

Title(s), initial(s), first name, surname: prof.dr.ir. H.W.A.M. (Hugo) de Jong
 Male/female: male
 Date and place of birth: 16-07-1973, Berkel-Enschot
 Nationality: Netherlands

Education

Ph.D.: Medical Imaging, Utrecht University 30-11-2001
 M.Sc. : Applied Physics, Eindhoven University of Technology 02-07-1997

Work experience since completing PhD

Period	Position	Institution	Contract	Staff supervised
2006-now	Medical Physicist	University Medical Center Utrecht	Permanent	>15
2012-2018	Associate Professor	University Medical Center Utrecht	Permanent	10-15
2005-2006	Medical Physicist	Free University Amsterdam	Permanent	1
2002-2005	Medical Physicist resident	Free University Amsterdam	Fixed	None

Medical Physics of Radiology

I head the Medical Physics group of the department of Radiology, consisting of 4 Medical Physicists and 2 Residents. In addition I supervise 7 Ph.D. students (2020) as a promotor, and have recently promoted (as daily supervisor 'co-promotor') 8 Ph.D students. I am responsible for the quality, safety and clinical introduction of Radiology and Nuclear Medicine imaging technologies, training of Medical Physics Residents, and teach several courses for Radiology Residents.

My research focuses on the physics of medical imaging using ionizing radiation: PET, SPECT, CT and X-ray, with two distinct research lines:

- Multimodality CT X-ray imaging for stroke, with clinical researchers and Philips Healthcare.
- Nuclear Medicine Imaging: Development and clinical evaluation of quantitative SPECT, dosimetry and image guided intervention in radio-embolization, with clinical researchers, Philips and Siemens Healthcare.

International activities

- Visiting Researcher, UCSF, Radiology, prof. Wintermark, June-Sept/2008
- Visiting Researcher, NCRC, Osaka, Japan, PET center, prof. Iida, Feb-May/2006
- Visiting Ph.D. Candidate, UNC Chapel Hill, prof. Frey, Jan-April/2000
- Visiting M.Sc. Candidate, University Paris XI, prof. Fitair, Feb-May/1996

Collaborations

2019: Research collaboration with major Dutch stroke hospitals: Cost Effectiveness CTP for Stroke

2018: Research collaboration with RWTH Aachen: PET/MRI

2016: Research collaboration with Philips and AMC, stroke imaging using Spectral CT

2013: Research collaboration with Nikhef and dept Physics, UU, spectral detectors

2012: Research collaboration with AMC and Erasmus Medical Center in the field of CT imaging.

2012: Research collaboration with European partners within the ITEA2 Mediate project.

2006: Research collaboration with National Cardiovascular Center Osaka, resulting paper [10]

2005 Research collaboration with several institutes worldwide (PET Center Turku, Finland; NIH Bethesda; University British Columbia, Canada; CEA, Serv Hosp Frederic Joliot, Orsay, France)

2005 Joint development of an animal PET-MRI scanner, in collaboration with TU Delft.
 2002 Research collaboration with CTI PET Systems, Knoxville, TN and Max Planck Institute, Cologne
 2000 Research visit University of North Carolina, department of Biomedical Engineering.
 1998 Research collaboration with Lund University in Sweden.

Grants

2019: NWO take-off grant for valorization of CT perfusion software
 2019: Leading the Change Zorgevaluatie, 'Cleopatra', (as PI: 200.000)
 2018: TKI/Health Holland, 'PET/MRI for guidance', (as project leader, PI: 500.000 euro)
 2016: STW-Dutch Heart Foundation, 'ENCLOSE' (as project leader, PI: 750.000 euro)
 2015: ERC Consolidator Grant, Translating Hybrid Imaging for Interventions (as PI: 2,000,000 euro).
 2014: ITEA2 Benefit, X-ray Intervention In corporation with Philips Health Care (as PI: 100,000 euro).
 2013: ERC Proof of Concept (150,000 euro with PI Andre Mischke), MammoMedipix
 2013: NWO VIDI (as PI: 800,000 euro): Development of Interventional X-ray Scintigraphy Imaging
 2011: STW Carisma Airspace (as PI: 860,000 euro): Advanced CT perfusion Methods
 2011: ITEA2 Mediate, X-ray Intervention In corporation with Philips Health Care (as PI: 250,000 euro).
 2010: Siemens Health Care research grant, (as PI: 240,000 euro)
 2008: de Jong HW, et al. '...characterization of the HRRT...' made it to Top 10 most cited articles in PMB
 2001 IEEE graduate student award in the field of Nuclear and Plasma Sciences

