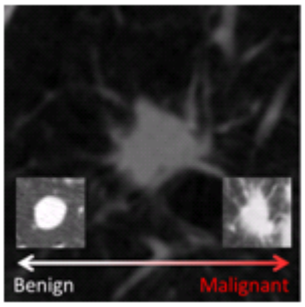
SPIE-AAPM-NCI Lung Nodule Classification Challenge Dataset (SPIE-AAPM Lung CT Challenge)

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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: **February 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

Data Type	Download all or Query/Filter	License
Images (DICOM, 12.1GB)	*Download* *Search* (Download requires the NBIA Data Retriever)	CC BY 3.0
Nodule Locations/Diagnoses - Calibration Set (XLS,)	*Download*	CC BY 3.0
Nodule Locations/Diagnoses - Test Set (XLS, 55 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)

Detailed Description

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Detailed Description

Collection Statistics	
Modalities	CT
Number of Patients	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

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

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 TCIA's 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* (Download requires the NBIA Data Retriever)
Nodule Locations/Diagnoses - Calibration Set (XLS)	*Download*
Nodule Locations - Test Set (XLS)	*Download*

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