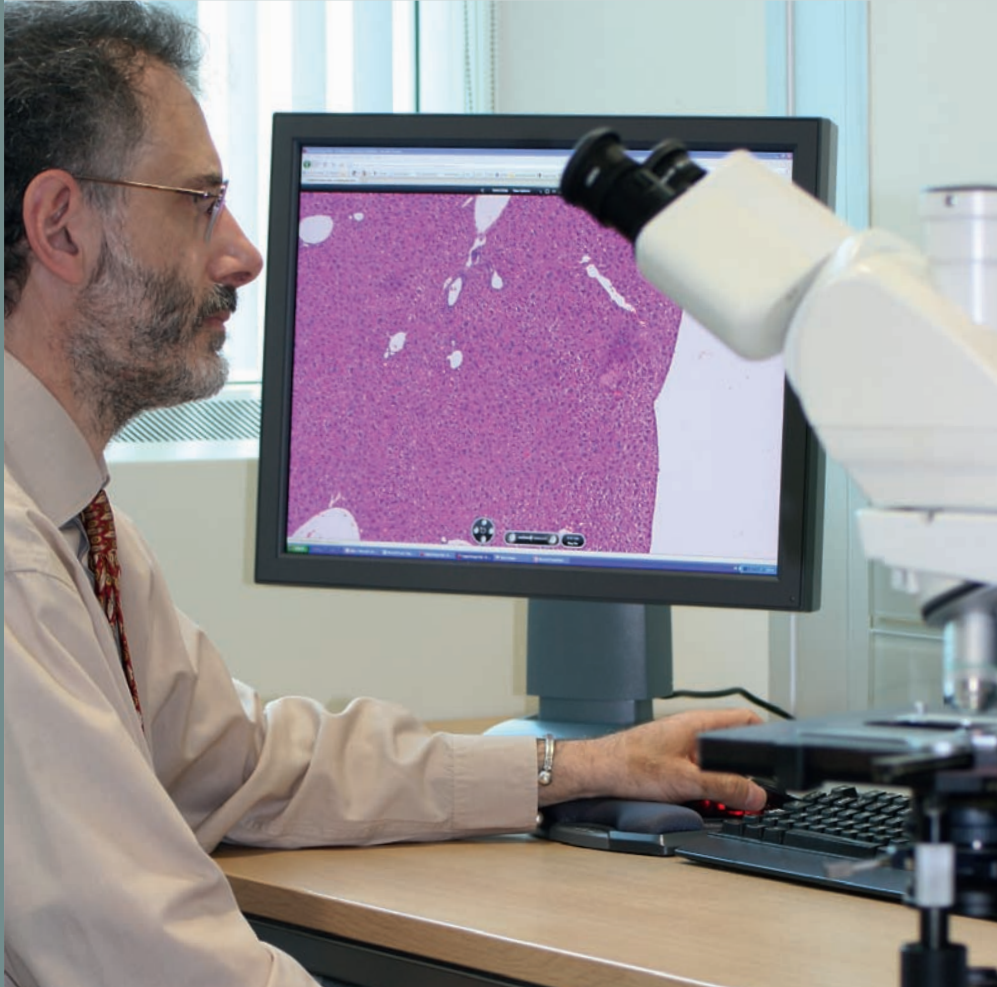


J&JPRD, a Division of Janssen Pharmaceutica

Ultimate slide-to-eye confidence with Barco displays



“Compared to other displays, Barco is superior in terms of color homogeneity, color intensity and brightness”

Erio Barale-Thomas
pathologist, J&JPRD, Beerse, Belgium



Since its foundation more than 50 years ago, Johnson & Johnson Pharmaceutical Research and Development, a Division of Janssen Pharmaceutica NV (J&JPRD), has been committed to research. With over 80 drugs and medicines to its name, it is one of the world's most innovative pharmaceutical companies.

When J&JPRD's pathology division decided to implement a digital pathology workflow in addition to the traditional high-end microscopes, they were disappointed by the poor image quality of the monitors on the market. But that was before they tested Barco displays. Today, the Barco Nio Color 3MP and Coronis Fusion 6MP DL, combined with MediCal QAWeb, not only facilitate slide discussions and pathology training, they also simplify peer reviews or second opinions from a distance.

BARCO

Visibly yours

Customer

- J&JPRD, Beerse, Belgium
- Website: www.jnjpharmand.com

Challenges and objectives

- Convert to digital pathology
- Ensure at least the same image quality as with high-end microscopes
- Facilitate international collaboration

Barco solution and services

- Coronis & Nio displays
- MediCal QAWeb

Why Barco

- Image quality (brightness, color homogeneity, color intensity and high pixel density)
- Greater confidence when looking at digital slides, thus enabling on-screen diagnosis
- Consistent image quality worldwide thanks to MediCal QAWeb

