



Clinical Imaging and Data Resource Core (CIDRC)

COBRE Oklahoma Center of Medical Imaging for Translational Cancer Research (OCMICR)

Introduction

CIDRC / OCMICR:

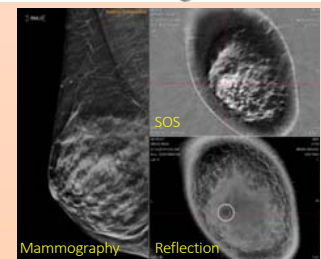
- The primary objective of OCMICR is to establish and nurture a robust, nationally competitive research community dedicated to medical imaging-related translational cancer research at both OU-Norman and OUHSC
- The Clinical Imaging and Data Resource Core (CIDRC) offers resources and services in four key areas: education and training on federal regulations for human and animal studies, biostatistical analysis training and consultation, expert annotation of medical imaging and histopathology data, and infrastructure for managing and sharing medical imaging and clinical data. The CIDRC leverages existing research infrastructure and services at the OUHSC campus, particularly within the Stephenson Cancer Center (SCC).

CIDRC Research Facility & Service Supported



- **Regulatory Assistance:** CIDRC provides guidelines for the protection of human subjects and the welfare of vertebrate animals to any affiliated OCMICR cancer imaging investigators. With support from the Oklahoma Shared Clinical and Translational Resources (OSCTR) (<https://osctr.ouhsc.edu>), OCMICR investigators can also receive assistance with writing research protocols, IRB applications, and consent forms, as well as navigating proposals through the IRB system and approval processes.
(Service Request: <https://redcap.ouhsc.edu/redcap/surveys/?s=wXnnMlrmsJ>)
- **Biostatistics Support:** In collaboration with the SCC Biostatistics and Research Design Shared Resource (BRDSR), CIDRC offers expert biostatistics consultation and services to OCMICR investigators, including: 1) design study protocols including sample size calculation, in order to yield the required statistical power; 2) refine study aims and outcomes to evaluate the study hypothesis; 3) Identify the appropriate study design selection to increase scientific rigor of the study; 3) support data collection planning and use of valid inclusion and exclusion criteria; 4) develop and optimize statistical analysis and data monitoring plans; 5) assist with grant preparation to ensure a solid statistical data analysis section.
(Service Request: <https://redcap.ouhsc.edu/redcap/surveys/?s=HWX4XPMELM>).
- **Medical Imaging Data Annotation Support:** CIDRC facilitates collaboration between OCMICR investigators and experienced radiologists and pathologists from OUHSC/SCC. This service is guided and supported by Dr. Anthony Alleman (Chairman of the Department of Radiological Sciences) and Dr. Michael Talbert (Chairman of the Department of Pathology). The image annotation tasks are led by two clinicians with extensive experience in annotating medical images to support imaging-related translational cancer research: Dr. Theresa Thai (Assistant Professor, OUHSC Department of Radiological Sciences) and Dr. Kar-Ming Fung (Professor, OUHSC Department of Pathology).
(Contact: Dr. Rodrigo Cuenca, rodrigo.cuenca@ou.edu)
- **Integrated Medical Image Informatics Infrastructure:** CIDRC is developing an integrated platform for medical imaging informatics to efficiently store, manage, and share comprehensive and carefully annotated radiographic and digital histopathological image databases, as well as curated clinical and biomarkers data with linked biospecimen metadata. The goal is to ensure that OCMICR investigators have access to well-annotated or curated image databases and biospecimen repositories, significantly enhancing the efficiency of conducting medical imaging-related studies. A unique feature of CIDRC is the coordinated integration of the plurality of medical imaging and clinical data repositories built as part of the research projects led by the OCMICR core faculty, which will be shared through this platform with other investigators at OU-Norman and OUHSC.
(Contact: Dr. Nafiseh Mirniaharikandehi, snmirnia@ou.edu)

QTscan 2000 Model-A Multimodal Ultrasound Breast Tomography System (QTImaging)



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