

# Marion Smits .

CURRICULUM VITÆ  
JANUARY 2024

Marion is an internationally active Neuroradiologist who combines clinical work with scientific research into applied physiological MR neuroimaging, such as functional MRI, diffusion and perfusion imaging. She uses these techniques to visualise the brain's function and microarchitecture, and to study pathophysiological and regenerative processes in a variety of neurological diseases. Her main focus is on neuro-oncology.

Marion combines her clinical expertise with scientific research and active participation in key international organisations, including the European Society of Radiology (ESR), the European Society of Neuroradiology (ESNR), the European Society for Magnetic Resonance in Medicine and Biology (ESMRMB), the International Society for Magnetic Resonance in Medicine (ISMRM), and the European Organisation for Research and Treatment of Cancer (EORTC). She uses this unique combination of affiliations to establish productive connections between relevant clinical research questions and to implement scientific innovation in clinical practice, while disseminating knowledge and expertise through her numerous national and international teaching activities.

## CURRENT RESPONSIBILITIES AND AFFILIATIONS

Professor of Applied Physiological Neuroimaging  
Chief of Neuroradiology

Consultant Neuro- and Head&Neck Radiologist

Erasmus MC – University Medical Centre Rotterdam, Rotterdam/NL

Professor of Neuroradiology

Faculty of Applied Sciences, Delft University of Technology, Delft /NL

Medical Delta Professor, Scientific Programme Lead

Medical Delta, Delft /NL

Chair, Member of Executive Council

European Society of Radiology (ESR) Research Committee

(Past) Chair

- EORTC Imaging Group (Past Chair)
- EORTC Brain Tumour Group Imaging Committee (Chair)

Chair, Board Member

Radiological Society of the Netherlands Research Committee

Course director

Joint ESNR-ESMRMB course on advanced neuroimaging techniques

Active member [upon invitation]

- Medical Delta Scientific Board
- Dutch Brain Tumour Registry scientific board
- Dutch Guideline Committees on quality of neuro-oncological care, brain metastasis, and glioma
- Dutch Cancer Society KWF, scientific assessment committee
- ISMRM Standards working group
- Quantitative Imaging Biomarker Alliance (QIBA) working group on ASL

- Vici €1.5M personal grant
- ESR Executive Council member
- Board member of the Radiological Society of the Netherlands
- 2022 Senior Fellow of ISMRM
- 2022 Fellow of ESMRMB
- 2021 AuntMinnie Europe Most Influential Radiology Researcher Award
- 2020 Honorary Member of the American Society of Neuroradiology
- President of the Dutch Society of Neuroradiology (2018-2021)
- President of ESMRMB (2020)
- Visiting Professor at Memorial Sloan Kettering Cancer Center (2018) and Johns Hopkins Medical Institution (2015)
- Young Health Council ('JongGR')
- PhD *cum laude* (2008)
- Lourens Penning Prize (2007)
- Marie Curie Fellowship (2003)

165

invited lectures

205

journal publications

12.3

average impact factor

55

H-index (Web of Science)

€7.6 million

current funding



[nl.linkedin.com/in/marionsmits](https://nl.linkedin.com/in/marionsmits)

[marion.smits@erasmusmc.nl](mailto:marion.smits@erasmusmc.nl)

nationality: Dutch

medical license/NL: 79048428201

## CURRICULUM VITÆ

I am ideally positioned to perform my clinically oriented research and disseminate my knowledge and expertise, due to my combined clinical and scientific appointment in the largest academic hospital in the Netherlands and my extensive national and international network.

My work consist of four inter-related and equally important pillars:

1. Clinical patient care .....page 3
2. Research .....page 4
3. Teaching .....page 10
4. Promoting neuroimaging innovations through public engagement and leadership .....page 11

Appendices:

Publications .....page 15

Presentations .....page 38

## WORKING HISTORY

### Medical Delta Professor

2022-present Medical Delta

Chair: Prof. Dr. F.W. Janssen

### Hon. Full Professor of Neuroradiology

2022-present Delft University of Technology, Delft/NL

Dean: Prof. Dr. Ir. P. Herder

### Full Professor of Applied Physiological Neuroimaging

2018-present Erasmus MC, Rotterdam/NL

Head of department: Prof. dr. A. van der Lugt

### Honorary Consultant and Reader

2014-2021 University College Hospital London/UK

Head of department: Prof. dr. X. Golay

### Consultant Neuroradiologist

2009-present Erasmus MC, Rotterdam/NL

Head of department: Prof. Dr. A. van der Lugt

### Associate Professor

2012-2018 Erasmus MC, Rotterdam/NL

Head of department: Prof. dr. G.P. Krestin

### Assistant Professor

2011-2012 Erasmus MC, Rotterdam/NL

Head of department: Prof. dr. G.P. Krestin

### Neuroradiology clinical fellow

2007-2009 Erasmus MC, Rotterdam/NL

Head of department: Prof. dr. G.P. Krestin

### Marie Curie European research fellow

2003-2004 Department of Radiology, University

Hospitals K.U.Leuven/BE

Principal investigators: Prof. dr. S. Sunaert, Prof. dr. P. van Hecke

PhD research: Imaging in minor head injury

2002-2008 Erasmus MC, Rotterdam/NL

Principal investigator: Prof. dr. M.G.M. Hunink

### Resident in Radiology

2000-2008 Erasmus MC, Rotterdam/NL

Head of department: Prof. dr. G.P. Krestin

### Resident in Neurology

1999-2000 St. Lucas/Andreas Hospital, Amsterdam/NL

Head of department: Dr. J. Vanneste

### Junior/senior house officer in General Medicine/UK

1999 The North Hampshire Hospital, Basingstoke

1999 Finchley Memorial Hospital, London

1998-1999 Walsall Manor Hospital NHS Trust, Walsall

## EDUCATIONAL HISTORY

### Neuroradiology subspecialisation

1 April 2009 Radiological Society of the Netherlands

### Doctor of Philosophy *cum laude*

25 June 2008 Erasmus University Rotterdam/NL

PhD supervisor: Prof. dr. M.G.M. Hunink

### Full specialist qualification in Radiology

1 April 2008 Erasmus MC, Rotterdam/NL

### Radiology certificate

13 February 2003 Radiological Society of the Netherlands

### Radiation Protection for Radiologists (level 3M)

4 October 2001 IRS Leiden/NL

Doctor of Medicine *with distinction*  
2 February 1998 Maastricht University/NL

#### Arts and Sciences

1994-1995 Maastricht University/NL

Environmental philosophy, History and philosophy of natural sciences, History of sociology, 20th Century philosophy of consciousness, Literature interpretation according to Freud and Jung, Medical ethics

#### *electives*

##### (Neuro)radiology

1997 University Hospital Maastricht/NL

##### International electives in Cardiology and Child Psychiatry

1993 McMaster University, Hamilton, Ontario (CA)

#### *selected completed courses*

Good clinical practice (GCP): Basic course on research organisation and regulation for clinical researchers (BROK)

2023, 2020, 2015, 2011 Erasmus MC, Rotterdam/NL

##### ESR Leadership Institute workshop

2013 Management in Radiology, Barcelona/ES

##### Erasmus MC Leadership Programme

2013 Erasmus MC, Rotterdam/NL

##### Basic teaching qualification (BKO)

2013 Individual supervision, Rotterdam/NL

2011 Teach the teacher module III, Rotterdam/NL

##### PhD student management

2011 Hakuna Matata, Rotterdam/NL

##### Female Career Development Programme

2009-2010 Erasmus MC, Rotterdam/NL

##### European Course cycle on Neuroradiology (ECNR)

2008-2009 Rome/IT, Tarragona/ES, Basel (CH)

##### Erasmus Courses CNSI, CNSII, Head & Neck

2002, 2007, 2010 Brussels/BE, London, Bruges/BE

##### MSc Module Memory and Attention

2005 Helmholtz Institute, Utrecht/NL

##### Epidemiology Summer Programme

2003, 2004, 2005 NIHES, Rotterdam/NL

##### Radiologic Pathology

2003 Armed Forces Institute of Pathology, Washington DC/US

##### Basic and Advanced Applied MR Techniques

2001, 2002 School of MRI, Paris/FR, Madrid/ES

## CLINICAL PATIENT CARE

I am chief of Neuroradiology and my clinical work encompasses the full spectrum of diagnostic Neuroradiology and Head & Neck Radiology. I use my specific expertise in neuro-oncology and neurodegenerative disease, at respectively the Erasmus MC Brain Tumour Centre and the Alzheimer Centre Southwest Netherlands. Nationally, I am a leading expert in the clinical application of functional MRI and DTI for brain tumour surgery.

Beyond patient care, I work on developing guidelines and procedures, and quality assurance. I am a strong advocate for several innovations in clinical Radiology, such as structured reporting, protocol harmonisation, artificial intelligence (AI), and integrated diagnostics.

Together with my counterparts in other disciplines, I have achieved the following:

- several templates such as for the reporting of brain tumour follow-up and diagnosis of dementia are now in place;
- together with the Alzheimer Centre we are harmonising dementia imaging protocols within the Rotterdam region and implemented AI for volumetric brain assessment;
- within the Brain Tumour Centre we are integrating imaging, histopathology and molecular biology in the final diagnosis and implement AI for tumour volumetric assessment.

The logistics for these innovations are challenging but an important aim to keep working towards.

## RESEARCH LINE & RESEARCH GROUP

**Applied physiological neuroimaging** is my research line, which aims to provide imaging markers of brain physiology and disease that are directly clinically applicable. My research is now primarily focused on neuro-oncology, while I previously also studied neurodegenerative disease, recovery after stroke and traumatic head injury. I closely collaborate with scientists at the Delft University of Technology (TU Delft) where I have an honorary appointment as Professor of Neuroradiology at the Faculty of Applied Sciences, with the aim to advance technological innovations in healthcare.

The clinical application and implementation of physiological neuroimaging techniques, commonly only used in the research arena, are an essential aspect of my research. As Medical Delta Professor I co-lead the scientific programme Cancer Diagnostics 3.0, together with dr. J. Kalkman (Imaging Physics, TU Delft) and prof. dr. M. van Osch (MRI Physics, Leiden University Medical Centre). I pursue my research goals through the continuous interplay between technical innovation of imaging techniques and clinical practice. My combined clinical (40%) and research (60%) appointment makes this possible.

Since obtaining my PhD in 2008 I supervised 8 PhD theses to completion. My current research group consists of 14 PhD students, 2 assistant professors, 1 post-doctoral researcher, and a variable number of MSc students. I work closely with the MRI physics group (PI: prof. dr. J. Hernandez Tamames) and Biomedical Imaging Group Rotterdam (BIGR, PI: assoc.prof. dr. S. Klein). I conduct this research in close collaboration with clinically oriented researchers, both nationally and internationally, including Neurologists, Neuro Oncologists, Radiation Oncologists, Neurosurgeons, Rehabilitation Physicians, (Neuro)Psychologists, and Neurolinguists.

I had an honorary appointment at UCL NHS Foundations Trust in London/UK, where I did a 6 months' research sabbatical in 2014, and continue to collaborate with the MR physics group (PI: prof. dr. X. Golay) and Neuroradiologists (head of dept: prof. T. Yousry).

## SUPERVISION ACTIVITIES & ACHIEVEMENTS

### *PhD student supervision (as 'promotor')*

G. Rojas

2023 *Trustworthy AI for MRI: glioma.*

K. Van der Werff

2023 *Vascular signature mapping.*

J. van Leeuwen

2023 *Virtual biopsy of glioma: radiomics.*

B. Dille

2023 *Virtual biopsy of glioma: pathomics.*

L. Kemper

2023 *CEST harmonisation.*

P. Tang

2022 *Hitting the mark: Introducing artificial intelligence and state-of-the-art MRI techniques for precision radiotherapy of glioblastoma.*

A. Alafandi

2021 *High-resolution brain tumour vascular signature mapping with mutually informed MRI and intra-operative microDoppler ultrasound.*

C. Tseng

2020 *Imaging neurotoxicity after proton therapy.*

S. Derks

2020 *Imaging in brain metastasis.*

I.J. Pruis

2019 *Added value of PET imaging for CNS tumours.*

W. Teunissen

2019 *Perfusion MRI for brain tumour surveillance.*

**PhD obtained** on 21 November 2023 at Erasmus University Rotterdam, Rotterdam/NL, now Radiologist in training.

F. Arzanforoosh

2018 *Advanced perfusion and oxygenation imaging.*

Y. Wu

2018 *CEST and proteomics in low grade glioma.*

K. van Garderen

2018 *Signs of progression. MR image analysis for the management of adult low-grade glioma.*

S.R. van der Voort

2016 *Eye to AI: MR image analysis of glioma using machine learning.*

PhD obtained *cum laude* on 26 October 2021 at Erasmus University Rotterdam, Rotterdam/NL, now assistant professor.

F. Incekara

2016 *Imaging and resection of glioblastoma in light of molecular markers.*

PhD obtained on 10 March 2021 at Erasmus University Rotterdam, Rotterdam/NL, now Psychiatry resident and post-doctoral researcher.

R. Gahrman

2014 *MRI based response assessment and diagnostics in glioma.*

PhD obtained on 2 April 2019 at Erasmus University Rotterdam, Rotterdam/NL, now Neuroradiologist and post-doctoral researcher.

*PhD student supervision (as 'co-promotor')*

R. Meijboom

2012 *Imaging of brain connectivity in dementia: clinical implications for diagnosis of its underlying diseases.*

PhD obtained on 31 January 2017 at Erasmus University Rotterdam, Rotterdam/NL, now post-doctoral researcher at Centre for Clinical Brain Sciences, University of Edinburgh, Edinburgh/UK.

E.E. Bron

2011 *Advanced MRI analysis for computer-aided diagnosis of dementia.* PhD obtained on 9 March 2016 at Erasmus University Rotterdam, now assistant professor at Erasmus MC, Rotterdam/NL.

R.M.E. Steketee

2009 *Advanced MR neuroimaging in early stage presenile dementia.* PhD obtained on 5 February 2016 at Erasmus University Rotterdam, now clinical informatician.

C.P. Méndez Orellana

2009 *Functional MRI of language processing and recovery.* PhD obtained on 30 June 2015 at Erasmus University Rotterdam, now assistant professor at Pontificia Universidad Católica de Chile, Santiago de Chile/CL.

J. Papma

2008 *Vascular versus non-vascular MCI: the FIND study.* PhD obtained on 7 December 2012 at Erasmus University Rotterdam, now associate professor and research coordinator at Alzheimer Centre Southwest Netherlands, Rotterdam/NL.

*Other supervision & mentoring*

E. Mesman, postdoctoral researcher

2021-2022 *mentoring for female career development programme at Erasmus MC.*

M. Offerman, associate professor

2021-2022 *mentoring for female career development programme at Erasmus MC.*

M. Perlinska, European School of Radiology fellow

2021-2022 *Clinical neuroradiology.*

L.F. Fiorentini, European School of Radiology scholar

2021 *Clinical neuroradiology.*

T. Nunes, Neuroradiologist in Lisbon/PT

2021-present *mentoring development of research activities.*

Z.S. Erdal, visiting research from Ankara/TR

2021 *functional MRI.*

S.E.M. Veldhuijzen van Zanten, assistant professor

2019-present *Theranostic PET imaging for the management of CNS tumours.*

M. Zhao, postdoctoral researcher at Stanford University/US

2020-2022 *research mentoring through ESMRMB.*

E. Warnert, assistant professor

2017-present *Bench-to-bedside imaging biomarkers.*

J. Jaspers, Radiation Oncology PhD candidate

2019-present *Proton therapy in glioma.*

A. Pons, visiting PhD student Barcelona/ES

2023 *differentiation of IDH-mut and IDH-wt glioma.*

S. Salih, MSc student clinical research

2023-2024 *non-contrast follow-up of meningioma.*

M. Rosbergen, MSc student

2021 *AI for advanced MRI in glioma.*

A. de Leeuw, MSc student

2020 *Perfusion MRI for neuro-oncology.*

A. Alafandi, clinical researcher

2020 *Neuro-oncological imaging.*

A. Lavrova, ESR Bracco fellow

2020 *ASL neuro-oncological imaging.*

J. Zhao, European School of Radiology Bracco fellow

2019 *Neuro-oncological imaging.*

C. Ganazzoli, European School of Radiology fellow

2018-2019 *Neuro-oncological imaging.*

E.E. Bron, assistant professor

2016-2018 *Image analysis techniques for neurodegenerative disease.*

R.M.E. Steketee, post-doctoral researcher

2016-2018 *Advanced imaging in dementia.*

I. Boukrab, clinical researcher

2018 *Neuro-oncological imaging.*

G. Kapsas, European School of Radiology fellow  
2017-2018 *DWI for neuro-oncology.*

M. van Riel, MSc student  
2018 *Multivariate prediction of overall survival in low grade glioma.*

W. van der Loo, MSc student  
2018 *Clustering algorithms for parametric mapping of brain tumour physiology.*

S. Koene, MSc student  
2018 *Perfusion and diffusion radiogenomics of presumed low grade glioma.*

M.M.M.E. Habeeb, MSc student  
2017 *Arterial spin labelling MRI in diagnosis of dementia: longitudinal imaging, clinical implementation, and MR sequence evaluation.*

E. Carey, MSc student  
2017 *Language function assessment and white matter tract invasion in presumed pre-operative low-grade glioma patients.*

L. Ham, MSc student  
2015 *Resting state functional MRI and diffusion tensor imaging in dementia.*

F. Incekara, MSc student  
2014-2016 *Functional deficits of language tract tumour invasion.*

S. Detiger, MSc student  
2014 *Resting state functional MRI in dementia.*

E. Gravesteijn, MSc student  
2014 *Neurophysiology of hunger and satiety.*

S. Kalloe, MSc student  
2013 *Cerebellar lateralisation of language in left-handers.*

R. Zuur, MSc student  
2013 *Resting state functional MRI in dementia.*

J.C. Kabagema, MSc student  
2012 *Resting state fMRI of brain tumour patients.*

R. Meijboom, MSc student  
2012 *Functional MRI of memory and emotion recognition in dementia.*

A. Weterings, MSc student  
2012 *Functional MRI of language recovery in aphasia.*

I. Boukrab, MSc student  
2012 *Functional MRI of satiety in obese children.*

L. Carati, MSc student  
2012 *Brain tumour response assessment on MRI in the multicentre BELOB study.*

S. Ooms, MSc student  
2011 *Value of arterial spin labelling in dementia.*

R. Gahrman, MSc student  
2011 *MR imaging of the brain in paroxysmal kinesigenic dyskinesia.*

R. Tjiong, MSc student  
2011 *DSC perfusion characteristics of high-grade gliomas.*

A. Bechan, MSc student  
2010-2011 *Brain plasticity in melodic intonation language therapy after aphasic stroke.*

S. Klip, MSc student  
2009 *Processing of speaking versus singing in healthy volunteers.*

D. Bos, MSc student  
2007 *Optimisation of fMRI hypercapnia paradigms at 1.5T and 3.0T.*

C.P. Kralt, MSc student  
2006 *Comparison of fMRI analysis software packages.*

D.A. van Rijssel, MSc student  
2006 *Cost-effectiveness of selective CT in minor head injury: methodology.*

## GRANT ALLOCATION

Vici: €1,499,986  
2023-2028 Virtual biopsy: paving the way towards reality (main applicant: personal grant)

NWO KIC: €1,233,247  
2023-2028 Bringing tractography into daily neurosurgical practice (co-applicant; KICH1.ST03.21.004)

TU Delft/Erasmus MC/EUR Convergence: €19,000  
2022-2023 Deep Medical Imaging Flagship incentive fund (main applicant)

NWO Hestia impulse for refugees in science: €105,000  
2021-2023 The Sound of flow: High-resolution brain tumour vascular signature mapping with mutually informed MRI and intra-operative microDoppler ultrasound. (main applicant)

TU Delft/Erasmus MC Convergence: €330,000  
2019-2021 Quantitative susceptibility MRI: deep insights in cardio- and neuro-vasculature (co-applicant)

EU COST: €400,000  
2019-2023 Glioma MR Imaging 2.0: GLiMR2.0 (co-applicant & workpackage leader; CA18206)

NWO-TTW Open Technology Programme: €863,196  
2020-2025 Vascular Signature Mapping of Brain Tumor Genotypes (main applicant)

ZonMW Leading the Change: €589,733  
2019-2023 The clinical value of perfusion MRI in primary and secondary brain tumour surveillance (main applicant; project number 80-85009-98-2008-NVvR)

Medical Delta: €380,000  
2019-2023 Cancer Diagnostics 3.0: Big data science of *in* & *ex vivo* imaging (main applicant)

HollandPTC-Varian: €298,962  
2018-2022 New methodology for developing biomarkers of radiation-induced toxicity in brain tumour patients based on advanced MR imaging of the microvasculature and white matter microstructure (co-applicant; project number 2018017)

HollandPTC-Varian: €279,924  
2018-2022 Improving toxicity modelling, patient selection and clinical outcome of proton therapy in low grade glioma (co-applicant; project number 2018013)

Brain Tumour Charity: €136,062  
2018-2023 Making the invisible visible: In vivo mapping of molecular biomarkers in adult diffuse glioma with CEST MRI (main applicant; projectnumber GN-000540)

Koningin Wilhemina Fonds: €1,218,641  
2017-2023 Glioma Longitudinal AnalySiS in the Netherlands: GLASS-NL (co-applicant & workpackage leader; projectnumber 11026)

Koningin Wilhemina Fonds: €480,000  
2015-2020 Non-invasive phenotyping of molecular brain tumour profiles using novel advanced MR imaging and analysis (main applicant; projectnumber EMCR 2015-7859)

Johns Hopkins Medical Institution: \$10,000  
2015 Milosh Perovitch visiting professorship (personal grant)

Tour de Rotterdam: €45,000  
2015-2016 Dementia diagnosis: better and faster (main applicant)

Coolsingel Foundation: €35,000  
2012-2014 The VESPA study: multivendor reproducibility of brain perfusion measured with arterial spin labeling MRI (main applicant)

Erasmus MC grant: €150,000  
2011-2015 Brain plasticity of language recovery after aphasic stroke (main applicant)

Erasmus MC grant: €150,000  
2011-2015 Advanced MR Neuroimaging in presenile

dementia: early differentiation between Alzheimer's disease and frontotemporal dementia by multimodal analysis (co-applicant)

Coolsingel Foundation: €45,000  
2010-2011 Automated digital assessment of MR imaging in dementia (main applicant)

EUR Trust Fund: €50,000  
2011-2012 Uncovering synchronous neural processes associated with building and maintaining trust-based economic exchanges using fMRI-based hyperscanning (co-applicant)

EUR Trust Fund: €25,000  
2011 Integrated EEG-fMRI scanning (co-applicant)

EUR Fellowship: €200,000  
2009-2013 Advanced MR Neuroimaging in presenile dementia (main applicant, personal grant)

GE Healthcare Educational Funding: €6,000  
2008 Regional course on radiology-anatomy correlation

Van Walree Fund: €1,250  
2007 Royal Netherlands Academy for Arts and Sciences (main applicant, personal grant)

ZonMW DO (945-06-309): €125,600  
2006-2008 Cost-effectiveness of CT in minor head injury (co-investigator)

Marie Curie European Research Fellowship: €10,800  
2003-2004 functional MRI at the Catholic University Leuven/BE (main applicant, personal grant)

## INTERNATIONAL RESEARCH VISITS

Johns Hopkins Medical Institution - Department of Neuroradiology - Visiting Professor (1 month)  
2015 Baltimore, MD/US

University College London National Hospital for Neurology and Neurosurgery 'Queen Square' - hon. Consultant and Reader (6 months on site, continued appointment)  
2014-present London/UK

K.U.Leuven Department of Radiology - Marie Curie research fellow (9 months)  
2003-2004 Leuven/BE

## HONOURS AND AWARDS

Fellow  
2022 European Society for Magnetic Resonance in Medicine and Biology (ESMRMB)

## Senior fellow

2022 International Society of Magnetic Resonance in Medicine (ISMRM)

## Most Influential Radiology Researcher

2021 Aunt Minnie Europe

## ASNR Honorary Member

2020 American Society of Neuroradiology

## Visiting Professor for the Henry M. Selby, MD, FACR

Young Investigators Lecture

2018 Memorial Sloan Kettering Cancer Center, New York, NY/US

## Knowledge Ambassador City of Rotterdam

2015-present City of Rotterdam/NL

## 'Milosh Perovitch' Visiting Professor 2015

2015 Johns Hopkins Medical Institution, Baltimore, MD/US

## Third Prize European Brain Expert Contest 2008

2008 GE Healthcare, Milwaukee, IL/US

## Lourens Penning Prize 2007

2007 Section of Neuroradiology, Radiological Society of the Netherlands/NL

## Nomination Dutch Radiology Conference Prize

2007 12<sup>th</sup> Dutch Radiology Conference, Rotterdam/NL

## ISMRM Educational Stipend

2007 Joint annual meeting ISMRM-ESMRMB, Berlin/DE

## Organisation for Human Brain Mapping Travel Award

2006 Human Brain Mapping 12<sup>th</sup> annual meeting, Florence/IT

## Nomination Ernst Schering Prize

2004 9<sup>th</sup> Dutch Radiology Conference, Noordwijkerhout/NL

## First prize for oral presentation

1998 10<sup>th</sup> European Conference for Students and Young Doctors, Berlin/DE

## Nomination Ernst Schering Prize

1998 3<sup>rd</sup> Dutch Radiologist Radiology Conference, Veldhoven/NL

## First prize for poster presentation

1998 2<sup>nd</sup> Maastricht Medical Students Research Conference, Maastricht/NL

## MISCELLANEOUS RESEARCH ACTIVITIES

### *PhD review committee*

## R.W. Jansen ('grote commissie')

12 Jan 2024 MR Imaging of retinoblastoma subtypes: Aiding diagnostics, metastatic risk stratification

and molecular subtype identification (VU, Amsterdam/NL).

