ARTICLE in "DerStandard"

Learning everything about cancer in biobanks by using algorithms

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Pathologists at Med Uni Graz work together with IT experts to digitize tumour samples on a large scale. Algorithms are trained to recognize cancer and make prognoses.

Anyone who has ever digitized old slides or photos knows how complex this is. Good scanners and powerful imaging software are required for good results. Also scientists need them when they digitize tissue sections from tumour samples.

For three years, pathologists like Zatloukal at the Center for Knowledge and Technology Transfer (ZWT) have been working with IT experts to digitize the samples at BBMRI.at partner Biobank Graz (Med Uni Graz). With eleven high-performance scanners they can scan around 800,000 specimens per year.

Well-trained algorithms perform at least as well as an experienced specialist - if not better, says Zatloukal. "We were able to demonstrate this very nicely in the case of colon and prostate cancer."

When used in diagnostics, algorithms are in vitro diagnostics – just like laboratory tests – Their analytical performance must be approved and international standards like ISO standards are needed.
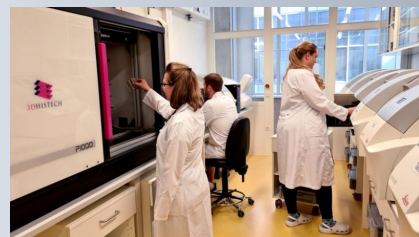
Digitalization creates enormous amounts of data that need appropriate and secure storage facilities. Here the scientists rely on a new cloud technology from the Austrian Institute of Technology (AIT) and fragmentiX Storage Solutions.

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https://www.derstandard.at/story/2000124593045/digitalisierte-tumorproben-aus-biobank-helfen-bei-krebsdiagnostik

See also article by ZWT>

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