**ABSTRACT – Clinical Imaging and Data Resources Core**

The overarching objective of this Clinical Imaging and Data Resources Core (**CIDRC**) is to provide research project leaders (**RPLs**) of this COBRE with both regulatory and scientific support to facilitate their effort to conduct medical imaging related translational cancer research projects. The CIDRC will serve as a crucial bridge between the biomedical imaging research performed in the Gallogly College of Engineering on the University of Oklahoma (**OU**) Norman campus and the clinical research community in the Stephenson Cancer Center (**SCC**) on the OU Health Science Center (**OUHSC**) campus. Establishment of a robust, secure and durable mechanism and platform for storing and sharing images, clinical samples, and associated data is critical to the development and success of this proposed COBRE. The CIDRC will be organized to ensure the availability of scientifically valid and well-characterized image data, and the compliance with all NIH regulatory requirements in conducting human subject and animal model studies, as well as to encourage broad collaborative research efforts between the biomedical imaging engineering and clinical research. The CIDRC will be established in the SCC of OUHSC campus because OUHSC provides the broad clinical research service including the Institutional Review Board (**IRB**) to examine and approve translational clinical research projects, the biostatistics Core, and services to retrieve the archived medical images and the H&E stained histopathology slides, and other clinical data of cancer diagnosis results and treatment outcome. This CIDRC will integrate and strengthen the existing clinical research supporting resources located on the OUHSC campus to build a new and unique research resource platform to train and support the RPLs and pilot awardees of this COBRE to conduct joint translational cancer research projects on two OU campuses. The overall operation of the CIDRC will include to: **(1)** ensure that RPLs fully understand all NIH policies and regulations for protection of human subjects and welfare of vertebrate animals, **(2)** certify that study protocols for both retrospective and prospective studies are fully compliant with all NIH-mandated regulatory requirements, **(3)** assist with the IRB protocol application writing and submission, **(4)** provide biostatistics support to confirm that experiments are designed with appropriate sample sizes or statistical power and the proper statistical data analysis methodologies are used to test and validate the underlying hypothesis with high scientific rigor, and **(5)** establish a unique platform that can provide RPLs and other researchers with the shared databases allowing access to the linked annotated medical images, biospecimens and clinical data necessary to facilitate their proposed research projects. Thus, the CIDRC will build a critical scientific and intellectual support infrastructure that aims to ensure the success of this COBRE as the RPLs make progress in their research projects and transition to the independent researchers in conducting medical imaging related translational cancer research with the high clinical impact and scientific rigor.