## H.A. Galema ('kleine commissie')

5 Dec 2023 Illuminating the surgical field. Advances in intraoperative near-infrared fluorescence imaging (EUR, Rotterdam/NL).

## W.C.M. Valk-Schimmel ('kleine commissie')

13 Oct 2023 The impact of radiation on cognitive functioning in patients with brain metastases (Tilburg University, Tilburg/NL).

## M.J.F. Landers ('kleine commissie')

15 Sept 2023 Subcortical brain mapping of executive functions in glioma patients (Tilburg University, Tilburg/NL).

## S. Soloukey Tbalvandany ('grote commissie')

13 Sept 2023 Panta rei - everything flows (EUR, Rotterdam/NL).

## S. Breda ('grote commissie')

27 June 2023 Exercise therapy for patellar tendinopathy evaluated with quantitative imaging (EUR, Rotterdam/NL).

## M.C.E. van der Plas ('grote commissie')

23 Feb 2023 Follow the label. Simultaneous 4D angiography and perfusion imaging by arterial spin labeling MRI (Leiden University, Leiden/NL).

## H.F.E. van der Toom ('grote commissie')

22 Feb 2023 Outcome of cholesteatoma surgery: obliteration versus non-obliteration techniques (EUR, Rotterdam/NL).

## E.M.J. Hartmann ('grote commissie')

25 Jan 2023 Coronary atherosclerosis. Biomechanics & Imaging. (EUR, Rotterdam/NL).

## A.M. Radwan ('kleine commissie')

16 Jan 2023 Can we use resting-state fMRI and CSD fiber tracking for presurgical mapping? (KU Leuven, Leuven/BE).

## C. Zhang ('kleine commissie')

23 Nov 2022 Image reconstruction and motion compensation methods for fast MRI (EUR, Rotterdam/NL).

## N. Samuels ('kleine commissie')

22 Nov 2022 Endovascular treatment for ischemic stroke (EUR, Rotterdam/NL).

## R.M. Martens ('kleine commissie')

23 Sept 2022 Functional MRI and molecular imaging in head and neck cancer (VU, Amsterdam/NL).



J.K.W. Gerritsen ('kleine commissie')

21 June 2022 Awake brain surgery in glioblastoma patients (EUR, Rotterdam/NL).

D. Müller ('grote commissie')

17 June 2022 Improving surgical decision-making in glioblastoma (VU, Amsterdam/NL).

R. Eijgelaar ('grote commissie')

13 April 2022 Development and application of tools for large scale population based evaluation and optimization of localized glioma treatment (UvA, Amsterdam/NL).

L. Núñez González ('grote commissie')

12 April 2022 Fast multi-parametric acquisition methods for quantitative MRI (EUR, Rotterdam/NL).

P.B. Due-Tønnessen ('first opponent')

22 March 2022 Fast Evaluation of functional magnetic resonance imaging in the diagnosis of brain tumors and other brain lesions for assessment of clinical efficacy. (UiO, Oslo/NO).

S. Rigtters ('grote commissie')

14 Dec 2021 Peripheral and Central Aspects of Age-related Hearing Loss (EUR, Rotterdam/NL).

I. Compter ('grote commissie')

13 Oct 2021 Technological innovations in diagnosis and treatment of glioblastoma. (Maastricht University/NL).

I. Bones ('grote commissie')

7 Oct 2021 Technical advances paving the way for non-invasive renal perfusion MRI. (Utrecht University/NL).

V. Venkatraghavan ('kleine commissie')

8 June 2021 The symphony of cacophony. Understanding the order in neurodegenerative diseases. (EUR, Rotterdam/NL).

L. Stipdonk ('kleine commissie')

3 June 2021 Language functions of school-aged children born very preterm and their underlying brain development. (EUR, Rotterdam/NL).

S. Averina ('grote commissie')

22 April 2021 Bilateral neural correlates of treatment-induced changes in chronic aphasia. (Groningen University/NL).

M. Van der Meulen ('kleine commissie')

21 April 2021 Primary Central Nervous System Lymphoma. Diagnostic evaluation, neurocognitive functioning and health-related quality of life. (EUR, Rotterdam/NL).

C. Van den Brand ('kleine commissie')

24 Mar 2021 Traumatic brain injury, epidemiology, risk factors and decision making. (EUR, Rotterdam/NL).

M. Kerkhof ('kleine commissie')

15 Dec 2020 Antiepileptic and antitumor treatment in brain tumor patients: Impact on clinical and radiological outcome. (EUR, Rotterdam/NL).

P. Langenhuizen ('grote commissie')

18 Dec 2020 Outcome predictors for Gamma Knife radiosurgery on vestibular schwannoma. (TU, Eindhoven/NL).

L. Tap ('grote commissie')

11 Nov 2020 Age-related renovascular changes. Consequences in late life. (EUR, Rotterdam/NL).

S.R. van Tiel ('kleine commissie')

16 Oct 2020 Cellular imaging in regenerative medicine, cancer and osteoarthritis. (EUR, Rotterdam/NL).

R.A. Feis ('grote commissie')

14 Oct 2020 Neuroimaging biomarkers in genetic frontotemporal dementia: towards a timely diagnosis. (LUMC, Leiden/NL).

M. Visser ('grote commissie')

25 Sep 2020 Accurate quantification of glioma on MRI. (VU, Amsterdam/NL).

I.M. Groenendijk ('kleine commissie', secretary)

16 Sep 2020 Bladder dysfunction in the context of the bladder-brain connection. (EUR, Rotterdam/NL).

E.M. Delhaas ('grote commissie')

31 May 2020 Intrathecal Baclofen administration in severe spasticity. (EUR, Rotterdam/NL).

N. Verburg ('kleine commissie')

23 Jan 2020 Advanced imaging for glioma therapy. (VU, Amsterdam/NL).

S. Dávid ('grote commissie')

16 Jan 2020 Impact of data processing on diffusion MR image exploration and understanding. (UU, Utrecht/NL).

K. Foks ('kleine commissie', secretary)

18 Dec 2019 Acute Management of Minor Head Injury. (EUR, Rotterdam/NL).

L. Vaclavu ('grote commissie')

20 June 2019 Haemodynamic MRI in Sickle Cell Disease. (UvA, Amsterdam/NL).

M. Wijnenga ('kleine commissie', secretary)

28 May 2019 Prognostication and surgical management of diffuse gliomas in the era of molecular diagnostics. (EUR, Rotterdam/NL).

A. van Oppbroek ('grote commissie')

6 June 2018 Transfer learning for medical image segmentation. (EUR, Rotterdam/NL).

R. Schiller ('grote commissie')

29 May 2018 The vulnerable brain. Neurodevelopment after neonatal critical illness. (EUR, Rotterdam/NL).

X. Zhang ('kleine commissie')

31 January 2019 Expanding the capabilities of Arterial Spin Labeling MRI (Leiden University, Leiden/NL).

C.D. Langen ('kleine commissie' secretary)

18 April 2018 Short circuit: How brain connectivity and disconnectivity relate to brain function (EUR, Rotterdam/NL).

R. Meijboom ('co-promotor')

31 January 2017 Imaging of brain connectivity in dementia: clinical implications for diagnosis of its underlying diseases (EUR, Rotterdam/NL).

L. Blanken ('kleine commissie' secretary)

9 November 2016 The neurobiology of childhood psychiatric symptoms in the general population (EUR, Rotterdam/NL).

E.E. Bron ('co-promotor')

9 March 2016 Advanced MRI analysis for computer-aided diagnosis of dementia (EUR, Rotterdam/NL).

R.M.E. Steketee ('co-promotor')

5 February 2016 Advanced MR neuroimaging in early stage presenile dementia (EUR, Rotterdam/NL).

E.G.P. Dopfer ('kleine commissie')

4 September 2015 Familial frontotemporal lobar degeneration: phenotypical characterization of presymptomatic and clinical disease stages (EUR, Rotterdam/NL).

C.P. Méndez Orellana ('co-promotor')

30 June 2015 Functional MRI of language processing and recovery (EUR, Rotterdam/NL).

V. Verlinden ('grote commissie')

18 March 2015 Epidemiology of gait and daily functioning (EUR, Rotterdam/NL).

J. Papma ('co-promotor')

7 December 2012 Vascular versus non-vascular MCI: the FIND study (EUR, Rotterdam/NL).

M. Luijten ('kleine commissie')

23 November 2012 Neurocognitive insights in nicotine addiction (EUR, Rotterdam/NL).

M. Michielsen ('grote commissie')

18 June 2012 Reflections on mirror therapy after stroke: Mechanisms and effectiveness for improving hand function (EUR, Rotterdam/NL).

### *editorial board*

2021-present Magnetic Resonance Materials in Physics, Biology and Medicine: MAGMA.

### *journal peer review*

JAMA, Annals of Internal Medicine, PLoS One, NeuroImage, NMR in Biomedicine, Neurobiology of Aging, NeuroImage: Clinical, American Journal of Neuroradiology, Radiology, Neuroradiology, Insights into Imaging, Brain Imaging and Behavior, Archives of Physical Medicine and Rehabilitation, British Journal of Surgery, European Radiology, European Journal of Radiology, Journal of Magnetic Resonance Imaging, Psychiatry Research: Neuroimaging, Journal of Healthcare Engineering, Journal of Neuroimaging, Clinical Neuroradiology, Otolaryngology.

### *grant review*

ZonMW Health Care Efficiency Research Programme/NL, ZonMW Veni Programme/NL, The Brain Tumour Charity/UK, Research Foundation Flanders/BE, Swiss National Science Foundation/CH, Wellcome Trust/UK, Medical Research Council/UK, KiKa/NL, Dutch Cancer Society KWF/NL.

## TEACHING

Teaching is a key part of my work to advance neuroimaging by bringing new techniques into clinical practice. As co-chair of the Neuroradiology fellowship programme at Erasmus MC, I apply my passion for training the next generation of radiologists in Neuroradiology in the Netherlands.

I frequently teach for several professional societies in the international Radiology community, at training courses, invited lectures, and conferences. I am permanent faculty member of the two most important European courses in Neuroradiology (ECNR) and MRI techniques (ESMRMB School of MRI). I have furthermore organised numerous European courses for the Neuroradiological and Neuroscientific community.

## TEACHING ACTIVITIES

### *Local & national teaching*

see also page 39.

#### Neuroradiology

2017-present national Neuroradiology subspecialist education ('differentianten'), Society of Radiology of the Netherlands, Utrecht/NL

#### Neuroanatomy and Neuroradiology

2008-present Regional Radiology specialist education ('aios'), Erasmus MC Rotterdam/NL

#### MR neuroimaging: technique and protocols

2011-present Regional Radiology specialist education ('aios'), Erasmus MC Rotterdam/NL

#### Imaging in dementia

2016 Clinical Technology, Erasmus MC Rotterdam/NL

#### Imaging of neurodegenerative disease

2008, 2010, 2011 Geriatrics/Neurology specialist education, Erasmus MC Rotterdam/NL

#### MR neuroimaging

2009, 2010, 2011 Rehabilitation specialist education, Rijnland Rotterdam/NL

#### Introduction to Radiology

2001-2008 Medicine (5<sup>th</sup> year), Erasmus MC Rotterdam/NL

#### Advanced neuroimaging in aphasia

2005, 2007 Postgraduate education for speech therapists, Erasmus MC Rotterdam/NL

#### Epidemiology and medical decision making

2003-2006 Medicine (5<sup>th</sup> year), Erasmus MC Rotterdam/NL

#### Medical decision making practicals

2006 Medicine (4<sup>th</sup> year), Erasmus University Rotterdam/NL

#### Validation of decision rules for the use of CT in minor head injury

2006 NIHES Summer Programme, Rotterdam/NL

#### *International teaching*

see also page 39.

#### Course organiser

2017, 2019 Level III ESNR course on glioma imaging, Milan/IT

#### Permanent faculty member

2011-present European course of Neuroradiology (ECNR)

#### Permanent faculty member/Course director

2009-2018 European School of MRI: fMRI & DTI in clinical practice

2012-2016 as course director

#### *Radiology training & fellowships*

2011-2014 Radiology specialist training programme (residency) selection interviewing board.

#### TEACHING QUALIFICATION

##### Basic teaching qualification ('BKO')

2013 Individual supervision, Rotterdam/NL

2011 Teach the teacher module III, Rotterdam/NL

## PROMOTING NEUROIMAGING INNOVATIONS IN CLINICAL PRACTICE

The dissemination of knowledge and insight gained from my research is the crucial fourth pillar of my work. Clinical implementation of physiological MR neuroimaging proves challenging, and many techniques that have been available for decades remain only available for fundamental research.

I make a dedicated effort to break the boundaries between the research arena and clinical practice and vice versa. I hold key positions in multiple national and international professional and multidisciplinary societies and have an extensive network that I use to promote my research in clinical practice and establish collaborations. These efforts include:

- developing clinical guidelines and recommendations for - advanced - imaging techniques;
- implementing imaging standardisation in multicentre clinical trials;
- publishing book chapters and guest-editing special journal issues;
- raising public awareness of neuroimaging through (social) media and web sites;
- participating in international alliances dedicated to promote imaging techniques;
- presiding and promoting scientific meetings, the latter having resulted in my appointment as Knowledge Ambassador by the city of Rotterdam.

These activities represent many years' work on advancing clinicians' *and* public awareness of a new imaging techniques.

## LEADERSHIP POSITIONS

### Board member

2022-present Radiological Society of the Netherlands (NVvR): chair of the Research Committee and international relations

### Executive Council member

2019-present European Society of Radiology (ESR): chair of Publications Committee (2019-2022), chair of Research Committee (2022-present)

### Chief of Neuroradiology

2019-present Erasmus MC department of Radiology & Nuclear Medicine

### Chair of Neuroradiology Fellowship programme

2018-2023 Erasmus MC department of Radiology & Nuclear Medicine

### Past-Chair

2021-2024 EORTC Imaging Group

### Chair

2018-2021 EORTC Imaging Group

### Chair

2018-2024 EORTC Brain Tumour Group Imaging Committee

### Presidential tract

2017-2021 European Society for Magnetic Resonance in Medicine and Biology (ESMRMB)

### Chair of neuro-oncology working group

2014-2020 ESNR Diagnostic committee

### President

2018-2021 Dutch Society of Neuroradiology

### Representative for the Netherlands

2015-2021 European Society of Neuroradiology

### Representative for the Netherlands

2012-2021 UEMS Division of Neuroradiology

### Congress President

2015-2018 2018 ESNR annual meeting

### General Secretary of the Board

2012-2018 Dutch Society of Neuroradiology

### Board member (Treasurer, Vice-Chair, Chair)

2013-2021 EORTC Imaging Group

### Course director

2012-2016 ESMRMB School of MRI: fMRI & DTI in clinical practice

### ESR-RSNA joint symposium committee

2012-2016 Joint symposium at annual meetings

### Scientific Programme Committee Chair

2013-2015 2015 ESMRMB Annual Meeting

### Executive Board member

2013-2015 ESMRMB

Young Health Council of the Netherlands member  
2011-2013 The Health Council of the Netherlands  
(Jonge Gezondheidsraad), The Hague/NL

Course organiser  
2012 ESMRMB fMRI & DTI hands-on course, Paris/FR

Guest editor  
2012 MemoRad Dutch Radiology Journal special issue:  
fMRI and DTI

Scientific Programme Committee member  
2013-2014 WFNRS Symposium Neuroradiologicum,  
Istanbul/TR 2014.

Scientific Programme Committee member  
2011-2013 ESMRMB annual scientific meeting Lisbon/  
PT, Toulouse/FR

Scientific Programme & Organising Committee  
2011-2013 Dutch Radiology Conference, of which  
chairman in 2012

Initiator and Chair  
2011-2012 Radiology Junior Clinical Researchers  
Group, Erasmus MC

Local course organiser  
2009 ESMRMB fMRI & DTI hands-on course, Rotterdam/  
NL

Editor-in-chief  
2008-2010 Radiology department's journal "De  
Beeldspraak", Erasmus MC

Chair  
2005 MRI user meetings, Erasmus MC

President  
2002-2004 Junior Doctors' Association Erasmus MC

Chair  
2002, 2003 Organisation committee of the Junior  
Doctors' Research Day Erasmus MC

## EXTERNAL CONSULTANCY

2021-present Bracco Gadoplus phase 1 trial  
2021 Consultancy for Bracco AI-project (€30,000)  
2016-present Independent reviewer for Parexel Intl.  
Trial review for EORTC-1410 (±€150,000)  
2015-present Consultancy for Quantib B.V.

## INTERNATIONAL ALLIANCES

2022-present ISMRM Standards working group  
2017-present Quantitative Imaging Biomarker Alliance  
(QIBA) working group on arterial spin labelling

2016-2019, 2022-present European Imaging Biomarker  
Alliance (EIBALL)

2014-present Brain Tumor Imaging Standardization  
Steering Committee in the National (USA) Brain Tumor  
Society

2015-2020 ISMRM MRI Value Initiative

2013-2016 European COST action for arterial spin  
labelling in dementia (BM1103)

## GUIDELINE & POLICY DEVELOPMENT

2013, 2019-present Dutch glioma guidelines

2017-present Dutch brain metastases guidelines

2015-present Dutch national registry for brain tumours

2012-present Quality criteria for neuro-oncological care  
in the Netherlands

2008 MR imaging protocol for EORTC brain tumour  
trials

## BOOK CHAPTERS

see page 16.

## GUIDELINES & RECOMMENDATIONS

Weller M, Van den Bent M, Preusser M, Le Rhun E, Tonn  
JC, Minniti G, Bendszus M, Balana C, Chinot O, Dirven  
L, French P, Hegi ME, Jakola AS, Platten M, Roth P, Rudà  
R, Short S, **Smits M**, Taphoorn MJB, Von Deimling A,  
Westphal M, Soffietti R, Reifenberger G, Wick W, for  
the EANO Task Force on Diffuse Gliomas. *European  
Association of Neuro-Oncology (EANO) guideline on the  
diagnosis and treatment of diffuse gliomas of  
adulthood*. Nat Rev Clin Oncol 2021;18:170-186.

Le Rhun E, Guckenberger M, **Smits M**, Dummer R,  
Bachelot T, Sahm F, Galldiks N, De Azambuja A,  
Berghoff AS, Metellus P, Peters S, Hong Y-K, Winkler F,  
Schadendorf D, Van den Bent M, Seoane J, Stahel R,  
Minniti G, Wesseling P, Weller M, Preusser M. *EANO-  
ESMO clinical practice guidelines for diagnosis and  
follow-up of patients with brain metastasis from solid  
tumours*. Ann Oncol 2021;32:1332-47.

Gijtenbeek JMM, Dewit LGH, Van Elst KJA, Enting RH,  
Gathier CS, De Graeff A, Heessels-Smetsers J, Hendriks  
LEL, Jacobs-van Leur JJMG, Lagerwaard FJ, Nandoe  
Tewarie RDS, **Smits M**, De Vos FYFL, Zindler JD,  
Buddeke J. *Revision of the guideline Brain metastases;  
the need for multidisciplinary management [published  
in Dutch: Revisie richtlijn Hersenmetastasen; waarom*

*multidisciplinair overleg noodzakelijk is.] Nederlands Tijdschrift voor Oncologie (NTvO) 2020;17:193-5.*

Boxerman JL, Quarles CC, Hu LS, Erickson BJ, Gerstner E, **Smits M**, Kaufmann TJ, Barboriak D, Huang RH, Wick W, Weller M, Galanis E, Kalpathy-Cramer J, Shankar L, Jacobs P, Chung C, Van den Bent MJ, Chang S, Al Yung WK, Cloughesy TF, Wen PY, Gilbert MR, Rosen BR, Ellingson BM, Schmainda KM. *Consensus Recommendations for a Dynamic Susceptibility Contrast MRI Protocol for Use in High-Grade Gliomas*. *Neuro Oncol* 2020;22:757-772.

Kaufmann TJ, **Smits M**, Boxerman J, Huang R, Barboriak DP, Weller M, Chung C, Tsien C, Brown OD, Shankar L, Galanis E, Gerstner E, Van den Bent MJ, Burns TC, Pamey IF, Dunn G, Brastianos PK, Lin NU, Wen PY, Ellingson BM. *Consensus recommendations for a standardized brain tumor imaging protocol for clinical trials in brain metastases (BTIP-BM)*. *Neuro Oncol* 2020;22:757-772.

Thust SC, Heiland S, Falini A, Jäger HR, Waldman AD, Sundgren PC, Godi C, Katsaros VK, Ramos A, Bargalló N, Vernooij MW, Yousry T, Bendszus M, **Smits M**. *Glioma imaging in Europe: A survey of 220 centres and recommendations for best clinical practice*. *Eur Radiol* 2018;28:3306-3317.

Grade M, Hernandez Tamames JA, Pizzini FB, Achten E, Golay X, **Smits M**. *A Neuroradiologist's guide to Arterial Spin Labeling MRI in clinical practice*. *Neuroradiology* 2015;57:1181-202.

Ellingson BM, Bendszus M, Boxerman JL, Barboriak D, Erickson BJ, **Smits M**, Nelson SJ, Gerstner E, Alexander B, Goldmacher G, Wick W, Vogelbaum M, Weller M, Galanis E, Kalpathy-Cramer J, Shankar L, Jacobs P, Pope WB, Yang D, Chung C, Knopp MV, Cha S, van den Bent MJ, Chang S, Yung WKA, Cloughesy TF, Wen PY, Gilbert MR. *Consensus recommendations for a standardized brain tumor imaging protocol (BTIP) in clinical trials*. *Neuro Oncol* 2015;17:1188-98.

Alsop DC\*, Detre JA\*, Golay X\*, Günther M\*, Hendrikse J\*, Hernandez-Garcia L\*, Hanzhang L\*, Macintosh BL\*, Parkes LM\*, **Smits M**\*, Van Osch MJP\*, Wang DJJ\*, Wong EC\*, Zaharchuk G\*. *Recommended Implementation of Arterial Spin Labeled Perfusion MRI for Clinical Applications: A consensus of the ISMRM Perfusion Study Group and the European Consortium for ASL in Dementia*. *Magn Reson Med* 2015;73:102-16.

