



QIBA and QI/ Imaging Biomarkers in the Literature

Articles are divided into two categories:

1. Articles that are generated by Quantitative Imaging Biomarkers Alliance (QIBA) research teams
2. Articles that reference QIBA

If available, links are provided to PubMed or journal landing pages.

I. QIBA-GENERATED ARTICLES

Various QIBA projects and activities have been funded in whole or in part with Federal funds from the National Institute of Biomedical Imaging and Bioengineering, National Institutes of Health, Department of Health and Human Services, under Contract Nos. HHSN268201300071C and HHSN268201000050C.

2017

Hyun JO, Jacene HA, Lubner B, Wang H, Leal J, Huynh MH, Wahl R. **Quantitation of cancer treatment response by FDG PET/CT: multi-center assessment of measurement variability.** *Journal of Nuclear Medicine*. 2017; 58(9):1429-1434. doi: [10.2967/jnumed.117.189605](https://doi.org/10.2967/jnumed.117.189605); PubMed Citation

Lodge M, Boellaard R. **Noise and bias characteristics of standardized uptake value (SUV) derived with point spread function (PSF) image reconstruction: should PSF be used for PET tumor uptake quantification?** *Journal of Nuclear Medicine*. 2017; 58(S1):614.

Palmeri ML, Qiang B, Chen S, Urban MW. **Guidelines for Finite-Element Modeling of Acoustic Radiation Force-Induced Shear Wave Propagation in Tissue-Mimicking Media.** *IEEE Trans Ultrason Ferroelectr Freq Control*. 2017; 64(1):78-92. doi: [10.1109/TUFFC.2016.2641299](https://doi.org/10.1109/TUFFC.2016.2641299); PubMed Citation

Wang K, Manning P, Szeverenyi N, Wolfson T, Hamilton G, Middleton M, Vaida F, Yin M, Glaser K, Ehman RL, Sirlin CB. **Repeatability and reproducibility of 2D and 3D hepatic MR elastography with rigid and flexible drivers at end-expiration and end-inspiration in healthy volunteers.** *Abdominal Radiology*. 2017; 1-12. doi:[10.1007/s00261-017-1206-4](https://doi.org/10.1007/s00261-017-1206-4); PubMed Citation

2016

Athelougou MA, Kim HJ, Dima AD, et al. **Algorithm variability in the estimation of lung nodule volume from phantom CT scans: results of the QIBA 3A public challenge.** *Academic Radiology*. 2016; 23(8):940-52. doi: [10.1016/j.acra.2016.02.018](https://doi.org/10.1016/j.acra.2016.02.018)

Carson P. **TH-A-207B-00: Shear-Wave Imaging and a QIBA US Biomarker Update.** *Medical Physics*. 2016; 43(6):3866-3867. doi: [10.1118/1.4958104](https://doi.org/10.1118/1.4958104); PubMed Citation

Chen S. **TH-A-207B-01: Basics and Current Implementations of Ultrasound Imaging of Shear Wave Speed and Elasticity.** *Medical Physics*. 2016; 43(6):3866-3867. doi: [10.1118/1.4958105](https://doi.org/10.1118/1.4958105); PubMed Citation

Chen-Mayer H, Judy P, Fain S, Hoppel B, Lynch D, Fuld M. **TH-CD-207B-11: Multi-Vendor Phantom Study of CT Lung Density Metrics: Is a Reproducibility of Less Than 1 HU Achievable?** *Medical Physics*. 2016; 43(6):3891. doi: [10.1118/1.4958217](https://doi.org/10.1118/1.4958217); PubMed Citation

Garra B. **TH-A-207B-02: QIBA Ultrasound Elasticity Imaging System Biomarker Qualification and User Testing of Systems.** *Medical Physics*. 2016; 43(6):3866-67. doi: [10.1118/1.4958106](https://doi.org/10.1118/1.4958106); PubMed Citation

Koshkin VS, Bolejack V, Schwartz LH, Wahl RL, Chugh R, Reinke DK, et al. **Assessment of imaging modalities and response metrics in ewing sarcoma: correlation with survival.** *Journal of Clinical Oncology*. 2016; 34(30):3680-3685. doi: 10.1200/JCO.2016.68.1858; PubMed Citation

Rodriguez A, Chen-Mayer H, Fuld M, et al. **The effects of iterative reconstruction techniques and high resolution kernels on quantitative computed tomography (qCT).** *American Thoracic Society International Conference Abstracts*. A79. 2016; A79. Lung Imaging: CT and Beyond: A2502-A2502. doi:10.1164/ajrccm-conference.2016.193.1_MeetingAbstracts.A2502

Rodriguez A, Chen-Mayer H, Fuld M, et al. **Harmonization of dose reduction protocols across vendor platforms for measures of CT density of the lungs.** *American Thoracic Society International Conference Abstracts*. A79. 2016; A79. Lung Imaging: CT and Beyond: A2503-A2503. doi:10.1164/ajrccm-conference.2016.193.1_MeetingAbstracts.A2503

2015

Sullivan DC, Obuchowski NA, Kessler LG, et al. **Metrology standards for quantitative imaging biomarkers.** *Radiology*. 2015; 277(3):831-825. doi: 10.1148/radiol.2015142202.

Buckler AJ. **Inter-method performance study of tumor volumetry assessment on computed tomography test-retest data.** *Academic Radiology*. 2015; 22(11):1393-1408. <http://dx.doi.org/10.1016/j.acra.2015.08.007>

Deng Y, Rouze NC, Palmeri ML, Nightingale KR. **On system-dependent sources of uncertainty and bias in quantitative shear-wave imaging.** *Ultrasonic Imaging and Tissue Characterization Symposium, Arlington, VA*. 2015; 63(3):381-93. doi:10.1109/TUFFC.2016.2524260

Graham MM, Wahl RL, Hoffman JM, et al. **Summary of the UPICT protocol for 18F-FDG PET/CT imaging in oncology clinical trials.** *J Nucl Med*. 2015; 56(6):955-961. doi: 10.2967/jnumed.115.158402; PubMed Citation

Hall TJ, Palmeri M, Carson P, Milkowski, A, Chen S, Lynch T, et al. **Comparison of shear-wave speed estimates among commercial ultrasound systems with liver-mimicking phantoms.** *Ultrasonic Imaging and Tissue Characterization Symposium, Arlington, VA*. June 22 – 24, 2015.

Mulshine JL, Gierada DS, Armato SG 3rd, Avila RS, Yankelevitz DF, Kazerooni EA, McNitt-Gray MF, Buckler AJ, Sullivan DC. **Role of the Quantitative Imaging Biomarker Alliance in optimizing CT for the evaluation of lung cancer screen-detected nodules.** *J Am Coll Radiol*. 2015; 12(4):390-5. doi: 10.1016/j.jacr.2014.12.003

Pierce LA, Elston BF, Clunie DA, Nelson D, Kinahan PE. **A digital reference object to analyze calculation accuracy of PET standardized uptake value.** *Radiology*. 2015; 277(2). doi: 10.1148/radiol.2015141262

Quak E, Le Roux PY, Hofman MS, et al. **Harmonizing FDG PET quantification while maintaining optimal lesion detection: prospective multicentre validation in 517 oncology patients.** *Eur J Nucl Med Mol Imaging*. 2015; 42(13):2072-2082. PubMed Citation

QIBA Metrology Papers

Sullivan DC, Bresolin L, Seto B, Obuchowski NA, Raunig DL, Kessler LG. **Introduction to Metrology Series.** *Stat Methods Med Res*. 2015; 24(1):3 – 8. doi: 10.1177/0962280214537332. PubMed Citation

Huang EP, Wang XF, Choudhury KR, McShane LM, Gönen M, Ye J, Buckler AJ, Kinahan PE, Reeves AP, Jackson EF, Guimaraes AR, Zahlmann G. **Introduction to Metrology Series: Meta-Analysis of the Technical Performance of an Imaging Procedure: Guidelines and Statistical Methodology.** *Statistical Methods in Medical Research*. 2015;24(1):141-74. doi: 10.1177/0962280214537394 PubMed Citation

Kessler LG, Barnhart HX, Buckler AJ, Choudhury KR, Kondratovich MV, Toledano A, Guimaraes AR, Filice R, Zhang Z, Sullivan DC. **Introduction to Metrology Series: The Emerging Science of Quantitative Imaging Biomarkers: Terminology and Definitions for Scientific Studies and Regulatory Submissions.** *Statistical Methods in Medical Research*. 2015;24(1):9-26. doi: 10.1177/0962280214537333 PubMed Citation

Obuchowski NA, Reeves AP, Huang EP, Wang XF, Buckler AJ, Kim HJ, Barnhart HX, Jackson EF, Giger ML, Pennello G, Toledano AY, Kalpathy-Cramer J, Apanasovich TV, Kinahan PE, Myers KJ, Goldgof DB, Barboriak DP, Gillies RJ, Schwartz LH, Sullivan DC. **Introduction to Metrology Series: Quantitative Imaging Biomarkers: A Review of Statistical Methods for Computer Algorithm Comparisons.** *Statistical Methods in Medical Research*. 2015;24(1):68-106. doi:10.1177/0962280214537390; PubMed Citation

Obuchowski NA, Barnhart HX, Buckler AJ, Pennello G, Wang XF, Kalpathy-Cramer J, Kim HJ, Reeves AP. **Introduction to Metrology Series: Statistical Issues in the Comparison of Quantitative Imaging Biomarker Algorithms using Pulmonary Nodule Volume as an Example.** *Statistical Methods in Medical Research*. 2015;24(1):107-40. doi:10.1177/0962280214537392; PubMed Citation

Raunig DL, Pennello G, Gatsonis C, McShane LM, Carson PL, Voyvodic JT, Wahl RL, Kurland BF, Schwarz AJ, Gönen M, Zahlmann G, Kondratovich M, O'Donnell K, Petrick N, Cole PE, Garra B, Sullivan DC. **Introduction to Metrology Series: Quantitative Imaging Biomarkers: A Review of Statistical Methods for Technical Performance Assessment.** *Statistical Methods in Medical Research*. 2015;24(1):27-67. doi:10.1177/0962280214537344; PubMed Citation

2014

Huang W, Li X, Chen Y, Chang MC, et. al., **Variations of Dynamic Contrast-Enhanced Magnetic Resonance Imaging in Evaluation of Breast Cancer Therapy Response: A Multicenter Data Analysis Challenge.** *Translational Oncology*, 2014; 7(1):153-66. PubMed Citation

Kinahan PE, Wahl RL, Shao LX, Frank RA, Perlman ES. **Oncology: Basic, Translational & Therapy, MTA I: Technical Advances & Quantification Posters: The QIBA Profile for Quantitative FDG-PET/CT Oncology Imaging.** *J Nucl Med*. 2014; 55 (Supplement 1):1520.

Milkowski A, Hall TJ, Garra B, Nightingale K, Palmeri ML, Chen S, Carson PL. **Radiological Society of North America/Quantitative Imaging Biomarkers Alliance Ultrasound Shear Wave Speed Estimation in Elastic Phantoms: Sources and Magnitude of Variability in a Multicenter Study.** *American Institute of Ultrasound in Medicine Proceedings: J Ultrasound Med*. 2014; 33(suppl):S1–S124.

Nightingale K, Palmeri ML, Deng Y, Rosenzweig S, Rouze N. **Shear Wave Speed Estimation in Calibrated Phantoms: Factors Affecting Bias.** *American Institute of Ultrasound in Medicine Proceedings: J Ultrasound Med*. 2014; 33(suppl):S1–S124, 2014.