Activities

Member of Board Dutch Society of Nuclear Medicine (bestuurslid Ned.Ver.Nucleaire Geneeskunde)
 Member of Board of Review for Medical Physics Education (College van Toetsing NVKF)
 Member of Education Committee of the Dutch Society of Nuclear Medicine (College Concilium NVKF)
 Qualified and registered trainer for Medical Physics residents, 5 residents trained.
 Organizer of national course on Gamma camera and PET/CT for Nuclear Medicine Residents (NVNG).
 Organizer of national course on x-ray imaging technology for Radiology Residents (NVvR)

Teaching

Perfusion imaging for Master students: 2020,2019,2018,2017
 Tomographic reconstruction course for residents: 2001, 2003, 2005, 2007, 2009, 2011
 Molecular imaging course for medical students: 2002, 2003, 2004, 2005
 Gamma camera course for residents: 2003, 2005, 2007, 2009, 2011
 SPECT course for residents: 2005, 2007, 2009, 2011
 Quantification in PET and SPECT: 2005, 2007, 2009, 2011
 Introduction to PET course: 2007, 2009, 2011
 Introduction to X-ray (conventional, mammo) for residents: 2008,2009,2010,2011,2012
 Advanced X-ray (conventional, mammo) for residents: 2009,2010,2011,2012
 Basis Teaching Qualification, (Basis Kwalificatie Onderwijs) 2016

Invited Lectures

15-10-2019: 'Examples of the Usefulness of Monte Carlo Modelling within a Reconstruction Process',
 Symposium on Imaging for Therapy with Statistical SPECT/PET Reconstruction, Barcelona
 4-4-2019: 'Beeld in behandeling, over hybride motoren en hybride detectoren' Wetenschappelijke
 bijeenkomst Nederlandse Vereniging Klinische Fysica, Woudschoten, Zeist
 5-10-2017: 'Examples of the Usefulness of Monte Carlo Modelling within a Reconstruction Process', NFBIA
 Summer School 2017
 5-6-2017: 'Physics of Intraoperative Nuclear Imaging: current status and new devices', Jaarlijkste

bijeenkomst Belgische Vereniging Nucleaire Geneeskunde, Belnuc, Gent.

15-10-2016: 'Compensation Methods in Statistical Reconstruction Methods', Symposium on Imaging for Therapy with Statistical SPECT/PET Reconstruction, Barcelona

15-10-2016: 'Yttrium-90 imaging with PET', Symposium on Imaging for Therapy with Statistical SPECT/PET Reconstruction, Barcelona

21-11-2016: 'Quantitative imaging in Nuclear Therapy', Symposium Advances in Nuclear Therapy, Utrecht

2 patents (P31365NL00 and P32445NL00)

Peer Reviewed Publications (h-index 33)