\*authors listed in alphabetical order.

## PUBLIC UNDERSTANDING OF RADIOLOGY

### More possible with MRI

15 March 2023 Interview with DOQ: <https://www.doq.nl/meer-mogelijk-met-mri/>

### Federated Learning impacts medical research

16 Feb 2023 Interview with ICT&Health: <https://icthealth.nl/online-magazine/editie-01-2023/federated-learning-heeft-enorme-impact-op-medisch-wetenschappelijk-onderzoek/>

### Non-invasive brain cancer diagnostics with MRI

15 Dec 2022 Medical Delta interview and movie: <https://www.medicaldelta.nl/nieuws/portret-en-video-marion-smits-ik-vind-het-belangrijk-dat-onderzoek-en-innovaties-ook-landen-in-de-praktijk>

### Federated Learning

15 Dec 2022 Interview with Dutch Health Hub (~40k followers): <https://www.dutchhealthhub.nl/artikel/gefedereerd-leren/>

### AI for Neuroradiology

10 Feb 2022 AuntMinnie webinar: <https://www.auntminnie.com/index.aspx?sec=vendor&sub=webinars&pag=dis&itemID=135136>

### 'Hart van Rotterdam': AI for brain tumour diagnosis

26 Oct 2021 Rijnmond TV episode 21004: <https://www.rijnmond.nl/tv/programma/261/Het-Hart-van-Rotterdam/aflevering/32513>

### MRI of brain tumours: challenges and opportunities

11 Sept 2021 Patient meeting of the brain tumour section of patient organisation 'Hersenletsel' ('Brain injury'), Maarn/NL.

### Advanced Neuroimaging in clinical practice

24 Oct 2019 GE Live TV: <https://www.youtube.com/watch?v=7dG5EdTmusE&feature=youtu.be>

### Radiology of brain tumours

17 March 2018 Public patient meeting on brain tumours, Bunnik/NL

### Imaging of brain tumours

2 December 2017 KWF charity event, Stolwijk/NL

### Imaging of brain tumours

25 January 2015 Public patient meeting on brain tumours, Maarssen/NL

### Web site explaining brain tumour imaging

2013-present [www.hersentumor.nl](http://www.hersentumor.nl)

### Advanced MRI of dementia

10 June 2013 National television: [Over leven met... dementie] 'On living with... dementia' (NTR)

**RSNA on the Air: fMRI in brain tumour patients**

2 December 2009 Radio interview broadcast by “Rural Health Today”/US with audience of ~983k

**Functional MRI for the assessment of marketing skills of sales people**

12 November 2006 National television: Business Class (RTL7)

**Basics of MRI as part of the exhibition “Pain and Pleasure”**

2005-2006 Museum of Natural History, Rotterdam/NL

## MEMBERSHIP OF PROFESSIONAL SOCIETIES

2020-present European Association of Neuro-Oncology (EANO)

2012-present International Society for Magnetic Resonance in Medicine (ISMRM)

2012-present Head and Neck Radiology section of the Radiological Society of the Netherlands

2011-present European Low Grade Glioma Network

2010-present EORTC, Brain Tumour and Imaging groups

2010-present Dutch Society for Neuro Oncology (LWNO)

2010-present European Society of Neuroradiology (ESNR)

2008-present European Society of Magnetic Resonance in Medicine and Biology (ESMRMB)

2007-present European Society of Radiology (ESR)

2006-present Neuroradiology section of the Radiological Society of the Netherlands

2000-present Radiological Society of North America (RSNA)

2000-present Radiological Society of the Netherlands (NVvR)

2012-2015 European Institute for Biomedical Imaging Research (EIBIR) Cancer Imaging working group [upon invitation]

2000-2008 Erasmus MC Junior Doctor's Association (president 2002-2004)

## MISCELLANEOUS

2009, 2011 Judge for the BBC public speaking competition.

## PUBLICATIONS

### book chapters

1. Venkatraghavan V, Van der Voort SR, Bos D, **Smits M**, Barkhof F, Niessen WJ, Klein S, Bron EE. *Computer-Aided Diagnosis and Prediction in Brain Disorders*. In: *Machine Learning for Brain Disorders*. Colliot O (ed). Springer Science+Business Media, New York 2023. ISBN 978-1-0716-3194-2
2. Ellingson BM, **Smits M**. *The Path Forward: The Standardized Brain Tumor Imaging Protocol (BTIP) for Multicenter Trials*. In: *Glioma Imaging. Physiologic, Metabolic, and Molecular Approaches*. Pope WP (ed). Springer Nature Switzerland, 2020. ISBN 978-3-030-27358-3.
3. Gahrman R, Arbizu J, Laprie A, Morales M, **Smits M**. *Response evaluation and follow-up by imaging in brain tumours*. In: *Imaging and Interventional Radiology for Radiation Oncology*. Beets-Tan RGH, Oyen WJG, Valentini V (Eds). Springer Nature Switzerland, 2020. ISBN 978-3-030-38260-5.
4. Garcia GCTE, Bockel S, Majer M, Ammari S, **Smits M**. *Imaging of brain metastases: diagnosis and monitoring*. In: *Central Nervous System Metastases*. Ahluwalia M, Metellus P, Soffietti R (eds). Springer International Publishing, 2020. ISBN 978-3-030-23417-1.
5. **Smits M**. *CNS involvement in non-CNS tumours*. In: *Clinical Neuroradiology*. Barkhof F, Jäger R, Thurnher M (eds). Springer, doi:10.1007/978-3-319-61423-6\_61-1.
6. Nederveen AJ, Caan MWA, **Smits M**. *General Principles of Magnetic Resonance Imaging*. In: *Imaging in neurodegenerative disorders*. Saba L (ed). Oxford University Press, Oxford 2015. ISBN 978-0-19-967161-8.
7. Pizzini F, **Smits M**, Wesolowski R, Chapell M, Jäger R, Mutsaerts HJ, Hernandez-Tamames J. *Arterial Spin Labeled MRI perfusion imaging techniques*. In: *Perfusion Imaging in Clinical Practice: A multimodality diagnostic approach to tissue perfusion analysis*. Saremi F (ed). Wolters Kluwer, Philadelphia 2015. ISBN 978-1-4511-9316-9.
8. Méndez Orellana CE, Visch EG, **Smits M**. *Functional imaging of language processing: basic principles and acquired insights*. Published in Dutch in: *Het (voor)beeldig brein*. Robert E, Visch-Brink E, Beeckman A (eds). Antwerp-Apeldoorn Garant publishers 2013. ISBN 978-90-441-3026-3.

### PhD thesis

**Smits M**. *Imaging in Minor Head Injury. Early Complications and Late Consequences*. 2008. ISBN 978-90-9022918-8.

### peer-reviewed articles

	Impact Factor (2021)
	<b>Q1 in bold (* indicates top 10%)</b>
Mean IF Marion Smits	12.3
H-index Marion Smits (Web of Science)	55
Average citations per item	48
Mean IF subject category “neurosciences”	5.0
Mean IF subject category “radiology, nuclear medicine & medical imaging”	4.2
Mean IF subject category “oncology”	7.9
1 <b>Smits M</b> , Rockall A, Constantinescu SN, Sardanelli F, Martí-Bonmatí L. <i>Translating radiological research into practice-from discovery to clinical impact</i> . <i>Insights Imaging</i> , 2024;15:13-22.	<b>5.0</b>
2 Albert NL, Galldiks N, Ellingson BM, Van den Bent MJ, Chang SM, Ciccone F, De Groot J, Koh ES, Law I, Le Rhun E, Mair MJ, Minniti G, Rudà R, Scott AM, Short SC, <b>Smits M</b> , Suchorska B, Tolboom N, Traub-Weidinger T, Tonn J-C, Verger A, Weller M, Wen PY, Preusser M. <i>PET-based response assessment criteria for diffuse gliomas (PET RANO 1.0): a report of the RANO group</i> . <i>Lancet Oncol</i> 2024;25:e29-e41.	<b>54.4*</b>



- 3 Flies CM, Friedrich M, Lohmann P, Van Garderen KA, **Smits M**, J-C Tonn, Weller M, Galldiks N, Snijders TJ. *Treatment-associated imaging changes in newly diagnosed MGMT promoter-methylated glioblastoma undergoing chemoradiation with or without cilengitide*. Neuro Oncol 2024, doi: 10.1093/neuonc/noad247. Online ahead of print. 13.0\*
  - 4 Arzanforoosh F, Van der Velden M, Berman AJL, Van der Voort SR, Bos EM, Schouten JW, Vincent AJPE, Kros JM, **Smits M**, Warnert EAH. *MRI-Based Assessment of Brain Tumor Hypoxia: Correlation with Histology*. Cancers 2024;16:138.
  - 5 Alafandi A, Soloukey Tbalvandany S, Arzanforoosh F, Van der Voort SR, Incekara F, Verhoef L, Warnert EAH, Kruizinga P, **Smits M**. *Probing the glioma microvasculature: a case series of the comparison between perfusion MRI and intraoperative high-frame-rate ultrafast Doppler ultrasound*. Eur Radiol Exp, in press. 3.8
- 2023
- 6 Van den Bent MJ, Geurts M, French PJ, **Smits M**, Capper D, Bromberg JEC, Chang SM. *Primary brain tumors in adults*. Lancet, in press. 203\*
  - 7 Karschnia P, **Smits M**, Reifemberger G, Le Rhun E, Ellingson BM, Galldiks N, Kim MM, Huse JT, Schnell O, Harter PN, Mohme M, Expert Rater Panel, Von Baumgarten L, Albert NL, Huang RY, Mehta PM, Van den Bent M, Weller M, Vogelbaum MA, Chang SM, Berger MS, Tonn J-C. *A framework for standardised tissue sampling and processing during resection of diffuse intracranial glioma: joint recommendations from four RANO groups*. Lancet Oncol, in press. 54.4\*
  - 8 Alafandi A, Van Garderen KA, Klein S, Van der Voort SR, Rizopoulos D, Nabors L, Stupp R, Weller M, Gorlia T, Tonn J-C, **Smits M**. *Association of pre-radiotherapy tumor burden and overall survival in newly diagnosed glioblastoma adjusted for MGMT promoter methylation status*. Eur J Cancer, in press. 10.0
  - 9 Teunissen WHT, Lavrova A, Van den Bent M, Warnert EAH, **Smits M**. *Arterial spin labelling MRI for brain tumour surveillance: do we really need cerebral blood flow maps?* Eur Radiol, in press. 7.0
  - 10 Van Garderen KA, Van der Voort SR, Wijnenga MMJ, Incekara F, Alafandi A, Kapsas G, Gahrman R, Schouten JW, Dubbink HJ, Vincent AJPE, Van den Bent M, French PJ, **Smits M**, Klein S. *Evaluating the predictive value of glioma growth models for low-grade glioma after tumor resection*. IEEE Trans Med Imaging, in press. 11.0\*
  - 11 Soloukey S, Collee E, Verhoef L, Satoer DD, Dirven CMF, Bos EM, Schouten JW, Generowicz BS, Mastik F, De Zeeuw CI, Koekkoek SKE, Vincent AJPE, Smits M, Kruizinga P. *Human brain mapping using co-registered fUS, fMRI and ESM during awake brain surgeries: A proof-of-concept study*. NeuroImage 2023;283:120435. 7.4
  - 12 Henssen D, Leijten L, Meijer FJA, Van der Kolk A, Arens AIJ, Ter Laan M, Smeenk RJ, Gijtenbeek A, Van der Giessen EM, Tolboom N, Oprea-Lager DE, **Smits M**, Nagarajah J. *Head-To-head comparison of PET and perfusion weighted MRI techniques to distinguish treatment related abnormalities from tumor progression in glioma*. Cancers 2023; 15:2631. 6.6
  - 13 Van Lith SAM, Prujs IJ, Tolboom N, Snijders TJ, Henssen D, Ter Laan M, Te Donkhorst M, Leenders WPJ, Gotthardt M, Nagarajah J, Robe PA, De Witt Hamer P, Hendrikse H, Oprea-Lager DE, Yaqub M, Boellaard R, Wesseling P, Balvers RK, Verburg FA, Harteveld AA, **Smits M**, Van den Bent MJ, Veldhuijzen van Zanten SEM, Van de Giessen E. *PET-imaging and protein expression of prostate-specific membrane antigen (PSMA) in glioblastoma: a multi-centre inventory study*. J Nucl Med, in press. 11.0\*
  - 14 Fringuello Mingo A, Colombo Serra S, Macula A, Bella D, Ali M, Papa S, Tedoldi F, **Smits M**, Bifone A, Valbusa G. *Amplifying the effects of contrast agents on magnetic resonance images using a deep learning method trained on synthetic data*. Invest Radiol 2023;58:853-864. 10.1\*
  - 15 Wu Y, Wood TC, Prujs IJ, Van der Voort SR, Veldhuijzen van Zanten SEM, **Smits M**, Warnert EAH. *Reproducibility of APT-weighted CEST-MRI at 3T in healthy brain and tumor across sessions and scanners*. Scientific Reports, in press. 5.0

- 16 Tseng CH, Jaspers J, Romero AM, Wielopolski P, **Smits M**, Van Osch MJP, Vos F. *Improved Reliability of Perfusion Estimation in Dynamic Susceptibility Contrast MRI by Using the Arterial Input Function from Dynamic Contrast Enhanced MRI*. NMR Biomed 2023:e5038. 4.5
- 17 Bozzao A, Weber D, Crompton S, Braz G, Csaba D, Dhermain F, Finocchiaro G, Flannery T, Kramm C, Law I, Marucci G, Oliver K, Ostgathe C, Pattera R, Pesce G, **Smits M**, Soffietti R, Terkola R, Watts C, Costa A, Poortmans P. *European Cancer Organisation Essential Requirements for Quality Cancer Care: Adult glioma*. J Cancer Policy 2023;38:100438.
- 18 Venugopal K, Arzanforoosh F, Van Dorth D, **Smits M**, Van Osch MJP, Hernandez-Tamames JA, Warnert EAH, Poot DHJ. *MR vascular fingerprinting with hybrid gradient-spin echo dynamic susceptibility contrast MRI for characterization of microvasculature in gliomas*. Cancers 2023;15:2180. 6.6
- 19 Arzanforoosh F, Van der Voort SR, Incekara F, Vincent A, Van den Bent M, Kros JM, **Smits M**, Warnert EAH. *Microvasculature features derived from hybrid EPI MRI in non-enhancing adult-type diffuse glioma subtypes*. Cancers 2023;15:2135. 6.6
- 20 Van Garderen KA, Vallentgoed WR, Lavrova A, Niers JM, De Leng WWJ, Hoogstrate Y, De Heer I, Ylstra B, Van Dijk E, Klein S, Draaisma K, Robe PAJT, Verhaak RGW, Westerman BA, French PJ, Van den Bent MJ, Kouwenhoven MCM, Kros JM, Wesseling P, **Smits M**. *Longitudinal characteristics of T2-FLAIR mismatch in IDH-mutant astrocytomas: Relation to grade, histopathology, and overall survival in the GLASS-NL cohort*. NeuroOncol Adv 2023. 10.1093/noajnl/vdad149
- 21 Wu Y, Derks SAE, Wood TC, De Blois E, Van der Veldt AAM, **Smits M**, Warnert EAH. *Improved postprocessing of dynamic glucose-enhanced CEST MRI for imaging brain metastases at 3 T*. Eur Radiol Exp, 2023;7:78. 3.8
- 22 Arzanforoosh F, Berman AJL, **Smits M**, Warnert EAH. *Streamlined quantitative BOLD for detecting visual stimulus-induced changes in oxygen extraction fraction in healthy participants: towards clinical application in human glioma*. MAGMA, in press. 2.5
- 23 Lindner T, Bolar DS, Achten E, Barkhof F, Bastos-Leite AJ, Detre JA, Golay X, Günther M, Wang DJJ, Haller S, Ingala S, Jäger HR, Jahng G-H, Juttukonda MR, Keil VC, Kimura H, Ho M-L, Lequin M, Lou X, Petr J, Pinter N, Pizzini FB, **Smits M**, Sokolska M, Zaharchuk G, Mutsaerts HJMM, on behalf of the ISMRM Perfusion Study Group. *Current state and guidance on arterial spin labeling perfusion MRI in clinical neuroimaging*. Magn Reson Med 2023: <https://doi.org/10.1002/mrm.29572>. 3.7
- 24 Hirschler L, Sollmann N, Schmitz-Abecassis B, Pinto J, Arzanforoosh F, Barkhof F, Booth T, Calvo-Imirizaldu M, Cassia G, Chmelik M, Clement P, Ercan E, Fernández-Seara MA, Furtner J, Fuster-Garcia E, Grech-Sollars M, Guven NT, Hale Hatay G, Karami G, Keil VC, Kim M, Koekkoek JAF, Kukran S, Mancini L, Nechifor RE, Özcan A, Ozturk-Isik E, Piskin S, Schmainda KM, Svensson SF, Tseng CH, Unnikrishnan S, Vos F, Warnert E, Zhao MY, Jancialek R, Nunes T, Emblem KE, **Smits M**, Petr J, Hangel G. *Advanced MR Techniques for preoperative Glioma Characterization - Part 2*. J Magn Reson Imaging 2023, in press. *Advanced MR Techniques for preoperative Glioma Characterization - Part 1*. J Magn Reson Imaging 2023, in press. 5.1
- 25 Hangel G, Schmitz-Abecassis B, Sollmann N, Pinto J, Arzanforoosh F, Barkhof F, Booth T, Calvo-Imirizaldu M, Cassia G, Chmelik M, Clement P, Ercan E, Fernández-Seara MA, Furtner J, Fuster-Garcia E, Grech-Sollars M, Guven NT, Hale Hatay G, Karami G, Keil VC, Kim M, Koekkoek JAF, Kukran S, Mancini L, Nechifor RE, Özcan A, Ozturk-Isik E, Piskin S, Schmainda KM, Svensson SF, Tseng CH, Unnikrishnan S, Vos F, Warnert E, Zhao MY, Jancialek R, Nunes T, Hirschler L, **Smits M**, Petr J, Emblem KE. *Advanced MR Techniques for preoperative Glioma Characterization - Part 2*. J Magn Reson Imaging 2023, in press. 5.1
- 26 Soloukey S, Vincent AJPE, **Smits M**, De Zeeuw CI, Koekkoek SKE, Dirven C, Kruizinga P. *Functional Imaging of the exposed brain*. Front Neurosci 2023, in press. 5.2
- 27 Henssen DJHA, Meijer FJA, Verburg FA, **Smits M**. *Challenges and opportunities for advanced neuroimaging of glioblastoma*. Br J Radiol 2023 Jan 1;96(1141):20211232. (invited paper) 3.6

- 28 Van der Voort SR, Incekara F, Wijnenga MMJ, Kapsas G, Gahrman R, Schouten JW, Nandoe Tewarie R, Lycklama GJ, De Witt Hamer PC, Eijgelaar RS, French PJ, Dubbink HJ, Vincent AJPE, Niessen WJ, Van den Bent MJ, **Smits M\***, Klein S\*. *Combined molecular subtyping, grading, and segmentation of glioma using multi-task deep learning*. Neuro Oncol 2022 Jul 5;noac166. doi: 10.1093/neuonc/noac166. Online ahead of print. \*joint senior authorship **13.0\***
- 29 Hasanov E, Yeboa DN, Tucker MD, Swanson TA, Beckham TH, Rini B, Ene CI, Hasanov M, Derks S, **Smits M**, Dudani S, Heng DY, Brastianos PK, Bex A, Hanalioglu S, Weinberg JC, Hirsch L, Carlo MI, Aizer A, Brown PD, Bilen MA, Chang EL, Jaboin J, Brugarolas J, Choueiri TK, Atkins MB, McGregor BA, Halasz LM, Patel TR, Soltys SG, McDermott DF, Elder JB, Baskaya MK, Yu JB, Timmerman R, Kim MM, Mut M, Markert J, Beal K, Tannir NM, Samandouras G, Lang FF, Giles R, Jonasch E. *An interdisciplinary consensus on the management of brain metastases in patients with renal cell carcinoma*. CA Cancer J Clin 2022;72:454-489. **286\***
- 30 Teunissen WHT, Govaerts CW, Kramer MCA, Labrecque JA, **Smits M**, Dirven L, Van der Hoorn A. *Diagnostic accuracy of MRI techniques for treatment response evaluation in patients with brain metastasis: a systematic review and meta-analysis*. Radiother Oncol 2022;177:121-133. **6.9**
- 31 Derks SHAE, De Joode K, Mulder EEAP, Ho LS, Joosse A, De Jonge MJA, Verhoef C, Grünhagen DJ, **Smits M**, Van den Bent MJ, Van der Veldt AAM. *The meaning of screening: detection of brain metastasis in the adjuvant setting for stage III melanoma*. ESMO Open 2022;7:100600. **6.9**
- 32 Van Opijnen MP, Tesileanu CMS, Dirven L, Van der Meer PB, Wijnenga MMJ, Vincent AJPE, Broekman MLD, Dubbink HJ, Kros JM, Van Duinen SG, **Smits M**, French PJ, Van den Bent MJ, Taphoorn MJB, Koekkoek JAF. *IDH1/2 wildtype gliomas grade 2 and 3 with molecular glioblastoma-like profile have a distinct course of epilepsy compared to IDH1/2 wildtype glioblastomas*. Neuro Oncol 2022. Doi:10.1093/neuonc/noac197. Online ahead of print. **13.0\***
- 33 Bakas S, Pati S, Baid U, (...) **Smits M\*** (...) Martin J. *Federated learning enables big data for rare cancer boundary detection*. Nat Commun 2022 Dec;13:7346. \*Author position 157/276. **17.7\***
- 34 Nunez-Gonzalez L, Van Garderen KA, **Smits M**, Jaspers J, Romero AM, Poot DHJ, Hernandez-Tamames JA. *Pre-contrast MAGiC in treated gliomas: a pilot study of quantitative MRI*. Sci Rep 2022;12:21820. **5.0**
- 35 Le Rhun E, Devos P, Winkhofer S, Lmalen H, Brandsma D, Callego J, Castellano A, Compter A, Dhermain F, Franceschi E, Forsyth P, Furner J, Galldiks N, Gempt J, Glantz M, Hattingen E, Hempel JM, Jaekle K, Kumthekar P, Lukacova S, Minniti G, O'Brien B, Postma TJ, Roth P, Rudà R, Schaefer N, Schmidt N, **Smits M**, Snijders TJ, Thust S, Tonn JC, Van den Bent M, Van den Hoorn A, Vogin G, Wen P, Preusser M, Bendszus M, Weller M. *Prospective validation of a new imaging scorecard to assess leptomeningeal metastasis: a joint EORTC BTG and RANO effort*. Neuro Oncol 2022;24:1726-1735. **13.0\***
- 36 DeSouza NM, Van der Lugt A, Deroose CM, Alberich-Bayarri A, Bidaut L, Fournier L, Costaridou L, Oprea-Lager DA, Kotter E, **Smits M**, Mayerhoefer ME, Boellaard R, Caroli A, De Geus-Oei LF, Kunz WG, Oei EH, Lecouvet F, Franca M, Loewe C, Lopci E, Caramella C, Persson A, Golay X, Dewey M, O'Connor JPB, De Graaf P, Gatidis S, Zahlmann G. *Standardised lesion segmentation for imaging biomarker quantitation: a European Society of Radiology and European Organisation for Research and Treatment of Cancer Consensus recommendation*. Insights Imaging 2022;13:159. **5.0**
- 37 Derks SHAE, **Smits M**. *Brain metastases: the role of clinical imaging*. Br J Radiol 2022;95:20210944 (invited paper) **3.6**
- 38 Lohmann P, Franceschi E, Vollmuth P, Dhermain F, Weller M, Preusser M, **Smits M**, Galldiks N. *Radiomics in neuro-oncological clinical trials*. Lancet Digit Health 2022;4:e841-e849. **36.6\***
- 39 Vollmuth P, Foltyn M, Huang RY, Galldiks N, Petersen J, Isensee F, Van den Bent MJ, Barkhof F, Park JE, Park YW, Ahn SS, Brugnara G, Meredig H, Jain R, **Smits M**, Pope WB, Maier-Hein K, Weller M, Wen PY, Wick W, Bendszus M. *AI-based decision support improves reproducibility of tumor response assessment in neuro-oncology: an international multi-reader study*. Neuro Oncol 2022 Aug 2;noac189. doi: 10.1093/neuonc/noac189. Online ahead of print. **13.0\***