Oo JH, Leal J, Zhang J, Barrington S, Boellaard R, Eikman E, Wahl RL. **Instrumentation & Data Analysis, MTA II: Data Analysis & Management Posters: Multicenter quantitative assessment of treatment response by FDG PET/CT.** *J Nucl Med*. 2014; 55 (Supplement 1):2061.

Palmeri ML, et al. **A Comparison of 3-Dimensional In Vivo Acoustic Radiation Force Impulse Imaging With Multiparametric Magnetic Resonance Imaging for Prostate Cancer Diagnosis.** *American Institute of Ultrasound in Medicine Proceedings: J Ultrasound Med*. 2014; 33(suppl):S1–S124.

Petrick N, Kim HJG, Clunie D, Borradaile K, Ford R, Zeng R, Gavrielides M, McNitt-Gray M, Lu ZQJ, Fenimore C, Zhao B, Buckler AJ. **Comparison of 1D, 2D, and 3D Nodule Sizing Methods by Radiologists for Spherical and Complex Nodules on Thoracic CT Phantom Images.** *Academic Radiology*. 2014; 21(1):30-40. doi: 10.1016/j.acra.2013.09.020; PubMed Citation

Rodriguez A, Ranallo F, Judy PF, Gierada D, Fain SB. **Airway Measurement Accuracy For Low Dose Quantitative CT (qCT) Using Statistical (ASIR), And Model Based Reconstruction Techniques (Veo).** A108. *Lung Imaging: State of Play on Structure and Function*. May 1, 2014; A2395-A2395.

Rodriguez A; Ranallo FN; Judy PF; et al, **CT Reconstruction Techniques for Improved Accuracy of Lung CT Airway Measurement**, *Med. Phys*. 2014; 41(11): 111911. <http://dx.doi.org/10.1118/1.4898098>

2013

Chen B, Barnhart H, Richard S, et al. **Volumetric Quantification of Lung Nodules in CT with Iterative Reconstruction (ASiR and MBIR).** *Med. Phys.* 2013; 40 (11): 111902. doi: [10.1118/1.4823463](https://doi.org/10.1118/1.4823463); PubMed Citation

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)*; July 21 -25, 2013; Prague, Czech Republic. [Link to conference proceedings paper](#)

Gavrielides MA, Li Q, Zeng R, et al. **Minimum Detectable Change in Lung Nodule Volume in a Phantom CT Study.** *Academic Radiology.* 2013; 20 (11):1364-1370. doi: [10.1016/j.acra.2013.08.019](https://doi.org/10.1016/j.acra.2013.08.019); PubMed Citation

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](https://doi.org/10.1158/1078-0432.CCR-12-2936); PubMed Citation

Zacà D, Jovicich J, Nadar SR, Voyvodic JT, and Pillai JJ. **Cerebrovascular Reactivity Mapping in Patients with Low Grade Gliomas Undergoing Presurgical Sensorimotor Mapping with BOLD fMRI.** *J Magn Reson Imaging.* 2013;40(2):382-90. doi: [10.1002/jmri.24406](https://doi.org/10.1002/jmri.24406)

2012

Chen B, Richard S, Barnhart H, Colsher J, Amurao M, Samei E. **Quantitative CT: Technique Dependency of Volume Assessment for Pulmonary Nodules.** *Physics in Medicine and Biology* 57: 1335–1348, 2012. doi: [10.1088/0031-9155/57/5/1335](https://doi.org/10.1088/0031-9155/57/5/1335); PubMed Citation

Fenimore C, Lu ZJ, McNitt-Gray MF, et al. **Clinician Sizing of Synthetic Nodules to Evaluate CT Interscanner Effects.** *RSNA 2012.*

Voyvodic JT. **Reproducibility of Single-Subject fMRI Language Mapping with AMPLE Normalization.** *J Magn Reson Imaging.* 2012; 36(3): 569–580. doi: [10.1002/jmri.23686](https://doi.org/10.1002/jmri.23686); PubMed Citation

2011

Buckler AJ, et al. **Quantitative Imaging Test Approval and Biomarker Qualification: Interrelated but Distinct Activities.** *Radiology.* 2011; 259(3):875-84. doi: [10.1148/radiol.10100800](https://doi.org/10.1148/radiol.10100800); PubMed Citation

Buckler AJ, Bresolin L, Dunnick NR, Sullivan DC; Group. **A Collaborative Enterprise for Multi-stakeholder Participation in the Advancement of Quantitative Imaging.** *Radiology.* 2011; 258(3):906-14. doi: [10.1148/radiol.10100799](https://doi.org/10.1148/radiol.10100799); PubMed Citation

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; 52(2):171-2. doi: [10.2967/jnumed.110.081224](https://doi.org/10.2967/jnumed.110.081224); PubMed Citation

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, et al. **Comparison of 1D, 2D, and 3D Nodule Sizing Methods by Radiologists for Spherical and Complex Nodules on Thoracic CT Phantom Images.** *Academic Radiology.* 2014;21(1):30-40. doi: [10.1016/j.acra.2013.09.020](https://doi.org/10.1016/j.acra.2013.09.020) PubMed Citation

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; 17(1):107-15. doi: 10.1016/j.acra.2009.08.019; [PubMed Citation](#)

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; 17(1):100-6. doi: 10.1016/j.acra.2009.07.030; [PubMed Citation](#)

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.** 2010; 18(14):15267-82 doi: 10.1364/OE.18.015267; [PubMed Citation](#)

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; 21(9):1751-5. doi: 10.1093/annonc/mdq051; [PubMed Citation](#)

2009

Paldino MJ, Barboriak DP. **Fundamentals of Quantitative Dynamic Contrast-Enhanced MR Imaging.** *Magn Reson Imaging Clin N Am.* 2009; 17:277–289. doi: 10.1016/j.mric.2009.01.007; [PubMed Citation](#)

2008

Frank R; FDG-PET/CT Working Group. **Quantitative Imaging Biomarkers Alliance FDG-PET/CT Working Group Report.** *Mol Imaging Biol.* 2008; 10(6):305. doi: 10.1007/s11307-008-0167-y; [PubMed Citation](#)

II. ARTICLES THAT REFERENCE QIBA

2017

Aide N, Lasnon C, Veit-Haibach P, Sera T, Sattler B, Boellaard R. **EANM/EARL harmonization strategies in PET quantification: from daily practice to multicenter oncological studies.** *European Journal of Nuclear Medicine and Molecular Imaging.* 2017; 44(Suppl 1):17-31. doi: 10.1007/s00259-017-3740-2; [PubMed Citation](#)

Amador Carrascal C, Chen S, Manduca A, Greenleaf JF, Urban M. **Improved shear wave group velocity estimation method based on spatiotemporal peak and thresholding motion search.** *IEEE Trans Ultrason Ferroelectr Freq Control.* 2017; 64(4):660-668. doi: 10.1109/TUFFC.2017.2652143; [PubMed Citation](#)

Bob F, Grosu I, Sporea I, Bota S, Popescu A, Sima A, et al. **Ultrasound-based shear wave elastography in the assessment of patients with diabetic kidney disease.** *Ultrasound in Medicine & Biology.* 2017; 43(10):2159-2166. doi: 10.1016/j.ultrasmedbio.2017.04.019; [PubMed Citation](#)

Bruce M, Kolokythas O, Ferraioli G, Filice C and O'Donnell M. **Limitations and artifacts in shear-wave elastography of the liver.** *Biomedical Engineering Letters.* 2017; 7(2):81-89. doi: 10.1007/s13534-017-0028-1

Chao SL, Metens T, Lemort M. **TumourMetrics: a comprehensive clinical solution for the standardization of DCE-MRI analysis in research and routine use.** *Quantitative Imaging in Medicine and Surgery.* 2017; 7(5):496-510. doi: 10.21037/qims.2017.09.02; [PubMed Citation](#)

Chen-Mayer HH, Fuld MK, Hoppel B, Judy PF, Sieren JP, Guo J, et al. **Standardizing CT Lung Density Measure Across Scanner Manufacturers.** *Medical Physics.* 2017; 44(3):974-985. doi: 10.1002/mp.12087; [PubMed Citation](#)

Chennubhotla C, Clarke LP, Fedorov A, Foran A, Harris G, Helton E, et al. **An assessment of imaging informatics for precision medicine in cancer.** *Yearbook of Medical Informatics.* 2017; 26(01):110-119. doi: 10.1055/s-0037-1606490

- Chung M, Tam K, Wallace C, Yip R, Yankelevitz DF, Henschke CI, et al. **International early lung cancer action program: update on lung cancer screening and the management of CT screen-detected findings.** *AME Medical Journal*. 2017; 2(8):129. doi: 10.21037/amj.2017.08.24.
- Chung MS, Choi YJ, Lee SS, Lee JH, Lee YS, Rho JL, et al. **Interobserver reproducibility of maximal axial diameter and tumour volume measurements from CT of patients with head and neck squamous cell carcinoma.** *Clinical Radiology*. 2017; 72(11):993.e7-993.e13, Jul 2017. doi: 10.1016/j.crad.2017.96.006; PubMed Citation
- Conte GM, Castellano A, Altabella L, Iadanza A, Cadioloi M, Falini A, et al. **Reproducibility of dynamic contrast-enhanced MRI and dynamic susceptibility contrast MRI in the study of brain gliomas: a comparison of data obtained using different commercial software.** *La radiologia medica*. 2017; 122(4):294-302. doi: 10.1007/s11547-016-0720-8; PubMed Citation
- Daisaki H, Nakahara T, Okamoto T, Iimori T, Tokorodani R, Yamamoto Y. **Harmonization of SUV using vendor-neutral quantitative software and Digital Reference Object by QIBA in 99mTc-HMDP bone SPECT/CT scans.** *Journal of Nuclear Medicine*. 2017; 58(S1):1363.
- Deng J, Wang Y. **Quantitative MR imaging biomarkers in oncological clinical trials: current techniques and standardization challenges.** *Chronic Diseases and Translational Medicine*. 2017; 3(1):8-20. doi: 10.1016/j.cdtm.2017.02.002
- Dietrich CF, Bamber J, Berzigotti A, Bota S, Cantisani V, Castera L, et al. **EFSUMB Guidelines and Recommendations on the Clinical Use of Liver Ultrasound Elastography Update 2017.** 2017; 38(4):e16-e47. doi: 10.1055/s-0043-103952; PubMed Citation
- Dong Y, Sirli R, Ferraioli G, Sporea I, Chiorean L, Cui X, et al. **Shear wave elastography of the liver – review on normal values.** *Zeitschrift für Gastroenterologie*. 2017; 55(2):153-166. doi: 10.1055/s-0042-117226; PubMed Citation
- Doran S. **Dosimetry using MRI: can it really be that difficult?** Proc. IOP Conf. Series: 9th International Conference on 3D Radiation Dosimetry, *Journal of Physics 2017, Series 847* (2017); doi: 10.1088/1742-6596/847/1/012051.
- Etherton MR, Wu O, Cougo P, Giese AK, Cloonan L, Fitzpatrick KM, et al. **Integrity of normal-appearing white matter and functional outcomes after acute ischemic stroke.** *Neurology*. 2017; 88(18):1701-1708. doi: 10.1212/WNL.0000000000003890; PubMed Citation
- Franchi-Abella S, Elie C, Correias JM. **Performances and limitations of several ultrasound-based elastography techniques: a phantom study.** *Ultrasound in Medicine & Biology*. 2017; 43(10):2402-2415. doi: 10.1016/j.ultrasmedbio.2017.06.008; PubMed Citation
- Gaass T, Schneider MJ, Dietrich O, Ingrisich M, Dinkel J. **Technical note: quantitative dynamic contrast-enhanced MRI of a 3-dimensional artificial capillary network.** *Medical Physics*. 2017; 44(4):1462-1469. doi: 10.1002/mp.12162; PubMed Citation
- Gavrielides M, DeFilippo G, Berman BP, Li Q, Petrick N, Schultz K, Siegelman J. **Estimation of non-solid lung nodule volume with low-dose CT protocols: effect of reconstruction algorithm and measurement method.** Proc. SPIE10132, *Medical Imaging 2017: Physics of Medical Imaging*, 101322P (March 9, 2017); doi:10.1117/12.2255982
- Golay X. **The long and winding road to translation for imaging biomarker development: the case for arterial spin labeling (ASL).** *European Radiology Experimental*. 2017; 1(1):3. doi: 10.1186/s41747-017-0004-7
- Henderson S, Purdie C, Michie C, Evans A, Lerski R, Johnston, et al. **Interim heterogeneity changes measured using entropy texture features on T2-weighted MRI at 3.0 T are associated with pathological response to neoadjuvant chemotherapy in primary breast cancer.** *European Radiology*. 2017; 27(11):4602-4611. doi: 10.1007/s00330-017-4850-8; PubMed Citation

