Cancer Imaging Phenomics Toolkit (CaPTk): A Radio(genomic)ics Platform for Quantitative Imaging Analytics on Computational Oncology

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Primary Aim: To enable swift and efficient translation of cutting-edge academic research into clinically useful tools[1].
2. Computational experts: allowing for batch-processing and integration of new algorithms.

- Functionality -

Pre-processing[1]

- General Purpose Tools -

Interaction

- Segmentation [1,4] (IX-GEAR)

Quantitative Feature Extraction

- Specialized Applications -

Imaging Signature of EGFRvIII in GBM[2]

Computational Study of Brain Connectivity[6,7]

Breast Density Assessment[8,9] (Cancer Risk Estimation)

GBM Survival Prediction[15]

GBM Recurrence Prediction[13, 14] (Predictive Maps of Peritumoral Infiltration)


References
[1] Davatzikos et al, Cancer imaging phenomics toolkit: quantitative imaging analytics for precision diagnostics and predictive modeling of clinical outcome, Journal of Medical Imaging, 2018