- 40 Mijderwijk HJ, Nieboer D, Incekara F, Berger K, Steyerberg EW, Van den Bent MJ, Reifenger G, Hänggi D, **Smits M**, Senft C, Rapp M, Sabel MS, Voss M, Forster MT, Kamp MA. *Development and external validation of a clinical prediction model for survival in glioblastoma patients*. J Neurosurg 2022 Jan 14;1-10. doi: 10.3171/2021.10.JNS211261. Online ahead of print. 5.4
- 41 Draaisma K, Tesileanu CMS, De Heer I, Klein M, **Smits M**, Reijneveld JC, Clement PM, De Vos FYF, Wick A, Mulholland PJ, Taphoorn MJB, Weller M, Chinot OL, Kros JM, Verschuere T, Coens C, Golfinopoulos V, Gorlia T, Idbaih A, Robe PA, Van den Bent MJ, French PJ. *Prognostic significance of DNA methylation profiles at MRI enhancing tumor recurrence: a report from the EORTC 26091 TAVAREC trial*. Clin Cancer Res 2022;28:2440-2448. 13.8\*
- 42 Pruis IJ, Koene SR, Van der Voort SR, Incekara F, Vincent AJPE, Van den Bent MJ, Lycklama à Nijeholt GJ, Nandoe Tewarie NDS, Veldhuijzen van Zanten SEM, **Smits M**. *Noninvasive differentiation of molecular subtypes of adult non-enhancing glioma using MRI perfusion and diffusion parameters*. NeuroOncol Adv 2022;4(1):vdac023.
- 43 Thakkar I, Arraño-Carrasco L, Cortés Rivera B, Zunino-Pesce R, Mery-Muñoz F, Rodríguez-Fernández M, **Smits M**, Mendez-Orellana C. *Alternative language paradigms for functional Magnetic Resonance Imaging as presurgical tools for inducing crossed cerebro-cerebellar language activations in brain tumor patients*. Eur Radiol 2022 Jan;32(1):300-307. 7.0
- 44 Van Santwijk L, Kouwenberg V, Meijer F, **Smits M**, Henssen D. *A systematic review and meta-analysis on the differentiation of glioma grade and IDH mutational status by use of perfusion-based magnetic resonance imaging*. Insights Imaging, 2022;13:102. 5.0
- 45 Lavrova A, Teunissen W, Warnert EA, Van den Bent MJ, **Smits M**. *Diagnostic accuracy of arterial spin labeling in comparison with dynamic susceptibility contrast-enhanced perfusion in brain tumor surveillance at 3T MRI*. Front Oncol 2022;12:849657. 5.7
- 46 Van Dorth D, Venugopal K, Poot DHJ, Hirschler L, De Bresser J, **Smits M**, Hernandez-Tamames JA, Debacker CS, Van Osch MJP. *Dependency of R-2 and R-2 \* relaxation on Gd-DTPA concentration in arterial blood: Influence of hematocrit and magnetic field strength*. NMR Biomed 2022;35:e4653. 4.5
- 47 Gahrman R, **Smits M**, Vernhout RM, Taal W, Kapsas G, De Groot JC, Hanse M, Vos M, Beerepoot LV, Buter J, Flach HZ, Van der Holt B, Van den Bent M. *The impact of different volumetric thresholds to determine progressive disease in patients with recurrent glioblastoma treated with bevacizumab*. NeuroOncol Adv 2022;4:vdac032.
- 48 Wolhuis N, Bosma I, Bastiaanse R, Cherian P, **Smits M**, Veenstra W, Wagemakers M, Vincent A, Satoer D. *Distinct slow-wave activity patterns in resting-state electroencephalography and their relation to language functioning in low-grade glioma and meningioma patients*. Front Neurosci 2022;16:748128. 5.2
- 49 Donders-Kamphuis M, Vincent A, Schouten J, **Smits M**, Docter-Kerkhof C, Dirven C, Kloet A, Nandoe Tewarie R, Satoer D. *Feasibility of awake brain surgery in glioblastoma patients with severe aphasia: Five case illustrations*. Aphasiology 2022. doi:10.1080/02687038.2022.2137773. Online ahead of print. 1.9
- 50 Fournier L, De Geus-Oei LF, Regge D, Elena Oprea-Lager D, D'Anastasi M, Bidaut L, Bäuerle T, Lopci E, Cappello G, Lecouvet F, Mayerhoefer M, Kunz WG, Verhoeff JJC, Caruso D, **Smits M**, Hoffmann RT, Gourtsoyianni S, Beets-Tan R, Neri E, DeSouza NM, Deroose CM, Caramella C. *Twenty years on: RECIST as a biomarker of response in solid tumours. An EORTC Imaging Group – ESOI joint paper*. Front Oncol 2022 Jan 10;11:800547. 5.7
- 51 Warnert EA, Wood TC, Incekara F, Barker GJ, Vincent AJPE, Schouten JW, Kros JM, Van den Bent MJ, **Smits M**, Hernandez Tamames JA. *Mapping tumour heterogeneity with pulsed 3D CEST MRI in non-enhancing glioma at 3 Tesla*. MAGMA 2022;35:53-62. 2.5
- 52 **Smits M**, Vernooij MW, Bargalló N, Ramos A, Yousry T. *The impact of the Covid-19 pandemic on adult diagnostic Neuroradiology in Europe*. Neuroradiology 2022;64:31-42. 3.0
- 53 Satoer D, De Witte E, Bulté B, Bastiaanse R, **Smits M**, Vincent A, Mariën P, Visch-Brink E. *Dutch Diagnostic Instrument for Mild Aphasia (DIMA): standardisation and a first clinical application in two brain tumour patients*. Clinical Linguistics & Phonetics 2022;36:929-953. 1.3

- 54 Vernooij MW, Zaki LAM, **Smits M**, Tolman C, Papma JM, Visser JJ, Steketee RME. *Comparing two artificial intelligence software packages for normative brain volumetry in memory clinic imaging*. *Neuroradiology* 2022;64:1359-1366. 3.0
- 2021
- 55 **Smits M**. *MRI biomarkers in neuro-oncology*. *Nat Rev Neurol* 2021;17:486-500. (invited paper) **44.7\***
- 56 Weller M, Van den Bent M, Preusser M, Le Rhun E, Tonn JC, Minniti G, Bendszus M, Balana C, Chinot O, Dirven L, French P, Hegi ME, Jakola AS, Platten M, Roth P, Rudà R, Short S, **Smits M**, Taphoorn MJB, Von Deimling A, Westphal M, Soffietti R, Reifenberger G, Wick W, for the EANO Task Force on Diffuse Gliomas. *European Association of Neuro-Oncology (EANO) guideline on the diagnosis and treatment of diffuse gliomas of adulthood*. *Nat Rev Clin Oncol* 2021;18:170-186. **65.0\***
- 57 **Smits M**. *Update on neuroimaging in brain tumours*. *Curr Opin Neurol* 2021;34:497-504. (invited paper) **6.3**
- 58 Le Rhun E, Guckenberger M, **Smits M**, Dummer R, Bachelot T, Sahm F, Galldiks N, De Azambuja A, Berghoff AS, Metellus P, Peters S, Hong Y-K, Winkler F, Schadendorf D, Van den Bent M, Seoane J, Stahel R, Minniti G, Wesseling P, Weller M, Preusser M. *EANO-ESMO clinical practice guidelines for diagnosis and follow-up of patients with brain metastasis from solid tumours*. *Ann Oncol* 2021;32:1332-47. **51.8\***
- 59 Van der Voort SR, Incekara F, Wijnenga MMJ, Kapsas G, Gahrman R, Schouten JW, Dubbink HJ, Vincent AJPE, Van den Bent MJ, French PJ, Klein S, **Smits M**. *The Erasmus Glioma Database (EGD): structural MRI scans, WHO 2016 subtypes, and segmentations of 774 patients with glioma*. *Data Brief* 2021;37:107191.
- 60 Van Garderen KA, Van der Voort SR, Versteeg A, Koek M, Gutierrez A, Van Straten M, Rentmeester M, Klein S, **Smits M**. *EASE: Clinical implementation of automated tumor segmentation and volume quantification for adult low-grade glioma*. *Front Med* 2021;8:738425. **5.1**
- 61 Manfrini E, **Smits M**, Thust S, Geiger S, Bendella Z, Petr J, Solymosi L, Keil VC. *From research to clinical practice: a European neuroradiological survey on quantitative advanced MRI implementation*. *Eur Radiol* 2021;31:6334-6341. **7.0**
- 62 Incekara F, **Smits M**, Dirven L, Bos E, Balvers R, Haitsma I, Schouten J, Vincent AJPE. *Intraoperative B-mode ultrasound guided surgery and the extent of glioblastoma resection: a randomized controlled trial*. *Front Oncol* 2021;11:649797. 5.7
- 63 Van der Meulen M, Dirven L, Habets EJJ, Bakunina K, **Smits M**, Achterberg HA, Seute T, Cull G, Schouten H, Zijlstra JM, Brandsma D, Enting RH, Beijert M, Taphoorn MJB, Van den Bent MJ, Issa S, Doorduyn JK, Bromberg JEC. *Neurocognitive functioning and radiologic changes in primary CNS lymphoma patients: results from the HOVON 105/ ALLG NHL 24 randomised controlled trial*. *Neuro Oncol* 2021;23:1315-1326. **13.0\***
- 64 Bron EE, Klein S, Papma JM, Jiskoot LC, Venkatraghavan V, Linders J, Aalten P, De Deyn PP, Biessels GJ, Claassen JAHR, Middelkoop HAM, **Smits M**, Niessen WJ, Van Swieten JC, Van der Flier VM, Ramakers IHGB, Van der Lugt A. *Cross-cohort generalizability of deep and conventional machine learning for MRI-based diagnosis and prediction of Alzheimer's disease*. *NeuroImage Clin* 2021;31:102712. 4.9
- 65 Arzanforoosh F, Croal PL, Van Garderen KA, **Smits M**, Chappell MA, Warnert EA. *Effect of applying leakage correction on rCBV measurement derived from DSC-MRI in enhancing and nonenhancing glioma*. *Front Oncol* 2021;11:648528. 5.7
- 66 Pirkel CM, Nuñez-Gonzalez L, Kofler F, Endt S, Grundl L, Golbabaee M, Gómez PA, Cencini M, Buonincontri G, Schulte RF, **Smits M**, Wiestler B, Menze BH, Menzel MI, Hernandez-Tamames JA. *Accelerated 3D whole-brain T1, T2 and proton density mapping: Feasibility for clinical glioma MR imaging*. *Neuroradiology* 2021;63:1831-1851. 3.0

- 67 Flies CM, Snijders TJ, Van Seeters T, **Smits M**, De Vos FYF, Hendrikse J, Dankbaar JW. *Perfusion imaging with Arterial Spin Labeling (ASL)-MRI predicts malignant progression in low-grade (WHO grade II) gliomas*. *Neuroradiology* 2021;63:2023-2033. 3.0
- 68 van der Meulen M, Postma AA, **Smits M**, Bakunina K, Minnema MC, Seute T, Cull G, Enting RH, van der Poel M, Stevens WBC, Brandsma D, Beeker A, Doorduijn JK, Issa S, van den Bent MJ, Bromberg JEC. *Extent of radiological response does not reflect survival in primary central nervous system lymphoma*. *Neurooncol Adv* 2021;3:vdab007.
- 69 Wolthuis N, Satoer D, Veenstra W, **Smits M**, Wagemakers M, Vincent A, Bastiaanse R, Cherian PJ, Bosma I. *Resting-state electroencephalography functional connectivity networks relate to pre-and postoperative language functioning in low-grade glioma and meningioma patients*. *Front Neurosci* 2021;15:785969. 5.2
- 70 Clement P, Booth T, Borovečki F, Emblem KE, Figueiredo P, Hirschler L, Jančálek R, Keil VC, Maumet C, Özsunar Y, Pernet C, Petr J, Pinto J, **Smits M**, Warnert EAH. *GliMR: Cross-border collaborations to promote advanced MRI biomarkers for glioma*. *J Med Biol Eng* 2021;41:115-125. 2.2
- 71 Van der Voort SR, **Smits M**, Klein S. *DeepDicomSort: An automatic sorting algorithm for brain magnetic resonance imaging data*. *Neuroinformatics* 2021;19:159-184. 2.9

2020

- 72 Kaufmann TJ, **Smits M**, Boxerman J, Huang R, Baboriak DP, Weller M, Chung C, Tsien C, Brown OD, Shankar L, Galanis E, Gerstner E, Van den Bent MJ, Burns TC, Pamey IF, Dunn G, Brastianos PK, Lin NU, Wen PY, Ellingson BM. *Consensus recommendations for a standardized brain tumor imaging protocol for clinical trials in brain metastases (BTIP-BM)*. *Neuro Oncol* 2020;22:757-772. 13.0\*
- 73 Incekara F, **Smits M**, Van der Voort S, Dubbink HJ, Atmodimedjo P, Kros JM, Vincent AJPE, Van den Bent MJ. *The association between extent of glioblastoma resection and survival in light of MGMT promoter methylation in 326 patients with newly diagnosed IDH-wildtype glioblastoma*. *Front Oncol* 2020;10:1087. 5.7
- 74 Deroose CM, Lecouvet FE, Collette L, Oprea-Lager DE, Kunz WG, Bidaut L, Verhoeff JJC, Caramella C, Lopci E, Tombal B, de Geus-Oei LF, Fournier L, **Smits M**, deSouza NM. *Impact of the COVID-19 crisis on imaging in oncological trials*. *Eur J Nucl Med Mol Imaging* 2020;47:2054-2058. 10.1\*
- 75 Boxerman JL, Quarles CC, Hu LS, Erickson BJ, Gerstner E, **Smits M**, Kaufmann TJ, Barboriak D, Huang RH, Wick W, Weller M, Galanis E, Kalpathy-Cramer J, Shankar L, Jacobs P, Chung C, Van den Bent MJ, Chang S, Al Yung WK, Cloughesy TF, Wen PY, Gilbert MR, Rosen BR, Ellingson BM, Schmainda KM. *Consensus Recommendations for a Dynamic Susceptibility Contrast MRI Protocol for Use in High-Grade Gliomas*. *Neuro Oncol* 2020;22:1262-1275. 13.0\*
- 76 Tesileanu CMS, Dirven L, Wijnenga MMJ, Koekkoek JAF, Vincent AJPE, Dubbink HJ, Atmodimedjo PN, Kros JM, Van Duinen SG, **Smits M**, Taphoorn MJP, French PJ, Van den Bent MJ. *Survival of IDH wildtype astrocytomas with molecular features of glioblastoma: a confirmation of the cIMPACT-NOW criteria*. *Neuro Oncol* 2020;22:525-523. 13.0\*
- 77 Van den Bent M, Eoli M, Sepulveda JM, **Smits M**, Walenkamp A, Frenel JS, Franceschi E, Clement PM, Chinot O, de Vos F, Whenham N, Sanghera P, Weller M, Dubbink HJ, French P, Looman J, Dey J, Krause S, Ansell P, Nuyens S, Spruyt M, Brilhante J, Coens C, Gorlia T, Golfopoulos V. *INTELLANCE 2/ EORTC 1410 randomized phase II study of Depatux-M alone and with temozolomide vs temozolomide or lomustine in recurrent EGFRamplified glioblastoma*. *Neuro Oncol* 2020;22:684-693. 13.0\*
- 78 Jain R, Johnson DR, Patel SH, Castillo M, **Smits M**, Van den Bent MJ, Chi AS, Cahill DP. *'Real world' use of a highly reliable imaging sign: 'T2-FLAIR mismatch' for identification of IDH mutant astrocytomas*. *Neuro Oncol* 2020;22:936-943. 13.0\*
- 79 Incekara F, Van der Voort S, Dubbink HJ, Atmodimedjo P, Nandoe Tewarie R, Lycklama G, Vincent AJPE, Kros JM, Klein S, Van den Bent MJ, **Smits M**. *Topographical mapping of 436 newly diagnosed IDH wildtype glioblastoma with vs. without MGMT promotor methylation*. *Front Oncol* 2020;10:596. 5.7

- 80 Alberich-Bayarri A, Sourbon S, Golay X, deSouza N, **Smits M**, Van der Lugt A, Boellard R. *ESR statement on the validation of imaging biomarkers*. Insights Imaging 2020;11:76. **5.0**
- 81 Li B, De Groot M, Steketee RME, Meijboom R, **Smits M**, Vernooij, MW, Ikram MA, Liu J, Niessen WJ, Bron EE. *Neuro4Neuro: A neural network approach for neural tract segmentation using large-scale population-based diffusion imaging*. NeuroImage 2020;218:116993. **7.4**
- 82 Soloukey S, Vincent AJPE, Satoer DD, Mastik F, **Smits M**, Dirven CMF, Strydis C, Bosch JG, Van der Steen AFW, De Zeeuw CI, Koekkoek SKE, Kruizinga P. *Functional Ultrasound (fUS) During Awake Brain Surgery: The Clinical Potential of Intra-operative Functional and Vascular Brain Mapping*. Front Neurosci 2020;13:1384. **5.2**
- 83 Bakas S, Poisson LM, Ormond DR, Alfaro KD, **Smits M**, Cooper L, Verhaak R. *Imaging integration into the Glioma Longitudinal AnalySiS Consortium (iGLASS)*. Neuro Oncol 2020;22:1545-1546. **13.0\***
- 84 Blom-Smink M, Verly M, Spielmann K, **Smits M**, Ribbers G, Van de Sandt M. *Change in Right Inferior Longitudinal Fasciculus Integrity Is Associated With Naming Recovery in Subacute Post-Stroke Aphasia*. Neurorehabil Neural Repair 2020;34:784-794. **4.9**
- 85 Bargalló N, Cano-López I, Rosazza C, Vernooij MW, **Smits M**, Vitali P, Alvarez-Linera J, Urbach H, Mancini L, Ramos A, Yousry T. *Clinical practice of language fMRI in epilepsy centers: a European survey and conclusions by the ESNR Epilepsy Working Group*. Neuroradiology 2020;62:549-62. **3.0**
- 2019
- 86 Barthel FP, Johnson KC, Varn FS, Moskalik AD, Tanner G, Kocakavuk E, Anderson KJ, Abiola O, Aldape K, Alfaro KD, Alpar D, Amin SB, Ashley DM, Bandopadhyay P, Barnholtz-Sloan JS, Beroukhi R, Bock C, Brastianos PK, Brat DJ, Brodbelt AR, Bruns AF, Bulsara KR, Chakrabarty A, Chakravarti A, Chuang JH, Claus EB, Cochran EJ, Connelly J, Costello JF, Finocchiaro G, Fletcher MN, French PJ, Gan HK, Gilbert MR, Gould PV, Grimmer MR, Iavarone A, Ismail A, Jenkinson MD, Khasraw M, Kim H, Kouwenhoven MCM, LaViolette PS, Li M, Lichter P, Ligon KL, Lowman AK, Malta TM, Mazor T, McDonald KL, Molinaro AM, Nam DH, Nayyar N, Ng HK, Ngan CY, Niclou SP, Niers JM, Noushmehr H, Noorbakhsh J, Ormond DR, Park CK, Poisson LM, Rabadan P, Radlwimmer B, Rao G, Reifemberger G, Sa JK, Schuster M, Shaw BL, Short SC, Sillevs Smitt PA, Sloan AE, **Smits M**, Suzuki H, Tabatabai G, Van Meir EG, Watts C, Weller M, Wesseling P, Westerman BA, Widhalm G, Woehrer A, Yung WKA, Zadeh G, Huse JT, De Groot JF, Stead LF, Verhaak RGW & The GLASS Consortium. *Longitudinal molecular trajectories of diffuse glioma in adults*. Nature 2019;576:112-120. **70.0\***
- 87 Van der Voort SR, Incekara F, Wijnenga MMJ, Kapsas G, Gardeniers M, Schouten JW, Starmans MPA, Nandoe Tewarie R, Lycklama GJ, French PJ, Dubbink HJ, Van den Bent MJ, Vincent AJPE, Niessen WJ, Klein S, **Smits M**. *Predicting the 1p/19q codeletion status of presumed low grade glioma with an externally validated machine learning algorithm*. Clin Cancer Res 2019;25:7455-7462. **13.8\***
- 88 **Smits M**, Bendszus M, Collette S, Postma LA, Dhermain F, Hagenbeek RE, Clement PM, Liu Y, Wick W, Van den Bent MJ, Heiland S. *Repeatability and reproducibility of relative cerebral blood volume measurement of recurrent glioma in a multicenter trial setting*. Eur J Cancer 2019;114:89-96. **10.0**
- 89 Meijboom R, Steketee RME, Ham LS, Mantini D, Bron EE, Van der Lugt A, Van Swieten JC, **Smits M**. *Exploring quantitative group-wise differentiation of Alzheimer's disease and behavioural variant frontotemporal dementia using tract-specific microstructural white matter and functional connectivity measures at multiple time points*. Eur Radiol 2019;29:5149-5159. **7.0**
- 90 Le Rhun E, Devos P, Boulanger T, **Smits M**, Brandsma D, Rudà R, Furtner J, Hempel J-M, Postma TJ, Roth P, Snijders TJ, Winkler F, Winklehofer S, Castellano A, Hattingen E, Capellades J, Gorlia T, Van den Bent M, Wen PY, Bendszus M, Weller M. *The RANO Leptomeningeal Metastasis Group proposal to assess response to treatment: lack of feasibility and clinical utility, and a revised proposal*. Neuro Oncol 2019;21:648-658. **13.0\***
- 91 Wijnenga MMJ, Van der Voort SR, French PJ, Klein S, Dubbink HJ, Dinjens WNM, Atmodimedjo PN, De Groot M, Kros JM, Dirven CMF, Vincent AJPE, **Smits M**, Van den Bent MJ. *Differences in spatial distribution between WHO 2016 low-grade glioma molecular subgroups*. NeuroOncol Adv 2019;1:vdz001.