- Hernando D, Sharma S, Aliyari G, et al. **Multisite, Multivendor Validation of the Accuracy and Reproducibility of Proton-Density Fat-Fraction Quantification at 1.5T and 3T Using a Fat-Water Phantom.** *Magnetic Resonance in Medicine*. 2017; 77(4):1516-1524. doi: [10.1002/mrm.26228](https://doi.org/10.1002/mrm.26228); PubMed Citation
- Hirata FC, Sato JR, Vieira G, Leite CC, Bor-Seng-Shu E, Pastorello BF, et al. **Substantia nigra fractional anisotropy is not a diagnostic biomarker of Parkinson's disease: a diagnostic performance study and meta-analysis.** *European Radiology*, 2017; 27(6):2640-2648. doi: [10.1007/s00330-016-4611-0](https://doi.org/10.1007/s00330-016-4611-0); PubMed Citation
- Huang EP, Lin FI and Shankar LK. **Beyond correlations, sensitivities, and specificities: a roadmap for demonstrating utility of advanced imaging in oncology treatment and clinical trial design.** *Academic Radiology*. 2017; S1076-6332(17):30120-4. doi: [10.1016/j.acra.2017.03.002](https://doi.org/10.1016/j.acra.2017.03.002); PubMed Citation
- Ichikawa S, Kamishima T, Sutherland K, Kasahara H, Shimizu Y, Fujimori M, et al. **Semi-automated quantification of finger joint space narrowing using tomosynthesis in patients with rheumatoid arthritis.** *Journal of Digital Imaging*. 2017; 30(3):369-375. doi: [10.1007/s10278-017-9949-6](https://doi.org/10.1007/s10278-017-9949-6); PubMed Citation
- Jha AK, Mena E, Caffo B, Ashrafinia S, Rahmim A, Frey E, et al. **Practical no-gold-standard evaluation framework for quantitative imaging methods: application to lesion segmentation in positron emission tomography.** *Journal of Medical Imaging*. 2017; 4(1):011011. doi: [10.1117/1.JMI.4.1.011011](https://doi.org/10.1117/1.JMI.4.1.011011); PubMed Citation
- Jung C, Groth M, Petersen KU, Hammel A, Brinkert F, Grabhorn E, et al. **Hepatic shear wave elastography in children under free-breathing and breath-hold conditions.** *European Radiology*. epub ahead of print Jun 2017. doi: [10.1007/s00330-017-4906-6](https://doi.org/10.1007/s00330-017-4906-6); PubMed Citation
- Khalili-Mahani N, Rombouts SA, van Osch MJ, Duff EP, Carbonell F, Nickerson LD. **Biomarkers, designs, and interpretations of resting-state fMRI in translational pharmacological research: a review of state-of-the-art, challenges, and opportunities for studying brain chemistry.** *Human Brain Mapping*. 2017; 38(4):2276-2325. doi: [10.1002/hbm.23516](https://doi.org/10.1002/hbm.23516); PubMed Citation
- Kim H, Mousa M, Schexnailder P, Hergenrother R, Bolding M, Ntsikoussalabongui B, et al. **Portable perfusion phantom for quantitative DCE-MRI of the abdomen.** *Medical Physics*. epub ahead of print Jul 2017. doi: [10.1002/mp.12466](https://doi.org/10.1002/mp.12466); PubMed Citation
- Kishimoto R, Suga M, Koyama A, Omatsu T, Tachibana Y, Ebner DK, et al. **Measuring shear-wave speed with point shear-wave elastography and MR elastography: a phantom study.** *British Medical Journal*. 2017; 7(1):e013925. doi: [10.1136/bmjopen-2016-013925](https://doi.org/10.1136/bmjopen-2016-013925); PubMed Citation
- Kobatake H, Masutani Y, Kurihara C, Inoue T. **Computational Anatomy Based on Whole Body Imaging: Basic Principles of Computer-Assisted Diagnosis and Therapy**, 1st ed. Japan: Springer Japan, publisher, 2017; 354 pages.
- Kressel, HY. **Setting Sail: 2017.** *Radiology*. 2017; 282(1):4-6. doi: [10.1148/radiol.2016162471](https://doi.org/10.1148/radiol.2016162471); Pubmed Citation
- Kubassova O. **Liver imaging and quantitative biomarkers in clinical trials.** March 8, 2017. Available at: <https://www.linkedin.com/pulse/liver-imaging-quantitative-biomarkers-clinical-trials-kubassova>. Accessed May 30, 2017.
- Kurihara C, Inoue T. **Ethics, Regulations, and Clinical Development of Precision Medicine: Activating with Molecular Imaging**, In: *Personalized Pathway-Activated Systems Imaging in Oncology*, 1st ed. Singapore: Springer Singapore, publisher, 2017; 105-126. doi: [10.1007/978-981-10-3349-0_6](https://doi.org/10.1007/978-981-10-3349-0_6)
- Lan T, Naguib HE and Coolens C. **Development of a permeable phantom for dynamic contrast enhanced (DCE) imaging quality assurance: material characterization and testing.** *Biomedical Physics & Engineering Express*. 2017; 3(2). doi: [10.1088/2057-1976/aa6486/meta](https://doi.org/10.1088/2057-1976/aa6486/meta)

- Lasnon C, Salomon T, Desmonts C, Dô P, Oulkhour Y, Madelaine J, et al. **Generating harmonized SUV within the EANM EARL accreditation program: software approach versus EARL-compliant reconstruction.** *Annals of Nuclear Medicine.* 2017; 31(2):125-134. doi: [10.1007/s12149-016-1135-2](https://doi.org/10.1007/s12149-016-1135-2); PubMed Citation
- Lecler A, Savatovsky J, Balway D, Zmuda M, Sadik JC, Galatoire O, et al. **Repeatability of apparent diffusion coefficient and intravoxel incoherent motion parameters at 3.0 Tesla in orbital lesions.** *European Radiology.* epub ahead of print Jul 2017. doi: [10.1007/s00330-017-4933-6](https://doi.org/10.1007/s00330-017-4933-6); PubMed Citation
- Levine ZH, Chen-Mayer HH, Peskin AP and Pintar AL. **Comparison of One-Dimensional and Volumetric Computed Tomography Measurements of Injected-Water Phantoms.** *Journal of Research of National Institute of Standards and Technology.* 2017; 122(36):1-9. doi:[10.6028/jres.122.036](https://doi.org/10.6028/jres.122.036)
- Li Q, Berman BP, Schumacher J, Liang Y, Gavrielides MA, Yang H, et al. **The effects of iterative reconstruction in CT on low-contrast liver lesion Volumetry: a phantom study.** Proc. SPIE10134, *Medical Imaging 2017: Computer-Aided Diagnosis*, 101340Z (March 3, 2017); doi: [10.1117/12.2255743](https://doi.org/10.1117/12.2255743)
- Lin FI, Huang EP and Shankar LK. **Beyond correlations, sensitivities, and specificities: case examples of the evaluation of advanced imaging in oncology clinical trials and cancer treatment.** *Academic Radiology.* 2017; S1076-6332(17):30116-2. doi: [10.1016/j.acra.2016.11.024](https://doi.org/10.1016/j.acra.2016.11.024); PubMed Citation
- Meiburger KM. **Quantitative Ultrasound and Photoacoustic Imaging for the Assessment of Vascular Parameters.** Ghione G, In: *PolITO Springer Series*, 1st ed. Torino: Springer International Publishing, publisher, 2017. doi: [10.1007/978-3-319-48998-8](https://doi.org/10.1007/978-3-319-48998-8).
- Nakahara T, Daisake H, Yamamoto Y, Iimori T, Miyagawa K, Okamoto T, et al. **Use of a digital phantom developed by QIBA for harmonizing SUVs obtained from the state-of-the-art SPECT/CT systems: a multicenter study.** *European Journal of Nuclear Medicine and Molecular Imaging.* 2017; 7:53. doi: [10.1186/s13550-017-0300-5](https://doi.org/10.1186/s13550-017-0300-5); PubMed Citation
- Obuchowski N, Bullen J. **Quantitative imaging biomarkers: effect of sample size and bias on confidence interval coverage.** *Statistical Methods in Medical Research.* 2017; epub ahead of print Feb 2017. doi: [10.1177/0962280217693662](https://doi.org/10.1177/0962280217693662); PubMed Citation
- Park HJ, Sung YS, Lee SS, Lee Y, Cheong H, Kim YJ, et al. **Intravoxel incoherent motion diffusion-weighted MRI of the abdomen: The effect of fitting algorithms on the accuracy and reliability of the parameters.** *Journal of Magnetic Resonance Imaging.* 2017; 45(6):1637-1647. doi: [10.1002/jmri.25535](https://doi.org/10.1002/jmri.25535); PubMed Citation
- Pitre-Chamagnat S, Coiffier B, Joudain L, Benatsou B, Leguerney I and Lassau N. **Toward a standardization of ultrasound scanners for dynamic contrast-enhanced ultrasonography: methodology and phantoms.** *Ultrasound in Medicine & Biology.* 2017; 43(11):2670-2677. doi: [10.1016/j.ultrasmedbio.2017.06.032](https://doi.org/10.1016/j.ultrasmedbio.2017.06.032)
- Pullens P, Bladt P, Sijbers J, Maas AI, Parizel PM. **Technical note: a safe, cheap, and easy-to-use isotropic diffusion MR phantom for clinical and multicenter studies.** *Medical Physics.* 2017; 44(3):1063-1070. doi: [10.1002/mp.12101](https://doi.org/10.1002/mp.12101); PubMed Citation
- Rodriguez A, Ranallo FN, Judy PF and Fain SB. **The effects of iterative reconstruction and kernel selection on quantitative computed tomography measures of lung density.** *Medical Physics.* 2017; 44(6):2267-2280. doi: [10.1002/mp.12255](https://doi.org/10.1002/mp.12255); PubMed Citation
- Robins M, Solomon J, Sahbaee P, Sedlmair M, Choudhury RK, Pezeshk A, et al. **Techniques for virtual lung nodule insertion: volumetric and morphometric comparison of projection-based and image-based methods for quantitative CT.** *Physics in Medicine & Biology.* 2017; 62(18):7280-7299. doi: [10.1088/1361-6560/aa83f8](https://doi.org/10.1088/1361-6560/aa83f8); PubMed Citation
- Rosen M, Kinahan PE, Gimpel JF, Opanowski A, Siegel BA, Hill GC, et al. **Performance Observations of Scanner Qualification of NCI-Designated Cancer Centers: Results From the Centers of Quantitative Imaging Excellence (CQIE) Program.** *Academic Radiology.* 2017; 24(2):232-245. doi: [10.1016/j.acra.2016.09.025](https://doi.org/10.1016/j.acra.2016.09.025); PubMed Citation