- 1) Technical Note: Nuclear Imaging with an X-Ray Flat Panel Detector: A Proof-of-Concept Study. Dietze MMA, Koppert WJC, van Rooij R, de Jong HWAM. Med Phys. 2020 Apr 20.
- 2) Improving the Quality of Cerebral Perfusion Maps With Monoenergetic Dual-Energy Computed Tomography Reconstructions. van Ommen F, Bennink E, Dankbaar JW, Kauw F, de Jong HWAM. J Comput Assist Tomogr. 2020 Mar 12
- 3) Comparison of the Biograph Vision and Biograph mCT for quantitative 90Y PET/CT imaging for radioembolisation. Kunnen B, Beijst C, Lam MGEH, Viergever MA, de Jong HWAM. EJNMMI Phys. 2020 Mar 4;7(1):14
- 4) Simultaneous 166Ho/99mTc dual-isotope SPECT with Monte Carlo-based downscatter correction for automatic liver dosimetry in radioembolization. van Rooij R, Braat AJAT, de Jong HWAM, Lam MGEH. EJNMMI Phys. 2020 Mar 4;7(1):13
- 5) Additional holmium-166 radioembolisation after lutetium-177-dotatate in patients with neuroendocrine tumour liver metastases (HEPAR PLuS): a single-centre, single-arm, open-label, phase 2 study. Braat AJAT, Bruijnen RCG, van Rooij R, Braat MNGJA, Wessels FJ, van Leeuwen RS, van Treijen MJC, de Herder WW, Hofland J, Tesselaar MET, de Jong HWAM, Lam MGEH. Lancet Oncol. 2020 Apr;21(4):561-570
- 6) Adaptive Scan Duration in SPECT: Evaluation for Radioembolization. Dietze MMA, Kunnen B, Beijst C, de Jong HWAM. Med Phys. 2020 Feb 15.
- 7) Variability in lutetium-177 SPECT quantification between different state-of-the-art SPECT/CT systems. Peters SMB, Meyer Viol SL, van der Werf NR, de Jong N, van Velden FHP, Meeuwis A, Konijnenberg MW, Gotthardt M, de Jong HWAM, Segbers M. EJNMMI Phys. 2020 Feb 11;7(1):9
- 8) Feasibility of imaging 90 Y microspheres at diagnostic activity levels for hepatic radioembolization treatment planning. Kunnen B, Dietze MMA, Braat AJAT, Lam MGEH, Viergever MA, de Jong HWAM. Med Phys. 2019 Dec 1
- 9) Computed Tomography Perfusion Data for Acute Ischemic Stroke Evaluation Using Rapid Software: Pitfalls of Automated Postprocessing. Kauw F, Heit JJ, Martin BW, van Ommen F, Kappelle LJ, Velthuis BK, de Jong HWAM, Dankbaar JW, Wintermark M. J Comput Assist Tomogr. 2020 Jan/Feb;44(1):75-7
- 10) Two-dimensional ultrasound measurements vs. magnetic resonance imaging-derived ventricular volume of preterm infants with germinal matrix intraventricular haemorrhage. Beijst C, Dudink J, Wientjes R, Benavente-Fernandez I, Groenendaal F, Brouwer MJ, Išgum I, de Jong HWAM, de Vries LS. Pediatr Radiol. 2019 Nov 6
- 11) Fast and accurate quantitative determination of the lung shunt fraction in hepatic radioembolization. Bastiaannet R, van der Velden S, Lam MGEH, Viergever MA, de Jong HWAM. Phys Med Biol. 2019 Oct 16
- 12) First evidence for a dose-response relationship in patients treated with 166Ho-radioembolization: a prospective study. Bastiaannet R, van Roekel C, Smits MLJ, Elias SG, van Amsterdam WAC, Doan DT, Prince JF, Bruijnen RCG, de Jong HWAM, Lam MGEH. J Nucl Med. 2019 Oct 10
- 13) A Pilot Study on Hepatobiliary Scintigraphy to Monitor Regional Liver Function in 90Y Radioembolization. van der Velden S, Braat MNGJA, Labeur TA, Scholten MV, van Delden OM, Bennink RJ, de Jong HWAM, Lam MGEH. J Nucl Med. 2019 Oct;60(10):1430-1436
- 14) The Unique Role of Fluorodeoxyglucose-PET in Radioembolization. Bastiaannet R, Lodge MA, de Jong HWAM, Lam MGEH. PET Clin. 2019 Oct;14(4):447-457.
- 15) The superior predictive value of 166Ho-scout compared with 99mTc-macroaggregated albumin prior to 166Ho-microspheres radioembolization in patients with liver metastases. Smits MLJ, Dassen MG, Prince JF, Braat AJAT, Beijst C, Bruijnen RCG, de Jong HWAM, Lam MGEH. Eur J Nucl Med Mol Imaging. 2019 Aug 9.

