Lung Phantom

Summary

Redirection Notice

This page will redirect to https://www.cancerimagingarchive.net/collection/lung-phantom/ in about 5 seconds.

The FDA anthropomorphic thorax phantom with 12 phantom lesions of different sizes (10 and 20 mm in effective diameter), shapes (spherical, elliptical, lobulated, and spiculated), and densities (630,10, and +100 HU) was scanned at Columbia University Medical Center on a 64-detector row scanner (LightSpeed VCT, GE Healthcare, Milwaukee, WI). The CT scanning parameters were 120 kVp, 100 mAs, 64x0.625 collimation, and pitch of 1.375. The images were reconstructed with the lung kernel using 1.25 mm slice thickness.

This data set was provided to TCIA for use in the National Cancer Institute's Quantiatitive Imaging Network (QIN) Lung CT Segmentation Challenge. A TCIA Analysis Result dataset was created to enable easy re-use of the complete multi-site challenge data set.

About the NCI QIN

The mission of the QIN is to improve the role of quantitative imaging for clinical decision making in oncology by developing and validating data acquisition, analysis methods, and tools to tailor treatment for individual patients and predict or monitor the response to drug or radiation therapy. More information is available on the Quantitative Imaging Network Collections page. Interested investigators can apply to the QIN at: Quantitative Imaging for Evaluation of Responses to Cancer Therapies (U01).

Data Access

Data Access

Data Type	Download all or Query/Filter	License
Images (DICOM, 127.5 MB)	*Download* *Search* (Download requires the NBIA Data Retriever)	CC BY 3.0
DICOM Metadata Digest (CSV, 28 kB)	*Download*	CC BY 3.0

Click the Versions tab for more info about data releases.

Additional Resources for this Dataset

The NCI Cancer Research Data Commons (CRDC) provides access to additional data and a cloud-based data science infrastructure that connects data sets with analytics tools to allow users to share, integrate, analyze, and visualize cancer research data.

- Imaging Data Commons (IDC) (Imaging Data)

Third Party Analyses of this Dataset

TCIA encourages the community to publish your analyses of our datasets. Below is a list of such third party analyses published using this Collection:

- QIN multi-site collection of Lung CT data with Nodule Segmentations (QIN-LungCT-Seg)

Detailed Description

Detailed Description

Collection Statistics	Updated 2014/08/26
Modalities	CT
Number of Participants	1
Number of Studies	1
Number of Series	1
Number of Images	237
Image Size (MB)	127.5

Citations & Data Usage Policy

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Users must abide by the TCIA Data Usage Policy and Restrictions. Attribution should include references to the following citations:

Data Citation

Zhao, B. (2015). **Lung Phantom (Version 2) [Data set]**. The Cancer Imaging Archive. https://doi.org/10.7937/k9/tcia.2015.08a1ixoo

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. (2013). **The Cancer Imaging Archive (TCIA): Maintaining and Operating a Public Information Repository.** In Journal of Digital Imaging (Vol. 26, Issue 6, pp. 1045–1057). Springer Science and Business Media LLC. https://doi.org/10.1007/s10278-013-9622-7 PMCID: PMC3824915

Other Publications Using This Data

TCIA maintains a list of publications which leverage our data. If you have a publication you'd like to add, please contact TCIA's Helpdesk .

Versions

Version 2 (Current): Updated 2020/09/25

Data Type	Download all or Query/Filter

CT(127.5 MB)	*Download* *Search* (Download requires the NBIA Data Retriever)
DICOM Metadata Digest (CSV)	*Download*

9/25/2020: Adjusted this table and *.tcia manifest files to remove segmentations built in **Multi-site collection of Lung CT data with Nodule Segmentations.** DOI: https://doi.org/10.7937/K9/TCIA.2015.1BUVFJR7 . Note that the "Search" will take you to both until you uncheck the "Include third party" button.

Version 1: Updated 2014/08/26

(deprecated)