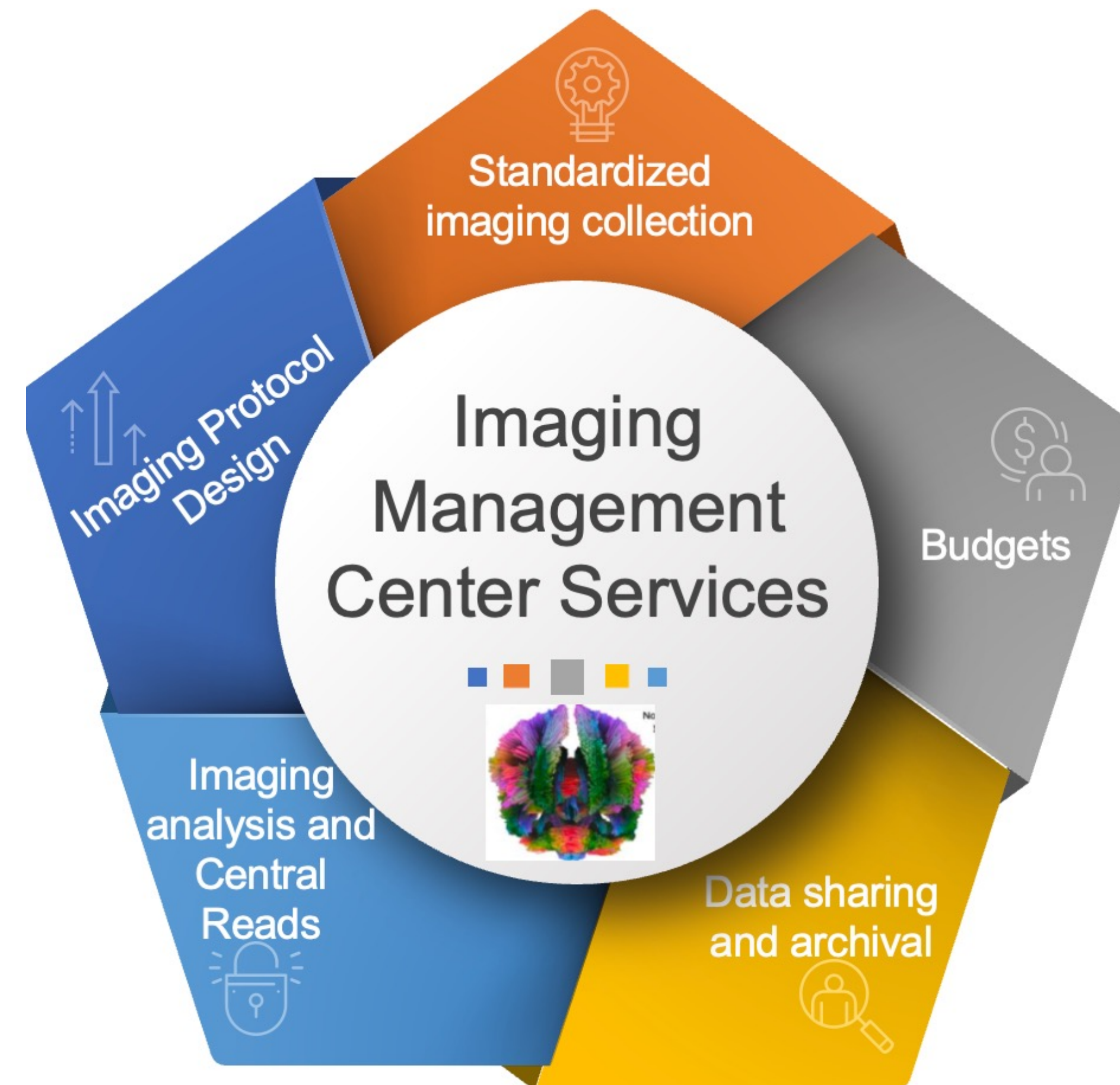


Background and Goals

- Massive amount of clinical trial imaging data with lack of a comprehensive solution
- **Goal: To establish a National Imaging Management and Research Center at University of Cincinnati**
 - Providing efficient imaging services for multicenter clinical trials
 - *Phase 1: NIH StrokeNET*
 - *Phase 2: UC Cancer Center*