- Rydzak CE, Armato SG, Avila RS, Mulshine JL, Yankelevitz DF and Gierada DS. **Quality assurance and quantitative imaging biomarkers in low dose CT lung cancer screening.** *British Journal of Radiology*. epub ahead of print Aug 2017. doi: [10.1259/bjr.20170401](https://doi.org/10.1259/bjr.20170401); PubMed Citation
- Sargent D, Park SY. **Semi-automatic 3D lung nodule segmentation in CT using dynamic programming.** Proc. SPIE10133, *Medical Imaging 2017: Image Processing*, 101332R (February 24, 2017); doi: [10.1117/12.2254575](https://doi.org/10.1117/12.2254575)
- Scheuermann JS, Reddin JS, Opanowski A, Kinahan PE, Siegel BA, Shankar LK, et al. **Qualification of NCI-designated cancer centers for quantitative PET/CT imaging in clinical trials.** *Journal of Nuclear Medicine*. 2017; 58(7):1065-1071. doi: [10.2967/jnumed.116.186759](https://doi.org/10.2967/jnumed.116.186759); PubMed Citation
- Semmineh NB, Stokes AM, Bell LC, Boxerman JL, Quarles CC. **A population-based digital reference object (DRO) for optimizing dynamic susceptibility contrast (DSC)-MRI methods for clinical trials.** *Tomography*. 2017; 3(1):41-49. doi: [10.18383.j.tom.2016.00286](https://doi.org/10.18383.j.tom.2016.00286)
- Serai SD, Obuchowski NA, Venkatesh SK, Sirlin CB, Miller FH, Ashton E, et al. **Repeatability of MR elastography of liver: a meta-analysis.** *Radiology*. 2017; 285(1):92-100. doi: [10.1148/radiol.2017161398](https://doi.org/10.1148/radiol.2017161398); PubMed Citation
- Sigrist R MS, Liao J, El Kaffas A, Chammas MC, Willmann JK. **Ultrasound elastography: review of techniques and clinical applications.** *Theranostics*. 2017; 7(5):1303-1329. doi: [10.7150/thno.18650](https://doi.org/10.7150/thno.18650); PubMed Citation
- Silva M, Pastorino U, Sverzellati N. **Lung cancer screening with low-dose CT in Europe: strength and weakness of diverse independent screening trials.** *Clinical Radiology*. 2017; 72(5):389-400. doi: [10.1016/j.crad.2016.12.021](https://doi.org/10.1016/j.crad.2016.12.021); PubMed Citation
- St Pierre S, Siegelman J, Obuchowski NA, Ma X, Paik D and Buckler AJ. **Measurement accuracy of atherosclerotic plaque structure on CT using phantoms to establish ground truth.** *Academic Radiology*. 2017; S1076-6332(17):30198-8. doi: [10.1016/j.acra.2017.04.007](https://doi.org/10.1016/j.acra.2017.04.007); PubMed Citation
- Van Heertum RL, Scarimbolo R, Wolodzko JG, Klencke B, Messmann R, Tunc F. **Lugano 2014 criteria for assessing FDG-PET/CT in lymphoma: an operational approach for clinical trials.** *Drug Design, Development and Therapy*. 2017; 11:1719-1728. doi: [10.2147/DDDT.S136988](https://doi.org/10.2147/DDDT.S136988); PubMed Citation
- Vegas-Sánchez-Ferrero G, Ledesma-Carbayo G, Washko, et al. **Statistical characterization of noise for spatial standardization of CT scans: enabling comparison with multiple kernels and doses.** *Medical Image Analysis*. 2017; 40:44-59. doi: [10.1016/j.media.2017.06.001](https://doi.org/10.1016/j.media.2017.06.001); PubMed Citation
- Wang K, Manning P, Szeverenyi N, Wolfson T, Hamilton G, Middleton MS, et al. **Repeatability and reproducibility of 2D and 3D hepatic MR elastography with rigid and flexible drivers at end-expiration and end-inspiration in healthy volunteers.** *Abdominal Radiology*. 2017; 42(12):2843-2854. doi: [10.1007/s00261-017-1206-4](https://doi.org/10.1007/s00261-017-1206-4); PubMed Citation
- Wang L. **MR imaging: future imaging techniques.** *Radiologic Clinics of North America*. 2017; 55(3):553-577. doi: [10.1016/j.rcl.2016.12.009](https://doi.org/10.1016/j.rcl.2016.12.009); PubMed Citation
- Winfield JM, Tunariu N, Rata M, Miyazaki K, Jerome NP, Germuska M, et al. **Extracranial soft-tissue tumors: repeatability of apparent diffusion coefficient estimates from diffusion-weighted MR imaging.** *Radiology*. 2017; 284(1):88-99. doi: [10.1148/radiol.2017161965](https://doi.org/10.1148/radiol.2017161965); PubMed Citation
- Xue W, Vegunta S, Zwart CM, Aguilar MI, Patel AC, Hoxworth JM, et al. **Retrospective validation of a computer-assisted quantification model of intracerebral hemorrhage volume on accuracy, precision, and acquisition time, compared with standard ABC/2 manual volume calculation.** *American Journal of Neuroradiology*. 2017; 38(8):1536-1542. doi: [10.3174/ajnr.A5256](https://doi.org/10.3174/ajnr.A5256); PubMed Citation
- Zhang J, Liu H, Tong H, Wang S, Yang Y, Liu G and Zhang W. **Clinical applications of contrast-enhanced perfusion MRI techniques in gliomas: recent advances and current challenges.** *Contrast Media and Molecular Imaging*; 2017. doi: [10.1155/2017/7064120](https://doi.org/10.1155/2017/7064120)

2016

- Akamatsu G, Ohnishi A, Kita K, Nishida H, Ikari Y, Saski M, et al. **A revisit to quantitative PET with 18F-FDOPA of high specific activity using a high-resolution condition in view of application to regenerative therapy.** *Annals of Nuclear Medicine*. 2016; 31(2):163-171. doi: 10.1007/s12149-016-1143-2; PubMed Citation
- Alberich-Bayarri A. **Imaging Biomarker Structural Analysis.** *Imaging Biomarkers*. 2016; pp 65-69. doi: 10.1007/978-3-319-43504-6_6
- Amdouni E, Morvan Y, Gibaud B. **Towards an Imaging Biomarker Ontology Based on the Open Biological and Biomedical Ontologies Foundry.** *CEUR Workshop Proceedings, Vol-1546*.
- Artzi M, Liberman G, Nadav G, et al. **Optimization of DCE-MRI protocol for the assessment of patients with brain tumors.** *Magnetic Resonance Imaging*. 2016; 34(9):1242-1247. doi:10.1016/j.mri.2016.07.003; PubMed Citation
- Aryal M, Chenevert T, Cao Y, et al. **Impact of Uncertainty in Longitudinal T1 Measurements on Quantification of Dynamic Contrast-Enhanced MRI.** *NMR in Biomedicine*. 2016; 29(4):411-9. doi: 10.1186/s12880-016-0109-0; PubMed Citation
- Barjaktarevic I, Arenberg D, Grimes BC, Ruchalski K, Aberle DR. **Indeterminate pulmonary nodules: how to minimize harm.** *Respiratory and Critical Care Medicine*. 2016; 37(5): 689-707. doi:10.1055/s-0036-1592187; PubMed Citation
- Barr RG. **Invited commentary on “Elastography in chronic liver disease”.** *Radiographics*. 2016; 36(7):2007-2009. doi:10.1148/rg.2016160182; PubMed Citation
- Beaumont H, Moreau B, Hoog C, Oubel E, Iannesi A. **Reliability of apparent diffusion coefficient assessments according to QIBA guideline.** *Annals of Oncology*. 2016; 27(suppl 6). doi:10.1093/annonc/mdw392.52
- Beuzit L, Eliat P, Brun V, et al. **Dynamic Contrast-Enhanced MRI: Study of Inter-Software Accuracy and Reproducibility Using Simulated and Clinical Data.** *Journal of magnetic resonance imaging (JMRI)*. 2016; 43(6):1288-300 doi:10.1002/jmri.25101; PubMed Citation
- Boellaard R. **The Engagement of FDG PET/CT Image Quality and Harmonized Quantification: from Competitive to Complementary.** *European Journal of Nuclear Medicine and Molecular Imaging*. 2016; 43(1):1-4. doi: 10.1007/s00259-015-3182-7; PubMed Citation
- Boellaard R. **Standardization of Imaging Biomarkers: The FDG PET/CT Example.** *Quality in Nuclear Medicine*. 2016; pp 227-240. doi: 10.1007/978-3-319-33531-5_15
- Byrd DW, Doot RK, Allberg KC, MacDonald LR, McDougald WA, Elston BF, et al. **Evaluation of Cross-Calibrated ⁶⁸Ge/⁶⁸Ga Phantoms for Assessing PET/CT Measurement Bias in Oncology Imaging for Single- and Multicenter Trials.** *Tomography*. 2016; 2(4): 353-360. doi: 10.18383/j.tom.2016.00205; PubMed Citation
- Chartier C, Mofid Y, Bastard C, Miette V, Maruani A, Machet L, et al. **High-Resolution Elastography for Thin-Layer Mechanical Characterization: Toward Skin Investigation.** *Ultrasound in Medicine and Biology*. 2016; S0301-5629(16)30404-5. doi: 10.1016/j.ultrasmedbio.2016.11.007; PubMed Citation
- Chen K, Cypress A, Laughlin M, et al. **Brown Adipose Reporting Criteria in Imaging Studies (BARCIST 1.0): Recommendations for Standardized FDG-PET/CT Experiments in Humans.** *Cell Metabolism*. 2016; 24(2) 210-222. doi: 10.1016/j.cmet.2016.07.014; PubMed Citation
- Choi S, Jung S, Kim K, et al. **Perfusion MRI as the Predictive/Prognostic and pharmacodynamics Biomarkers in Recurrent Malignant Glioma Treated with Bevacizumab: a Systematic Review and a Time-to-Event Meta-Analysis.** *Journal of Neuro-Oncology*, 2016; 128(2), 185. doi:10.1007/s11060-016-2102-4

