

### Visualizer and Telepathology - Remote Diagnosis with First-Class Imagery

The tasks of pathological institutes and cytological laboratories include histological and cytological diagnostics, autopsies, and micro-biological diagnostics in a bacteriological laboratory. Telepathology plays an ever increasing role in pathology because it enables pathologists to expedite analyses and obtain valuable second opinions from remote specialists in order to make better decisions about further proceedings when time is of the essence.

WolfVision Visualizers are used in Telepathology as macrostations. Removed tissue can be placed on the Visualizer and the recorded image of the tissue is transferred via videoconferencing directly onto a remote specialist's computer screen.

Then, the specialist can instruct the staff from his PC where a biopsy needs to be made which is subsequently placed under a microscope for him in order to make the diagnosis.

The Visualizer is directly connected to the CODEC of the telemicroscopic system. This way, both the image of the removed tissue from the Visualizer and the image from the microscope are transferred to the computer screen of the expert. The specialist is able to control the microscope and Visualizer from his workstation and can obtain all required views remotely. The specialist is then able to provide further instructions about possibly required additional biopsies, or other action, directly via telephone.



*The Visualizer is used to record the removed tissue and transfer the image via video conferencing directly onto the computer screen of the remote expert.*

Fast and accurate diagnoses are vital in Telepathology. Remote diagnosis by the means of Visualizers and telemicroscopic systems has become essential in today's medicine. As a result, repeated surgeries are avoided, risky and expensive courier services prevented, waiting times reduced and long and expensive hospital stays limited. The specialist is just a mouse click away!

Pathology places particularly high requirements on state-of-the-art technical equipment. High-resolution and realistic pictures are vital. Even the smallest color deviations or shadowing can lead to a false diagnosis. The even and shadow-free illumination, color precision through 3CCD cameras and high depth of field, make WolfVision's Professional and Ceiling Visualizer series ideal for these kinds of applications. The synchronized light field which is projected onto the working surface indicates exactly which area will be transferred.

The Ceiling Visualizer offers the further advantages that there are no space restrictions and sterile work surfaces can be used.

### Many Possibilities

The types of applications in a pathological institute vary widely and include interactive remote diagnostics, obtainment of urgent second opinions, e-training courses, picture archiving and medical documentation. The high resolution cameras of the WolfVision Visualizers offer even more features to physicians: Storing images of removed tissue by USB is one of the most interesting and most used functions. Using this feature, pictures can be stored in DICOM programs used in the medical field and included in the patient files.

### Typical layout of telepathological system in combination with a Visualizer:

