

CUSTOMER SUCCESS STORY

Advancing Cancer Research with
Virasoft's Innovative Solutions at the
**Koch Institute for Integrative
Cancer Research at MIT**

CUSTOMER BACKGROUND

Koch Institute for Integrative Cancer Research at MIT seeks to accelerate the discovery and application of new ways to diagnose, monitor, treat, and prevent cancer. The Yilmaz Lab, one of the laboratories established at the Koch Institute in 2014 is committed to modeling the various stages of intestinal tumorigenesis, from early precursor lesions to liver metastasis, with robust and innovative methods.

CUSTOMER CHALLENGES

The lab team experienced inefficiencies in the repetitive workflows of cancer research that impacted both reproducibility and expediency. They also faced challenges related to image management and understanding the complex computational processes involved in comprehending the mechanisms of cancer.

SOLUTION IMPACTS

Virasoft introduced its innovative image-processing algorithms to enhance the reproducibility and speed of repetitive tasks, notably reducing slide analysis time **from 10 to 15 minutes to mere seconds**. Furthermore, Virasoft's digital pathology solutions were implemented to streamline image management and facilitate challenging computational processes crucial for cancer research.

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With Virasoft's algorithms, we'll significantly expedite our counting and calculations, reducing slide analysis time from 10-15 minutes to just seconds. This monumental leap in efficiency has profoundly impacted the speed and accuracy of our research endeavors.

Ömer Yilmaz, MD, Ph.D., Eisen and Chang Career Development Associate Professor of Biology, Koch Institute for Integrative Cancer Research at MIT



VIRASOFT SOLUTIONS

Researchers experience higher efficiency and speed in their workflows, with the time spent per slide dramatically reduced.

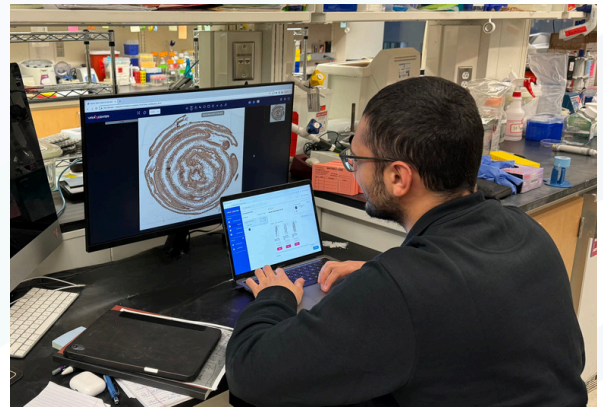


Virasoft Image-processing Algorithms

- **Nuclear Algorithms:** Implemented for the precise calculation of the positivity index for Ki67, ER, and PR biomarkers.
- **Nuclear and Membrane Algorithms:** Applied in the analysis of IHC stain results, contributing to the identification of meaningful biomarkers in colorectal cancer.

Virasoft Digital Pathology Solutions

- **Global Accessibility:** Empowering researchers to access digital images from any location, fostering seamless collaboration and information sharing.
- **Real-time Image Availability:** Ensuring immediate access to digital images upon scanning, with automatic storage in the respective researcher's folder, optimizing organizational efficiency.



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We are delighted to collaborate with distinguished cancer research institutions; this reinforces our commitment to advancing the forefront of cancer research together. Virasoft will expand its services beyond anatomic pathology laboratories to include all research laboratories that use histopathology and immunohistochemistry techniques.
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Samet Ayalti, Co-Founder and Co-CEO of Virasoft Corporation

Virasoft's Impact on Cancer Diagnosis and Research

Founded in 2015, Virasoft specializes in services that accelerate and digitalize cancer diagnosis. Virasoft is committed to developing AI-based decision support algorithms, workflow solutions, telepathology platforms, and pathology education systems for evolving digital pathology needs.



400,000
digital cases



20,000
Consultations with digital pathology



2,000
Digital frozen sections



30,000
Analyses with algorithms