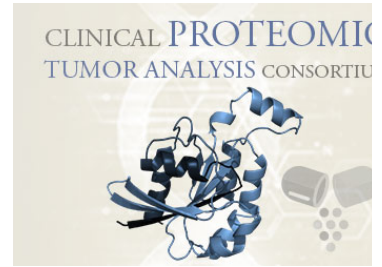




# CPTAC-LUAD



# Summary

This collection contains subjects from the National Cancer Institute's [Clinical Proteomic Tumor Analysis Consortium](#) Lung Adenocarcinoma (CPTAC-LUAD) cohort. CPTAC is a national effort to accelerate the understanding of the molecular basis of cancer through the application of large-scale proteome and genome analysis, or proteogenomics. Radiology and pathology images from CPTAC Phase 3 patients are being collected and made publicly available by The Cancer Imaging Archive to enable researchers to investigate cancer phenotypes which may correlate to corresponding proteomic, genomic and clinical data.

CPTAC Phase 3 collects data from ten cancer types. In TCIA, imaging from each cancer type will be contained in its own TCIA Collection, with the collection name "CPTAC-*cancertype*". CPTAC Phase 3 Imaging data is made available on TCIA each quarter as it is collected. A summary of CPTAC Phase 3 imaging efforts can be found on the [CPTAC Imaging Proteomics](#) page.

Radiology imaging is collected from standard of care imaging performed on patients immediately before the pathological diagnosis, and from follow-up scans where available. For this reason the radiology image data sets are heterogeneous in terms of scanner modalities, manufacturers and acquisition protocols. Pathology imaging is collected as part of the CPTAC qualification workflow.

## CPTAC Imaging Special Interest Group

You can join the [CPTAC Imaging Special Interest Group](#) to be notified of webinars & data releases, collaborate on common data wrangling tasks and seek out partners to explore research hypotheses! Artifacts from previous webinars such as slide decks and video recordings can be found on the [CPTAC SIG Webinars](#) page.

## Acknowledgements

We would like to acknowledge the individuals and institutions that have provided data for this collection:






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### Data Access

## Data Access

Click the **Download** button to save a ".tcia" manifest file to your computer, which you must open with the [NBIA Data Retriever](#). Click the **Search** button to open our Data Portal, where you can browse the data collection and/or download a subset of its contents.

Data Type	Download all or Query /Filter
Images (DICOM, 17.9 GB)	 
Tissue Slide Images (SVS, 390.4 GB)	 
Clinical Data API (JSON - <a href="#">more info</a> )	
Discovery Study Proteomics/Clinical Data (external)	<a href="#">CPTAC Data Portal (Georgetown)</a>
Genomics/Clinical data (external)	<a href="#">Genomic Data Commons</a>

Click the Versions tab for more info about data releases.

### Detailed Description

## Detailed Description

	Radiology Image Statistics	Pathology Image Statistics
Modalities	CT, MR, PT, CR, DX, NM	Pathology
Number of Patients	27	230
Number of Studies	76	N/A
Number of Series	232	N/A
Number of Images	17,402	1073
Images Size (GB)	17.9	390.4

## A Note about TCIA and CPTAC Subject Identifiers and Dates

### Subject Identifiers:

A subject with radiology and pathology images stored in TCIA is identified with a de-identified project Patient ID that is identical to the Patient ID of the same subject with clinical, proteomic, and/or genomic data stored in other CPTAC databases and web sites.

### Dates:

The radiology imaging data is in DICOM format. To provide temporal context information aligned with events in the clinical data set for each patient, TCIA has inserted information in DICOM tag (0012,0050) *Clinical Trial Time Point ID*. This DICOM tag contains the number of days from the date the patient was initially diagnosed pathologically with the disease to the date of the scan. E.g. a scan acquired 3 days before the diagnosis would contain the value -3. A follow up scan acquired 90 days after diagnosis would contain the value 90.

The DICOM date tags (i.e. birth dates, imaging study dates, etc.) are modified per TCIA's standard process which offsets them by a random number of days. The offset is a number of days between 3 and 10 years prior to the real date that is consistent for each TCIA image-submitting site and collection, but that varies among sites and among collections from the same site. Thus, the number of days between a subject's longitudinal imaging studies are accurately preserved when more than one study has been archived while still meeting HIPAA requirements.