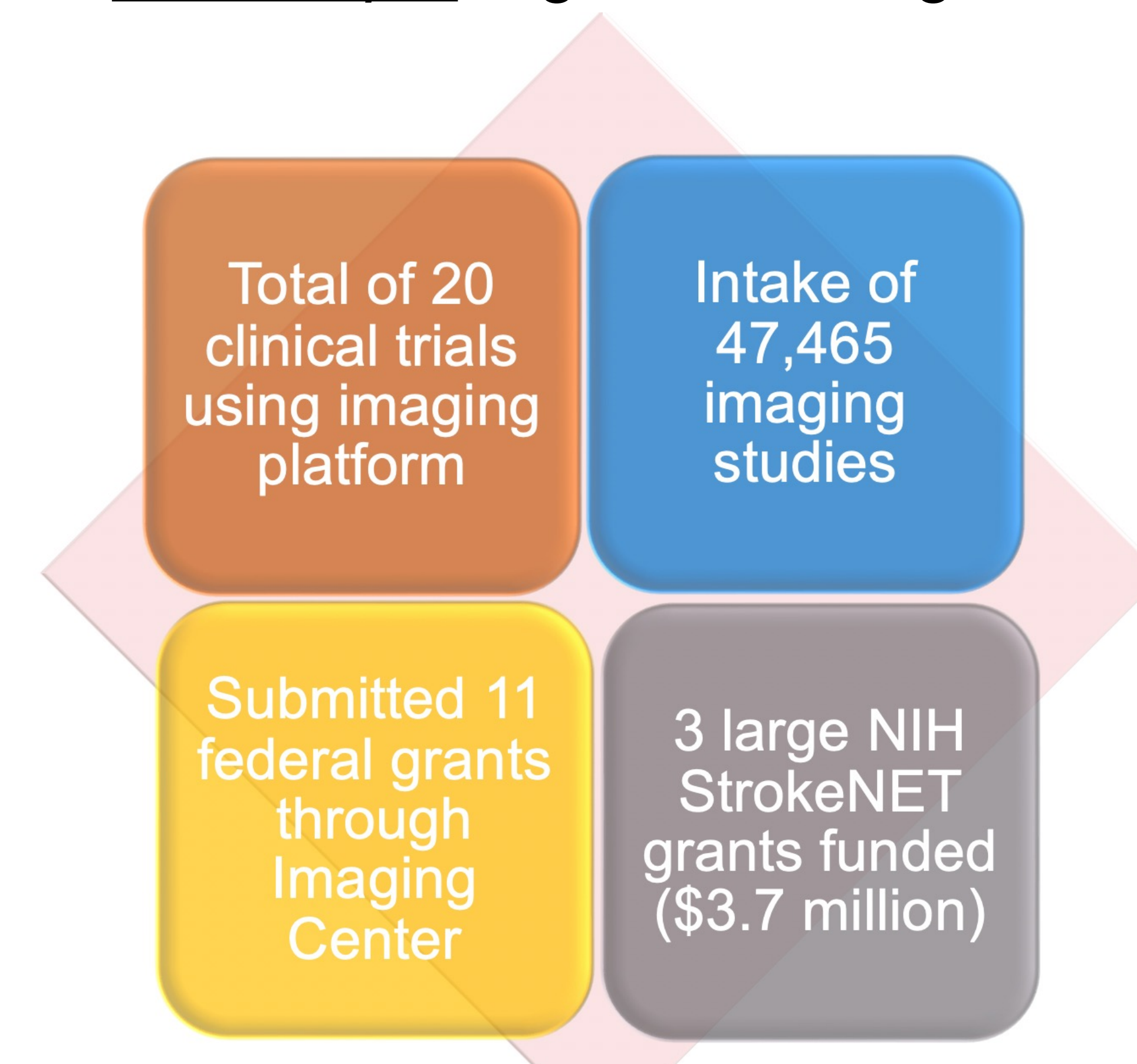
