

Top Five Reasons for Research Organizations to Adopt Digital Pathology



WHY GO DIGITAL?

Modern research organizations face many and varied challenges. Demand for complex assay development, particularly multiplex, is increasing¹. The cost of research is rising, with an average R&D cost of \$2.6B for each new drug successfully brought to market², while return on investment decreases³. There is an increasing trend towards outsourcing of research activities, and a growing number of industrial-academic partnerships working across borders. Digital pathology can help to address these challenges, through automation, quantitation, and remote networking.

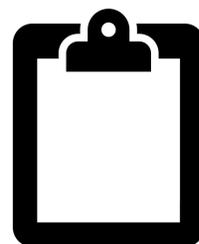
Here are our top five reasons that you should consider adopting digital pathology for your organization:

1. QUALITY



Digital pathology can enable faster access to remote specialists for discussion of novel or challenging samples, reducing turnaround time for studies and enhancing collaboration with live slide discussion. Quantitative image analysis tools provide standardized, reproducible data to give researchers greater insight into novel biomarkers and therapeutic targets. Digital pathology also offers powerful image and data management platforms, allowing current and historical study data to be easily retrieved, sorted, and shared.

2. PRODUCTIVITY



Central storage of data and images via digital pathology solutions enables easy access and improved management of study data. LIMS integration provides all data in a single, streamlined workflow with easy retrieval, reducing time spent waiting for slide delivery, data matching, and organization. Digital pathology tools such as automated image analysis can save significant time over manual review, as in the example of a large research lab that reduced time spent on slide review from on average 30 mins to seconds per slide⁴.



3. COST SAVING

Cost reduction initiatives can be supported using digital pathology. It enables sending slides and study data internationally, without the monetary and time costs – and risk – of shipping fragile glass slides. It can also help to reduce the requirement for pathologists to travel for activities such as toxicological peer review. Image analysis tools can be run in an automated batch-processing mode, freeing up valuable researcher time for other activities. The quantitative data generated can help to elucidate end points sooner, and prevent wasted resources.

4. OPPORTUNITY



Digital pathology offers novel opportunities to work with international partners in both industry and academia. Data management platforms allow you to give your partners the right level of access to study images and data.

Digital pathology also provides the potential to generate new revenue streams through insourcing of research activities from other organizations, without the cost, time and hassle of shipping or travel.

5. INNOVATION



Quantitative image analysis tools allow for easier investigation of increasingly complex multiplex assays, and novel biomarkers in both brightfield and fluorescence. With all study images and data saved in a central, searchable management system, there is no risk of losing valuable research that could lead to a future breakthrough due

to staff turnover or record keeping error. Use of novel digital pathology technologies allows research institutions to provide cutting-edge services, and build brand awareness as leaders in the field.



SUMMARY

Modern research is facing a number of challenges with decreasing return on investment in drug development, increasingly complex data, and rising demand for outsourcing and collaboration. Digital pathology can help to decrease study overheads, improve productivity and data quality, open up new revenue streams, and position research institutions at the forefront of emerging technology.