### Citations & Data Usage Policy

#### **Citations & Data Usage Policy**

CPTAC imaging data is considered CPTAC metadata and as such it is freely available to the public according to the [TCIA Data Usage Policy](#). Note that CPTAC proteomic and genomic data use must comply with the [CPTAC Data Use Agreement](#).

These collections are freely available to browse, download, and use for commercial, scientific and educational purposes as outlined in the [Creative Commons Attribution 3.0 Unported License](#). Questions may be directed to [help@cancerimagingarchive.net](mailto:help@cancerimagingarchive.net). Please be sure to acknowledge both this data set and TCIA in publications by including the following citations in your work:

### Data Citation

National Cancer Institute Clinical Proteomic Tumor Analysis Consortium (CPTAC). (2018). Radiology Data from the Clinical Proteomic Tumor Analysis Consortium Lung Adenocarcinoma [CPTAC-LUAD] collection [Data set]. The Cancer Imaging Archive. <https://doi.org/10.7937/k9/tcia.2018.pat12tbs>

### Acknowledgement

The CPTAC program requests that publications using data from this program include the following statement: **“Data used in this publication were generated by the National Cancer Institute Clinical Proteomic Tumor Analysis Consortium (CPTAC).”**

### TCIA Citation

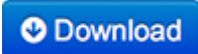

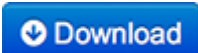


Clark K, Vendt B, Smith K, Freymann J, Kirby J, Koppel P, Moore S, Phillips S, Maffitt D, Pringle M, Tarbox L, Prior F. **The Cancer Imaging Archive (TCIA): Maintaining and Operating a Public Information Repository**, Journal of Digital Imaging, Volume 26, Number 6, December, 2013, pp 1045-1057. ([paper](#))

## Other Publications Using This Data

TCIA maintains [a list of publications](#) which leverage TCIA data. If you have a manuscript you'd like to add please [contact the TCIA Helpdesk](#).





### Versions

#### Version 7 (Current) : Updated 2019/09/30

Data Type	Download all or Query/Filter
Images (DICOM, 17.9 GB)	  (Requires <a href="#">NBIA Data Retriever</a> .)
Tissue Slide Images (SVS, 390.4 GB)	 
Clinical Data (web)	Coming soon
Proteomics (web)	




Added new subjects.

### Version 6: Updated 2019/06/30

Data Type	Download all or Query/Filter
Images (DICOM, 12.2 GB)	 (Requires <a href="#">NBIA Data Retriever.</a> )
Tissue Slide Images (SVS, 390.4 GB)	 
Clinical Data (web)	Coming soon
Proteomics (web)	


Added Subjects



### Version 5: Updated 2019/03/31

Data Type	Download all or Query/Filter
Images (DICOM, 11.4 GB)	 (Requires <a href="#">NBIA Data Retriever.</a> )
Tissue Slide Images (web)	
Clinical Data (web)	Coming soon
Proteomics (web)	

Added new subjects




### Version 4 : Updated 2018/10/24

Data Type	Download all or Query/Filter
Images (DICOM, 3.8 GB)	 (Requires <a href="#">NBIA Data Retriever.</a> )

Tissue Slide Images (web)	
Proteomics (web)	




Added subjects

### Version 3: Updated 2018/06/30

Data Type	Download all or Query/Filter
Images (DICOM, 4.0 GB)	 (Requires <a href="#">NBIA Data Retriever.</a> )
Tissue Slide Images (web)	
Proteomics (web)	


Added new subjects.

### Version 2: Updated 2018/04/26



Data Type	Download all or Query/Filter
Images (DICOM, 3.9 GB)	 (Requires <a href="#">NBIA Data Retriever.</a> )
Tissue Slide Images (web)	
Proteomics (web)	

Added new subjects.

### Version 1 (Current): Updated 2018/01/10

Data Type	Download all or Query/Filter
Images (DICOM, 2.77 GB)	 (Requires <a href="#">NBIA Data Retriever.</a> )



Tissue Slide Images (web)	 Search
Proteomics (web)	 Search