- Chung MS, Cheng KL, et al. **Interobserver reproducibility of cervical lymph node measurements at CT in patients with head and neck squamous cell carcinoma.** *Clinical Radiology*, 2016; 71(12):1226-1232. doi: 10.1016/j.crad.2016.07.014; PubMed Citation
- Coolens C, Driscoll B, Foltz W, Pellow C, Menard C, Chung C. **Comparison of voxel-wise tumor perfusion changes measured with dynamic contrast-enhanced (DCE) MRI and volumetric DCE CT in patients with metastatic brain cancer treated with radiosurgery.** *Tomography*, 2016; 2(4):325-333. doi: 10.18383/j.tom.2016.00178
- Drisis T, Metens T, Ignatiadis M, et al. **Quantitative DCE-MRI for Prediction of Pathological Complete Response Following Neoadjuvant Treatment for Locally Advanced Breast Cancer: the Impact of Breast Cancer Subtypes on the Diagnostic Accuracy.** *European Radiology*. 2016; 26(5):1474-84. doi: 10.1007/s00330-015-3948-0; Pubmed Citation
- Ettinger S, Testanera G, Sera T, Boellaard R, Verzijlbergen F, Chiti A. **Quality Visits: The EANM/EARL FDG-PET/CT Accreditation Programme.** *Quality in Nuclear Medicine*. 2016; pp 415-427. doi: 10.1007/978-3-319-33531-5_27
- Ferreira, Jr. J, Oliveira M, de Azevedo-Marques P. **Cloud-Based NoSQL Open Database of Pulmonary Nodules for Computer-Aided Lung Cancer Diagnosis and Reproducible Research.** *Journal of Digital Imaging*. 2016; 29(6):716-729. doi: 10.1007/s10278-016-9894-9; PubMed Citation
- Fuld M, Ramirez-Giraldo J. **Workflow Design for CT of the Thorax.** *Multidetector-Row CT of the Thorax. Part of the series Medical Radiology*. 2016; pp 415-430. doi: 10.1007/978-3-319-30355-0_21
- Gavrielides M, Li Q, Zeng R, et al. **Volume Estimation of Multi-density Nodules with Thoracic Computed Tomography.** *Journal of Medical Imaging*. 2016; 3(1):013504. doi:10.1117/1.JMI.3.1.013504; PubMed Citation
- Gillies RJ, Kinahan PE, Hricak H. **Radiomics: Images Are More than Pictures, They Are Data.** *Radiology*. 2016; 278(2):563-577. doi:10.1148/radiol.2015151169
- Hatt M, Tixier L, Pierce L, et al. **Characterization of PET/CT images using texture analysis: the past, the present... any future?** *European Journal of Nuclear Medicine and Molecular Imaging*. 2016; 44(1):151-165. doi:10.1007/s00259-016-3427-0; PubMed Citation
- Henschke CI, Yankelevitz, Yip R, Archer V, Zahlmann G, Krishnan K, et al. **Tumor volume measurement error using computed tomography imaging in a phase II clinical trial in lung cancer.** *Journal of Medical Imaging*. 2016; 3(3):035505. doi:10.1117/1.JMI.3.3.035505; PubMed Citation
- Herold CJ, Lewin JS, Wibmer AG, et al. **Imaging in the Age of Precision Medicine: Summary of the Proceedings of the 10th Biannual Symposium of the International Society for Strategic Studies in Radiology.** *Radiology*, 2016; 279(1):226-238. doi.org/10.1148/radiol.2015150709; PubMed Citation
- Huh J, Choi Y, Woo D, et al. **Feasibility of test-bolus DCE-MRI using CAIPIRINHA-VIBE for the Evaluation of Pancreatic Malignancies.** *European Radiology*. 2016; 26(11):3949-3956. doi: 10.1007/s00330-016-4209-6; PubMed Citation
- Katrib A, Hsu W, Bui A, et al. **"Radiotranscriptomics": A Synergy of Imaging and Transcriptomics in Clinical Assessment.** *Quantitative Biology*. 2016; 4(1)1-12. doi: 10.1007/s40484-016-0061-6
- Kim B, Lee C, Seo N, et al. **Comparison of CAIPIRINHA-VIBE, Radial-VIBE, and Conventional VIBE Sequences for Dynamic Contrast-Enhanced (DCE) MRI: a Validation Study Using a DCE-MRI Phantom.** *Magnetic Resonance Imaging*. 2016; 34(5):638-44. doi: 10.1016/j.mri.2015.11.011; PubMed Citation
- Kinahan P, Pierce L, Haynor D, et al. **Development of matching digital and physical brain phantoms for testing quantitative amyloid PET neuroimaging.** *Journal of Nuclear Medicine*. 2016; 57(S2) 1799.
- Kurland BF, Aggarwal S, Yankeelov TE, Gerstner ER, Mountz JM, Linden HM, et al. **Accrual Patterns for Clinical Studies Involving Quantitative Imaging: Results of an NCI Quantitative Imaging Network (QIN) Survey.** *Tomography*. 2016; 2(4):276-282. doi: 10.18383/j.tom.2016.00169

- Lassau N, Coiffier B, Kind M, Vilgrain V, Lacroix J, Cuinet M. **Selection of an early biomarker for vascular normalization using dynamic contrast-enhanced ultrasonography to predict outcomes of metastatic patients treated with bevacizumab.** *Annals of Oncology*. 2016; 27(10):1922-8. doi:10.1093/annonc/mdw280; PubMed Citation
- Lee J, Chung J, Kim S. **Effect of 18F-fluorodeoxyglucose extravasation on time taken for tumoral uptake to reach a plateau: animal and clinical PET analyses.** *Annals of Nuclear Medicine*. 2016; 30(8):525-33. doi: 10.1007/s12149-016-1090-y; PubMed Citation
- Li Q, Liang Y, Huang Q, Zong M, Berman B, Gavrielides MA, et al. **Volumetry of low-contrast liver lesions with CT: Investigation of estimation uncertainties in a phantom study.** *Medical Physics*. 2016; 43(12):6608. doi: 10.1118/1.4967776; PubMed Citation
- Lin C, Bradshaw T, Perk T, et al. **Repeatability of Quantitative 18F-NaF PET: A Multicenter Study.** *Journal of Nuclear Medicine*. 2016; 57(12):1872-1879. doi: 10.2967/jnumed.116.177295; PubMed Citation
- Lin C, Liao Y, Chen W, et al. **Use of Myometrium as an Internal Reference for Endometrial and Cervical Cancer on Multiphase Contrast-Enhanced MRI.** *PloS one*. 2016; 11(6) e0157820. doi: 10.1371/journal.pone.0157820; PubMed Citation
- Lipman S, Rouze NC, Palmeri M, Nightingale KR. **On the feasibility of estimating ultrasonic shear wave attenuation using amplitude-based methods.** *Ultrasonics Symposium*. Sept. 2016. doi: 10.1109/ULTSYM.2016.7728789
- Liu Y, Waterton JC. **Imaging Biomarkers in Clinical Trials.** *Imaging Biomarkers*. 2016; pp 295-306. doi: 10.1007/978-3-319-43504-6_21
- Ma X, Siegelman J, Paik D, et al. **Volumes learned: it takes more than size to “size up” pulmonary lesions.** *Academic Radiology*. 2016; 23(9):1190-1198. doi: 10.1016/j.acra.2016.04.003; PubMed Citation
- MacDonald LR, Perkins AE, Tung C. **Longitudinal monitoring of reconstructed activity concentration on a clinical time-of-flight PET/CT scanner.** *Journal of Medical Imaging*. 2016; 4(1):011004. doi: 10.1117/1.JMI.4.1.011004; PubMed Citation
- Manikis G, Papanikolaou N, Matos C. **Validating the Imaging Biomarker: The Proof of Efficacy and Effectiveness.** *Imaging Biomarkers*. 2016; pp 115-122. doi: 10.1007/978-3-319-43504-6_10
- Marias K, Nikiforaki N, Manikis G, et al. **Visualizing Tumor Environment with Perfusion and Diffusion MRI: Computational Challenges.** *Proceedings of the 33rd Computer Graphics International, 2016*; pages 113-116. doi: 10.1145/2949035.2949064
- Mehrtash A, Gupta S, Shanbhag D, et al. **Bolus Arrival Time and its Effect on Tissue Characterization with Dynamic Contrast-Enhanced Magnetic Resonance Imaging.** *Journal of Medical Imaging*, 2016; 3(1):014503. doi: 10.1117/1.JMI.3.1.014503; PubMed Citation
- Messiou C, Bonvalot A, Gronchi A, et al. **Evaluation of Response after Pre-Operative Radiotherapy in Soft Tissue Sarcomas; the European Organisation for Research and Treatment of Cancer – Soft Tissue and Bone Sarcoma Group (EORTC – STBSG) and Imaging Group Recommendations for Radiological Examination and Reporting with an Emphasis on Magnetic Resonance Imaging.** *European Journal of Cancer*. 2016; 56:37-44. doi.org/10.1186/s12880-016-0109-0; PubMed Citation
- Nolthenius CT, Puylaert CAJ. **CT colonography for polyp surveillance & MRI features in Crohn’s disease.** University of Amsterdam. UvA-DARE (Digital Academic Repository). Nov 2016.
- O JH, Lodge M, Wahl R. **Practical PERCIST: A Simplified Guide to PET Response Criteria in Solid Tumors 1.0.** *Radiology*. 2016; 280(2):576-584. doi:10.1148/radiol.2016142043; PubMed Citation
- O’Connor JP, Aboagye EO, Adams JE, Aerts JE, Barrington SF, Beer AJ. **Imaging biomarker roadmap for cancer studies.** *Nature Reviews Clinical Oncology*. 2016; 14(3):169-186. doi: 10.1038/nrclinonc.2016.162; PubMed Citation