- 16) Respiratory motion compensation in interventional liver SPECT using simultaneous fluoroscopic and nuclear imaging. Dietze MMA, Bastiaannet R, Kunnen B, van der Velden S, Lam MGEH, Viergever MA, de Jong HWAM. *Med Phys.* 2019 Aug;46(8):3496-3507
- 17) Accelerated SPECT image reconstruction with FBP and an image enhancement convolutional neural network. Dietze MMA, Branderhorst W, Kunnen B, Viergever MA, de Jong HWAM. *EJNMMI Phys.* 2019 Jul 29;6(1):14
- 18) A comparative study of NaI(Tl), CeBr₃, and CZT for use in a real-time simultaneous nuclear and fluoroscopic dual-layer detector. Koppert WJC, Dietze MMA, van der Velden S, Steenbergen JHL, de Jong HWAM. *Phys Med Biol.* 2019 Jul 4;64(13):135012.
- 19) Effect of prolonged acquisition intervals for CT-perfusion analysis methods in patients with ischemic stroke. van Ommen F, Kauw F, Bennink E, Dankbaar JW, Viergever MA, de Jong HWAM. *Med Phys.* 2019 Jul;46(7):3156-3164.
- 20) Performance of a dual-layer scanner for hybrid SPECT/CBCT. Dietze MMA, Kunnen B, van der Velden S, Steenbergen JHL, Koppert WJC, Viergever MA, de Jong HWAM. *Phys Med Biol.* 2019 May 16;64(10):105020
- 21) Intracranial Cerebrospinal Fluid Volume as a Predictor of Malignant Middle Cerebral Artery Infarction.
- 22) Kauw F, Bennink E, de Jong HWAM, Kappelle LJ, Horsch AD, Velthuis BK, Dankbaar JW; DUST Investigators; DUST (Dutch Acute Stroke Study) investigators are as follows. *Stroke.* 2019 May 16
- 23) Dose of CT protocols acquired in clinical routine using a dual-layer detector CT scanner: A preliminary report. van Ommen F, de Jong HWAM, Dankbaar JW, Bennink E, Leiner T, Schilham AMR. *Eur J Radiol.* 2019 Mar;112:65-71.
- 24) A Dual-layer Detector for Simultaneous Fluoroscopic and Nuclear Imaging. van der Velden S, Kunnen B, Koppert WJC, Steenbergen JHL, Dietze MMA, Beijst C, Viergever MA, Lam MGEH, de Jong HWAM. *Radiology.* 2019 Mar;290(3):833-838
- 25) Fast technetium-99m liver SPECT for evaluation of the pretreatment procedure for radioembolization dosimetry. van der Velden S, Dietze MMA, Viergever MA, de Jong HWAM. *Med Phys.* 2019 Jan;46(1):345-355.
- 26) Fast quantitative reconstruction with focusing collimators for liver SPECT. Dietze MMA, van der Velden S, Lam MGEH, Viergever MA, de Jong HWAM. *EJNMMI Phys.* 2018 Dec 4;5(1):28.
- 27) The physics of radioembolization. Bastiaannet R, Kappadath SC, Kunnen B, Braat AJAT, Lam MGEH, de Jong HWAM. *EJNMMI Phys.* 2018 Nov 2;5(1):22
- 28) Radioembolization lung shunt estimation based on a 90 Y pretreatment procedure: A phantom study. Kunnen B, van der Velden S, Bastiaannet R, Lam MGEH, Viergever MA, de Jong HWAM. *Med Phys.* 2018 Oct;45(10):4744-4753
- 29) Is Diffusion-weighted MRI Really Superior to PET/CT in Predicting Survival after Radioembolization? Bastiaannet R, van Roekel C, Kunnen B, Lam MGEH, de Jong HWAM. *Radiology.* 2018 Oct;289(1):274-275
- 30) Image quality of conventional images of dual-layer SPECTRAL CT: A phantom study. van Ommen F, Bennink E, Vlassenbroek A, Dankbaar JW, Schilham AMR, Viergever MA, de Jong HWAM. *Med Phys.* 2018 Jul;45(7):3031-3042
- 31) Additional hepatic 166Ho-radioembolization in patients with neuroendocrine tumours treated with 177Lu-DOTATATE; a single center, interventional, non-randomized, non-comparative, open label, phase II study (HEPAR PLUS trial). Braat AJAT, Kwekkeboom DJ, Kam BLR, Teunissen JJM, de Herder WW, Dreijerink KMA, van Rooij R, Krijger GC, de Jong HWAM, van den Bosch MAAJ, Lam MGEH. *BMC Gastroenterol.* 2018 Jun 15;18(1):84
- 32) Accuracy of SPECT/CT-based lung dose calculation for Holmium-166 hepatic radioembolization before OSEM convergence. van Nierop BJ, Prince JF, van Rooij R, van den Bosch MAAJ, Lam MGEH, de Jong HWAM. *Med Phys.* 2018 Jun 1.
- 33) A Change of Heart: Yield of Cardiac Imaging in Acute Stroke Workup. Kauw F, Dankbaar JW, Habets J, Cramer MJM, de Jong HWAM, Velthuis BK, Kappelle LJ. *Case Rep Neurol.* 2018 May 30;10(2):118-123.
- 34) System for image-guided resection of nonpalpable breast lesions: Proof of concept. Arsenali B, de Jong HWAM, Viergever MA, Gilhuijs KGA. *Med Phys.* 2018 May;45(5):2169-2178.
- 35) Impact of intense x-ray pulses on a NaI(Tl)-based gamma camera. Koppert WJC, van der Velden S, Steenbergen JHL, de Jong HWAM. *Phys Med Biol.* 2018 Mar 14;63(6)
- 36) Intratumoral injection of radioactive holmium-166 microspheres in recurrent head and neck squamous cell carcinoma: preliminary results of first use. Bakker RC, van Es RJJ, Rosenberg AJWP, van Nimwegen SA, Bastiaannet R, de Jong HWAM, Nijsen JFW, Lam MGEH. *Nucl Med Commun.* 2018 Mar;39(3):213-221.
- 37) Clinical and Imaging Predictors of Recurrent Ischemic Stroke: A Systematic Review and Meta-Analysis. Kauw F, Takx RAP, de Jong HWAM, Velthuis BK, Kappelle LJ, Dankbaar JW. *Cerebrovasc Dis.* 2018;45(5-6):279-287.