- 92 Visser M, Müller D, Van Duijn RJM, **Smits M**, Verburg N, Hendriks E, Nabuurs R, Bot J, Eijgelaar R, Witte M, Van Herk MB, Barkhof F, De Witt Hamer P, De Munck JC. *Inter-rater agreement in glioma segmentations on longitudinal MRI*. *NeuroImage Clin* 2019;22:101727. 7.4
- 93 Incekara F, Koene S, Vincent AJPE, **Smits M**. *Association between supratotal glioblastoma resection and patient survival: a systematic review and meta-analysis*. *World Neurosurg* 2019;617-624. 2.2
- 94 D'Anna G, Pyatigorskaya N, Appelman A, Van Goethem J, **Smits M**. *Exploring new landmarks: analysis of Twitter usage during the 41st ESNR Annual Meeting*. *Neuroradiology* 2019;61:621-626. 3.0
- 95 Schiller R, van Heijst A, Tibboel D, Verhulst F, IJsselstijn H, van Rosmalen J, **Smits M**, Madderom M, White T. *Training-induced white matter microstructure changes in survivors of neonatal critical illness: A randomized controlled trial*. *Dev Cogn Neuros* 2019;38:110678. 5.8
- 96 deSouza NM, Achten E, Alberich-Bayarri A, Bamberg F, Boellaard R, Clement O, Fournier L, Gallagher F, Golay X, Heussel CP, Jackson EF, Manniesing R, Mayerhofer ME, Neri E, O'Connor J, Oguz KK, Persson A, **Smits M**, van Beek EJR, Zech CJ and European Society of Radiology. *Validated imaging biomarkers as decision-making tools in clinical trials and routine practice: current status and recommendations from the EIBALL\* subcommittee of the European Society of Radiology (ESR)*. *Insights Imaging*. 2019;10:87. 5.0
- 97 Incekara F, Satoer D, Visch-Brink EG, Vincent AJPE, **Smits M**. *Changes in language white matter tract microarchitecture are associated with cognitive deficits in patients with presumed low grade glioma*. *J Neurosurg* 2019:1-9. 5.4
- 98 Meijboom R, Steketee RME, Jiskoot LC, Bron EE, van der Lugt A, van Swieten JC, **Smits M**. *Qualitative Assessment of Longitudinal Changes in Phenocopy Frontotemporal Dementia*. *Front Neurol* 2019;10:1207. 4.1
- 99 Van Beek EJR, Kuhl C, Gong Q, Hall-Craggs M, Desmond P, Gold G, Gulani V, Reeder S, **Smits M**, Sodickson D, Tempny C, Wang M. *The value of MRI in Medicine – more than just another test?* *J Magn Reson Imaging* 2019;49:e14-e25. 5.1
- 100 Van Dijken BRJ, Van Laar PJ, **Smits M**, Dankbaar WJ, Enting RH, Van der Hoorn A. *Perfusion MRI in treatment evaluation of glioblastomas, clinical relevance of current and future techniques*. *J Magn Reson Imaging* 2019;49:11-22 (invited review) 5.1
- 101 Vernooij MW, Pizzini FB, Schmidt R, **Smits M**, Yousry TA, Bargallo N, Frisoni GB, Haller S, Barkhof F. *Dementia Imaging in Clinical Practice: A European-wide survey of 193 centers and conclusions by the ESNR Working Group*. *Neuroradiology* 2019;61:663-642. 3.0
- 2018
- 102 Thust SC, Heiland S, Falini A, Jäger HR, Waldman AD, Sundgren PC, Godi C, Katsaros VK, Ramos A, Bargalló N, Vernooij MW, Yousry T, Bendszus M, **Smits M**. *Glioma imaging in Europe: A survey of 220 centres and recommendations for best clinical practice*. *Eur Radiol* 2018;28:3306-3317. 7.0
- 103 Thust SC, Van den Bent MJ, **Smits M**. *Pseudoprogression of Brain Tumors*. *J Magn Reson Imaging* 2018 ;48:571-89. (invited paper) 5.1
- 104 Van den Bent MJ, Klein M, **Smits M**, Reijneveld JC, French PJ, Clement P, De Vos FYF, Wick A, Mulholland PJ, Taphoorn MJB, Lewis J, Weller M, Chinot OL, Kros JM, De Heer I, Verschuere T, Coens C, Golfopoulos V, Gorlia Th, Idbaih A. *Bevacizumab and temozolomide in patients with first recurrence of WHO grade II and III glioma, without 1p/19q co-deletion (TAVAREC): a randomised controlled phase 2 EORTC trial*. *Lancet Oncol* 2018;19:1170-1179. 54.4\*
- 105 Incekara F, **Smits M**, Dirven CM, Vincent AJPE. *Clinical feasibility of a wearable mixed reality device in neurosurgery*. *World Neurosurg* 2018;118:e422-e427. 2.2
- 106 Bouwen BLJ, Pieterman KJ, **Smits M**, Dirven CMF, Gao Z, Vincent AJPE. *The impacts of tumor and tumor associated epilepsy on subcortical brain structures and long distance connectivity in patients with low grade glioma*. *Front Neurol* 2018;9:1004. 4.1
- 107 Tap L, van Opbroek A, Niessen WJ, **Smits M**, Mattace-Raso FUS. *Aortic stiffness and brain integrity in elderly patients with cognitive and functional complaints*. *Clin Interv Aging* 2018;13:2161-2167. 3.8



- 108 Petr J, Mutsaerts HJMM, De Vita E, Steketee RME, **Smits M**, Nederveen AJ, Hofheinz F, Van den Hoff J, Asllani I. *Effects of systematic partial volume errors on the estimation of gray matter cerebral blood flow with Arterial Spin Labeling MRI*. MAGMA 2018;31:725-734. 2.5
- 109 Broen MPG, **Smits M**, Wijnenga MMJ, Dubbink HJ, Anten M, Schijns OEMG, Beckervordersandforth J, Postma AA, Van den Bent MJ. *The T2-FLAIR mismatch sign as an imaging marker for non-enhancing IDH-mutant, 1p/19q-intact lower grade glioma: A validation study*. Neuro Oncol 2018;20:1393-1399. 13.0\*
- 110 the GLASS Consortium. *Glioma through the looking GLASS: molecular evolution of diffuse gliomas and the Glioma Longitudinal Analysis Consortium*. Neuro Oncol 2018;20:873-884. 13.0\*
- 111 Vernooij MW, Jasperse B, Steketee R, Koek M, Vrooman H, Ikram MA, Papma J, Van der Lugt A, **Smits M**, Niessen WJ. *Automatic normative quantification of brain tissue volume to support the diagnosis of dementia: a clinical evaluation of diagnostic accuracy*. Neuroimage Clin 2018;20:374-379. 4.9
- 112 Wijnenga MMJ, French PJ, Dubbink HJ, Dinjes WNM, Atmodimedjo PN, Kros JM, **Smits M**, Gahrman R, Rutten GJ, Verheul JB, Fleischeuer R, Dirven CMF, Vincent AJPE, Van den Bent MJ. *The impact of surgery in molecularly defined low-grade glioma: an integrated clinical, radiological and molecular analysis*. Neuro Oncol 2018;20:103-112. 13.0\*
- 113 Clement P, Mutsaerts HJ, Václavů L, Ghariq E, Pizzini FB, **Smits M**, Acou M, Jovicich J, Vanninen R, Kononen M, Wiest R, Rostrup E, Bastos-Leite AJ, Larsson EM, Achten E. *Variability of physiological brain perfusion in healthy subjects – a systematic review of modifiers*. J Cereb Blood Flow Metab 2018;38:1418-1437. 7.0
- 114 Satoer D, Vincent A, Ruhaak L, **Smits M**, Dirven C, Visch-Brink E. *Spontaneous speech in patients with gliomas in eloquent areas: evaluation until 1 year after surgery*. Clin Neurol Neurosurg 2018;167:112-116. 1.9
- 2017
- 115 Van den Bent M, **Smits M**, Kros HM, Chang S. *Diffuse Infiltrating Oligodendroglioma and Astrocytoma*. J Clin Oncol 2017;35:2394-2401. 50.7\*
- 116 **Smits M**, Van den Bent M. *Imaging correlates of adult glioma genotypes*. Radiology 2017;284:316-331. 29.2\* (invited paper)
- 117 Gahrman R, Van den Bent M, Van der Holt B, Vernhout RM, Taal W, Vos M, De Groot JC, Beerepoot LV, Buter J, Flach HZ, Hanse M, Jasperse B, **Smits M**. *Comparison of 2D (RANO) and volumetric methods for assessment of recurrent glioblastoma treated with bevacizumab - a report from the BELOB trial*. Neuro Oncol 2017;19:853-861. 13.0\*
- 118 Ellingson BM, Gerstner E, **Smits M**, Huang R, Colen R, Abrey L, Aftab D, Schwab G, Hessel C, Harris R, Chakoyan A, Gahrman R, Pope W, Leu K, Raymond C, Woodworth D, De Groot J, Wen P, Batchelor T, Van den Bent M, Cloughesy T. *Diffusion MRI phenotypes predict overall survival benefit from Anti-VEGF monotherapy in recurrent glioblastoma: converging evidence from phase II trials*. Clin Cancer Res 2017;23:5745-5756. 13.8\*
- 119 Schiller R, IJsselstein H, Madderom M, Rietman A, **Smits M**, Van Heijst A, Tibboel D, White T, Muetzel R. *Neurobiologic correlates of attention and memory deficits following critical illness in early life*. Crit Care Med 2017;45:1742-1750. 9.3
- 120 Meijboom R, Steketee RME, Ham LS, Van der Lugt A, Van Swieten JC, **Smits M**. *Differential hemispheric predilection of microstructural white matter and functional connectivity abnormalities between respectively semantic and behavioral variant frontotemporal dementia*. J Alzheimers Dis 2017;56:789-804. 4.2
- 121 Weyts K, Vernooij MW, Steketee RME, Valkema R, **Smits M**. *Qualitative agreement and diagnostic performance of arterial spin labelling MRI and FDG PET-CT in suspected early-stage dementia. Comparison of arterial spin labelling MRI and FDG PET-CT in suspected dementia*. Clin Imag 2017;45:1-7. 2.4

- 122 Papma JM, **Smits M**, de Groot M, Mattace Raso FU, Van der Lugt A, Vrooman HA, Niessen WJ, Koudstaal PJ, Van Swieten JC, Van der Veen FM, Prins ND. *The effect of hippocampal function, volume and connectivity on posterior cingulate cortex functioning during episodic memory fMRI in mild cognitive impairment*. Eur Radiol 2017;27:3716-3724. **7.0**
- 123 Bron EE, **Smits M**, Papma J, Steketee RME, Meijboom R, De Groot M, Van Swieten JC, Niessen WJ, Klein S. *Multiparametric computer-aided differential diagnosis of Alzheimer's disease and frontotemporal dementia using structural and advanced MRI*. Eur Radiol 2017;27:3372-3382. **7.0**
- 124 Schiller RM, Van den Bosch GE, Muetzel RL, **Smits M**, Dudink J, Tibboel D, IJsselstein H, White T. *Neonatal critical illness and development: white matter and hippocampus alterations in school-age neonatal extracorporeal membrane oxygenation survivors*. Dev Med Child Neurol 2017;59:304-310. 4.9
- 125 Meijboom R, Steketee RME, Bron EE, Osse RJ, De Koning I, Jiskoot LC, Kein S, De Jong FJ, Van der Lugt A, Van Swieten JC, **Smits M**. *Functional connectivity and microstructural white matter changes in phenocopy frontotemporal dementia*. Eur Radiol 2017;27:1352-1360. **7.0**

2016

- 126 Steketee RM, Meijboom R, De Groot M, Bron EE, Niessen WJ, Van der Lugt A, Van Swieten JC, **Smits M**. *Concurrent white and grey matter degeneration of disease-specific networks in early-stage Alzheimer's disease and behavioural variant frontotemporal dementia*. Neurobiol Aging 2016;43:119-28. 5.1
- 127 **Smits M**. *Imaging of oligodendroglioma*. Br J Radiol 2016;89:20150857. (invited paper) 3.6
- 128 Steketee RME, Meijboom R, Bron EE, Osse RJ, De Koning I, Jiskoot LC, Kein S, De Jong FJ, Van der Lugt A, Van Swieten JC, **Smits M**. *Structural and functional brain abnormalities place phenocopy frontotemporal dementia (FTD) in the FTD spectrum*. Neuroimage Clin 2016;11:595-605. 4.9
- 129 Van de Sandt-Koenderman WME, Méndez Orellana CP, Van der Meulen I, **Smits M**, Ribbers G. *Language lateralisation after Melodic Intonation Therapy: an fMRI study in sub-acute and chronic aphasia*. Aphasiology 2018;32:765-783. 1.9
- 130 Gotink R, Meijboom R, Vernooij MW, **Smits M**, Hunink MG. *8-week mindfulness based stress reduction induces brain changes similar to traditional long-term meditation practice - a systematic review*. Brain Cognition 2016;108:31-42. 2.7
- 131 Van Putten EH, Wembacher-Schröder E, **Smits M**, Dirven CM. *MRI-based assessment of gadolinium diethylenetriamine penta-acetic acid test-infusion in detecting dysfunction of CED catheters*. World Neurosurg 2016;89:272-279. 2.2
- 132 Steketee RME, Bron EE, Meijboom R, Houston GC, Klein S, Mutsaerts HJMM, Méndez-Orellana CP, De Jong FJ, Van Swieten JC, Van der Lugt A, **Smits M**. *Early-stage differentiation between presenile Alzheimer's disease and frontotemporal dementia using arterial spin labeling MRI*. Eur Radiol 2016;26:244-253. **7.0**

2015

- 133 Grade M, Hernandez Tamames JA, Pizzini FB, Achten E, Golay X, **Smits M**. *A Neuroradiologist's guide to Arterial Spin Labeling MRI in clinical practice*. Neuroradiology 2015;57:1181-202. (invited paper) 3.0
- 134 Steketee RME, Mutsaerts HJMM, Bron EE, Van Osch MJP, Majoie CBLM, Van der Lugt A, Nederveen AJ, **Smits M**. *Quantitative functional arterial spin labeling (fASL) MRI - sensitivity and reproducibility of regional CBF changes using pseudo-continuous ASL product sequences*. PLoS One 2015 10:e0132929. 3.8
- 135 Ellingson BM, Bendszus M, Boxerman JL, Barboriak D, Erickson BJ, **Smits M**, Nelson SJ, Gerstner E, Alexander B, Goldmacher G, Wick W, Vogelbaum M, Weller M, Galanis E, Kalpathy-Cramer J, Shankar L, Jacobs P, Pope WB, Yang D, Chung C, Knopp MV, Cha S, van den Bent MJ, Chang S, Yung WKA, Cloughesy TF, Wen PY, Gilbert MR. *Consensus recommendations for a standardized brain tumor imaging protocol (BTIP) in clinical trials*. Neuro Oncol 2015;17:1188-98. **13.0\***

- 136 Alsop DC\*, Detre JA\*, Golay X\*, Günther M\*, Hendrikse J\*, Hernandez-Garcia L\*, Hanzhang L\*, Macintosh BL\*, Parkes LM\*, **Smits M**\*, Van Osch MJP\*, Wang DJJ\*, Wong EC\*, Zaharchuk G\*. *Recommended Implementation of Arterial Spin Labeled Perfusion MRI for Clinical Applications: A consensus of the ISMRM Perfusion Study Group and the European Consortium for ASL in Dementia*. \*authors listed in alphabetical order. Magn Reson Med 2015;73:102-116. 3.7
- 137 Bron EE, **Smits M**, Niessen WJ, Klein S. *Feature Selection Based on the SVM Weight Vector for Classification of Dementia*. IEEE J Biomed Health 2015;19:1617-26. 7.0
- 138 Dirven L, Van den Bent MJ, Bottomley A, Vernhout RM, Van der Meer N, Vos MJ, Walenkamp AME, Beerepoot LV, Hanse MCJ, Reijneveld JC, Otten A, De Vos FYFL, **Smits M**, Bromberg JEC, Taal W, Taphoorn MJB and on behalf of the Dutch Neuro-Oncology Group (LWNO). *The impact of bevacizumab on health-related quality of life in patients treated for recurrent glioblastoma: results of the randomised controlled phase 2 BELOB trial*. Eur J Cancer 2015;51:1321-30. 10.0
- 139 Bron EE, **Smits M**, Van der Flier WM, Vrenken H, Barkhof F, Scheltens Ph, Papma JM, Steketee RME, Méndez Orellana C, Meijboom R, Pinto M, Meireles JR, Garrett C, Bastos-Leite AJ, Abdulkadir A, Ronneberger O, Amoroso N, Bellotti R, Cárdenas-Peña D, Álvarez-Meza AM, Dolph CV, Iftekharruddin KM, Eskildsen SF, Coupé P, Fonov VS, Franke K, Gaser C, Ledig C, Guerrero R, Tong T, Gray K, Moradi E, Tohka J, Routier A, Durrleman S, Sarica A, Di Fatta G, Sensi F, Chincarini A, Smith GM, Stoyanov ZV, Sørensen L, Nielsen M, Tangaro S, Inglese P, Wachinger C, Reuter M, Van Swieten JC, Niessen WJ, Klein S. *Standardized evaluation of algorithms for computer-aided diagnosis of dementia based on structural MRI: the CADDementia challenge*. Neuroimage 2015;111:562-79. 7.4
- 2014
- 140 Mutsaerts HJMM, Steketee RME, Heijtel DFR, Kuijter JPA, Van Osch MJP, Majoie CBLM, **Smits M**, Nederveen AJ. *Reproducibility of pharmacological ASL using sequences from different vendors: implications for multi-center drug studies*. MAGMA 2015;28:427-36. 2.5
- 141 **Smits M**, Jiskoot LC, Papma JM. *White matter tracts of speech and language*. Semin Ultrasound CT MR 2014;35:504-516. (invited paper) 1.6
- 142 Méndez Orellana CP, Visch-Brink EG, Vernooij MW, Kalloe S, Satoer D, Vincent AJPE, Van der Lugt A, **Smits M**. *Crossed Cerebro-Cerebellar Language Lateralization: an Additional Diagnostic Feature for Assessing Atypical Language Representation in Presurgical Functional MR Imaging*. AJNR Am J Neuroradiol 2015;36:518-24. 5.0
- 143 Mutsaerts HJMM, Steketee RME, Heijtel DFR, Kuijter JPA, Van Osch MJP, Majoie CBLM, **Smits M**, Nederveen AJ. *Inter-vendor reproducibility of pseudo-continuous arterial spin labeling at 3 Tesla*. PLoS One 2014;9:e104108. 3.8
- 144 Méndez Orellana CP, Van de Sandt-Koenderman WME, Saliassi E, Van der Meulen I, Klip S, Van der Lugt A, **Smits M**. *Insight into the neurophysiological processes of melodically intoned language with functional MRI*. Brain Behav 2014;4:615-625. 3.4
- 145 Bron EE, Steketee RME, Houston GC, Oliver RA, Achterberg HC, Loog M, Van Swieten JC, Hammers A, Niessen WJ, **Smits M**, Klein S. *Diagnostic classification of arterial spin labeling and structural MRI in presenile early dementia*. Hum Brain Mapp 2014;35:4916-31. 5.4
- 146 Shamonin DP, Bron EE, Lelieveldt BPF, **Smits M**, Klein S, Staring M. *Fast Parallel Image Registration on CPU and GPU for Diagnostic Classification of Alzheimer's Disease*. Front Neuroinform 2014;7:50. 3.7
- 147 Satoer D, Visch-Brink E, **Smits M**, Kloet A, Looman C, Dirven C, Vincent A. *Long-term evaluation of cognition after glioma surgery in eloquent areas*. J Neurooncol 2014;116:153-60. 4.5
- 148 Papma JM, De Groot M, De Koning I, Mattace Raso FU, Van der Lugt A, Vernooij MW, Niessen WJ, Van Swieten JC, Koudstaal PJ, Prins ND, **Smits M**. *Cerebral small vessel disease affects white matter microstructure in mild cognitive impairment*. Hum Brain Mapp 2014;35:2836-51. 5.4
- 149 Van der Veen FM, Aben HP, **Smits M**, Röder CH. *Grapheme-color synesthesia interferes with color perception in a standard Stroop task*. Neuroscience 2014;258:246-253. 3.7

2013

- 150 Luijten M, Veltman DJ, Hester R, **Smits M**, Nijs IM, Pepplinkhuizen L, Franken IH. *The role of dopamine in inhibitory control in smokers and non-smokers: a pharmacological fMRI study*. Eur Neuropsychopharmacol 2013;23:1247-56. **5.4**
- 151 Mies GW, Van den Berg I, Franken IHA, **Smits M**, Van der Molen MW, Van der Veen FM. *Neurophysiological correlates of anhedonia on feedback processing*. Front Hum Neurosci 2013;7:96. 3.5
- 152 Schuil KDI, **Smits M**, Zwaan RA. *Sentential context modulates the involvement of the motor cortex in action language processing: An fMRI study*. Front Hum Neurosci 2013;7:100. 3.5
- 153 Van der Veen FM, Röder CH, **Smits M**. *Feedback processing in schizophrenia: Effects of affective value and remedial action*. Psychiat Res 2013;213:108-114. **11.2\***
- 154 Marhe R, Luijten M, Van de Wetering BJ, **Smits M**, Franken IH. *Individual differences in anterior cingulate activation associated with attentional bias predict cocaine use after treatment*. Neuropsychopharmacol 2013;38:1085-93. **8.3\***
- 155 Liem EIML, Frens MA, **Smits M**, Van der Geest JN. *Cerebellar activation related saccadic inaccuracies*. Cerebellum 2013;12:224-235. 3.7
- 156 Satoer D, Vincent A, **Smits M**, Dirven C, Visch-Brink E. *Spontaneous speech of patients with gliomas in eloquent areas before and early after surgery*. Acta Neurochir 2013;155:685-692. 2.8

2012

- 157 Papma JM, Den Heijer T, De Koning I, Mattace-Raso FU, Van der Lugt A, Van der Lijn F, Van Swieten JC, Koudstaal PJ, **Smits M**, Prins ND. *The influence of cerebral small vessel disease on default mode network deactivation in mild cognitive impairment*. Neurolmage Clin 2012;2:33-42. 4.9
- 158 Luijten M, Veltman DJ, Hester R, **Smits M**, Pepplinkhuizen L, Franken I. *Brain activation associated with attentional bias in smokers is modulated by a dopamine antagonist*. Neuropsychopharmacol 2012;37:2772-2779. **8.3\***
- 159 Vernooij MW, **Smits M**. *Structural neuroimaging in ageing and AD*. NeuroImaging Clinics of North America 2012;22:33-55,vii-viii. 2.6
- 160 Satoer D, Vork J, Visch-Brink EG, **Smits M**, Dirven C, Vincent AJPE. *Cognitive functioning early after surgery of gliomas in eloquent areas*. J Neurosurg 2012;117:831-838. **5.4**
- 161 Simon-Sánchez J, Doppler EGP, Cohn-Hokke PE, Hukema RK, Nicolaou N, Seelaar H, De Graaf JR, De Koning I, Van Schoor NM, Deeg DJH, **Smits M**, Raaphorst J, Van den Berg LH, Schelhaas HJ, De Die-Smulders CE, Majoor-Krakauer D, Rozemuller AJ, Willemsen R, Pijnenburg YA, Heutink P, Van Swieten JC. *The clinical and pathological phenotype of C9ORF72 hexanucleotide repeat expansions*. Brain 2012;135:723-735. **15.3\***
- 162 **Smits M**, Van de Sandt-Koenderman WME, Visch-Brink EG, Van der Lugt A. *Advanced MR neuroimaging of language recovery after aphasic stroke: a technical review*. Arch Phys Med Rehab 2012;93 (Suppl 1):S4-14 (invited paper). **4.1**

2011

- 163 Van der Ploeg T, **Smits M**, Dippel DWJ, Hunink MGM, Steyerberg EW. *Prediction of intracranial findings on CT-scans by alternative modelling techniques*. BMC Med Res Methodol 2011;11:143. **4.6**
- 164 Van der Veen FM, Röder CH, Mies GW, Van der Lugt A, **Smits M**. *Remedial action and feedback processing in a time-estimation task: evidence for a role of the rostral cingulate zone in behavioral adjustments without learning*. Neurolmage 2011;54:447-454. **7.4**
- 165 Luijten M, Veltman DJ, Van den Brink W, Hester R, Field M, **Smits M**, Franken IH. *Neurobiological substrate of smoking-related attentional bias*. Neurolmage 2011;54:2374-2381. **7.4**
- 166 Mies, GW, Van der Molen MW, **Smits M**, Hengeveld MW, Van der Veen FM. *The anterior cingulate cortex responds differently to the validity and valence of feedback in a time-estimation task*. Neurolmage 2011;56:2321-2328. **7.4**

