

Tissue-Tek Xpress™

University of Miami



Tissue-Tek® Xpress™ Brings Biopsy Results Faster

Like most pathologists, the chief of pathology at the University of Miami Miller School of Medicine worked his whole career with a system that was basically unchanged throughout the 20th century. Surgeons would deposit tissue samples into a preservative solution and then technicians would put it through a chemical process that took 12 hours and irreversibly destroyed any hope for molecular analysis. Azorides Morales, M.D., and some colleagues wondered whether there might be a better and faster way to process tissue samples, knowing that it could revolutionize pathology. They found one.

In 1997, Dr. Morales began refining a new technique with Ervin Essendorf, M.D., and his son Harold Essendorf, M.D., both pathologists in Caracas, Venezuela. They found a more efficient way to use an existing technology to expedite the processing of tissue — microwaves.

The system is a Rapid Tissue Processing (RTP) instrument. Previously, patients were forced to wait for 3-5 days to get the results of a biopsy. With the RTP, an anxious patient can get biopsy results on the same day, within hours. Not only do patients have their results much faster, but physicians can begin treatment even sooner.

“ RTP uses a specially-designed microwave that allows for uniform heating of tissue within an automated system that does not dry out or damage the tissue.

Now, the fully automated RTP system, reagents and accessories are for sale for the first time to hospitals around the world by Sakura Finetek USA, Inc. under the name Tissue-Tek Xpress™ Rapid Tissue Processor.

The patents were exclusively licensed to Sakura, which is manufacturing and selling the instrument, reagents and accessories to other pathology departments. The product was introduced in early 2004. University of Miami continues to work with Sakura on novel tissue processes, reagents and accessories.

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