- 38) Computed Tomography Perfusion Derived Blood-Brain Barrier Permeability Does Not Yet Improve Prediction of Hemorrhagic Transformation. Horsch AD, Bennink E, van Seeters T, Kappelle LJ, van der Graaf Y, Mali WPTM, de Jong HWAM, Velthuis BK, Dankbaar JW; DUST Investigators. *Cerebrovasc Dis.* 2018;45(1-2):26-32.
- 39) Technical Advances in Image Guidance of Radionuclide Therapy. Beijst C, Kunnen B, Lam MGEH, de Jong HWAM. *J Nucl Med Technol.* 2017 Dec;45(4):272-279.
- 40) Adequate SIRT activity dose is as important as adequate chemotherapy dose. Braat AJAT, Kappadath SC, Buijnen RCG, van den Hoven AF, Mahvash A, de Jong HWAM, Lam MGEH. *Lancet Oncol.* 2017 Nov;18(11):e636
- 41) Detection of cartilage invasion in laryngeal carcinoma with dynamic contrast-enhanced CT. Dankbaar JW, Oosterbroek J, Jager EA, de Jong HW, Raaijmakers CP, Willems SM, Terhaard CH, Philippens ME, Pameijer FA. *Laryngoscope Investig Otolaryngol.* 2017 Oct 31;2(6):373-379
- 42) Estimation of lung shunt fraction from simultaneous fluoroscopic and nuclear images. van der Velden S, Bastiaannet R, Braat AJAT, Lam MGEH, Viergever MA, de Jong HWAM. *Phys Med Biol.* 2017 Oct 12;62(21):8210-8225
- 43) Impact of respiratory motion and acquisition settings on SPECT liver dosimetry for radioembolization. Bastiaannet R, Viergever MA, de Jong HWAM. *Med Phys.* 2017 Oct;44(10):5270-5279
- 44) A phantom study: Should 124 I-mIBG PET/CT replace 123 I-mIBG SPECT/CT? Beijst C, de Keizer B, Lam MGEH, Janssens GO, Tytgat GAM, de Jong HWAM. *Med Phys.* 2017 May;44(5):1624-1631.
- 45) Lung Shunting: An Indicator of Survival, But Not Necessarily a Tool for Selecting Patients for Radioembolization. Smits ML, Bastiaannet R, Prince JF, de Jong HW, van den Bosch MA, Lam MG. *Radiology.* 2017 Feb;282(2):612-613.
- 46) Horsch AD, Dankbaar JW, Stemerding TA, Bennink E, van Seeters T, Kappelle LJ, Hofmeijer J, de Jong HW, van der Graaf Y, Velthuis BK; DUST investigators. *Imaging Findings Associated with Space-Occupying Edema in Patients with Large Middle Cerebral Artery Infarcts.* *AJNR Am J Neuroradiol* 2016 Jan 21
- 47) Hepatobiliary scintigraphy may improve radioembolization treatment planning in HCC patients. Braat MN, de Jong HW, Seinstra BA, Scholten MV, van den Bosch MA, Lam MG. *EJNMMI Res.* 2017 Dec;7(1):2.
- 48) Multimodality calibration for simultaneous fluoroscopic and nuclear imaging. Beijst C, Elschot M, van der Velden S, de Jong HW. *EJNMMI Phys.* 2016 Dec;3(1):20.