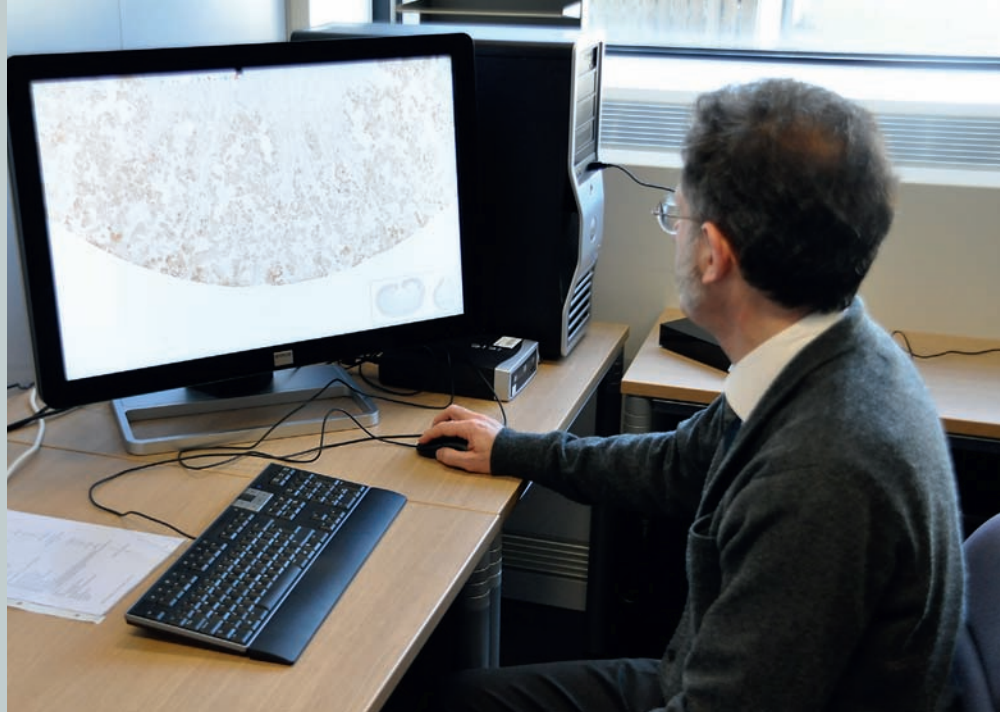


Image quality is the single most important aspect in pathology. Until recently, J&JPRD pathologists were reluctant to make the switch from their high-end microscope and glass slides to digital pathology, as they feared that the latter could not provide images of the same quality, which would decrease their diagnostic sensitivity. It was only when they saw the quality of the Barco displays that they were convinced to go digital.

Despite the emotional attachment of pathologists to their glass slides and microscopes, the advantages of a digital pathology workflow are too important to ignore. First of all, when working in an international organization like J&JPRD, images have to be distributed to foreign locations. While glass slides need to be shipped physically (which can result in broken or lost samples), digitized slides can be made available worldwide instantly. Researchers can, therefore, collaborate and share knowledge much faster and easier. Furthermore, a digital system also opens perspectives for the future. Within the next ten years, advanced image analysis – with pattern recognition of both normal and abnormal tissues – will become available. This will make it possible to automatically separate the samples that show no change to the control sample (i.e. the majority), and focus on the real issues, which obviously saves a lot of time.

Convinced by Barco

For Erio Barale-Thomas, pathologist at J&JPRD, image quality was the main driver in his search for a digital pathology system. He was rapidly convinced by the value of several slide scanners and digital slide viewers, but none of the displays that were demonstrated could match his microscope when comparing glass slides and their digital version. “The optics of modern microscopes produce images of such high quality that these are the gold standard against which I test all other solutions,” Barale-Thomas explained. “The digital system I wanted to implement had to deliver the same image quality, so I could make the same diagnoses as on my microscope. The Barco displays were the first I saw that could do this. Compared to other displays, Barco is superior in terms of color homogeneity, color intensity and brightness. Furthermore, in commercial-grade monitors you can see the pixels, with gray lines making a grid all over the display, which is both very disturbing and tiring. On the Barco displays we use, the pixel size is 200 µm or less and this grid is invisible with a high pixel density – thus ensuring more brightness and less eye fatigue.”

The same image, on any display

After examining Barco’s range of displays for pathology, J&JPRD decided to use both the Barco Nio Color 3MP and the Coronis Fusion 6MP DL. “Compared to other applications which accept gray level images, like radiology, color displays where required from the beginning, given our histology

slides,” Barale-Thomas said. “I also like the front glass of the displays, which offers both protection and easy cleaning. The brightness of the monitors ensures there is no loss of detail nor reflection.” In addition, he praised Barco’s MediCal QAWeb that calibrates the displays: “It assures that everybody worldwide is looking at exactly the same image, with no variations in color or intensity. Because our department is divided over regional sites in Belgium, China, France and the USA, collaboration and knowledge sharing on an international level are very important to us. There is no point in discussing an image if you cannot be sure that your colleagues have exactly the same image on their screen and see the same details.”

Greater efficiency, more productivity

Using the Barco displays has improved the pathology department’s way of working. Barale-Thomas: “Most importantly, the Barco displays give us the confidence we need. Confidence in the quality of the image we see, confidence in the accuracy of our on-screen diagnosis, and confidence that what others see is exactly the same. This allows us to spend less time both looking at a slide to detect the relevant features and reviewing our peer’s findings. We can thus work more efficiently and improve the scientific value of our report. In my view, Barco is really part of our integrated workflow. Without these displays, we lose a key advantage of our digital imaging system.”