- 167 **Smits M**, Houston GC, Dippel DWJ, Wielopolski PA, Koudstaal PJ, Hunink MGM, Van der Lugt A. *Microstructural brain injury in post-concussion syndrome after minor head injury*. *Neuroradiology* 2011;53:553-563. 3.0
- 168 Michielsen ME, Selles RW, Van der Geest JN, Eckhart M, Stam HJ, **Smits M**, Ribbers GM, Bussmann JBJ. *Motor recovery and cortical reorganization after mirror therapy in chronic stroke patients: a phase II randomized controlled trial*. *Neurorehabil Neural Repair* 2011;25:223-233. 4.9\*
- 169 Michielsen ME, **Smits M**, Ribbers GM, Stam HJ, Van der Geest JN, Bussmann JBJ, Selles RW. *The neuronal correlates of mirror therapy: an fMRI study on mirror induced visual illusions in patients with stroke*. *J Neurol Neurosurg Psychiatry* 2011;82:393-398. 13.7\*
- 170 **Smits M**, Wieberdink RW, Bakker SL, Dippel DWJ. *Functional magnetic resonance imaging to determine hemispheric language dominance prior to carotid endarterectomy*. *J Neuroimaging* 2011;21:e162-165. 2.3
- 2010
- 171 **Smits M**, Dippel DWJ, Nederkoorn PJ, Dekker HM, Vos PE, Kool DR, Van Rijssel DA, Twijnstra A, Hofman PAM, Tanghe HLJ, Hunink MGM. *Minor head injury: CT-based strategies for management – a cost-effectiveness analysis*. *Radiology* 2010;254:532-540. 29.1\*
- 2009
- 172 **Smits M**, Dippel DWJ, Wielopolski PA, Houston GC, Koudstaal PJ, Hunink MGM, Van der Lugt A. *Postconcussion syndrome after minor head injury: brain activation of working memory and attention*. *Hum Brain Mapp* 2009;30:2789-2803. 5.4
- 173 Dietvorst RC, Verbeke WJMI, Bagozzi RP, Yoon C, **Smits M**, Van der Lugt A. *A Salesforce-Specific Theory of Mind Scale: Tests of Its Validity by Multitrait-Multimethod Matrix, Confirmatory Factor Analysis, Structural Equation Models, and Functional Magnetic Resonance Imaging*. *J Mark Res* 2009;46:653-668. 6.7
- 174 Schraa-Tam CKL, Van Broekhoven PCA, Van der Geest JN, Frens MA, **Smits M**, Van der Lugt A. *Cortical and cerebellar activation induced by reflexive and voluntary saccades*. *Exp Brain Res* 2009;192:175-187. 2.1
- 175 Matthys K, **Smits M**, Van der Geest JN, Van der Lugt A, Suerinck R, Stam HJ, Selles RW. *Mirror induced visual illusions of hand movements: a functional magnetic resonance imaging study*. *Arch Phys Med Rehab* 2009;90:675-681. 4.1
- 176 Van Broekhoven PCA, Schraa-Tam CK, Van der Lugt A, **Smits M**, Frens MA, Van der Geest JN. *Cerebellar Contributions to the Processing of Saccadic Errors*. *Cerebellum* 2009;8:403-415. 3.7
- 177 Schraa-Tam CK, Van der Lugt A, **Smits M**, Frens MA, Van Broekhoven PC, Van der Geest JN. *Differences between smooth pursuit and optokinetic eye movements using limited lifetime dot stimulation: a functional magnetic resonance imaging study*. *Clin Physiol Funct Imaging* 2009;29:245-254. 2.1
- 2008
- 178 **Smits M**, Hunink MGM, Van Rijssel DA, Dekker HM, Vos PE, Kool DR, Nederkoorn PJ, Twijnstra A, Hofman PAM, Tanghe HLJ, Dippel DWJ. *Outcome after complicated minor head injury*. *AJNR Am J Neuroradiol* 2008;29:506-513. 5.0
- 179 Schraa-Tam CK, Van der Lugt A, Frens MA, **Smits M**, Van Broekhoven PCA, Van der Geest JN. *An fMRI study on smooth pursuit and fixation suppression of the optokinetic reflex using similar visual stimulation*. *Exp Brain Res* 2008;185:535-544. 2.1

- 180 Schraa-Tam CK, Van der Lugt A, **Smits M**, Frens MA, Van Broekhoven PCA, Van der Geest JN. *fMRI of optokinetic eye movements with and without a contribution of smooth pursuit*. J Neuroimaging 2008;18:158-167. 2.3

2007

- 181 **Smits M**, Dippel DWJ, Steyerberg EW, De Haan GG, Nederkoorn PJ, Kool DR, Vos PE, Dekker HM, Twijnstra A, Hofman PAM, Tanghe HLJ, Hunink MGM. *Predicting intracranial traumatic findings on computed tomography in patients with minor head injury: the CHIP prediction rule*. Ann Intern Med 2007;146:397-405. 51.6\*
- 182 **Smits M**, Dippel DWJ, De Haan GG, Nederkoorn PJ, Kool DR, Vos PE, Dekker HM, Twijnstra A, Hofman PAM, Tanghe HLJ, Hunink MGM. *Minor head injury: Guidelines for the use of CT – a multicenter validation study*. Radiology 2007;245:831-838. 29.1\*
- 183 Vernooij MW\*, **Smits M\***, Wielopolski PA, Houston GC, Krestin GP, Van der Lugt A. *Fiber density asymmetry of the arcuate fasciculus in relation to functional hemispheric language lateralization in both right- and left-handed healthy subjects: a combined fMRI and DTI study*. Neurolmage 2007;35:1064-1076. \* joint principal authorship 7.4
- 184 **Smits M**, Hunink MGM, Nederkoorn PJ, Kool DR, Vos PE, Dekker HM, Twijnstra A, Hofman PAM, De Haan GG, Tanghe HLJ, Dippel DWJ. *A history of loss of consciousness or post-traumatic amnesia in minor head injury: “conditio sine qua non” or one of the risk factors?* J Neurol Neurosurg Psychiatry 2007;146:397-405. 13.7\*
- 185 **Smits M\***, Vernooij MW\*, Wielopolski PA, Houston GC, Vincent A, Van der Lugt A. *Incorporating functional MR imaging into diffusion tensor tractography in the preoperative assessment of the corticospinal tract in patients with brain tumors*. AJNR Am J Neuroradiol 2007;28:1354-1361. \*joint principal authorship. 5.0
- 186 **Smits M**, Kovacs S, De Ridder D, Van Hecke P, Sunaert S. *Lateralization of functional magnetic resonance imaging (fMRI) activation in the auditory pathway of patients with lateralized tinnitus*. Neuroradiology 2007;49:669-679. 3.0
- 187 **Smits M**, Peeters RR, Van Hecke, Sunaert S. *A 3T event-related functional magnetic resonance imaging (fMRI) study of primary and secondary gustatory cortex localization using natural tastants*. Neuroradiology 2007;49:61-71. 3.0

2006

- 188 **Smits M**, Visch-Brink E, Schraa-Tam CK, Koudstaal PJ, Van der Lugt A. *Functional MR imaging of language processing: an overview of easy-to-implement paradigms for patient care and clinical research*. RadioGraphics 2006;26:S145-S158. 6.3
- 189 Kovacs S, Peeters R, **Smits M**, De Ridder D, Van Hecke P, Sunaert S. *Activation of cortical and subcortical auditory structures at 3 T by means of a functional magnetic resonance imaging paradigm suitable for clinical use*. Invest Radiol 2006;41:87-96. 10.1\*
- 190 De Ridder D, De Mulder G, Verstraeten E, Van der Kelen K, Sunaert S, **Smits M**, Kovacs S, Verlooy J, Van de Heyning P, Moller AR. *Primary and secondary auditory cortex stimulation for intractable tinnitus*. ORL J Otorhinolaryngol Relat Spec 2006;68:48-54.

2005

- 191 **Smits M**, Dippel DWJ, De Haan GG, Nederkoorn PJ, Kool DR, Vos PE, Dekker HM, Twijnstra A, Hofman PAM, Tanghe HLJ, Hunink MGM. *External validation of the Canadian CT Head Rule and the New Orleans Criteria for CT scanning in patients with minor head injury*. JAMA 2005;294:1519-1525. 157\*

letters & short communications

- 192 Pons Escoda A, **Smits M**. *Dynamic-Susceptibility-Contrast Perfusion-Weighted-Imaging (DSC-PWI) in brain tumors: a brief up-to-date overview for clinical neuroradiologists*. Eur Radiol, in press. 7.0

- 193 Clement P, **Smits M**, Van Osch MJP, Costa BM, Warnert EAH. *Micro- to macroscale magnetic resonance imaging of glioma*. MAGMA 2022;35:1-2. 2.5
- 194 Collee E, Satoer D, Wegener Sleeswijk B, Klimek M, **Smits M**, Van Veelen ML, Dirven C, Vincent A. *Language improvement after awake craniotomy in a 12-year-old child: Illustrative case*. J neurosurg Case lessons, in press.
- 195 Kaufmann TJ, **Smits M**, Boxerman J, Huang R, Barboriak DP, Weller M, Chung C, Tsien C, Brown PD, Shankar L, Galanis E, Gerstner E, Van den Bent MJ, Burns TC, Parney IF, Dunn G, Brastianos PK, Lin NU, Wen PY, Ellingson BM. *Response to letter to the editor*. Neuro Oncol 2020;22:1706-1707. 13.0\*
- 196 Gijtenbeek JMM, Dewit LGH, Van Elst KJA, Enting RH, Gathier CS, De Graeff A, Heessels-Smetsers J, Hendriks LEL, Jacobs-van Leur JJMG, Lagerwaard FJ, Nandoe Tewarie RDS, **Smits M**, De Vos FYFL, Zindler JD, Buddeke J. *Revision of the guideline Brain metastases; the need for multidisciplinary management [published in Dutch: Revisie richtlijn Hersenmetastasen; waarom multidisciplinair overleg noodzakelijk is.] Nederlands Tijdschrift voor Oncologie (NTvO) 2020;17:193-5.*
- 197 **Smits M**, De Geus-Oei LF, Van Rijn RR. *Radiology and nuclear medicine in the Netherlands: from separate worlds to a common perspective [published in Dutch: Radiologie en nucleaire geneeskunde in Nederland. Van gescheiden werelden naar een gemeenschappelijk beeld]*. Ned Tijdschr Geneesk, 2019;163:D4400,
- 198 Incekara F, **Smits M**, Vincent AJPE. *Letter to the editor: Supratotal resection of glioblastoma*. J Neurosurg 2019:1-2. 5.4
- 199 Satoer D, De Witte E, **Smits M**, Bastiaanse R, Vincent A, Mariën P, Visch-Brink E. *Differential effects of awake glioma surgery in 'critical' language areas on cognition: 4 case studies*. Case Rep Neurol Med 2017:6038641.
- 200 Bos EM, Spoor JKH, **Smits M**, Schouten JW, Vincent AJPE. *Out-of-Body experience during awake craniotomy*. World Neurosurg 2016, doi: 10.1016/j.wneu.2016.05.002. 2.2
- 201 Rath JJG, **Smits M**, Ducray F, Van den Bent MJ. *Increased rCBV in status epilepticus*. J Neurol 2012;259:1746-1748. 4.0
- 202 Engelen M, Nederkoorn PJ, **Smits M**, Van de Beek D. *Delayed life-threatening subdural hematoma after minor head injury in a patient with severe coagulopathy*. Cases J 2009;2:7587.
- 203 **Smits M**, Dippel DWJ, Hunink MGM. *Cost effectiveness of using computed tomography (CT) for minor head injury compared with several other management strategies*. J Trauma 2007;62:1314-1315.
- 204 De Ridder D, Kovacs S, **Smits M**, Peeters R, Van Hecke P, Sunaert S. *Comment on Dr. Folmer's letter to the editor entitled "Lateralization of neural activity associated with tinnitus"*. Neuroradiology 2007;49:693-696. 3.0
- 205 **Smits M**, Dippel DWJ, Hunink MGM. *Letter in reply: CT scanning for Minor Head Injury*. JAMA 2006;295:497-498. 157\*

#### *published abstracts*

- Teunissen W, Lavrova A, Warnert E, Van den Bent M, **Smits M**. *ASL for brain tumour surveillance: do we really need to calculate CBF maps?* ESNR 2022, Lisbon/PT.
- Wu Y, Derks SHAE, Wood T, Van der Veldt AAM, **Smits M**, Warnert EAH. *Dynamic Glucose Enhanced (DGE) CEST imaging at 3T: from phantom to patient with brain metastases*. Proc Intl Soc Mag Reson Med 2022;30:2805.
- Venugopal K, Arzanforoosh F, Van Dorth D, **Smits M**, Hernandez-Tamames JA, Warnert EAH, Van Osch MJP, Poot DHJ. *Quantification of microvascular properties of gliomas using DSC – Hybrid EPI based MR Vascular Fingerprinting compared with Vessel Size Imaging*. Proc Intl Soc Mag Reson Med 2022;30:2508.
- Arzanforoosh F, Van der Voort SR, Incekara F, Vincent AJP, Van den Bent M, **Smits M**, Warnert EAH. *Correlation of vessel size and cerebral blood volume measurements in glioma genetic subtypes*. Proc Intl Soc Mag Reson Med 2022;30:2657.

5. Van Dorth D, Jiang J, Schmitz-Abecassis B, Croese RJ, Taphoorn MJB, **Smits M**, Koekkoek JAF, Dirven L, De Bresser J, Van Osch MJP. *Influence of Arterial Transit Time Delay in Arterial Spin Labeling on Differentiating Tumor Progression and Pseudo-Progression in Glioblastoma*. Proc Intl Soc Mag Reson Med 2022;30:2653.
6. Teunissen W, Lam CW, Labrecque J, Hunink M, **Smits M**. *Role of perfusion MRI in clinical decision making during tumour surveillance*. ESNR 2021, Geneva/CH.
7. **Smits M**, Vernooij MW, Bargallo I, Alabart N, Ramos Gonzales A, Yousry TA. *The impact of the Covid-19 pandemic on adult diagnostic neuroradiology in Europe*. ECR 2021, online.
8. Lavrova A, Teunissen W, Warnert E, Van den Bent M, Cheremisin V, **Smits M**. *Diagnostic accuracy of ASL in comparison with DSC perfusion in the surveillance of different types of brain tumors*. ECR 2021, online.
9. Teunissen W, Lavrova A, Warnert E, Van den Bent M, Cheremisin V, **Smits M**. *ASL for brain tumours: do we really need CBF maps?* ECR 2021, online.
10. Puis I, Koene S, Van der Voort S, Incekara F, Vincent A, Van den Bent M, Lycklama à Nijeholt G, Nandoe Tewarie R, Veldhuijzen van Zanten S, **Smits M**. *Noninvasive differentiation of molecular subtypes of non-enhancing glioma using MRI perfusion and diffusion parameters*. ECR 2021, online.
11. Van Garderen K, Alafandi A, Klein S, Van der Voort S, Weller M, Tonn J-C, Gorlia T, **Smits M**. *Fully automatic analysis of residual tumor volumes relating to MGMT-methylation in a subset of patients from the EORTC CENTRIC and CORE trials*. ESMRMB 2020: Magn Reson Mater Phy 33, 69–233 (2020). <https://doi.org/10.1007/s10334-020-00876-y>.
12. Van der Voort S, Incekara F, Wijnenga M, Lycklama à Nijeholt G, Vincent A, Van den Bent M, Niessen W, **Smits M**, Klein S. *PrognosAls: Simultaneous segmentation and prediction of genetic status and grade in glioma*. ESMRMB 2020: Magn Reson Mater Phy 32, p. 77. doi: 10.1007/s10334-020-00876-y.
13. Van Dorth D, Hirschler L, Venugopal K, Schmitz Abecassis B, Poot DHJ, **Smits M**, Hernandez Tamames JA, Van Osch MJP. *Relationship between R2(\*) relaxation and Gd-DTPA concentration in whole blood assessed by simulations*. ESMRMB 2020, online.
14. Teunissen W, Lavrova A, Flies C, Snijders T, Cheremisin V, Dankbaar JW, Warnert EA, **Smits M**. *A visual comparison of ASL and DSC perfusion MRI for brain tumour surveillance*. ESMRMB 2020, online.
15. Derks SHAE, Warnert E, Wu Y, Knutsson L, Golay X, Van den Bent M, Van der Veldt A, **Smits M**. *CEST: challenges and opportunities in clinical neurology*. ESMRMB 2020, online.
16. Wu Y, Wood T, Hernandez Tamames JA, Barker GJ, **Smits M**, Warnert EAH. *Reproducibility study of Chemical Exchange Saturation Transfer imaging in the human brain at 3T*. ESMRMB 2020, online.
17. Venugopal K, Poot D, Van Dorth D, Van Osch M, **Smits M**, Hernandez Tamames JA. *Contrast agent and MR signal simulation for any MR pulse sequence on GE scanners*. ESMRMB 2020, online.
18. Arzanforoosh F, Croal P, Chappell M, **Smits M**, Warnert E. *Leakage correction of dynamic susceptibility contrast (DSC)-MRI on enhancing and nonenhancing glioma*. ESMRMB 2020, online.
19. Puis IJ, **Smits M**, Veldhuijzen van Zanten SEM. *PET/MRI hybrid imaging in the management of CNS tumors: usability and advantages shown by a clinical series of diffuse midline glioma (DMG) patients treated with [89Zr]-bevacizumab*. ESMRMB 2020, Magn Reson Mater Phy 33, 69–233 (2020). <https://doi.org/10.1007/s10334-020-00876-y>.
20. Van der Voort S, Incekara F, Wijnenga M, Kapsas G, Gahrman R, Schouten JW, Nandoe Tewarie R, Lycklama GJ, French PJ, Dubbink HJ, Vincent AJPE, Van den Bent MJ, Niessen WJ, **Smits M**, Klein S. *PrognosAls: Simultaneous segmentation and prediction of genetic status and grade in glioma*. ESMRMB 2020, online.
21. Warnert EAH, Incekara F, Vincent AJPE, Schouten JW, Van den Bent MJ, French PJ, Dubbink HJ, Kros JM, Hernandez-Tamames JA, **Smits M**. *Voxelwise correlation between vascular parameters obtained with ASL and DSC as predictor of IDH-mutation status in non-enhancing glioma*. ISMRM 2019, Montréal/CA.
22. Starmans MPA, Van der Voor SR, Vos M, Incekara F, Visser JJ, **Smits M**, Thomeer MG, Niessen WJ, Klein S. *Fully automatic construction of optimal radiomics workflows*. ECR 2019, Vienna/AT.



23. Starmans M, Van der Voor S, Miclea R, Vos M, Incekara F, Timbergen M, Wijnenga M, Padmos G, Kessels W, Van Leenders A, Van den Bent M, Vincent A, Grünhagen D, Verhoof C, Sleijfer S, Visser JJ **Smits M**, Thomeer MG, Niessen W, Klein S. *Fully automatic construction of optimal radiomics workflows*. 7th Dutch Bio-Medical Engineering Conference 24-25 Jan 2019, Egmond aan Zee/NL.
24. Van der Loo WPM, Hernandez-Tamames JA, Incekara F, **Smits M**, Warnert EAH. *Assessing brain tumour physiological heterogeneity with multi-parametric MRI*. ISMRM Benelux annual meeting 17 Jan 2019, Leiden/NL.
25. Warnert EAH, Incekara F, Vincent AJPE, Schouten JW, Van den Bent MJ, French PJ, Dubbink HJ, Kros JM, Hernandez-Tamames JA, **Smits M**. *Voxelwise correlation between vascular parameters obtained with ASL and DSC as predictor of IDH-mutation status in non-enhancing glioma*. ISMRM Benelux annual meeting 17 Jan 2019, Leiden/NL.
26. Wijnenga MMJ, Van der Voort SR, French PJ, Klein S, Dubbink HJ, Dinjens WNM, Atmodimedjo PN, Schouten JW, Kros JM, Dirven CMF, Vincent AJPE, **Smits M**, Van den Bent MJ. *WHO 2016 grade II glioma molecular subtypes have a distinct spatial distribution pattern*. SNO annual meeting 2018, New Orleans, LA/US.
27. Koene S, Incekara F, Van der Voort S, Vincent A, Van den Bent M, Lycklama a Nijeholt G, Nandoe Tewarie R, **Smits M**. *Identifying molecular subtypes of non-enhancing glioma using MRI perfusion and diffusion parameters*. EANO 2018, Stockholm/SE.
28. Koene S, Incekara F, Van der Voort S, Vincent A, Van den Bent M, Lycklama a Nijeholt G, Nandoe Tewarie R, **Smits M**. *Identifying molecular subtypes of non-enhancing glioma using MRI perfusion and diffusion parameters*. ESNR 2018, Rotterdam/NL.
29. Bargalló N, Cano I, Vitali P, Rosazza C, Urbach H, Alvarez-Linera J, Mancini L, Vernooij M, **Smits M**, Yoursy T. *Functional Magnetic Resonance Image for Language lateralization in epilepsy patients in Europe: results from the European Society for Neuroradiology (ESNR) Diagnostic Subcommittee Survey*. ESNR 2018, Rotterdam/NL.
30. Steketee R, Longarzo M, Alfano V, Cavaliere C, Grossi D, **Smits M**, Aiello M. *Investigating the relationship between perfusion and glucose metabolism by simultaneous PET/MRI in frontotemporal dementia*. ISMRM 2018, Paris/FR.
31. Gahrman R, Spoor JKH, Wijnenga MMJ, Leenstra S, Vincent AJPE, De Groot M, French PJ, Van den Bent MJ, **Smits M**. *Growth patterns of non-enhancing glioma assessed on DTI-derived isotropic and anisotropic maps are not associated with IDH and 1p19q codeletion status*. ISMRM 2018, Paris/FR.
32. Gahrman R, Van den Bent M, Van der Holt B, Vernhout R, Taal W, De Groot JC, Vos M, Buter J, Flach HZ, Hanse M, **Smits M**. *Establishing the optimal volumetric threshold for determining progressive disease in patients with recurrent glioblastoma*. RSNA 2017, Chicago, IL/US.
33. Wijnenga MMJ, French PJ, Dubbink HJ, Dinjens WNM, Atmodimedjo PN, Kros JM, **Smits M**, Gahrman R, Rutten GJ, Verheul JB, Fleischeuer R, Dirven CMF, Vincent AJPE, Van den Bent MJ. *The impact of surgery in molecularly defined low-grade glioma: an integrated clinical, radiological and molecular analysis*. SNO annual meeting 2017, San Francisco, CA/US.
34. Ellingson BM, Gerstner ER, **Smits M**, Huang RY, Colen R, Abrey LE, Aftab DT, Schwab GM, Hessel C, Gahrman R, Pope WB, de Groot J, Wen PY, Batchelor TT, van den Bent MJ, Cloughesy TF. *Diffusion MRI phenotypes predict overall survival benefit from anti-VEGF monotherapy in glioblastoma at first or second relapse*. SNO annual meeting 2017, San Francisco, CA/US.
35. Warnert EA, Incekara F, Van den Bent M, Vincent A, Dirven C, Wood T, Barker GJ, **Smits M**, Hernandez-Tamames JA. *Combined amide and amine CEST imaging in non-enhancing glioma at 3 Tesla*. ESMRBM 2017, Barcelona/ES.
36. Warnert EA, Incekara F, Van den Bent M, Vincent A, Dirven C, Wood T, Barker GJ, Hernandez-Tamames JA, **Smits M**. *Multi-parametric physiology mapping of non-enhancing gliomas in humans*. ESMRBM 2017, Barcelona/ES.
37. Petr J, Mutsaerts HJ, Hofheinz F, Steketee RM, **Smits M**, Nederveen AJ, Van den Hoff J, Asllani I. *Comparison of two methods for atrophy-correction in perfusion imaging: Partial-volume correction versus gray-matter volume covariate*. Magn Reson Mater Phy (2017) 30(Suppl 1): 343.
38. Incekara F, **Smits M**, Dirven C, Vincent A. *Clinical feasibility of a wearable mixed reality device in neurosurgery*. EANS 2017, Venice/IT.