- 49) Simultaneous fluoroscopic and nuclear imaging: impact of collimator choice on nuclear image quality. van der Velden S, Beijst C, Viergever MA, de Jong HW. *Med Phys.* 2016 Nov 21.
- 50) Impact of reconstruction parameters on quantitative I-131 SPECT. van Gils CA, Beijst C, van Rooij R, de Jong HW. *Phys Med Biol.* 2016 Jul 21;61(14):5166-82.
- 51) Insights into the Dose-Response Relationship of Radioembolization with Resin 90Y-Microspheres: A Prospective Cohort Study in Patients with Colorectal Cancer Liver Metastases. van den Hoven AF, Rosenbaum CE, Elias SG, de Jong HW, Koopman M, Verkooijen HM, Alavi A, van den Bosch MA, Lam MG. *J Nucl Med.* 2016 Jul;57(7):1014-9.
- 52) Imaging Findings Associated with Space-Occupying Edema in Patients with Large Middle Cerebral Artery Infarcts. Horsch AD, Dankbaar JW, Stemerding TA, Bennink E, van Seeters T, Kappelle LJ, Hofmeijer J, de Jong HW, van der Graaf Y, Velthuis BK; DUST investigators. *AJNR Am J Neuroradiol.* 2016 May;37(5):831-7.
- 53) Fast nonlinear regression method for CT brain perfusion analysis. Bennink E, Oosterbroek J, Kudo K, Viergever MA, Velthuis BK, de Jong HW. *J Med Imaging (Bellingham).* 2016 Apr;3(2)
- 54) Beijst C, Kist JW, Elschot M, Viergever MA, Hoekstra OS, de Keizer B, de Jong HW. *Quantitative Comparison of 124I PET/CT and 131I SPECT/CT Detectability.* *J Nucl Med.* 2016 Jan;57(1)
- 55) Beijst C, Elschot M, Viergever MA, de Jong HW. *Toward Simultaneous Real-Time Fluoroscopic and Nuclear Imaging in the Intervention Room.* *Radiology.* 2016 Jan;278(1):232-8.
- 56) Vos PC, Riordan AJ, Smit EJ, de Jong HW, van der Zwan A, Velthuis BK, Viergever MA, Dankbaar JW. *Computed tomography perfusion evaluation after extracranial-intracranial bypass surgery.* *Clin Neurol Neurosurg.* 2015 Sep;136:139-46
- 57) Arsenali B, de Jong HW, Viergever MA, Dickerscheid DB, Beijst C, Gilhuijs KG. *Dual-head gamma camera system for intraoperative localization of radioactive seeds.* *Phys Med Biol.* 2015 Oct 7;60(19):7655-70.
- 58) Bennink E, Horsch AD, Dankbaar JW, Velthuis BK, Viergever MA, de Jong HW. *CT perfusion analysis by nonlinear regression for predicting hemorrhagic transformation in ischemic stroke.* *Med Phys.* 2015 Aug;42(8):4610-8.
- 59) Braat AJ, Smits ML, Braat MN, van den Hoven AF, Prince JF, de Jong HW, van den Bosch MA, Lam MG. ⁹⁰Y Hepatic Radioembolization: An Update on Current Practice and Recent Developments. *J Nucl Med.* 2015 Jul;56(7):1079-87.