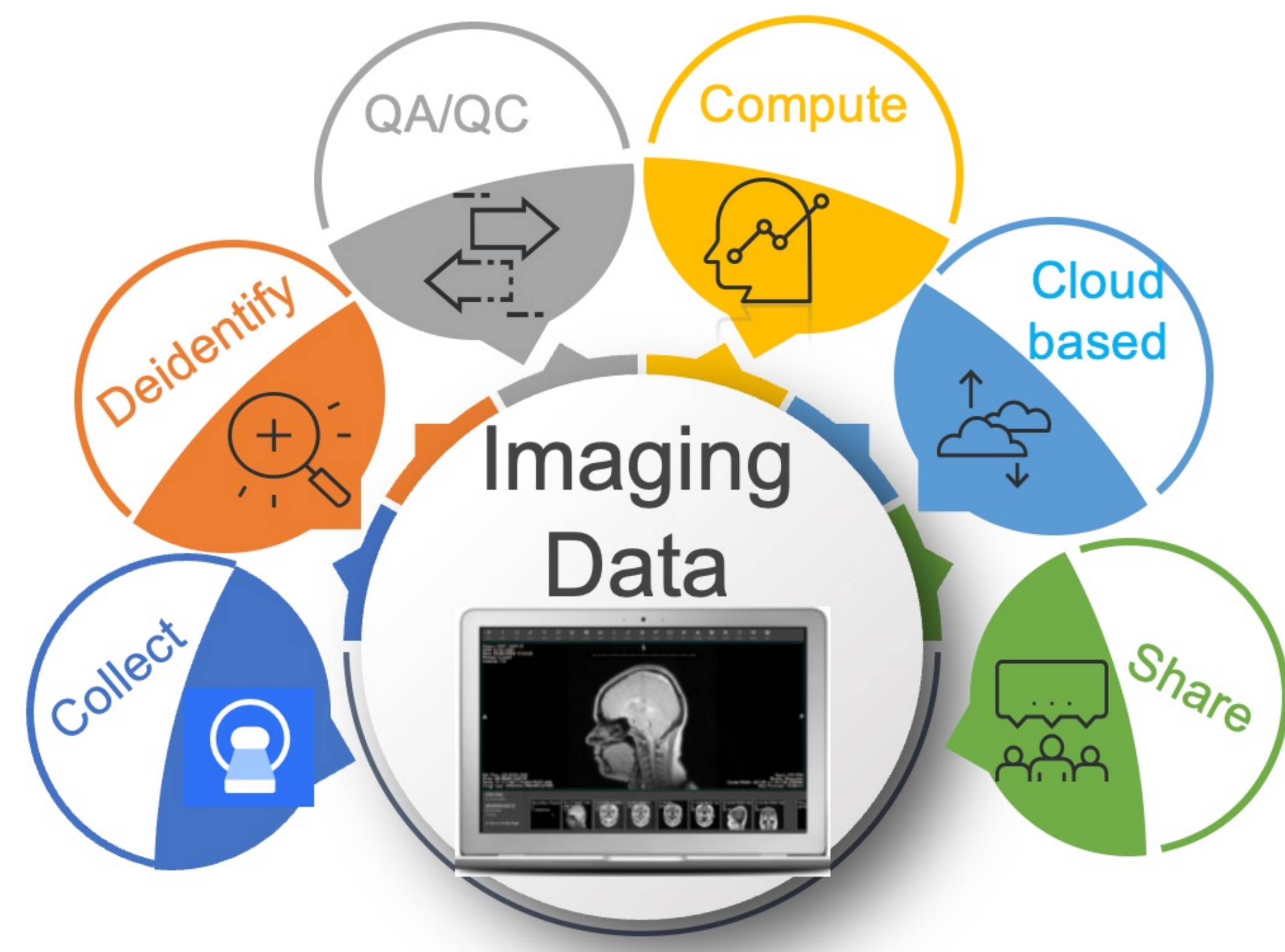
Methods and Strategies



