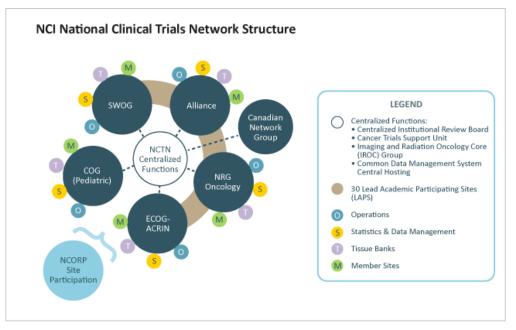
Imaging Clinical Trials

Imaging data from clinical trials provides the opportunity to link imaging characteristics to clinical trial analyses, associated clinical data and patient outcomes. From 2018 to 2023, the NCI Cancer **Imaging Program** Informatics Lab supported an additional TCIA image data collection center focused specifically on clinical trial data. Many clinical trial data sets originate from the NCI National



Clinical Trials Network (NCTN), which is a collection of organizations and clinicians that coordinates and supports cancer clinical trials at more than 3,000 sites across the United States and Canada. The NCTN provides the infrastructure for NCI-funded treatment, screening, and diagnosis trials to improve the lives of patients with cancer. The NCTN explicitly requires data sharing of the patient-level clinical data in https://nctn-data-archive.nci.nih.gov/view-trials, and TCIA serves as the imaging repository for that archive.

Labeled data for tumor detection & segmentation

With the large increase in availability of such publicly available, de-identified datasets there is now an opportunity to substantially increase their value to the cancer imaging research community by curating, segmenting and labeling them to expedite progress in data driven fields such as radiomics and artificial intelligence. Recognizing this fact, NCI has provided funds to retrospectively generate 3d segmentations and seed points to identify tumor locations in additional trial datasets. The resulting data will be made freely available on TCIA, along with supporting documentation and sample code (e.g. Jupyter Notebooks) that will facilitate streamlined analysis on widely used data science platforms. This resource is being developed in a manner that will reduce the barriers for non-radiology researchers to use the data to develop predictive radiomic tools, to help developers of quantitative imaging software and machine learning models for tumor segmentation, detection and total burden estimations to assess response assessment.

Clinical Trial Datasets on TCIA

| | Collection Name | ClinicalTrials. | Published on TCIA | Image Annotations |
|----|--|-----------------|----------------------|--|
| 1 | EA1141 | NCT02933489 | 2 October 2023 | Not available |
| 2 | S0819 | NCT00946712 | 30 March 2023 | Tumor segmentations and seed points (3rd party analysis) |
| 3 | A091105 | NCT02066181 | 10 February 2023 | Tumor segmentations and seed points (3rd party analysis) |
| 4 | ARAR0331 | NCT00274937 | 21 October 2022 | Tumor segmentations and seed points (3rd party analysis) |
| 5 | AHOD0831 | NCT01026220 | 8 June 2022 | Tumor segmentations and seed points (3rd party analysis) |
| 6 | ACRIN-6698 | NCT01564368 | 2 May 2022 | Tumor segmentations included in primary dataset |
| 7 | I-SPY2 Trial | NCT01042379 | 2 May 2022 | Tumor segmentations included in primary dataset |
| 8 | AREN0532 | NCT00352534 | 31 March 2022 | Tumor segmentations and seed points (3rd party analysis) |
| 9 | AREN0533 | NCT00379340 | 20 January 2022 | Tumor segmentations and seed points (3rd party analysis) |
| 10 | AREN0534 | NCT00945009 | 8 November 2021 | Tumor segmentations and seed points (3rd party analysis) |
| 11 | ACNS0332 | NCT00392327 | 4 May 2021 | Tumor segmentations and seed points (3rd party analysis) |
| 12 | AHEP0731 | NCT00980460 | 30 March 2021 | Tumor segmentations and seed points (3rd party analysis) |
| 13 | CALGB50303 | NCT00118209 | 30 March 2021 | Tumor segmentations and seed points (3rd party analysis) |
| 14 | ACRIN-Contralateral-Breast-MR (ACRIN 6667) | NCT00058058 | 5 March 2021 | Not available |
| 15 | ACRIN-HNSCC-FDG-PET/CT (ACRIN 6685) | NCT00983697 | 13 March 2020 | Tumor segmentations and seed points (3rd party analysis) |
| 16 | ACRIN-DSC-MR-Brain (ACRIN 6677/RTOG 0625) | NCT00433381 | 7 February 2019 | Not available |
| 17 | NSCLC-Cetuximab (RTOG-0617) | NCT00533949 | 15 April 2019 | Radiation Therapy Structures included in primary dataset |

| 18 | ACRIN-NSCLC-FDG-PET (ACRIN 6668) | NCT00083083 | 31 December 2018 | Not available |
|----|-------------------------------------|-------------|---------------------|---|
| 19 | ACRIN-FMISO-Brain (ACRIN 6684) | NCT00902577 | 12 February 2018 | Not available |
| 20 | ACRIN-FLT-Breast (ACRIN 6688) | NCT00572728 | 11 December 2017 | Not available |
| 21 | ISPY1 (ACRIN 6657) | NCT00043017 | 18 June 2015 | Segmentations included in primary dataset Tumor segmentations (3rd party analysis) |
| 22 | NRG-1308 (RTOG 1308) | NCT01993810 | 14 September 2015 | Radiation Therapy Structures included in primary dataset |
| 23 | National Lung Screening Trial | NCT00047385 | 1 March 2013 | Not available |
| 24 | Head-Neck Cetuximab (RTOG 0522) | NCT00265941 | 14 November 2013 | Radiation Therapy Structures included in primary dataset |
| 25 | CT Colonography (ACRIN 6664) | NCT00084929 | 15 November 2013 | Not available |