- 60) Prince JF, van Rooij R, Bol GH, de Jong HW, van den Bosch MA, Lam MG. Safety of a Scout Dose Preceding Hepatic Radioembolization with ¹⁶⁶Ho Microspheres. *J Nucl Med*. 2015 Jun;56(6):817-23.
- 61) Oosterbroek J, Bennink E, Philippens ME, Raaijmakers CP, Viergever MA, de Jong HW. Comparison of DCE-CT models for quantitative evaluation of K(trans) in larynx tumors. *Phys Med Biol*. 2015 May 7;60(9):3759-73.
- 62) Smits ML, Elschot M, Sze DY, Kao YH, Nijsen JF, Iagaru AH, de Jong HW, van den Bosch MA, Lam MG. Radioembolization dosimetry: the road ahead. *Cardiovasc Intervent Radiol*. 2015 Apr;38(2):261-9.
- 63) Beijst C, Elschot M, Viergever MA, de Jong HW. A parallel-cone collimator for high-energy SPECT. *J Nucl Med*. 2015 Mar;56(3):476-82
- 64) Bennink E, Oosterbroek J, Horsch AD, Dankbaar JW, Velthuis BK, Viergever MA, de Jong HW. Influence of Thin Slice Reconstruction on CT Brain Perfusion Analysis. *PLoS One*. 2015 Sep 11;10(9)
- 65) Prince JF, van den Hoven AF, van den Bosch MA, Elschot M, de Jong HW, Lam MG. Radiation-induced cholecystitis after hepatic radioembolization: do we need to take precautionary measures? *J Vasc Interv Radiol*. 2014 Nov;25(11):1717-23
- 66) Elschot M, Nijsen JF, Lam MG, Smits ML, Prince JF, Viergever MA, van den Bosch MA, Zonnenberg BA, de Jong HW, Tc-99m-MAA Overestimates the Absorbed Dose to the Lungs in Radioembolization: A Quantitative Evaluation in Patients Treated with Ho-166-microspheres, *Eur. J. Nucl. Med* 2014 Oct;41(10):1965-75
- 67) Comparison of partial volume effects in arterial and venous contrast curves in CT brain perfusion imaging, Riordan AJ, Benink E, Dankbaar JW, Viergever MA, Velthuis BK, Smit EJ, de Jong HW, *Plos One*, 2015 Sep 11;10(9)
- 68) Niesten JM, van der Schaaf IC, Riordan AJ, de Jong HW, Horsch AD, Eijspaart D, Smit EJ, Mali WP, Velthuis BK, Radiation dose reduction in cerebral CT perfusion imaging using iterative reconstruction, *Eur Radiol*. 2014 Feb;24(2):484-93
- 69) Fahmi F, Riordan A, Beenen LF, Streekstra GJ, Janssen NY, de Jong HW, Majoie CB, van Bavel E, Marquering HA, The effect of head movement on CT perfusion summary maps: simulations with CT hybrid phantom data, *Med Biol Eng Comput*. 2014 Feb;52(2):141-7
- 70) Head movement during CT brain perfusion acquisition of patients with suspected acute ischemic stroke, Fahmi F, Beenen LF, Streekstra GJ, Janssen NY, de Jong HW, Riordan A, Roos YB, Majoie CB, Vanbavel E, Marquering HA, *Eur J Radiol*. 2013 Dec;82(12):2334-41
