

## QIBA and QI/ Imaging Biomarkers in the Literature

Articles are divided into two categories:

1. QIBA-generated by QIBA modality research teams
2. Articles that mention QIBA, or the Quantitative Imaging Biomarkers Alliance

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### I. QIBA GENERATED

#### 2013

Garra B, Hall TJ, Milkowski A, et al. **RSNA/QIBA: Shear wave speed as a biomarker for liver fibrosis staging.** 2013-IEEE International Ultrasonics Symposium (IUS), Joint IEEE-International Symposium on the Applications of Ferroelectrics (ISAF), and Piezoresponse Force Microscopy and Nanoscale Phenomena in Polar Materials (PFM), Joint IEEE-International Frequency Control Symposium (IFCS), and European Frequency and Time Forum (EFTF); 2013 July 21-25; Prague, Czech Republic. (*conference proceedings paper*)

Sullivan DC, Schwartz LH, Zhao B. **The Imaging Viewpoint: How Imaging Affects Determination of Progression-Free Survival.** *Clin Cancer Res.* 2013; 19(10): 2621–8. doi: 10.1158/1078-0432.CCR-12-2936

#### 2012

Voyvodic JT. **Reproducibility of single-subject fMRI language mapping with AMPLE normalization.** *J Magn Reson Imaging* 2012; September; 36(3): 569–580. doi:10.1002/jmri.23686.

#### 2011

Buckler AJ, Bresolin L, Dunnick NR, Sullivan DC, Aerts HJ, Bendriem B, Bendtsen C, Boellaard R, Boone JM, Cole PE, Conklin JJ, Dorfman GS, Douglas PS, Eidsaunet W, Elsinger C, Frank RA, Gatsonis C, Giger ML, Gupta SN, Gustafson D, Hoekstra OS, Jackson EF, Karam L, Kelloff GJ, Kinahan PE, McLennan G, Miller CG, Mozley PD, Muller KE, Patt R, Raunig D, Rosen M, Rupani H, Schwartz LH, Siegel BA, Sorensen AG, Wahl RL, Waterton JC, Wolf W, Zahlmann G, Zimmerman B. **Quantitative Imaging Test Approval and Biomarker Qualification: Interrelated but Distinct Activities.** *Radiology.* 2011 Jun; 259(3):875-84. Epub 2011 Feb 15.

Buckler AJ, Bresolin L, Dunnick NR, Sullivan DC; Group. **A Collaborative Enterprise for Multi-stakeholder Participation in the Advancement of Quantitative Imaging.** *Radiology.* 2011 Mar; 258(3):906-14.

Buckler AJ, Boellaard R. **Standardization of Quantitative Imaging: The Time is Right, and 18F-FDG PET/CT is a Good Place to Start.** *J Nucl Med.* 2011 Feb; 52(2):171-2. Epub 2011 Jan 13. No abstract available.

McNitt-Gray MF, Kim HJ, Zhao B, Schwartz L, Clunie D, Borradaile K, Byrne K, Kaplan S, Barudin J, Sherman J, Slazak K, Petrick NP, Fenimore C, Lu J, Buckler, AJ, **Estimating the Minimum Detectable Change of Lung Lesions Using Patient Datasets Acquired Under a “No Change” Condition,** RSNA 2011.

Petrick NP, Kim HJ, Clunie D, Borradaile K, Ford R, Zeng R, Gavrielides MA, McNitt-Gray MF, Fenimore C, Lu J, Zhao B, Buckler AJ. **Evaluation of 1D, 2D and 3D Nodule Size Estimation by Radiologists for Spherical and Non-spherical Nodules Through CT Thoracic Phantom Imaging,** SPIE, February 2011.

#### 2010

Buckler AJ, Mozley PD, Schwartz L, Petrick N, McNitt-Gray M, Fenimore C, O'Donnell K, Hayes W, Kim HJ, Clarke

L, Sullivan D. **Volumetric CT in Lung Cancer: An Example for the Qualification of Imaging as a Biomarker.** *Acad Radiol.* **2010** Jan; 17(1):107-15.

