CANCER CENTE R

AUTOMATIC CANCER DIAGNOSIS METHODS

Cancer Center Platform is a secure, scalable service for fast, reliable and cost-effective detection of cancerous lessions.
*A simple-by-design service can be accessed by 3rd party tools to quickly detect and classify the lessions.*

Carl Gustav Carus 1789 – 1869 · SINAPSE · DCO DOLNOŚLĄSKIE CENTRUM ONKOLOGII WE WROCŁAWIU · stermedia Your IT Partner · Politechnika Wrocławska · Fraunhofer IWS

ABOUT CANCER CENTER

Cancer Center is a company that applies deep learning techniques to the field of oncology/radiology. It has amassed a huge training set of medical images along with categorization technology that will allow computers to predict multiple diseases with better-than-human accuracy. Our solutions (API and web platform) is to offer better access to the second and third diagnosis of cancer to medical professionals and directly to patients by providing a data exchange platform stuffed with machine learning algorithms that speed up and improve the accuracy of the medical image analyses.
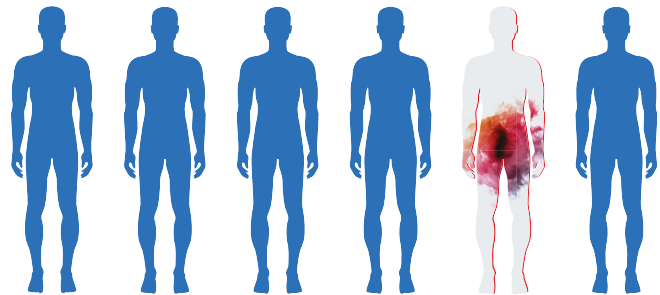
Cancer is the second most common cause of death in the world: ca. 8.8 million deaths in 2015 (1 out of 6 deaths in total).

Added Value:

- automatization of the biopsy process,
- more precise radiotherapy and HIFU,
- faster diagnosis,
- cost savings,
- knowledge base for education,
- community of specialists, patients,
- marketplace of diagnostic possibilities.

Benefits for patient:

- easier and quicker access to oncology experts,
- lower cost of appointment (no transportation),
- opportunity to verify diagnosis (2nd and 3rd opinion).

Benefits for doctors, clinics:

- shorter time for preparing diagnosis,
- support in the image analysis process resulting in a better quality and higher number of diagnoses,
- easier access to other oncology experts in order to confirm the diagnosis.
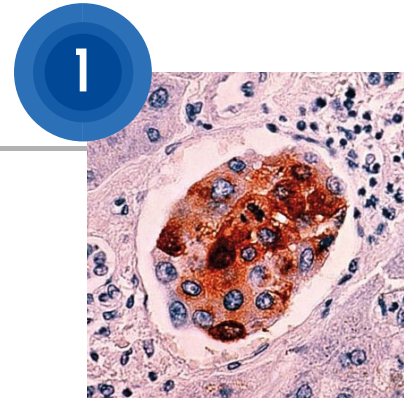
1 Histopathology

In terms of precision, there are no better methods of seeing a single tissue as... to examine the tissue under the microscope. Every histopathologist would agree that sometimes finding the most descriptive part of the slide is a harder task than it is to make the diagnosis itself. Fortunately it is not a problem for us. We can localize the most important parts of the slide, what is more we can extract the very factors that influence diagnostic models the most.
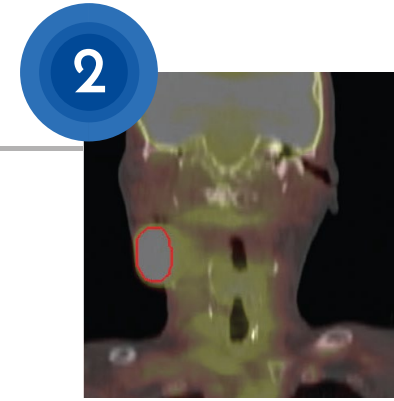
2 PET Analysis

In oncology, Positron Emission Tomography (PET) imaging is widely used in diagnostics of cancer metastases, in monitoring of progress in course of the cancer treatment, and in planning radiotherapeutic interventions. Accurate and reproducible delineation of the tumor in the PET scans remains a difficult task. Our aim is to provide clinicians with intelligent software supporting accurate, efficient and reproducible delineation of the tumor.

3 MRI Analysis

It is one of the most important and most profitable diagnostic tools. Not only this medical imaging modality is not invasive but also can be applied in many different scenarios, obtaining images of pretty much every part of the human body. In case of the brain tissue with the help of our software Alzheimer's disease can be predicted, tumor can be localized and for some tumor types it can even be automatically classified.

Prostate cancer is the second most common cancer in men after skin cancers. 1.1 million new cases every year, about 307,000 deaths; (WHO 2014).

COMPANY PROFILE

Cancer Center is a platform for computer-vision algorithms based on machine learning targeting different types of cancers. Our mission is to aid the diagnosis process with deep learning and artificial intelligence.

Cancer Center was founded in 2016 by Piotr Krajewski, an entrepreneur who inspired by a personal experience wanted to provide a better diagnosis to the masses. He invited skilled scientists and engineers with exceptional expertise in artificial intelligence and machine learning to the project, that soon turned into a startup. Cancer Center is based in Wroclaw, Poland with representatives in Germany, United Kingdom and Switzerland.

Four Key Factors make us unique:
- The most difficult part of the solution is done: our computer-vision algorithms have been validated and awarded at MICCAI in 2016 and 2015.
- The team is experienced in startup business. Our past startups have raised 2m USD and employed ca. 50 FTEs.
- The team is diverse, with many years of experience in machine/deep learning, artificial intelligence and cloud computing.
- Focus:
  - deep learning system for biopsy localization,
  - AI-based webapp for malinoma detection.

We are empowered by our vision to help the weakest.

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www.cancercenter.ai

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