39. Gahrman R, Leemans A, Van der Holt B, Vernhout RM, Bromberg J, Taal W, Vos J, De Groot JC, Hanse M, Van den Bent MJ, **Smits M**. *Minimum apparent diffusion coefficient (ADC<sub>min</sub>) decrease after bevacizumab and lomustine predicts overall survival (OS) in recurrent glioblastoma*. 40th annual scientific meeting of the ESNR 2017, Neuroradiology 2017;59(suppl):S29.
40. Steketee RME, Vernooij MW, Jasperse B, Koek M, Vrooman H, Ikram MA, Papma JM, van Swieten JC, van der Lugt A, Niessen WJ, **Smits M**. *Automatic quantification of brain MRI to improve the diagnostic workup of dementia in memory clinic patients*. *Alzheimers Dement* 2017;13:1119–P1120.
41. Blom-Smink RMA, Spielmann K, Méndez Orellana CP, Ribbers GM, **Smits M**, Crinion J, Van de Sandt-Koenderman WME. *Transcranial Direct Current Stimulation and neural reorganisation after aphasia treatment*. International Congress on Neurorehabilitation and Neural Repair 2017, Maastricht/NL.
42. Gahrman R, Leemans A, Van der Holt B, Vernhout RM, Taal W, Vos M, De Groot JC, Hanse M, Van den Bent M, **Smits M**. *Apparent diffusion coefficient histogram analysis in recurrent glioblastoma predicts overall survival after the first course of bevacizumab and lomustine*. WFNOS 2017, Zürich/CH.
43. Van der Voort SR, Gahrman R, Van den Bent MJ, Vincent AJPE, Niessen WJ, **Smits M**, Klein S. *Radiogenomic classification of the 1p/19q status in presumed low-grade gliomas*. IEEE International Symposium on Biomedical Imaging 2017, Melbourne/AU.
44. Van der Voort SR, Gahrman R, Van den Bent MJ, Vincent AJPE, Niessen WJ, **Smits M**, Klein S. *Radiogenomics classification of the 1p/19q status in presumed low-grade gliomas*. ECR 2017, Vienna/AT.
45. Thust S, Yousry T, Bargallo N, Vernooij MW, **Smits M**. *Glioma Magnetic Resonance Imaging Practices in Europe: Results from the European Society for Neuroradiology (ESNR) Diagnostic Subcommittee Survey on Glioma Imaging*. RSNA 2016, Chicago, IL/US.
46. Gahrman R, Van den Bent M, Van der Holt B, Vernhout R, Taal W, Taphoorn MJB, De Groot JC, Beerepoot L, Jasperse B, **Smits M**. *Radiological response assessment in the era of bevacizumab: RANO or volumetry? A report from the BELOB trial*. SNO annual meeting 2016, Scottsdale, AZ/US.
47. Visch-Brink E, Mendez Orellana C, Lingsma H, Nouwens F, De Jong-Hagelstein M, Koudstaal P, **Smits M**. *The efficacy of cognitive-linguistic treatment in stroke patients with chronic aphasia*. Academy of Aphasia 2016, Llandudno/UK.
48. Satoer D, Vincent A, **Smits M**, Dirven C, Visch-Brink E. *Spontaneous speech in patients with gliomas in eloquent areas: evaluation until 1 year after surgery*. Academy of Aphasia 2016, Llandudno/UK.
49. Gahrman R, Van den Bent M, Van der Holt B, Vernhout R, Taal W, Taphoorn MJB, De Groot JC, Beerepoot L, Jasperse B, **Smits M**. *Radiological response assessment in the era of bevacizumab: RANO or volumetry? A report from the BELOB trial*. ESMRBM 2016, Vienna/AT.
50. Thust S, Yousry T, Bargallo N, Vernooij MW, **Smits M**. *Glioma Magnetic Resonance Imaging Practices in Europe: Results from the European Society for Neuroradiology (ESNR) Diagnostic Subcommittee Survey on Glioma Imaging*. ESMRMB 2016, Vienna/AT.
51. Incekara F, Satoer D, Visch-Brink E, Vincent A, **Smits M**. {unknown}. ESMRMB 2016, Vienna/AT.
52. Gahrman R, Van den Bent M, Van der Holt B, Vernhout R, Taal W, Taphoorn MJB, De Groot JC, Beerepoot L, Jasperse B, **Smits M**. *Radiological response assessment in the era of bevacizumab: RANO or volumetry? A report from the BELOB trial*. EANO 2016, Mannheim/DE.
53. Thust S, Yousry T, Bargallo N, Vernooij MW, **Smits M**. *Glioma Magnetic Resonance Imaging Practices in Europe: Results from the European Society for Neuroradiology (ESNR) Diagnostic Subcommittee Survey on Glioma Imaging*. *Neuroradiology* 2016;58(suppl 1):S16–S17.
54. Verly M, Mendez Orellana CP, Gerrits R, Koudstaal P, Lagae L, Zink I, Sunaert S, Rommel N, Van der Lugt A, Visch-Brink EG, **Smits M**. *Language outcome after left-hemispheric stroke: towards a predictive model using DTI*. OHBM 2016, Genève/CH.

55. Bron EE, Young AL, Oxtoby NP, **Smits M**, Van Swieten JC, Wink AM, Van der Flier WM, Barkhof F, Golay X, Niessen WJ, Klein S, Alexander DC. *Cross-sectional modeling of regional perfusion and gray matter volume in Alzheimer's Disease*. AAIC 2016, Toronto/CA.
56. Meijboom R, Steketee RME, Ham L, Van der Lugt A, Van Swieten JC, **Smits M**. *Differential lateralization of connectivity changes in frontotemporal dementia subtypes*. OHBM 2016, Genève/CH.
57. **Smits M**, Bralten L, Jasperse B, Taal W, Gahrman R, Walenkamp A, Oosterkamp R, Vernhout R, Van der Holt B, Van den Bent M. *Central radiology review of the belob trial: treatment with bevacizumab in recurrent glioblastoma is associated with more frequent non-enhancing progression*. Neuro-Oncology 2015;17(suppl 5):v8.
58. Gahrman R, Burke M, Fernandez B, Van den Bent M, **Smits M**. *Clinical implementation of hybrid echo-planar perfusion imaging (hEPI) for the assessment of glioma*. ESMRMB 2015, Edinburgh/UK.
59. Bron EE, **Smits M**, Papma JM, Steketee RME, Meijboom R, De Groot M, Van Swieten JC, Niessen WJ, Klein S. *Perfusion and diffusion tensor MRI improve computer-aided differentiation between Alzheimer's disease and frontotemporal dementia*. ESMRMB 2015, Edinburgh/UK.
60. Meijboom R, Steketee RME, De Groot M, Bron EE, De Jong FJ, Van der Lugt A, Van Swieten JC, **Smits M**. *Regional coherence between white and grey matter abnormalities in early Alzheimer's disease (AD) and behavioural variant frontotemporal dementia (bvFTD)*. ESMRMB 2015, Edinburgh/UK.
61. Volders D, Bron EE, Papma JM, Steketee RME, Meijboom R, Van Swieten JC, Van der Lugt A, **Smits M**. *Reduced insular perfusion in frontotemporal dementia*. Neuroradiology 2015;57(suppl. 1):S61.
62. Thust S, Fairney J, Jäger R, Golay X, **Smits M**. *Amide proton transfer (APT) imaging of glioma at 3T: a feasibility study*. Neuroradiology 2015;57(suppl. 1): S50.
63. Bron EE, **Smits M**, van Swieten JC, Niessen WJ, Klein S. *Large-scale objective comparison of 29 novel algorithms for computer-aided diagnosis of dementia based on structural MRI*. Insights Imaging 2015.
64. Clement P, Mutsaerts HJ, Ghariq E, **Smits M**, Acou M, Rostrup E, Pizzini FB, Jovicich J, Könönen M, Vanninen R, Bastos-Leite A, Wiest R, Larsson EM, Achten E. *Review of confounding effects on perfusion measurements*. Front. Hum. Neurosci. Conference Abstract: Belgian Brain Council 2014 MODULATING THE BRAIN: FACTS, FICTION, FUTURE. doi: 10.3389/conf.fnhum.2014.214.00073
65. Weyts K, Vernooij M, Steketee R, Valkema R, **Smits M**. *Diagnostic performance, intra- and intermodality agreement of 18Fluorodeoxyglucose (FDG) positron emission tomography (PET) computed tomography (CT) and arterial spin labeling (ASL) magnetic resonance imaging (MRI) in early stage dementia*. MAGMA 2013;26(suppl. 1):351.
66. Zuur R, Steketee R, Meijboom R, Kennis M, Van der Lugt A, Van Swieten J, **Smits M**. *Increased default mode network (DMN) activation one year prior to diagnosis of presenile frontotemporal dementia (FTD)*. MAGMA 2013;26(suppl. 1):352.
67. Meijboom R, Steketee R, De Koning I, Osse RJ, Jiskoot L, De Jong FJ, Van der Lugt A, Van Swieten J, **Smits M**. *Increased default mode network activation in patients with phenocopy frontotemporal dementia as measured with resting state functional MRI (rs-fMRI)*. MAGMA 2013;26(suppl. 1):349.
68. Steketee RME, Mutsaerts HJ, Bron EE, Majoie CB, Nederveen AJ, **Smits M**. *Intra- and intervendor reproducibility of cerebral blood flow (CBF) changes in the primary motor cortex during finger tapping as assessed in the VESPA (Vendor-Specific features of ASL-mri) study*. MAGMA 2013;26(suppl. 1):334.
69. Mutsaerts HJ, Steketee R, Heijtel DF, Kuijter JP, Van Osch MJP, Majoie CB, **Smits M**, Nederveen AJ. *Vendor Specific features and reproducibility of Arterial spin labeling, results of the VESPA study*. MAGMA 2013;26(suppl. 1):168.
70. Fernandez B, Houston G, Spoormaker V, **Smits M**, Czisch M, Le Roux P. *RF pulse comparison for the hybrid gradient and spin echo EPI pulse sequence for fMRI*. 21st Annual Meeting of the ISMRM 2013, Seattle/US.
71. Steketee RME, Mutsaerts HJMM, Houston GC, Majoie CBLM, Nederveen AJ, **Smits M**. *Inter-session reproducibility of cerebral blood flow (CBF) in the primary motor cortex as assessed in the VESPA (Vendor-Specific features of Asl-mri) study*. Insights Imaging 2013;4(suppl. 1):S354.

72. Taal W, Walenkamp AM, Taphoorn MJ, Beerepoot L, Hanse M, Buter J, Honkoop A, Groenewegen G, Boerman D, Jansen RL, Van den Berkmortel FW, Brandsma D, Kros JM, Bromberg JE, Van Heuvel I, **Smits M**, Van der Holt B, Vernhout R, Van den Bent M. A randomized phase II study on bevacizumab versus bevacizumab plus lomustine versus lomustine: preliminary results of the Dutch BELOB study. *Neuro-Oncology* 2013;14(suppl. 6):57-58.
73. Meijboom R, Steketee RME, De Jong FJ, Van der Lugt A, Van Swieten JC, **Smits M**. *Differential activation during immediate and delayed recall assessed with functional MRI one year prior to definitive diagnosis of Alzheimer's disease and frontotemporal dementia*. DOI 10.1594/ecr2013/C-0621.
74. Steketee RME, Mutsaerts HJMM, Houston GC, Majoie CBLM, Nederveen AJ, **Smits M**. *Inter-session reproducibility of cerebral blood flow (CBF) in the primary motor cortex as assessed in the VESPA (vendor-specific features of ASL-MRI) study*. ISMRM Benelux Chapter 2012, Rotterdam/NL.
75. Bron EE, Steketee RME, Houston GC, Van Swieten JC, Hammers A, Niessen WJ, **Smits M**, Klein S. *Classification of early-stage presenile dementia based on arterial spin labeling and structural MRI*. MICCAI Workshop on Novel Imaging Biomarkers for Alzheimer's Disease and Related Disorders (NIBAD'12) 2012, Nice/FR.
76. Mutsaerts HJMM, Steketee RME, Nederveen AJ, **Smits M**. *Vendor Specific features and reproducibility of Arterial spin labeling, the VESPA study*. ISMRM perfusion workshop 2012, Amsterdam/NL.
77. Bron EE, Steketee RME, Houston GC, Van Swieten JC, Hammers A, Niessen WJ, **Smits M**, Klein S. *Region-wise classification of early-stage presenile dementia based on arterial spin labelling (ASL)*. ISMRM perfusion workshop 2012, Amsterdam/NL.
78. Méndez Orellana C, Visch-Brink EG, De Jong-Hagelstein M, Koudstaal PJ, Van der Lugt A, **Smits M**. *Decreased relative contribution to language processing of the right hemisphere after language therapy assessed with fMRI in chronic aphasia patients*. 50th Academy of Aphasia meeting 2012;61:20-21.
79. Satour D, Vincent A, **Smits M**, Dirven C, Visch-Brink E. *Spontaneous speech in patients with gliomas in eloquent areas before and after surgery*. 50th Academy of Aphasia meeting 2012;61:121-122.
80. Méndez Orellana C, Visch-Brink EG, De Jong-Hagelstein M, Koudstaal PJ, Van der Lugt A, **Smits M**. *Decreased relative contribution to language processing of the right hemisphere after language therapy assessed with fMRI in chronic aphasia patients*. Stem- Spraak- en Taalpathologie 2012;17(suppl. 2):i-172.
81. Steketee RME, Ooms S, Luijten M, Houston GC, Van Swieten JC, **Smits M**. *Focal hypoperfusion in early dementia as assessed by arterial spin labeling magnetic resonance (MR)*. Organisation for Human Brain Mapping annual meeting; 10-14 June 2012, Beijing (CN).
82. Méndez Orellana C, Visch-Brink E, De Jong-Hagelstein M, Koudstaal P, Van der Lugt A, **Smits M**. *Relative contribution of the right hemisphere to language recovery in chronic aphasia*. Organisation for Human Brain Mapping annual meeting; 10-14 June 2012, Beijing (CN).
83. Van de Sandt-Koenderman WME, Méndez CE, Bechan MAH, Van der Meulen IAC, Ribbers GM, Visch-Brink EG, **Smits M**. *Brain plasticity in aphasia Functional MRI pre and post Melodic Intonation Therapy (MIT)*. 2012;26:510-511.
84. Tjiong R, Van den Bent M, **Smits M**. *High diagnostic accuracy of dynamic susceptibility contrast (DSC) magnetic resonance (MR) perfusion imaging to distinguish radiation necrosis from recurrent tumor in high grade glioma patients*. Insights Imaging 2012;1(suppl. 1):S302.
85. Ooms S, Steketee RME, Luijten M, Méndez C, Houston GC, Van Swieten JC, **Smits M**. *Regional cerebral blood flow variations in middle-aged adults assessed with Arterial Spin Labeling MRI: Implications for clinical practice*. DOI 10.1594/ecr2012/C-2381.
86. Steketee RME, Ooms S, Luijten M, Houston GC, Van Swieten JC, **Smits M**. *Arterial spin labeling perfusion magnetic resonance (MR) imaging contributes to the early diagnosis of dementia*. Insights Imaging 2012;1(suppl. 1):S211.
87. Méndez Orellana C, Visch-Brink E, De Jong-Hagelstein M, Koudstaal P, Van der Lugt A, **Smits M**. *Decreased relative contribution to language processing of the right hemisphere after language therapy assessed with fMRI in chronic aphasia patients*. DOI 10.1594/ecr2012/C-2381.

88. Gahrmann R, Van Vliet R, Steketee RME, Maat-Kievit JA, **Smits M**. *Structural and perfusion arterial spin labeling brain MR imaging in Paroxysmal Kinesigenic Dyskinesia (PKD) patients versus controls*. DOI 10.1594/ecr2012/C-1487.
89. Satour D, Vincent A, Dirven C, **Smits M**, Visch-Brink E. *Spontaneous speech in patients with presumed low-grade gliomas in eloquent areas before and after awake craniotomy*. Neuro-Oncology 2011;13(suppl. 3):122-123.
90. Bruininks S, Langeslag S, Van Veelen M, **Smits M**. *Functional MRI in children in clinical practice*. Radiological Society of North America scientific assembly and annual meeting program, Oak Brook, IL. Radiological Society of North America 2011:LL-PDETU7A.
91. Méndez Orellana C, Visch-Brink EG, Koudstaal PJ, Van der Lugt A, **Smits M**. *Increased involvement of the left hemisphere after language therapy in chronic aphasic patients*. MAGMA 2011;24(suppl. 1):253.
92. Steketee RME, Van Swieten JC, De Koning I, Van der Lugt A, **Smits M**. *fMRI as a diagnostic tool for early dementia*. MAGMA 2011;24(suppl. 1):253.
93. Bechan MAH, Van de Sandt-Koenderman WME, Visch-Brink EG, Van der Lugt A, **Smits M**. *Neuroplasticity in response to melodic intonation therapy after aphasic stroke*. 16e Radiologendagen 2011, Maastricht/NL.
94. Jasperse B, Vrooman HA, Koek M, Vernooij MW, De Boer R, Van der Lijn F, Ikram MA, **Smits M**, Niessen WJ, Van der Lugt A. *A computer based diagnostic system to facilitate the early and differential diagnosis of dementia*. 16e Radiologendagen 2011, Maastricht/NL.
95. Bechan MAH, Van de Sandt-Koenderman WME, Visch-Brink EG, Van der Lugt A, **Smits M**. *Neuroplasticity in response to melodic intonation therapy after aphasic stroke*. DOI 10.1594/ecr2011/C-2059.
96. **Smits M**, Seelaar HC, Van Swieten JC, Van der Lugt A. *Neuroimaging in dementia: how to get your head around it*. Radiological Society of North America scientific assembly and annual meeting program, Oak Brook, IL. Radiological Society of North America 2010:LL-NRE2880.
97. **Smits M**, Van den Hauwe L, Steens SC, Meiners LC. *Beware the MS mimics: Behçet's, antiphospholipid, and Susac's disease*. Radiological Society of North America scientific assembly and annual meeting program, Oak Brook, IL. Radiological Society of North America 2010:LL-NRE2828.
98. Klip SHJ, Van de Sandt-Koenderman WME, Van der Meulen AC, Van der Lugt A, Visch-Brink EG, **Smits M**. *Spoken versus melodic language processing in healthy volunteers: an fMRI study*. Insights Imaging 2010;1(suppl. 1):S232.
99. Michielsen ME, Selles RW, Van der Geest JN, Eckhart M, Stam HJ, Ribbers GM, Bussmann JBJ, **Smits M**. *Functional improvement and cortical reorganisation after mirror therapy in stroke patients: a randomised, controlled trial*. Insights Imaging 2010;1(suppl. 1):S232.
100. **Smits M**, Dippel DWJ, Houston GC, Wielopolski PA, Hunink MGM, Van der Lugt A. *Brain plasticity of selective attention processing in patients with chronic postconcussion syndrome after complicated minor head injury*. Radiological Society of North America scientific assembly and annual meeting program, Oak Brook, IL. Radiological Society of North America 2009:462.
101. **Smits M**, Dippel DWJ, Houston GC, Wielopolski PA, Hunink MGM, Van der Lugt A. *Brain plasticity of selective attention processing in patients with chronic postconcussion syndrome after complicated minor head injury*. MAGMA 2009;22(suppl. 1):208-209 (DOI 10.1007/s10334-009-0177-z).
102. **Smits M**, Dippel DWJ, Houston GC, Wielopolski PA, Koudstaal PJ, Hunink MGM, Van der Lugt A. *Compensatory brain activity of selective attention in patients with postconcussion syndrome one month after minor head injury*. Eur Radiol 2009;19(suppl. 1):196.
103. **Smits M**, Vincent A, Bruininks S, Wielopolski P, Van der Lugt A. *Functional MRI and diffusion tensor imaging in clinical practice: everything you need to know from acquisition to interpretation*. Radiological Society of North America scientific assembly and annual meeting program, Oak Brook, IL. Radiological Society of North America 2008:986.
104. **Smits M**, Houston GC, Dippel DWJ, Wielopolski PA, Koudstaal PJ, Hunink MGM, Van der Lugt A. *Microstructural white matter damage in postconcussion syndrome after minor head injury*. MAGMA 2008;21(suppl. 1):87.

105. **Smits M**, Dippel DWJ, Van Rijssel DA, Dekker HM, Vos PE, Kool DR, Nederkoorn PJ, Twijnstra A, Hofman PAM, Tanghe HLJ, Hunink MGM. *Cost-effectiveness of CT scanning in minor head injury: Selective strategies versus scanning all patients*. Eur Radiol 2008;18(suppl. 1):161.
106. Bos D, Van der Lugt A, **Smits M**. *Optimisation of hypercapnia paradigms using cued breath holding at 1.5T and 3.0T*. Eur Radiol 2008;18(suppl. 1):495-496.
107. **Smits M**, Hunink MGM, Van Rijssel DA, Dekker HM, Vos PE, Kool DR, Nederkoorn PJ, Twijnstra A, Hofman PAM, Tanghe HLJ, Dippel DWJ. *Long-term outcome after complicated minor head injury*. Radiological Society of North America scientific assembly and annual meeting program, Oak Brook, IL. Radiological Society of North America 2007:586.
108. **Smits M**, Wielopolski PA, Houston GC, Tanghe HLJ, Van der Lugt A. *Advanced Magnetic Resonance (MR) neuroimaging at 3T: What to expect?* Radiological Society of North America scientific assembly and annual meeting program, Oak Brook, IL. Radiological Society of North America 2007:922.
109. **Smits M**, Dippel DWJ, Houston GC, Wielopolski PA, Koudstaal PJ, Hunink MGM, Van der Lugt A. *Brain activation changes of working memory in minor head injury measured with functional Magnetic Resonance Imaging (fMRI)*. Supplement MemoRad 2007;12:51.
110. **Smits M**, Hunink MGM, Van Rijssel DA, Dekker HM, Vos PE, Kool DR, Nederkoorn PJ, Twijnstra A, Hofman PAM, Tanghe HLJ, Dippel DWJ. *Long-term outcome after complicated minor head injury*. Supplement MemoRad 2007;12:50.
111. **Smits M**, Dippel DWJ, Wielopolski PA, Houston GC, Koudstaal PJ, Hunink MGM, Van der Lugt A. *Working memory related differences in brain activation measured with functional Magnetic Resonance Imaging (fMRI) in patients 1 month after minor head injury compared to healthy controls*. Proc Intl Soc Mag Reson Med 2007;15:105.
112. Vernooij MW, **Smits M**, Wielopolski PA, Houston GC, Krestin GP, Van der Lugt A. *Structural asymmetry of the white matter language pathway in relation to functional hemispheric language lateralization in both right and left-handed healthy subjects: a combined functional MRI and DT-tractography study*. Proc Intl Soc Mag Reson Med 2007;15:81.
113. **Smits M**, Dippel DWJ, Wielopolski PA, Houston GC, Koudstaal PJ, Hunink MGM, Van der Lugt A. *Brain activation changes related to working memory in minor head injury patients compared to healthy controls measured with functional Magnetic Resonance Imaging (fMRI)*. Eur Radiol 2007;17(suppl. 1):154-155.
114. **Smits M**, Vernooij MW, Wielopolski PA, Houston GC, Krestin GP, Van der Lugt A. *Fiber density asymmetry of the Arcuate Fasciculus in relation to functional hemispheric language lateralization in both right and left-handed healthy subjects: a combined functional MRI and DT-tractography study*. Eur Radiol 2007;17(suppl. 1):204.
115. **Smits M**, Hunink MGM, Nederkoorn PJ, Dekker HM, Vos PE, Kool DR, Hofman PAM, Twijnstra A, De Haan GG, Tanghe HLJ, Dippel DWJ. *Loss of consciousness in minor head injury: "conditio sine qua non" or just a risk factor?* Eur Radiol 2007;17(suppl. 1):205.
116. **Smits M**, Dippel DWJ, Wielopolski PA, Koudstaal PJ, Hunink MGM, Van der Lugt A. *Brain activation changes of working memory in minor head injury patients measured with functional Magnetic Resonance Imaging (fMRI)*. Radiological Society of North America scientific assembly and annual meeting program, Oak Brook, IL. Radiological Society of North America 2006:408-409.
117. **Smits M**, Dippel DWJ, De Haan GG, Nederkoorn PJ, Kool DR, Vos PE, Dekker HM, Twijnstra A, Hofman PAM, Tanghe HLJ, Hunink MGM. *The Dutch prediction rule for the use of Computed Tomography (CT) in patients with minor head injury*. Radiological Society of North America scientific assembly and annual meeting program, Oak Brook, IL. Radiological Society of North America 2006:467.
118. **Smits M**, Dippel DWJ, De Haan GG, Nederkoorn PJ, Kool DR, Vos PE, Dekker HM, Twijnstra A, Hofman PAM, Tanghe HLJ, Hunink MGM. *The Dutch prediction rule for the use of Computed Tomography (CT) in patients with minor head injury*. Supplement MemoRad 2006;11(3):31-32.
119. Vernooij M, **Smits M**, Wielopolski PA, Houston GC, Krestin GP, Van der Lugt A. *Assessing fiber density asymmetry in the arcuate fasciculus (AF) using diffusion tensor tractography (DTT) in both right and left handed subjects*. Supplement MemoRad 2006;11:18.