Buckler AJ, Mulshine JL, Gottlieb R, Zhao B, Mozley PD, Schwartz L. **The Use of Volumetric CT as an Imaging Biomarker in Lung Cancer.** *Acad Radiol.* **2010** Jan; 17(1):100-6.

Buckler AJ, Schwartz LH, Petrick N, McNitt-Gray M, Zhao B, Fenimore C, Reeves AP, Mozley PD, Avila RS. **Data Sets for the Qualification of Volumetric CT as a Quantitative Imaging Biomarker in Lung Cancer.** *Opt Express.* **2010** Jul 5; 18(14):15267-82. (See also [http://vjbo.osa.org/virtual\\_issue.cfm](http://vjbo.osa.org/virtual_issue.cfm))

Mozley PD, Schwartz LH, Bendtsen C, Zhao B, Petrick N, Buckler AJ. **Change in Lung Tumor Volume as a Biomarker of Treatment Response: A Critical Review of the Evidence.** *Ann Oncol.* **2010** Sep; 21(9):1751-5. Epub 2010 Mar 23. Review. [Free article](#)

Paldino MJ, Barboriak DP. **Fundamentals of Quantitative Dynamic Contrast-Enhanced MR Imaging.** *Magn Reson Imaging Clin N Am.* **2009**; 17:277–289

## 2008

Frank R; FDG-PET/CT Working Group. **Quantitative Imaging Biomarkers Alliance FDG-PET/CT Working Group Report.** *Mol Imaging Biol.* **2008** Nov-Dec; 10(6):305.

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## II. MENTION QIBA

## 2013

Andriantsimiavona R, Grimm S, Hatzakis H. **Harnessing the Global Brain in Medical Imaging: 3DnetMedical, Network-Centric Innovation in the Cloud—Our experience.** The Authors and Future Technology Press 2013; InImpact: *The Journal of Innovation Impact*: 13-009:5(1):96–103.

Buckler AJ, Paik D, Ouellette M, Danagoulian J, et al. **A Novel Knowledge Representation Framework for the Statistical Validation of Quantitative Imaging Biomarkers.** *J Digit Imaging* 2013; 26:614–629. DOI 10.1007/s10278-013-9598-3

Buckler AJ, Ouellette M, Danagoulian J, et al. **Quantitative Imaging Biomarker Ontology (QIBO) for Knowledge Representation of Biomedical Imaging Biomarkers.** *J Digit Imaging* 2013; 26:630–641. DOI 10.1007/s10278-013-9599-2

Coxson HO. **Sources of Variation in Quantitative Computed Tomography of the Lung.** *J Thorac Imaging.* 2013 Sep; 28(5):272-9. doi: 10.1097/RTI.0b013e31829efbe9.

Curran BH, Starkschall G, Siochi RAC, eds. [Informatics in Radiation Oncology.](#) Series: *Imaging in medical diagnosis and therapy.* --: CRC Press, 2013; 329 pages.

Jain R. **Measurements of Tumor Vascular Leakiness Using DCE in Brain Tumors: Clinical Applications.** *NMR in Biomedicine*, 2013, 26(8): 1042–1049. doi: 10.1002/nbm.2994

Kim N, Choi J, Yi J, et al. **An Engineering View on Megatrends in Radiology: Digitization to Quantitative Tools of Medicine.** *Korean J Radiol.* 2013 Mar-Apr; 14(2):139-153. <http://dx.doi.org/10.3348/kjr.2013.14.2.139>

Taylor, Jonathan. **Meeting Report: Radiological Society of North America (RSNA) Annual Meeting 2012.**  
*SCOPE: Institute of Physics and Engineering in Medicine.* June 2013; 22(2): 42-44.

Namkug Kim, PhD, et al. **An Engineering View on Megatrends in Radiology: Digitization to Quantitative Tools of Medicine.** *Korean J Radiol.* 2013 Mar-Apr; 14(2):139-153. English.

## **2009**

Mulshine JL, Jablons DM. **Volume CT for Diagnosis of Nodules Found in Lung-Cancer Screening.** *N Engl J Med.* 2009 Dec 3; 361(23): 2281-2.

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