

# QIN Lung CT Segmentation Challenge

# Summary

The goal of the CT segmentation challenge was to compare the bias (where possible) and repeatability of automatic, semi-automatic and manual segmentations for lung CT studies. Investigators from Columbia, MGH, Moffitt and Stanford identified 52 lung CT nodules and made available the data in DICOM format. Algorithm developers and users were requested to submit at least 4 repetitions of their algorithm for each nodule. A variety of image formats for the segmentation volumes were utilized including NIFTI, NRRD, JPG, PNG, DICOM-SEG, DICOM-RT, AIM, and LIDC-XML. The results were ultimately converted into DICOM-SEG format and uploaded back to TCIA.

## Data Description

Images from multiple TCIA collections were utilized in the challenge and general information about nodule locations were provided as follows:

| <b>Image Collection</b>  | <b>Nodule Locations</b>                              |
|--|--|
| <a href="#">Lung Phantom (CUMC)</a>  | <a href="#">Lung Phantom Nodule Locations</a>        |
| <a href="#">QIN Lung CT (Moffitt)</a>  | <a href="#">QIN Lung Nodule Locations</a>            |
| <a href="#">RIDER Lung CT (MSKCC)</a>  | <a href="#">RIDER Lung CT Nodule Locations</a>       |
| <a href="#">NSCLC Radiogenomics: Initial Stanford Study of 26 Cases (Stanford)</a> | <a href="#">NSCLC Radiogenomics Nodule Locations</a> |
| <a href="#">LIDC-IDRI (multi-site)</a>   | <a href="#">LIDC-IDRI Nodule Locations</a>           |

## Data Downloads

To download the data please visit the Digital Object Identifier page for this data set at <http://dx.doi.org/10.7937/K9/TCIA.2015.1BUVFJR7>.