

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:

Image Collection	Nodule Locations
Lung Phantom (CUMC)	Lung Phantom Nodule Locations
QIN Lung CT (Moffitt)	QIN Lung Nodule Locations
RIDER Lung CT (MSKCC)	RIDER Lung CT Nodule Locations
NSCLC Radiogenomics: Initial Stanford Study of 26 Cases (NSCLC Radiogenomics-Stanford) (Stanford)	NSCLC Radiogenomics Nodule Locations
Data from The Lung Image Database Consortium (LIDC) and Image Database Resource Initiative (IDRI): A completed reference database of lung nodules on CT scans (LIDC-IDRI) (multi-site)	LIDC-IDRI Nodule Locations

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>.