- Create a cloud-based imaging infrastructure
- Establish a central REDCAP platform
- Integrate project management tools
- Develop standard operating procedures
- Provide budget estimates
- Conduct conversations with strategic partners
- Create a Tumor Imaging Lab

Results and Outcomes

- Centralized imaging platform
- Standardized logistic and financial operations
- Grant pipeline with funding success
- Dedicated team of imaging experts
- Business plan for Tumor Imaging Lab at UC Cancer Center
- New cross campus collaborations
- New training opportunities
- Next steps: Big data AI, P grants



ABSTRACT: 2022 ELAM Institutional Action Project

Project Title: Establishing a National Imaging Management and Research Center

Name and Institution: Achala Vagal, MD, MS, Tenured Professor of Radiology, University of Cincinnati (UC)

Collaborators and Mentors: Andrew Filak, MD (Dean, UC College of Medicine), Mary Mahoney, MD (Chair, Department of Radiology), Vivek Khandwala, PhD (Manager, Radiology Service Core lab)

Topic Category: Research

Background/Significance:

The NIH StrokeNet is a cooperative research program supported by the NINDS. The current main components include the National Coordinating Center at the University of Cincinnati, the National Data Management Center at the Medical University of South Carolina, and 25 academic regional coordinating centers across the United States. However, what is lacking, is a central way to easily collect, search, sort, and create imaging data cohorts for StrokeNET. There is a critical need for establishing a comprehensive imaging center with protocol design, standardized imaging collection, deidentification, harmonization, analysis, data sharing and archival to support multicenter, global clinical trials.

Purpose/Objectives:

The goal of our project is to establish a National Imaging Management and Research Center which provides efficient multicenter research services, including centralized imaging infrastructure, expert radiology reads, and customization toward any unique imaging feature of trial design. Phase 1 of the project will focus on supporting trials through the NIH StrokeNET and Phase 2 will expand to cancer trials in UC Cancer Center.

Methods/Approach:

- Create a cloud-based imaging infrastructure with data management solutions
- Establish a central REDCAP platform for consultations and project inquiries
- Integrate project management tools including tracking of clinical trials
- Develop standard operating procedures that can be used across all imaging center services
- Provide budget estimates for NIH StrokeNET grants
- Conduct conversations with strategic partners including NIH/NINDS and UC Digital Futures
- Establish a Tumor Imaging Lab at the UC Cancer Center

Outcomes/Results:

The Imaging Management Center had a very successful year meeting all Phase 1 goals and starting Phase 2. Key accomplishments include: 1) Implemented a robust imaging infrastructure to support clinical trials with intake of 47,465 imaging studies to date; 2) Started a pipeline of grants using the infrastructure; 3) Submitted 11 federal grants through the imaging center since May 2021 (5 pending review); 4) Received funding for 3 large multicenter NIH StrokeNET trials (FASTEST:100 sites, VERIFY:30 sites and CAPTIVA:110 sites) with total budget of \$3.7 million; 5) Standardized logistic and financial operations for center sustainability and scalability; 6) Built a dedicated team of coordinators, database managers, data analysts with proficiency in imaging; 7) Started new cross campus and international collaborations, 8) Submitted business plan to set up Tumor Imaging Lab, and 9) Created new professional education and training opportunities.

Impact/Potential Impact:

Building a world class Imaging Management and Research Center at University of Cincinnati will give us national and international visibility as a premier site for innovation, collaboration, and training for imaging research. Our large imaging repository will collect, manage, and share data with investigators, collaborating consortia and big data projects worldwide while creating vast opportunities for open collaboration to advance research in stroke and cancer.