- Obuchowski N, Buckler A, Kinahan P, et al. **Statistical Issues in Testing Conformance with the Quantitative Imaging Biomarkers Alliance (QIBA) Profile Claims.** *Academic Radiology*, 2016; 23(4):496-506. doi:10.1016/j.acra.2015.12.020; PubMed Citation
- Otesteanu CF, Sanabria SJ, Goksel O. **Analysis of excitation frequency in elasticity reconstruction using the FEM inverse-problem.** 2016 *IEEE 13th International Symposium on Biomedical Imaging (ISBI)*. Apr 2016. doi: 10.1109/ISBI.2016.7493313
- Pak K, Kim SJ. **What Do We Measure in Oncology PET?** *Nuclear Medicine and Molecular Imaging*, review - epub ahead of print, Apr 2016. doi: 10.1007/s13139-016-0416-y
- Panek R, Schmidt M, Borri M, Koh D, Riddell A, Welsh L. **Time-resolved angiography with stochastic trajectories for dynamic contrast-enhanced MRI in head and neck cancer: are pharmacokinetic parameters affected?** *Medical Physics*. 2016; 43(11):6024-6032. doi:10.1118/1.4964795
- Park J, Choi Y, Lee S, et al. **Assessment of Measurement Repeatability and Reliability with Virtual Touch Tissue Quantification Imaging in Cervical Lymphadenopathy.** *Journal of Ultrasound in Medicine*, 2016; 35(5):927-32. doi:10.7863/ultra.15.06067; PubMed Citation
- Quak E, Le Roux P, Lasnon C, et al. **Does PET SUV harmonization impact PERCIST response classification?** *Journal of Nuclear Medicine*. 2016; 57(11):1699-1706. doi: 10.2967/jnumed.115.171983; PubMed Citation
- Robins M, Solomon J, Sahbaee P. **Development and Comparison of Projection and Image Space 3D Nodule Insertion Techniques.** Conference Proceedings: *SPIE*, 9783, Medical Imaging Apr 2016.
- Sánchez-González J, Montesinos P. **Image Acquisition: Modality and Protocol Definition.** *Imaging Biomarkers*. 2016; pp 45-52. doi: 10.1007/978-3-319-43504-6_4
- Schwartz L, Litière S, de Vries, E et al. **RECIST 1.1 – Update and clarification: from the RECIST committee.** *European Journal of Cancer*. 2016; 62:132-137 doi: 10.1016/j.ejca.2016.03.081; PubMed Citation
- Seo N, Park S, Kim B, et al. **Feasibility of free-breathing dynamic contrast-enhanced MRI of the abdomen: a comparison between CAIPIRINHA-VIBE, Radial-VIBE with KWIC reconstruction and conventional VIBE.** *The British Journal of Radiology*. 2016; 89(1066). doi: 10.1259/bjr.20160150; PubMed Citation
- Sheikhbahaei S, Mena E, Yanamadala A, Reddy S, Solnes LB, Wachsmann J, et al. **The value of FDG-PET/CT in treatment response assessment, follow-up, and surveillance of lung cancer.** *American Journal of Roentgenology*. 2016; 208(2):420-433. doi:102214/AJR.16.16532; PubMed Citation
- Shin H, Kim M, Kim H, et al. **Comparison of Shear Wave Velocities on Ultrasound Elastography Between Different Machines, Transducers, and Acquisition Depths: a Phantom Study.** *European Radiology*. 2016; 26(10):3361-3367. doi: 10.1007/s00330-016-4212-y; PubMed Citation
- Smith C, Smith L, Gregg G. **Numa Inc.** (2012). *Radiopharmaceutical administration radiation dose reporting*.
- Sung Y, Park B, Choi Y, et al. **Dynamic Contrast-Enhanced MRI for Oncology Drug Development.** *Journal of Magnetic Resonance Imaging*. 2016; 44(2):251-64. doi.org/10.1002/jmri.25173; PubMed Citation
- Tagliafico A, Tagliafico G. **Tomosynthesis and Breast Density, Chapter 3.** In: *Digital Breast Tomosynthesis: A Practical Approach*. Cham: Springer International Publishing, 2016; 29-44. doi:10.1007/978-3-319-28631-0_3
- Trattng S. **The shift in paradigm to precision medicine in imaging: international initiatives for the promotion of imaging biomarkers.** *Imaging Biomarkers*. Nov 2016; pp 1-7. doi: 10.1007/978-3-319-43504-6_1
- Trout A, Serai S, Mahley A, et al. **Liver Stiffness Measurements with MR Elastography: Agreement and Repeatability across Imaging Systems, Field Strengths, and Pulse Sequences.** *Radiology*. 2016; 281(3):793-804. doi: 10.1148/radiol.2016160209; PubMed Citation

Trout A, Dillman J, Xanthakos S, et al. **Prospective Assessment of Correlation between US Acoustic Radiation Force Impulse and MR Elastography in a Pediatric Population: Dispersion of US Shear-Wave Speed Measurement Matters.** *Radiology*. 2016; 281(2):544-552. doi: 10.1148/radiol.2016152797; PubMed Citation

Tsai W, Kao K, Chang K, et al. **B1 Field Correction of T1 Estimation Should Be Considered for Breast Dynamic Contrast-enhanced MR Imaging Even at 1.5 T.** *Radiology*. 2016; 282(1):55-62. doi: 10.1148/radiol.2016160062; PubMed Citation

Vajuvalli NN, Chikkemenahally DKK, Nayak KN, Bhosale MG, Geethanath S. **The Tofts model in frequency domain: fast and robust determination of pharmacokinetic maps for dynamic contrast enhancement MRI.** *Physics in Medicine and Biology*. 2016; 61(24):8462-8475. doi: 10.1088/0031-9155/61/24/8462; Pubmed Citation

Van Beek EJ. **Imaging biomarkers in the clinic.** *Biomarkers in Medicine*. 2016; 10(10):1073-1079. doi: 10.2217/bmm-2016-0151; PubMed Citation

van Es S, Venema C, Glaudemans A, et al. **Translation of New Molecular Imaging Approaches to the Clinical Setting: Bridging the Gap to Implementation.** *Journal of Nuclear Medicine*, 2016; 57(S1). doi: 10.2967/jnumed.115.157974; PubMed Citation

Williams J, Arlinghaus L, Rani S, et al. **Towards real-time topical detection and characterization of FDG dose infiltration prior to PET imaging.** *European Journal of Nuclear Medicine and Molecular Imaging*, 2016; 43(13):2374-2380. doi:10.1007/s00259-016-3477-3; PubMed Citation

Yamamoto S. The workflow of evaluation of drug efficacy and safety using medical imaging information in clinical trials. *Medical Imaging and Information Sciences*. 2016; 33(4):81-86. doi: 10.11318/33.81

Yankeelov T, Mankoff D, Schwartz L, et al. **Quantitative Imaging in Cancer Clinical Trials.** *Clinical Cancer Research*, 2016; 22(2): 284-290. doi.org/10.1186/s12880-016-0109-0; PubMed Citation

Zöllner F, Daab M, Sourbron S, et al. **An Open Source Software for Analysis of Dynamic Contrast Enhanced Magnetic Resonance Images: UMM Perfusion Revisited.** *BMC Medical Imaging*, 2016; 16:7. doi.org/10.1186/s12880-016-0109-0; PubMed Citation

2015

Abramson RG, et al. **Methods and Challenges in Quantitative Imaging Biomarker Development.** *Acad Radiol*. 2015; 22(1), 25-32. doi: 10.1016/j.acra.2014.09.001; PubMed Citation

Barr RG, Ferraioli G, Palmeri ML, et al. **Elastography Assessment of Liver Fibrosis: Society of Radiologists in Ultrasound Consensus Conference Statement.** *Radiology*. doi: 10.1148/radiol.2015150619

Beaumont H, et al. **Changes of Lung Tumour Volume on CT – Prediction of the Reliability of Assessments.** *Cancer Imaging*. 2015; 15(17). doi: 10.1186/s40644-015-0052-2; PubMed Citation

Betrouni N, Makni N, Lakroum, et al. **Computer-Aided Analysis of Prostate Multiparametric MR Images: an Unsupervised Fusion-Based Approach.** *International Journal of Computer Assisted Radiology and Surgery*. 2015; 10(9):1515-26. doi: 10.1007/s11548-015-1151-z; PubMed Citation

Betrouni N, Tartare G. **Prostate Atlas SimDCE: A Simulation Tool for Dynamic Contrast Enhanced Imaging of Prostate.** *IRBM*. 2015; 36(3):166-169.

Chang Z, Wang C. **Treatment Assessment of Radiotherapy Using MR Functional Quantitative Imaging.** *World Journal of Radiology*. 2015; 7(1):1-6. doi:10.4329/wjr.v7.i1.1

Dillman JR, Chen S, Davenport MS, Zhao H, Urban MW, et al. **Superficial Ultrasound Shear Wave Speed Measurements in Soft and Hard Elasticity Phantoms: Repeatability and Reproducibility Using Two Ultrasound Systems.** *Pediatric Radiology*. 2015; 45(3):376-85. doi:10.1007/s00247-014-3150-6; PubMed Citation

- Ellingson BM, Bendszus M, Boxerman J, Erickson BJ, et al. **Consensus Recommendations for a Standardized Brain Tumor Imaging Protocol in Clinical Trials.** *Neurological Oncology*. 2015; 17(9):1188-98. doi: 10.1093/neuonc/nov095; PubMed Citation
- Fananapazir G, Bashir MR, Marin D, Boll DT. **Computer-Aided Liver Volumetry: Performance of a Fully-Automated, Prototype Post-Processing Solution for Whole-Organ and Lobar Segmentation Based on MDCT Imaging.** *Abdom Imaging*. 2015; 40(5):1203-12. doi: 10.1007/s00261-014-0276-9; PubMed Citation
- Fransson S. **Validation and Robustness Analysis of Dynamic Contrast Enhanced MRI.** *Umea University – Master's Thesis*. Aug 2015.
- Garra B. **Elastography: History, Principles, and Technique Comparison.** *Abdominal Imaging*. 2015; 40(4):680-697. doi: 10.1007/s00261-014-0305-8; PubMed Citation
- Gensheimer M, Hawkins D, Ermoian R, Trister A. **Assessing the Scale of Tumor Heterogeneity by Complete Hierarchical Segmentation of MRI.** *Physics in Medicine & Biology*. 2015; (60):977-993. doi:10.1088/0031-9155/60/3/977; PubMed Citation
- Giger M. **Future Perspectives: CAD to Quantitative Imaging Biomarkers, Phenotypes, and Imaging Genomics.** *Computer-Aided detection and diagnosis in medical imaging*. Mar 2015, 409-416.
- Hristova I, Boellaard R, Vogel W, et al. **Retrospective Quality Control Review of FDG Scans in the Imaging Sub-Study of PALETTE EORTC 62072/VEG110727: a Randomized, Double-Blind, Placebo-Controlled Phase III Trial.** *European Journal of Nuclear Medicine and Molecular Imaging*. 2015; 42(6):848-857. doi: 10.1007/s00259-015-3002-0; PubMed Citation
- Kanazawa, Y, Hayashi H, Harada M. **Clinical Approach of T1 Mapping for Hemodynamic Analysis.** *Medical Imaging and Information Sciences*. 2015; 32(4):26-29. doi: 10.11318/mii.32.xxvi
- Kim SY, Park SH. **Reply to What is the Role of Diffusion-Weighted Imaging in Ileocolonic Crohn's Disease?** *Inflammatory Bowel Diseases*. 2015; 21(6):E9-E10. doi: 10.1097/MIB.0000000000000414; PubMed Citation
- Lee Y, Lee SS, Kim N, et al. **Intravoxel Incoherent Motion Diffusion-Weighted MR Imaging of the Liver: Effect of Triggering Methods on Regional Variability and Measurement Repeatability of Quantitative Parameters.** *Radiology*. 2015; 274(2):405-15. doi: 10.1148/radiol.14140759; PubMed Citation
- Levy E. **Noncirrhotic Portal Hypertension: Imaging, Hemodynamics, and Endovascular Therapy.** *Clinical Liver Disease*. 2015; 6(3):67-71. doi: 10.1002/cld.496
- Li Q, Gavrielides MA, Zeng R, Myers KJ, Sahiner B, Petrick N. **Factors Affecting Uncertainty in Lung Nodule Volume Estimation with CT: Comparisons of Findings from Two Estimation Methods in a Phantom Study.** *Medical Imaging*. Mar 2015: Computer-Aided Diagnosis, Conference Volume 9414. doi: 10.1117/12.2081489
- Li Q, Gavrielides MA, Sahiner B, Myers KJ, Zeng R, Petrick N. **Statistical Analysis of Lung Nodule Volume Measurements with CT in a Large-Scale Phantom Study.** *Med. Phys.* 2015; 42(7):3932-3947. doi: 10.1118/1.4921734; PubMed Citation
- Lin C, Bradshaw T, Perk T, et al. **Repeatability and Reproducibility of 18F-NaF PET Quantitative Imaging Biomarkers.** *NCCAAPM, University of Wisconsin-Madison*. 2015 Oct.
- Mankoff DA, et al. **How Imaging Can Impact Clinical Trial Design: Molecular Imaging as a Biomarker for Targeted Cancer Therapy.** *Cancer*. 2015; 21(3):218-24. doi: 10.1097/PPO.0000000000000116; PubMed Citation
- Marin D, Pratts-Emanuelli JJ, Mileto A, et al. **Interdependencies of Acquisition, Detection, and Reconstruction Techniques on the Accuracy of Iodine Quantification in Varying Patient Sizes Employing Dual-Energy CT.** *European Radiology*. 2015; 25(3):679-686. doi: 10.1007/s00330-014-3447-8; PubMed Citation