- 71) Smits ML, Elschot M, van den Bosch MA, van de Maat GH, van het Schip AD, Zonnenberg BA, Seevinck PR, Verkooijen HM, Bakker CJ, de Jong HW, Lam MG, Nijsen JF. In vivo dosimetry based on SPECT and MR imaging of ¹⁶⁶Ho-microspheres for treatment of liver malignancies, *J Nucl Med*. 2013 Dec;54(12):2093-100.
- 72) Bennink E, Riordan AJ, Horsch AD, Dankbaar JW, Velthuis BK, de Jong HW, A fast nonlinear regression method for estimating permeability in CT perfusion imaging, *J Cereb Blood Flow Metab*. 2013 Nov;33(11):1743-51.
- 73) Elschot M, Smits ML, Nijsen JF, Lam MG, Zonnenberg BA, van den Bosch MA, Viergever MA, de Jong HW, Quantitative Monte Carlo-based holmium-166 SPECT reconstruction, *Med Phys*. 2013 Nov;40(11):112502.
- 74) Elschot M, Lam MG, van den Bosch MA, Viergever MA, de Jong HW, Quantitative Monte Carlo-based ⁹⁰Y SPECT reconstruction, *J Nucl Med*. 2013 Sep;54(9):1557-63.
- 75) Wondergem M, Smits ML, Elschot M, de Jong HW, Verkooijen HM, van den Bosch MA, Nijsen JF, Lam MG, ^{99m}Tc-macroaggregated albumin poorly predicts the intrahepatic distribution of ⁹⁰Y resin microspheres in hepatic radioembolization, *J Nucl Med*. 2013 Aug;54(8):1294-301
- 76) Riordan AJ, Bennink E, Viergever MA, Velthuis BK, Dankbaar JW, de Jong HW, CT brain perfusion protocol to eliminate the need for selecting a venous output function, *AJNR Am J Neuroradiol*. 2013 Jul;34(7):1353-8.
- 77) Optimisation of vascular input and output functions in CT-perfusion imaging using 256(or more)-slice multidetector CT, Niesten JM, van der Schaaf IC, Riordan AJ, de Jong HW, Mali WP, Velthuis BK, *Eur Radiol*. 2013 May;23(5):1242-9
- 78) Elschot M, Vermolen BJ, Lam MG, de Keizer B, van den Bosch MA, de Jong HW, Quantitative comparison of PET and Bremsstrahlung SPECT for imaging the in vivo yttrium-90 microsphere distribution after liver radioembolization, *PLoS One*. 2013;8(2)
- 79) Bult W, Kroeze SG, Elschot M, Seevinck PR, Beekman FJ, de Jong HW, Uges DR, Kosterink JG, Luijten PR, Hennink WE, van het Schip AD, Bosch JL, Nijsen JF, Jans JJ, Intratumoral administration of holmium-166 acetylacetonate microspheres: antitumor efficacy and feasibility of multimodality imaging in renal cancer, *PLoS One*. 2013;8(1)
- 80) van der Spoel TI, Vrijsen KR, Koudstaal S, Sluijter JP, Nijsen JF, de Jong HW, Hoefler IE, Cramer MJ, Doevendans PA, van Belle E, Chamuleau SA, Transendocardial cell injection is not superior to intracoronary infusion in a porcine model of ischaemic cardiomyopathy: a study on delivery efficiency, *J Cell Mol Med*. 2012 Nov;16(11):2768-76

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