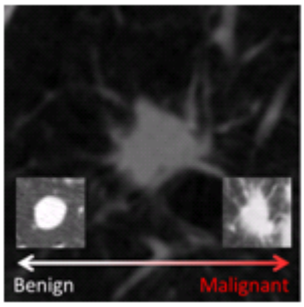
SPIE-AAPM Lung CT Challenge

Summary

As part of the 2015 SPIE Medical Imaging Conference, SPIE – with the support of American Association of Physicists in Medicine (AAPM) and the National Cancer Institute (NCI) – will conduct a “Grand Challenge” on quantitative image analysis methods for the diagnostic classification of malignant and benign lung nodules. The LUNGx Challenge will provide a unique opportunity for participants to compare their algorithms to those of others from academia, industry, and government in a structured, direct way using the same data sets.

- Release date of calibration set cases with truth: **November 21, 2014**
- Release date of test set cases without truth: **January 9, 2015**
- Submission date for participants to submit test set classification results: **Fe bruary 6, 2015**
- SPIE Medical Imaging meeting: **February 21 to 26, 2015**



For more information please refer to: LUNGx SPIE-AAPM-NCI Lung Nodule Classification Challenge, the related SPIE Guest Editorial, and corresponding scientific manuscript.

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, 12.1GB)	Download Search
Nodule Locations/Diagnoses - Calibration Set (XLS)	Download
Nodule Locations/Diagnoses - Test Set (XLS)	Download

Click the Versions tab for more info about data releases.

Detailed Description

Detailed Description

Collection Statistics	
Modalities	CT
Number of Participants	70
Number of Studies	70
Number of Series	70

Number of Images	22,489
Images Size (GB)	12.1

For more information please refer to: LUNGx SPIE-AAPM-NCI Lung Nodule Classification Challenge, the related SPIE Guest Editorial, and the follow up scientific manuscript.

Counts below reflect both the training set (10 subjects) and test set (60 subjects). The Patient IDs of the 10-subject training set begin **CT-Training**. The Patient IDs of the 60-subject test set begin **LUNGx**.

Nodule locations and diagnoses

- CalibrationSet_NoduleData.xlsx - Nodule locations and diagnoses
- TestSet_NoduleData.xlsx - Nodule locations; diagnoses to be added after manuscript publication

Citations & Data Usage Policy

Citations & Data Usage Policy

This collection is freely available to browse, download, and use for commercial, scientific and educational purposes as outlined in the Creative Commons Attribution 3.0 Unported License. See TCIA's Data Usage Policies and Restrictions for additional details. Questions may be directed to help@cancerimagingarchive.net.

Please be sure to include the following citations in your work if you use this data set:

Data Citation

Armato III, Samuel G.; Hadjiiski, Lubomir; Tourassi, Georgia D.; Drukker, Karen; Giger, Maryellen L.; Li, Feng; Redmond, George; Farahani, Keyvan; Kirby, Justin S.; Clarke, Laurence P. (2015). **SPIE-AAPM-NCI Lung Nodule Classification Challenge Dataset**. The Cancer Imaging Archive. https://doi.org/10.7937/K9/TCIA.2015.UZLSU3FL

Publication Citation

Armato III SG, Hadjiiski LM, Tourassi GD, Drukker K, Giger ML, Li F, Redmond G, Farahani K, Kirby JS, Clarke LP. (2015). **Guest Editorial: LUNGx Challenge for computerized lung nodule classification: reflections and lessons learned**. Journal of Medical Imaging. SPIE-Intl Soc Optical Eng. DOI: 10.1117/1.jmi.2.2.020103

Publication Citation

Samuel G. Armato, Karen Drukker, Feng Li, Lubomir Hadjiiski, Georgia D. Tourassi, Roger M. Engelmann, Maryellen L. Giger, George Redmond, Keyvan Farahani, Justin S. Kirby, Laurence P. Clarke. (2016) "**LUNGx Challenge for computerized lung nodule classification**," *J. Med. Imag.* **3**(4), 044506. DOI: 10.1117/1.JMI.3.4.044506

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**, Journal of Digital Imaging, Volume 26, Number 6, pp 1045-1057. DOI: 10.1007/s10278-013-9622-7

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 the TCIA Helpdesk.

Versions

Version 2 (Current): Updated 2016/09/23

Data Type	Download all or Query/Filter
Images (DICOM, 12.1GB)	Download Search (Download requires the NBIA Data Retriever.)
Nodule Locations/Diagnoses - Calibration Set (XLS)	Download
Nodule Locations/Diagnoses - Test Set (XLS)	Download

Added diagnosis data to test set XLS.

Version 1: Updated 2014/11/21

Data Type	Download all or Query /Filter
Images (DICOM, 12.1GB)	Download Search

Nodule Locations/Diagnoses - Calibration Set (XLS)	Download
Nodule Locations - Test Set (XLS)	Download