- McNitt-Gray MF, Kim GH, Zhao B, et al. **Determining the Variability of Lesion Size Measurements from CT Patient Data Sets Acquired under “No Change” Conditions.** *Translational Oncology*. 2015; 8(1):55-64. doi: 10.1016/j.tranon.2015.01.001; PubMed Citation
- Miyazaki K, Jerome NP, Collins DJ, et al. **Demonstration of the Reproducibility of Free-Breathing Diffusion-Weighted MRI and Dynamic Contrast Enhanced MRI in Children with Solid Tumours: a Pilot Study.** *European Radiology*. 2015; 25(9):2641-50. doi:10.1007/s00330-015-3666-7; PubMed Citation
- Mulshine JL, Avila R, Yankelevitz D, et al. **Lung Cancer Workshop XI: Tobacco-Induced Disease: Advances in Policy, Early Detection, and Management.** *Journal of Thoracic Oncology*. 2015; 10(5):762-767. doi: 10.1097/JTO.0000000000000489; PubMed Citation
- Newell JD, Fuld MK, Allmendinger T, et al. **Very Low-Dose (0.15 mGy) Chest CT Protocols Using the COPDGen 2 Test Object and a Third-Generation Dual-Source CT Scanner With Corresponding Third-Generation Iterative Reconstruction Software.** *Investigative Radiology*. 2015; 50(1):40-45. doi: 10.1097/RLI.0000000000000093
- Obuchowski NA, Gazelle GS. **Handbook for Clinical Trials of Imaging and Image-Guided Interventions.** John Wiley & Sons, 2015. doi: 10.1002/9781118849712
- Oubel E, Bonnard E, Sueoka-Aragane, N, et al. **Volume-Based Response Evaluation with Consensual Lesion Selection: A Pilot Study by Using Cloud Solutions and Comparison to RECIST 1.1.** *Academic Radiology*. 2015; 22(2):217-225. doi: 10.1016/j.acra.2014.09.008; PubMed Citation
- Peters J, Leal J, Subramaniam R. **The QIBA Profile: Are We Adhering to Recommendations Stated Regarding Blood Glucose Values and Radiotracer Uptake Times?** *Journal of Nuclear Medicine*. 2015; 56(supplement 3):2603.
- Pierce LA, Elston BF, Clunie DA, Nelson D, Kinahan PE. **A Digital Reference Object to Analyze Calculation Accuracy of PET Standardized Uptake Value.** *Radiology*. 2015; 277(2):538-45. doi: 10.1148/radiol.2015141262; PubMed Citation
- Prah MA, Stufflebeam SM, Paulson ES, Kalpathy-Cramer J, Gerstner ER, Batchelor TT, Barboriak DP, Rosen BR, Schmainda KM. **Repeatability of Standardized and Normalized Relative CBV in Patients with Newly Diagnosed Glioblastoma.** *AJNR Am. J. Neuroradiol*. 2015; 36(9):1654-61. doi:10.3174/ajnr.A4374; PubMed Citation
- Quarantelli M. **MRI/MRS in Neuro-inflammation: Methodology and Applications.** *Clin Transl Imaging*. 2015; 3:475-89. doi: 10.1007/s40336-015-0142-y2015; PubMed Citation
- Rosenthal, MH, et al. **CT Predictors of Overall Survival at Initial Diagnosis in Patients with Stage IV Colorectal Cancer.** *Abdom Imaging*. 2015; 40(5):1170-6. doi: 10.1007/s00261-014-0272-0 PubMed Citation
- Rosenkrantz AB, et al. **Clinical Utility of Quantitative Imaging.** *Acad Radiol*. Jan; 22(1):33-49. doi: 10.1016/j.acra.2014.08.011; PubMed Citation
- Salem A, O'Connor JPB. **Assessment of Tumor Angiogenesis: Dynamic Contrast-Enhanced MR Imaging and Beyond.** *Magn Reson Imaging Clin N Am*. 2015; 24(1):45-56. doi: 10.1016/j.mric.2015.08.020; PubMed Citation
- Sanz-Requena R, Prats-Montalbán JM, Martí-Bonmatí L, Alberich-Bayarri A, et al. **Automatic Individual Arterial Input Functions Calculated from PCA Outperform Manual and Population-Averaged Approaches for the Pharmacokinetic Modeling of DCE-MR Images.** *J Magn Reson Imaging*. 2015; 42(2):477-87. doi: 10.1002/jmri.24805; PubMed Citation
- Shiina T, Nightingale KR, Palmeri ML, Hall TJ, et al. **WFUMB Guidelines and Recommendations for Clinical Use of Ultrasound Elastography: Part 1: Basic Principles and Terminology.** *Ultrasound Med. Biol*. 2015; 41(5):1126-1147. doi: 10.1016/j.ultrasmedbio.2015.03.009; PubMed Citation
- Silver M. **Physics and Technology of CT Angiography, Chapter 5.** In: Cavedon C, Rudin S, ed. *Cardiovascular and Neurovascular Imaging: Physics and Technology*. 1st ed. Boca Raton: CRC Press, 2016; 60. August 2015: page 60. [Link to chapter](#)

Smith DS, Li X, Arlinghaus LR, Yankeelov TE, Welch EB. **DCEMRI.jl: A Fast, Validated, Open Source Toolkit for Dynamic Contrast Enhanced MRI Analysis.** *PeerJ PrePrints.* 2015;3:e909. doi: [10.7717/peerj.909](https://doi.org/10.7717/peerj.909); [PubMed Citation](#)

Solomon J, Mileto A, Nelson R, et al. **Quantitative Features of Liver Lesions, Lung Nodules, and Renal Stones at Multi-Detector Row CT Examinations: Dependency on Radiation Dose and Reconstruction Algorithm.** *Radiology.* 2016;279(1):185-94. doi: [10.1148/radiol.2015150892](https://doi.org/10.1148/radiol.2015150892); [PubMed Citation](#)

Sonoyama T, Murayama N, Inoue N (2015). *Development of Shear Wave Measurement with a Reliability Indicator* (Technical Report Volume 63, 40-44). Retrieved from [Hitachi Medical Systems website](#).

Sunderland, J, Christian, P. **Quantitative PET/CT Scanner Performance Characterization Based upon the Society of Nuclear Medicine and Molecular Imaging Clinical Trials Network Oncology Clinical Simulator Phantom.** *Journal of Nuclear Medicine.* 2015; 56(1):145-52. doi: [10.2967/jnumed.114.148056](https://doi.org/10.2967/jnumed.114.148056); [PubMed Citation](#)

Tagliafico A, Bianca B, Tagliafico G, et al. **Quantitative Evaluation of Background Parenchymal Enhancement (BPE) on Breast MRI. A Feasibility Study with a Semi-Automatic and Automatic Software Compared to Observer-Based Scores.** *British Journal of Radiology.* 2015; 88(1056):20150417. doi: [10.1259/bjr.20150417](https://doi.org/10.1259/bjr.20150417); [PubMed Citation](#)

Wang H, Su Z, Ye Huiyi, et al. **Reproducibility of Dynamic Contrast-Enhanced MRI in Renal Cell Carcinoma: A Prospective Analysis on Intra- and Inter-Observer and Scan-Rescan Performance of Pharmacokinetic Parameters.** *Medicine.* 2015; 94(37):1529. doi: [10.1097/MD.0000000000001529](https://doi.org/10.1097/MD.0000000000001529)

Yasar T, et al. **Interplatform Reproducibility of Liver and Spleen Stiffness Measured with MR Elastography.** *Journal of Magnetic Resonance Imaging.* 2016; 43(5):1064-72. doi: [10.1002/jmri.25077](https://doi.org/10.1002/jmri.25077); [PubMed Citation](#)

Young S, Kim HJ, Ko MM, Ko WW, Flores C, McNitt-Gray MF. **Variability in CT Lung-Nodule Volumetry: Effects of Dose Reduction and Reconstruction Methods.** *Med Phys.* 2015; 42(5):2679. doi: [10.1118/1.4918919](https://doi.org/10.1118/1.4918919); [PubMed Citation](#)

2014

Abramson RG, Yankeelov TE. **Imaging Biomarkers and Surrogate Endpoints in Oncology Clinical Trials, Chapter 2.** In: *Functional Imaging in Oncology, Biophysical Basis and Technical Approaches.* Volume 1. New York, NY: Springer-Verlag Berlin Heidelberg; 2014: 29-42. [Link to publisher's landing page](#)

Aronhime S, Calcagno C, Jajamovich GH, et al. **DCE-MRI of the Liver: Effect of Linear and Nonlinear Conversions on Hepatic Perfusion Quantification and Reproducibility.** *J Magn Reson Imaging.* 2014; 40(1):90-8. doi: [10.1002/jmri.24341](https://doi.org/10.1002/jmri.24341); [PubMed Citation](#)

Budzik JF, Lefebvre G, Forzy G, El Rafei M, Chechin D, Cotton A. **Study of Proximal Femoral Bone Perfusion with 3D T1 Dynamic Contrast-Enhanced MRI: a Feasibility Study.** *European Radiology.* 2014; 24(12):3217-3223. doi: [10.1007/s00330-014-3340-5](https://doi.org/10.1007/s00330-014-3340-5); [PubMed Citation](#)

Chen B, Wilson J, Samei E. **A Refined Methodology for Modeling Volume Quantification Performance in CT.** *Proc. SPIE 9033, Medical Imaging 2014: Physics of Medical Imaging, 903325.* March 19, 2014. doi: [10.1117/12.2044004](https://doi.org/10.1117/12.2044004)

Chen B, Christianson O, Wilson J, Samei E. **Assessment of Volumetric Noise and Resolution Performance for Linear and Nonlinear CT Reconstruction Methods.** *Medical Physics.* 2014; 41(7):071909. [PubMed Citation](#); doi: [10.1118/1.4881519](https://doi.org/10.1118/1.4881519)

DeVries AF, et al. **Pretreatment Evaluation of Microcirculation by Dynamic Contrast-Enhanced Magnetic Resonance Imaging Predicts Survival in Primary Rectal Cancer Patients.** *International Journal of Radiation Oncology.* 2014; 90(5):1161-1167. doi: [10.1016/j.ijrobp.2014.07.042](https://doi.org/10.1016/j.ijrobp.2014.07.042); [PubMed Citation](#)

Doot RK, Pierce, LA, Byrd D, Elston B, Allberg KC, Kinahan PE. **Biases in Multicenter Longitudinal PET Standardized Uptake Value Measurements.** *Transl Oncol.* 2014; 7(1): 48–54. [PubMed Citation](#)

