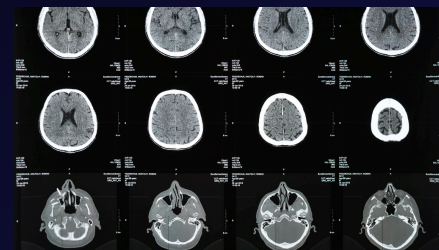
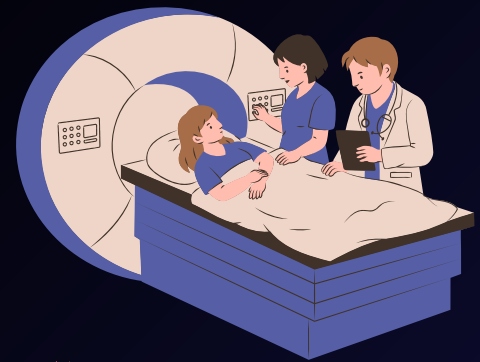


# Shaping Tomorrow's Healthcare: “The Role of AI in Imaging Biomarkers with PET/CT/MRI”



## Positive Aspects of using AI

PET &  
CT

MRI

- Automated Segmentation
- Prognostication & Analysis
- Objective Measurements
- Enhanced Decision Making
- Drug Discovery & Optimization
- Treatment Optimization
- Disease specific biomarker detection.
- High disease classification
- Standardized QIBs (MRI Biomarkers) aid data comparison.
- IP can secure MRI biomarkers for future AI use.



## LIMITATIONS

- Short Follow-up Time & Historical Scans
- Heterogeneous Patient Cohort
- Image Acquisition Variability
- Bias and Uncertainty in AI Tools
- Training Data Limitations
- Lack of Unified Standards
- Retrospective Study Limitations

## APPLICATIONS

Oncology



Radiology



Neurology



Drug Development



Pathology



## Ethical Aspects

- Patient data protection limits image access.
- Bias from training data domain knowledge.



## FUTURE WORK

- Collection of imaging datasets of patients (biobanks) can help evaluate existing biomarkers
- BI-RADS with AI to develop further breast imaging
- Explainable AI