed to increase our slide productivity and expand our portfolio of services, especially to insource tests like FISH and ensure that smaller regional hospitals had access to high-quality immunohistochemical techniques".

*"That's a game-changer for patient care."*

- **Dr. Rafael Luque,**  
Head of Pathological Anatomy Service  
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## The Agilent advantages of integration, agility, and quality

The Dako Omnis platform stood out for its ability to create a single optimized workflow by arranging the workflow around the diagnostic unit, the patient case. This meant faster turnaround times and higher diagnostic confidence.

"Dako Omnis represents a qualitative leap," said Luque. "It allows us to treat cases with greater agility and perform all techniques—including FISH—on one instrument. That's a game-changer for patient care".

Installation and training were smooth, thanks to close collaboration between Agilent's technical team and the hospital's IT and pathology departments. Lab technicians quickly adapted, seamlessly learning the new equipment without disruption of the workflow.

"We saw improvements almost immediately after training," Dr. Luque noted. "Urgent cases, like suspected small cell lung carcinoma, could be processed and diagnosed from one day to the next. That simply wasn't possible before".



Figure 1. H&E slides from Dako Coverstainer



Figure 2. Dr. Rafael Luque in front of Dako Omnis



Figure 3. NanoZoomer digital scanner

*“There’s been a significant simplification in handling orders and supplies. And oncology teams now rely on our expanded portfolio and agility to deliver timely diagnoses.”*

- **Dr. Rafael Luque,**  
Head of Pathological Anatomy Service  
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### Broader impact outside the lab

The benefits extended beyond the pathology department. Ordering, consumption tracking, and inventory were simplified, and clinicians gained faster access to results.

“There’s been a significant simplification in handling orders and supplies,” Luque said. “And oncology teams now rely on our expanded portfolio and agility to deliver timely diagnoses”.

Even stain quality saw improvements. While the Autostainer Link 48 stainers had served the pathology lab well over the years, Dako Omnis allowed for rapid optimization of challenging antibodies like BCL-6.

### A platform for growth and collaboration

Luque sees the partnership with Agilent as a possibility for additional collaboration.

“We’re ready to grow,” he said. “We want to implement a full workflow from histology to molecular diagnostics, integrated with our information systems and digitization goals. And we’re open to work with Agilent on projects that benefit both sides”.

Agilent is looking forward to the opportunity to collaborate further with such an esteemed pathologist as Dr. Rafael Luque and the pathology teams in the entire region of Jaén, Spain.



Figure 4. Agilent Dako Omnis family of instruments

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