- Ellingson BM, Bendszus M, Sorensen AG, & Pope WB. **Emerging Techniques and Technologies in Brain Tumor Imaging.** *Neuro-Oncology*. 2014; 16(suppl 7): vii12–vii23. doi: 10.1093/neuonc/nou221; PubMed Citation
- Ferraioli, G, Parekh P, Levitov AB, and Filice C. **Shear Wave Elastography for Evaluation of Liver Fibrosis.** *J Ultrasound Med*. 2014; 33(2): 197-203. doi: 10.7863/ultra.33.2.197; PubMed Citation
- Gámez-Cenzano P, Pino-Sorroche F. **Standardization and Quantification in FDG-PET/CT Imaging for Staging and Restaging of Malignant Disease.** *PET Clinics*. 2014; 9(2):117-27. doi: 10.1016/j.cpet.2013.10.003 PubMed Citation
- Häggström, I. **Quantitative Methods for Tumor Imaging with Dynamic PET.** Doctoral Thesis. Department of Radiation Sciences, Radiation Physics. Umeå University. 2014.
- Herskovits EH. **Quantitative Radiology. Applications to Oncology.** *Advances in Cancer Research*. 2014; 124:1-30. doi: 10.1016/B978-0-12-411638-2.00001-X; PubMed Citation
- Heye T, Boll DT, Reiner CS, et al. **Impact of Precontrast T10 Relaxation Times on Dynamic Contrast-Enhanced MRI Pharmacokinetic Parameters: T10 Mapping Versus a Fixed T10 Reference Value.** *J Magn Reson Imaging*. 2014; 39(5):1136-45. doi: 10.1002/jmri.24262; PubMed Citation
- Höink AJ, Weßling J, Koch R, et al. **Comparison of Manual and Semi-Automatic Measuring Techniques in MSCT Scans of Patients with Lymphoma: a Multicentre Study.** *European Radiology*. 2014; 24(11):2709-2718. doi: 10.1007/s00330-014-3283-x; PubMed Citation
- Huang W, Li X, Chen Y, et al. **Variations of Dynamic Contrast-Enhanced Magnetic Resonance Imaging in Evaluation of Breast Cancer Therapy Response: A Multicenter Data Analysis Challenge.** *Transl Oncol*. 2014; 7(1): 153–166. doi: 10.1593/tlo.13838; PubMed Citation
- Kim SH, Kamaya A, Willmann JK. **CT Perfusion of the Liver: Principles and Applications in Oncology.** *Radiology*. 2014; 272(2):322-344. doi:10.1148/radiol.14130091; PubMed Citation
- Krishnaraj A, Weinreb JC, Ellenbogen PH, Allen Jr B, Norbash A, Kazerooni EA. **The Future of Imaging Biomarkers in Radiologic Practice: Proceedings of the Thirteenth Annual ACR Forum.** *Journal of the American College of Radiology (JACR)*. 2014; 11(1):20-23. doi: 10.1016/j.jacr.2013.08.017; PubMed Citation
- Litmanovich DE, Hartwick K, Silva M, Bankier AA. **Multidetector Computed Tomographic Imaging in Chronic Obstructive Pulmonary Disease: Emphysema and Airways Assessment.** *Radiologic Clinics of North America*. 2014; 52(1):137–154. doi: 10.1016/j.rcl.2013.09.002; PubMed Citation
- Martinez-Rios C, Muzic Jr. Raymond F, DiFillippo, FP, et al. **Artifacts and Diagnostic Pitfalls in Positron Emission Tomography-Magnetic Resonance Imaging.** *Seminars in Roentgenology*. 2014; 49(3):255-270. doi: 10.1053/j.ro.2014.07.004; PubMed Citation
- Moyer BR, Cheruvu NPS, Hu T, Eds. **Chapter 13: Regulatory Considerations Involved in Imaging.** In: *Pharmaco-Imaging in Drug and Biologics Development. Fundamentals and Applications Series: AAPS Advances in the Pharmaceutical Sciences Series*. Vol. 8. New York, NY: AAPS Press, Springer, 2014: 355-390. | ISBN 978-1-4614-8247-5 | doi: 10.1007/978-1-4614-8247-5_13
- Onxley JD, Yoo DS, Muradyan N, et al. **Comprehensive Population-Averaged Arterial Input Function for Dynamic Contrast-Enhanced vMagnetic Resonance Imaging of Head and Neck Cancer.** *International Journal of Radiation Oncology*Biologics*Physics*. 2014; 89(3): 658–665. doi: 10.1016/j.ijrobp.2014.03.006; PubMed Citation
- Oudry J, Lynch T, Vappou J, Sandrin L, Miette V. **Comparison of Four Different Techniques to Evaluate the Elastic Properties of Phantom in Elastography: Is There a Gold Standard?** *Phys. Med. Biol*. 2014; 59(19):5775-93. doi: 10.1088/0031-9155/59/19/5775; PubMed Citation.
- Perrone A, Villetard J, Miller C. **Imaging Review Charters and Operational Considerations.** *Medical Imaging in Clinical Trials*. London: Springer-Verlag, 2014; 65-82. doi: 10.1007/978-1-84882-710-3_4

- Rosenthal MH, Kim KW, Fuchs CS, et al. **Relationships Between KRAS Mutation Status and Baseline Radiographic Distribution of Disease in Patients with Stage IV Colorectal Cancer.** *Abdominal Imaging.* 2014; 39(6):1261-6 [doi: 10.1007/s00261-014-0165-2](#); PubMed Citation
- Sieren JP, Hoffman EA, Fuld MK, Chan KS, Guo J, & Newell JD. **Sinogram Affirmed Iterative Reconstruction (SAFIRE) Versus Weighted Filtered Back Projection (WFBP) Effects on Quantitative Measure in the COPD Gene 2 Test Object.** *Medical Physics.* 2014; 41(9):091910. [doi: 10.1118/1.4893498](#); PubMed Citation
- Song, P, Macdonald MC, Behler RH, et al. **Shear Wave Elastography on the GE LOGIQ E9 with Comb-push Ultrasound Shear Elastography (CUSE) and Time Aligned Sequential Tracking (TAST).** *2014 IEEE International Ultrasonics Symposium, Vol 1.* 1101 – 1104. [doi: 10.1109/ULTSYM.2014.0270](#)
- Tartare G, Hamad D, Azahaf M, et al. **Spectral Clustering Applied for Dynamic Contrast-Enhanced MR Analysis of Time-Intensity Curves.** *Comput Med Imaging Graph.* 2014; 38(8):702-13 [doi: 10.1016/j.compmedimag.2014.07.005](#) PubMed Citation.
- Yankeelov TE, Abramson RG, Quarles CC. **Quantitative Multimodality Imaging in Cancer Research and Therapy.** *Nat Rev Clin Oncol.* Nov; (11):670-80. [doi: 10.1038/nrclinonc.2014.134](#); PubMed Citation
- Zhao B, Lee SM, Lee HJ, Tan Y, Qi J, Persigehl T, Mozley PD and Schwartz LH. **Variability in Assessing Treatment Response: Metastatic Colorectal Cancer as a Paradigm.** *Clin Cancer Res.* 2014; 20(13):3560-8 [doi: 10.1158/1078-0432.CCR-14-0245](#); PubMed Citation
- Zhao H, Chen J, Meixner DD, Xie H, Shamdasani V, Zhou S, Robert JL, Urban MW, Sanchez W, Callstrom MR, Ehman RL, Greenleaf JF, Chen S. **Noninvasive Assessment of Liver Fibrosis Using Ultrasound-based Shear Wave Measurement and Comparison to Magnetic Resonance Elastography.** *J Ultrasound Med.* 2014; 33(9):1597-604. [doi: 10.7863/ultra.33.9.1597](#); PubMed Citation

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; In Impact: *The Journal of Innovation Impact.* 2013; 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(4):614–629. [doi: 10.1007/s10278-013-9598-3](#); PubMed Citation
- 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](#); PubMed Citation
- Coxson HO. **Sources of Variation in Quantitative Computed Tomography of the Lung.** *J Thorac Imaging.* 2013; 28(5):272-9. [doi: 10.1097/RTI.0b013e31829efbe9](#); PubMed Citation
- Curran BH, Starkschall G, Siochi RAC, eds. **Informatics in Radiation Oncology.** In Series: *Imaging in Medical Diagnosis and Therapy*; Boca Raton: CRC Press, 2013; 101.
- 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](#); PubMed Citation
- Kim N, Choi J, Yi J, et al. **An Engineering View on Megatrends in Radiology: Digitization to Quantitative Tools of Medicine.** *Korean J Radiol.* Mar-Apr 2013; 14(2):139-153. [doi: 10.3348/kjr.2013.14.2.139](#); PubMed Citation

Kurland BF, Doot RK, Linden HM, Mankoff DA, Kinahan PE. **Multicenter Trials Using 18F-Fluorodeoxyglucose (FDG) PET to Predict Chemotherapy Response: Effects of Differential Measurement Error and Bias on Power Calculations for Unselected and Enrichment Designs.** *Clin Trials*. 2013; 10(6):886-95. doi: 10.1177/1740774513506618; PubMed Citation

Ortuño JE, Ledesma-Carbayo MJ, Simões RV, et al. **DCE@urLAB: a Dynamic Contrast-Enhanced MRI Pharmacokinetic Analysis Tool for Preclinical Data.** *BMC Bioinformatics*. 2013; 14:316. doi: 10.1186/1471-2105-14-316; PubMed Citation

Newell JD, Sieren J, Hoffman EA. **Development of Quantitative CT Lung Protocols.** *Journal of Thoracic Imaging*. 2013; 28(5) doi:10.1097/RTI.0b013e31829f6796; PubMed Citation

Petrella, JR. **Neuroimaging and the Search for a Cure for Alzheimer's Disease.** *Radiology*. 2013; (269)3:671-691. doi: 10.1148/radiol.13122503; PubMed Citation

2012

Sieren JP, et al. **Reference Standard and Statistical Model for Inter-site and Temporal Comparisons of CT Attenuation in a Multicenter Quantitative Lung Study.** *Medical Physics*. 2012; 39(9):5757-67. doi: 10.1118/1.4747342; PubMed Citation

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

2011

Wang YXJ, Ng CK. **The Impact of Quantitative Imaging in Medicine and Surgery: Charting our Course for the Future.** *Quant Imaging Med Surg*. 2011; 1:1-3. doi: 10.3978/j.issn.2223-4292.2011.09.01; PubMed citation

2010

Boellaard R, O'Doherty MJ, Weber WA, et al. **FDG PET and PET/CT: EANM Procedure Guidelines for Tumour PET Imaging: Version 1.0.** *Eur J Nucl Med Mol Imaging*. 2010; 37:181-200. doi: 10.1007/s00259-009-1297-4; PubMed Citation

Doot RK, Scheuermann JS, Christian PE, Karp JS, Kinahan PE. **Instrumentation Factors Affecting Variance and Bias of Quantifying Tracer Uptake with PET/CT.** *Med. Phys*. 2010; 37(11):6035. doi: 10.1118/1.3499298; PubMed Citation

Namati E, Thiesse J, Sieren JC, Ross A, Hoffman EA, et al. **Longitudinal Assessment of Lung Cancer Progression in the Mouse using In Vivo Micro-CT Imaging.** *Medical Physics*, 2010: 37(9), 4793–4805. doi: 10.1118/1.3476454; PubMed Citation

Padhani AR, Miles KA. **Multiparametric imaging of tumor response to therapy.** *Radiology*. 2010; 256(2):348-64. doi: 10.1148/radiol.10091760; PubMed Citation

2009

Mulshine JL, Jablons DM. **Volume CT for Diagnosis of Nodules Found in Lung-Cancer Screening.** *N Engl J Med*. Dec 3, 2009; 361(23): 2281-2. doi: 10.1056/NEJMe0908771; PubMed Citation