

Augmentiqs

260 East Main St
Rochester, NY



RETURN ON INVESTMENT

REAL-TIME TELEPATHOLOGY IN PRE-CLINICAL STUDIES

CHARLES RIVER LABORATORIES

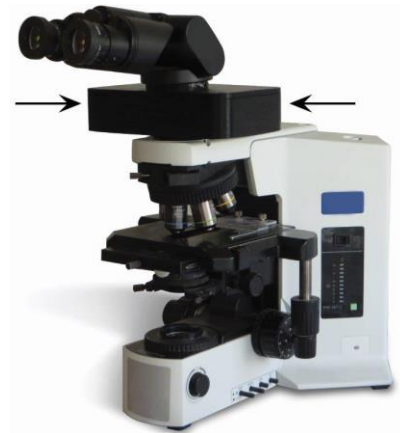
Charles River Laboratories (CRL) is one of the world's largest Contract Research Organizations, boasting 80 sites in 23 countries, and nearly \$2 billion in annual revenues. Conducting research for every major pharmaceutical company in the world, CRL employs over 100 toxicologic pathologists who are involved in the toxicologic research of 80% of FDA approved drugs.

Founded in 1947, CRL has grown into today's leading CRO by focusing on good science, organizational growth and cost-based metrics.

THE STUDY

CRL sites are operated independently of each other, with a number of sites employing pathologists working off-site. Without the advantages digital pathology affords, remote pathologists may be required to complete extra travel, extend deadlines (longer cycle time), use work time for shipping logistics, and use suboptimal methods for microscopic consultations, all resulting in more difficult data analysis and reporting.

CRL conducted an 8-month Return on Investment (ROI) pilot study on the use of Augmentiqs for real-time telepathology for a US and Canada-based remote pathologists. The study looked at savings in pathologist work hours, cycle time and logistic expenses.



Study Parameters

- 8-month study at multiple remote CRL sites
- Quantify use of system, and pre-set ROI parameters
- Record soft parameters, i.e., client satisfaction, ease of use & quality

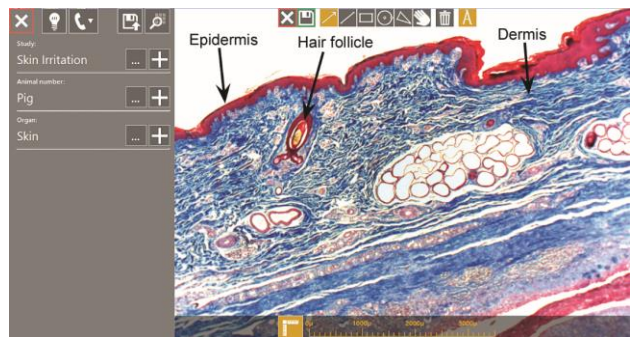
Findings

Over the course of the study period, Augmentiqs was utilized by the remote CRL pathologists for numerous reasons including i) internal CRL telepathology consultation between the remote and on-site pathologists, ii) external client telepathology consultation, iii) online peer-review with external clients, and iv) capturing publication-grade images.

TOTAL ANNUALIZED SAVINGS - \$17,640

By quantifying all use of the Augmentiqs system during the study period, CRL found it had achieved annualized cost-savings of \$17,640, an amount that put full ROI well within the first year of purchase. Instant communication, ability to capture high-resolution images and integrated annotation software all contributed to improving the workflow efficiency.

- 24.5 direct work hours saved
- 30 cycle days reduced
- \$750 saved in shipping costs
- \$750 saved in obtaining publication grade images



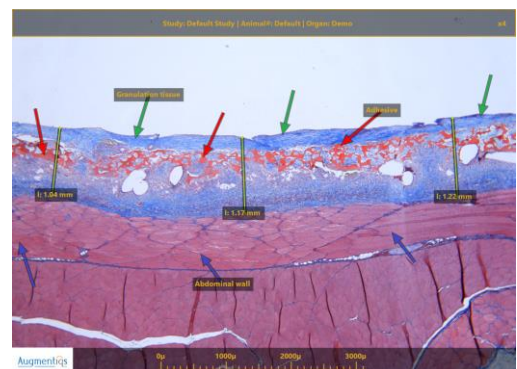
Soft Parameters

Every telepathology interaction with clients was given a score of 1-5 for ease of use, quality and client satisfaction. A score of 5 was received for every instance, including telepathology sessions with external clients.

According to the CRL pathologist leading the study, Augmentiqs outperformed Whole Slide Imaging and 3rd Ocular cameras in one or more of the benchmarks for Innovation, Speed, Quality and Value.

SYSTEM ADVANTAGES

- Instant & live nature of telepathology
- High client satisfaction
- Excellent image quality
- Annotation and morphometric software
- Unlimited & free access for remote viewers
- Image download for all viewers
- Sending images to cell phone
- Hardware installed on existing microscope, with ability to work through the eyepiece



Next Steps – Online Peer Review

CRL is now conducting a second ROI study on the use of Augmentiqs at a laboratory site (Ashland). In this study, a common Augmentiqs system will be used by a group of pathologists. Similar data collection will occur to assess the value of the system. The ability to conduct online peer review consensus will be a key outcome measured in this stage of the project.

Pathology evaluation is the limiting step in toxicological studies, with sponsors and study pathologists frequently consulting or conducting a peer-review. In the event of disagreement between the pathologists, the slides must be reviewed together to reach a consensus. Today, the ultimate and most frequently used method for peer review is to fly or ship the slides – both of which are costly and time consuming.

If Augmentiqs is found to be beneficial for online peer-review, the cost-savings could potentially be extremely significant for both the CRO and sponsor, even though quantification may be impossible. It is very likely that ROI could be achieved upon just a single instance of use.

KEY AREAS OF STUDY:

- Does online peer review consensus shorten cycle time, (speed up time to market of compound, or decision to terminate study)
- Length of study shortened
- Number of pathologist work hours saved
- Reduction in travel expense
- Reduction of logistic expense
- Client satisfaction of online peer review in general, and Augmentiqs system in particular