120. **Smits M**, Dippel DWJ, De Haan GG, Nederkoorn PJ, Kool DR, Vos PE, Dekker HM, Twijnstra A, Hofman PAM, Tanghe HLJ, Hunink MGM. *National and international guidelines for Computed Tomography in minor head injury patients: a prospective multicentre validation study*. European Journal of Neurology 2006;13 (suppl. 2): 264.
121. **Smits M**, Vernooij M, Wielopolski P, Houston G, Vrooman H, Krestin G, Van der Lugt A. *Combining functional MRI and Diffusion Tensor Imaging to visualize the Corticospinal Tract: tracking the homunculus*. Neurolmage 2006;31 (suppl. 1):S100.
122. Vernooij M, **Smits M**, Wielopolski P, Houston G, Vincent A, Krestin G, Van der Lugt A. *Using Diffusion Tensor Imaging to assess language hemispheric dominance in the pre-operative assessment of brain tumor patients*. Neurolmage 2006;31 (suppl. 1):S55.
123. Schraa-Tam CK, Van der Lugt A, **Smits M**, Frens MA, Van Broekhoven P, Van der Geest JN. *A new stimulus for isolating optokinetic eye movement from smooth pursuit*. Proc Intl Soc Mag Reson Med 2006;14:2804.
124. Vernooij M, **Smits M**, Wielopolski P, Vrooman H, Houston G, Vincent A, Krestin G, Van der Lugt A. *Combining functional MRI and Diffusion Tensor Imaging in the pre-operative assessment of the hand and foot fibers within the corticospinal tract*. Proc Intl Soc Mag Reson Med 2006;14:611.
125. Wielopolski P, Vernooij M, **Smits M**, Vrooman H, Breteler M, Krestin G, Van der Lugt A. *A 30 minute imaging protocol at 1.5T exploring higher spatial and functional information around white matter lesion and brain morphology in a large scale epidemiological study of the aging brain*. Proc Intl Soc Mag Reson Med 2006;14:3114.
126. **Smits M**, Tam C, Van der Geest J, Koudstaal P, Van der Lugt A. *Evaluation of working memory with functional magnetic resonance imaging (fMRI): an overview of several paradigms and research and clinical applications*. Eur Radiol 2006;16 (suppl. 1):449.
127. Kovacs S, **Smits M**, De Ridder D, Peeters R, Van Hecke P, Sunaert S. *Tonotopic plasticity effects in the auditory cortex in unilateral tinnitus patients: An fMRI study*. Eur Radiol 2006;16 (suppl. 1):253.
128. **Smits M**, Dippel DWJ, De Haan GG, Nederkoorn PJ, Kool DR, Vos PE, Dekker HM, Twijnstra A, Hofman PAM, Tanghe HLJ, Hunink MGM. *National and international guidelines for Computed Tomography in minor head injury patients: a prospective multicentre validation study*. Radiological Society of North America scientific assembly and annual meeting program, Oak Brook, IL. Radiological Society of North America 2005:226.
129. **Smits M**, Dippel DWJ, De Haan GG, Nederkoorn PJ, Kool DR, Vos PE, Dekker HM, Twijnstra A, Hofman PAM, Tanghe HLJ, Hunink MGM. *Computed Tomography (CT) in patients with minor head injury: external validation of two published decision rules*. Radiological Society of North America scientific assembly and annual meeting program, Oak Brook, IL. Radiological Society of North America 2005:657.
130. **Smits M**, Dippel DWJ, De Haan GG, Nederkoorn PJ, Kool DR, Vos PE, Dekker HM, Twijnstra A, Hofman PAM, Tanghe HLJ, Hunink MGM. *National and international guidelines for Computed Tomography in minor head injury patients: a prospective multicentre validation study*. Supplement MemoRad 2005;10:41.
131. **Smits M**, Dippel DWJ, De Haan GG, Nederkoorn PJ, Kool DR, Vos PE, Dekker HM, Twijnstra A, Hofman PAM, Tanghe HLJ, Hunink MGM. *Computed Tomography (CT) in patients with minor head injury: external validation of two published decision rules*. Supplement MemoRad 2005;10:40-41.
132. **Smits M**, Dippel DWJ, De Haan GG, Nederkoorn PJ, Kool DR, Vos PE, Dekker HM, Twijnstra A, Hofman PAM, Tanghe HLJ, Hunink MGM. *Computed Tomography (CT) In patients with minor head injury: external validation of published decision rules and guidelines*. The American Society of Emergency Radiology Course Syllabus 2005:325.
133. Schraa-Tam CK, Van der Lugt A, Frens MA, **Smits M**, Van Broekhoven P, Van der Geest JN. *Visual-vestibular stimulation of different temperature (20OC VS 43OC): An fMRI study*. MAGMA 2005;18:S210.
134. Schraa-Tam CK, Van der Lugt A, Frens MA, **Smits M**, Van Broekhoven P, Van der Geest JN. *A comparison of the bilateral and unilateral vestibular (caloric) stimulations: An fMRI study*. MAGMA 2005;18:S210-211.
135. **Smits M**, Kovacs S, De Ridder D, Peeters R, Van Hecke P, Sunaert S. *Lateralization of signal change in the auditory pathway in patients with lateralized tinnitus studied with functional Magnetic Resonance Imaging (fMRI)*. Abstract book International Tinnitus Seminar 2005:45.

136. Kovacs S, Peeters R, **Smits M**, De Ridder D, Van Hecke P, Sunaert S. *Activation of cortical and subcortical auditory structures at 3T by means of an fMRI paradigm suitable for clinical use*. Abstract book International Tinnitus Seminar 2005:41.
137. Schraa-Tam CKL, Van der Lugt A, Frens MA, Van Broekhoven FCA, **Smits M**, Van der Geest JN. *Brain areas activated by bilateral caloric vestibular stimulation with visual stimuli: An fMRI study*. Electronic supplement Neurolmage 2005;26:1421.
138. **Smits M**, Kovacs S, De Ridder D, Peeters R, Van Hecke P, Sunaert S. *Lateralisatie van functionele MRI-signaalverandering in het centrale auditieve systeem bij patiënten met gelateraliseerde tinnitus*. Ned Tijdschr Geneesk 2004;148:2570-2571.
139. **Smits M**, Kovacs S, De Ridder D, Peeters R, Van Hecke P, Sunaert S. *Lateralization of signal change in the auditory pathway in patients with lateralized tinnitus studied with functional Magnetic Resonance Imaging (fMRI)*. Radiological Society of North America scientific assembly and annual meeting program, Oak Brook, Ill. Radiological Society of North America 2004:281.
140. **Smits M**, Dippel DWJ, De Haan GG, Tanghe HLJ, Hunink MGM. *Indications for computed tomography (CT) in patients with minor head injury: validation of published decision rules and individual risk factors*. Radiological Society of North America scientific assembly and annual meeting program, Oak Brook, IL. Radiological Society of North America 2004:161.
141. Schraa-Tam CK, **Smits M**, Van der Lugt A, Van der Geest JN. *Functional Magnetic Resonance Imaging (fMRI) of vestibular and visual interactions in caloric vestibular stimulation*. Radiological Society of North America scientific assembly and annual meeting program, Oak Brook, IL. Radiological Society of North America 2004:241.
142. **Smits M**, Dippel DWJ, De Haan GG, Tanghe HLJ, Hunink MGM. *Indications for computed tomography (CT) in patients with minor head injury: validation of published decision rules and individual risk factors*. Supplement MemoRad 2004;9:30-31.
143. **Smits M**, Kovacs S, De Ridder D, Peeters R, Van Hecke P, Sunaert S. *Lateralization of signal change in the auditory pathway in patients with lateralized tinnitus studied with functional Magnetic Resonance Imaging (fMRI)*. Supplement MemoRad 2004;9:28.
144. **Smits M**, Kovacs S, De Ridder D, Peeters R, Van Hecke P, Sunaert S. *Lateralization of signal change in the auditory pathway in patients with lateralized tinnitus studied with functional Magnetic Resonance Imaging (fMRI)*. MAGMA 2004;16:S131.
145. Schraa-Tam CK, Van der Lugt A, Frens MA, **Smits M**, Van Broekhoven PC, Van der Geest JN. *fMRI of visual and vestibular interaction*. MAGMA 2004;16:S183-184.
146. **Smits M**, Peeters RR, Van Hecke P, Sunaert S. *A 3T event-related functional Magnetic Resonance Imaging (fMRI) study of natural taste perception*. Proc Intl Soc Mag Reson Med 2004;11:1051.
147. Tam C, Van der Geest JN, **Smits M**, Van der Lugt A. *Rest conditions in fMRI: exploring the differences*. Proc Intl Soc Mag Reson Med 2004;11:2542.
148. Peeters RR, Sunaert S, **Smits M**, Van Hecke P. *Optimization of 3D EPI SENSE techniques for fMRI of highly inhomogeneous areas*. Proc Intl Soc Mag Reson Med 2004;11:1028.
149. **Smits M**, Dippel DWJ, De Haan GG, Tanghe HLJ, Hunink MGM. *Indications for Computed Tomography (CT) in patients with minor head injury: generalization of a published decision rule*. Radiological Society of North America scientific assembly and annual meeting program, Oak Brook, IL. Radiological Society of North America 2003:182.
150. **Smits M**, Dippel DWJ, De Haan GG, Tanghe HLJ, Hunink MGM. *Indications for Computed Tomography (CT) in patients with minor head injury: generalization of a published decision rule*. Supplement MemoRad 2003;8:29-30.
151. **Smits M**, Wilmsink JT, Vles JSH. *Synostotic and positional plagiocephaly: two types of skull deformity studied with 3D Computed Tomography (CT)*. Supplement MemoRad 1998;3:39-40.



## PRESENTATIONS

### *invited lectures*

#### *AI for neuroradiology: current state and look into the future*

9 Nov 2023 European Course on Advanced Imaging Techniques for Neuroradiology ECAIT), Valletta/MT

#### *The future of glioma imaging*

10 Oct 2023 Masters of Neuroradiology, Nat Hospital for Neurology and Neurosurgery Queen Square, London/UK

#### *Brain tumour differentials and mimics*

10 Oct 2023 Masters of Neuroradiology, Nat Hospital for Neurology and Neurosurgery Queen Square, London/UK

#### *MRI phenotyping of WHO2021 glioma genotypes*

9 Oct 2023 Masters of Neuroradiology, Nat Hospital for Neurology and Neurosurgery Queen Square, London/UK

#### *Perfusion MRI: techniques, pearls & pitfalls*

9 Oct 2023 Masters of Neuroradiology, Nat Hospital for Neurology and Neurosurgery Queen Square, London/UK

#### *Imaging biomarkers and radiomics*

9 Oct 2023 Masters of Neuroradiology, Nat Hospital for Neurology and Neurosurgery Queen Square, London/UK

#### *Translational AI*

7 Oct 2023 ESMRMB 2023 annual meeting, Basel/CH

#### *European Imaging Networks*

6 Oct 2023 ESMRMB 2023 annual meeting, Basel/CH

#### *Virtual biopsy of glioma in the context of WHO2021*

28 Sept 2023 BSNR 2023 annual meeting, Edinburgh/UK

#### *Perfusion for tumour stratification and treatment evaluation*

27 Sept 2023 BSNR 2023 advanced imaging masterclass, Edinburgh/UK

#### *Wake-up cases*

22 Sept 2023 ESNR 2023 annual meeting, Vienna/AT

#### *The Need for Assessing the Quality & Reliability of AI-Based Image Reconstruction from a User's Perspective*

7 June 2023 ISMRM annual meeting, Toronto/CA

#### *Glioblastoma*

14 May 2023 European Course of Neuroradiology, Berlin/DE

29 April 2019 European Course of Neuroradiology, Antwerp/BE

7 May 2017 European Course of Neuroradiology, Antwerp/BE

#### *Career development: the future subspecialty radiologist*

3 March 2023 ECR 2023 annual meeting, Vienna/AT

#### *DOs and DON'Ts in social media*

2 March 2023 ECR 2023 annual meeting, Vienna/AT

#### *Imaging gliomas*

4 Feb 2023 EANO School of Neuro-Oncology, online

#### *Imaging phenotypes of glioma genotypes*

18 Nov 2022 ESNR Advanced Diagnostic Course in Neuroradiology on Glioma Imaging, Madrid/ES

#### *New WHO 2021 classification of primary brain tumours: what the radiologist needs to know*

18 Nov 2022 ESNR Advanced Diagnostic Course in Neuroradiology on Glioma Imaging, Madrid/ES

#### *Mapping the language system with task-based fMRI*

4 Nov 2022 ESNR-ESMRMB European Course on Advanced Imaging Techniques in Neuroradiology, Valletta/MT

#### *Debate: Imaging brain tumours - Is PET required or only a fancy option?*

18 Oct 2022 EANM 2022 annual meeting, Barcelona/ES

*Glioma imaging challenges*

16 Sep 2022 ESNR 2022 annual meeting, Lisbon/PT

*Case reading with Juniors*

16 Sep 2022 ESNR 2022 annual meeting, Lisbon/PT

*Radiomics: new source of biomarkers*

15 Sep 2022 ESNR 2022 annual meeting, Lisbon/PT

*Are molecular subtypes also radiologic subtypes? Radiogenomic mapping of brain tumours*

10 Sep 2022 ESMO 2022 annual meeting, Paris/FR

*Neuroimaging biomarkers*

16 July 2022 ECR 2022 annual meeting, Vienna/AT

*Debate: 'Imaging biomarkers: should we pay attention?'*

15 July 2022 ECR 2022 annual meeting, Vienna/AT

*Radiomics in brain tumor imaging*

7 June 2022 Educational Webinars 'Update in Neuro-Oncology' of the Italian Society of Neurology, online

*Pre- and posttreatment evaluation of gliomas*

16 May 2022 meeting of the Scandinavian Neurosurgical Society, Bergen/NO

*MRI perfusion: DSC, DCE, ASL*

15 May 2022 meeting of the Scandinavian Neurosurgical Society, Bergen/NO

*Post-treatment tumor imaging*

15 May 2022 ASNR22/SNR XXII, online

*Applying MRI tools to cope with the challenge of probing brain structure & physiology*

11 May 2022 joint ISMRM-ESMRMB annual meeting, London/UK

*Juggling without struggling – can, and should, academics do it all?*

9 May 2022 joint ISMRM-ESMRMB annual meeting, London/UK

*Joint Radiology grand rounds: Imaging in Neuro-oncology, case presentations*

29 March 2022 Mass General Hospital and Brigham Women's Hospital, Harvard Medical School/US, online

*Research dissemination*

8 Feb 2022 ESR/ESOR Fundamentals of Radiological Research Course, online

*Imaging in Neuro-oncology: challenges and opportunities*

8 Dec 2021 Martinos Center for Biomedical Imaging, MGH, Charlestown/US, webinar

*WHO2021 classification for gliomas*

29 Nov 2021 RSNA annual meeting, Chicago, IL/US

*Unknown film interpretation panel*

29 Nov 2021 RSNA annual meeting, Chicago, IL/US

*ASL, DSC, or DCE for brain tumour imaging?*

14 Nov 2021 joint ESNR-ESMRMB course on advanced neuroimaging techniques, online

*Brain tumours: essentials for clinical practice*

4 Nov 2021 European School of Radiology (ESOR) ASKLEPIOS, online

*Clinical assessment of treatment response*

11 Oct 2021 IPR 2021, Rome/IT

*What is the value of radiomics in neuro-oncology practice and in new molecular treatments?*

1 Oct 2021 ESNR 2021, Geneva/CH

*Radiogenomic approaches and advances: towards a virtual biopsy?*

1 Oct 2021 ESNR 2021, Geneva/CH

*Focus on biomarkers in common diseases*

19 June 2021 EAN 2021, online

*Money, money, money*

May 2021 ISMRM 2021, online

*Radiomics in glioma grading*

April 2021 Hot Topics Brain Tumors, online

*Consensus recommendations standardized imaging protocol and structured report*

April 2021 Hot Topics Brain Tumors, online

*Launching a biomarker successfully into clinical practice*

7 March 2021 ECR 2021, online

*How do I share my trial data*

5 March 2021 ECR 2021, online

*Neuroradiology education: Tumours*

on demand 2021 ECR 2021, online

*Radiological imaging*

9 Feb 2021 Cancer Drug Development Forum, online

*Roles of Imaging in Refining Prognosis and Directing Management in Molecularly-defined Brain Tumors*

29 Nov-5 Dec 2020 RSNA annual meeting, online

*Low grade glioma: new things you need to know*

23 Sep 2020 ECR2020 Highlight week, online

*Pre- and postoperative assessment of glioblastoma*

12 Aug 2020 ESNR webinar

*Imaging in Neuro-oncology: challenges and opportunities*

10 Oct 2019 Annual meeting of the British Society of Neuroradiologists, Cardiff/UK

*Imaging genomics of adult glioma*

20 Sep 2019 Annual meeting of the European Society of Neuroradiology, Oslo/NO

*ASL for neuro-oncology*

18 Sep 2019 Annual meeting of the European Society of Neuroradiology, Oslo/NO

*Keynote lecture: Imaging in Neuro-oncology: challenges and opportunities*

4 July 2019 British Neuro-Oncology Society annual meeting, London/UK

*Clinical application of ASL in the brain*

20 May 2019 ISMRM annual meeting, Montréal/CA

*Imaging patterns suggestive of different (molecular) subtypes of low-grade gliomas*

3 March 2019 European Congress of Radiology, Vienna/AT

4 March 2018 European Congress of Radiology, Vienna/AT

*Establishing the scientific and clinical value of advanced imaging*

28 February 2019 European Congress of Radiology, Vienna/AT

*Imaging phenotypes of adult glioma genotypes*

25 January 2019 ESNR Advanced Course in Diagnostic Neuroradiology – Glioma Imaging, Milan/IT

*Imaging in glioma: clinical practice from 220 centres throughout Europe*

25 January 2019 ESNR Advanced Course in Diagnostic Neuroradiology – Glioma Imaging, Milan/IT

10 November 2017 ESNR Advanced Course in Diagnostic Neuroradiology – Glioma Imaging, Milan/IT

*Imaging in Neuro-Oncology: challenges and opportunities*

15 November 2018 20th annual Henry M. Selby, MD, FACR Young Investigators Lecture, Memorial Sloan Kettering Cancer Center, New York, NY/US

*Physiological imaging of the vasculature: Non-contrast imaging*

19 October 2018 ESMRMB Hands-on course: 3T MRI, Rotterdam/NL

*CNS Metastasis: from basic science to clinical trials*

13 October 2018 13th EANO Meeting and Educational Day, Stockholm/SE

*Neuroradiology of brain tumours*

3 October 2018 EURO-CNS course on neuropathology, Amsterdam/NL

12 October 2016 EURO-CNS course on neuropathology, Amsterdam/NL

8 June 2015 EURO-CNS course on neuropathology, Odense/DK

19 September 2012 EURO-CNS course on neuropathology, Zagreb/HR

*Clinical applications of ASL perfusion imaging*

25 June 2018 10th annual scientific SINAPSE meeting, Edinburgh/UK

*Is ASL ready to replace contrast-agent perfusion methods in the clinic? - Yes: it is ready.*

18 June 2018 joint ESMRMB-ISMRM annual meeting, Paris/FR

*Physiological MR imaging of brain diseases*

23 May 2018 GE Neuroscience Summit, London/UK

*Arterial spin labeling (ASL) MRI of the brain: technical considerations and clinical implementation*

21 May 2018 Academy of Radiology, Dubrovnic/HR

*fMRI and DTI in clinical practice*

21 May 2018 Academy of Radiology, Dubrovnic/HR

*Non-enhancing brain tumors*

3 March 2018 European Congress of Radiology, Vienna/AT

*Imaging of brain metastases patients*

7 October 2017 7th annual brain metastases research and emerging therapy conference, Marseille/FR

*Standardized Brain tumor protocols*

15 September 2017 40th annual meeting of the ESNR, Malmö/SE

*Functional imaging - ASL in dementia*

14 September 2017 40th annual meeting of the ESNR, Malmö/SE

*Imaging of brain tumours - updated*

20 & 22 June 2017 Sandwich Course of Radiology, Ede/NL

*fMRI and DTI of the auditory and language systems*

16 June 2017 ESMRMB School of MRI – fMRI&DTI in clinical practice, Porto/PT

17 June 2016 ESMRMB School of MRI – fMRI&DTI in clinical practice, Barcelona/ES

27 June 2014 ESMRMB School of MRI – fMRI&DTI in clinical practice, London/UK

31 May 2013 ESMRMB School of MRI – fMRI&DTI in clinical practice, Rotterdam/NL

25 May 2012 ESMRMB School of MRI – Clinical fMRI&DTI, Uppsala/SE

25 March 2011 ESMRMB School of MRI – Clinical fMRI&DTI, Leuven/BE

25 May 2010 ESMRMB School of MRI – Clinical fMRI&DTI, Milan/IT

16 October 2009 ESMRMB School of MRI – Clinical fMRI&DTI, Thessaloniki/GR

*Advanced MR diagnostics in clinical neurooncology*

18 May 2017 Nordic Society of Neuroradiology Meeting, Copenhagen/DK

*Advanced imaging neuro-oncology*

17 May 2017 Subspecialty Radiology training ('differentiantenonderwijs'), Utrecht/NL

*Glioblastoma*

7 May 2017 European Course of Neuroradiology, Antwerp/BE

*Quantitative MR imaging markers in dementia*

26 April 2017 55th annual meeting of the American Society of Neuroradiology, GE Breakfast Symposium, Long Beach, CA/US

*Imaging biomarker for clinical trials in brain tumours*

2 March 2017 European Congress of Radiology, Vienna/AT

*Advanced MRI techniques*

1 March 2017 European Congress of Radiology, Vienna/AT

*Brain Trauma*

1 March 2017 European Congress of Radiology, Vienna/AT

4 March 2016 European Congress of Radiology, Vienna/AT

*ASL: technical considerations, brain tumour, cerebrovascular disease*

1 October 2016 ESMRMB annual meeting teaching session, Vienna/AT

*ASL in Alzheimer's disease*

17 September 2016 39th annual meeting of the European Society of Neuroradiology, Belgrade/RS

*Challenges and opportunities in Neuro MR*

18 July 2016 Gordon Research Conference: In vivo MR, Andover, NH/US

*Non-traumatic CNS emergencies*

2 March 2016 European Congress of Radiology, Vienna/AT

2 December 2015 100th annual meeting of the Radiological Society of North America, Chicago, IL/US

5 March 2015 European Congress of Radiology, Vienna/AT

3 December 2014 100th annual meeting of the Radiological Society of North America, Chicago, IL/US

7 March 2014 European Congress of Radiology, Vienna/AT

4 December 2013 99th annual meeting of the Radiological Society of North America, Chicago, IL/US

*CNS emergencies: Interactive case discussion*

2 March 2016 European Congress of Radiology, Vienna/AT

2 December 2015 100th annual meeting of the Radiological Society of North America, Chicago, IL/US

5 March 2015 European Congress of Radiology, Vienna/AT

3 December 2014 100th annual meeting of the Radiological Society of North America, Chicago, IL/US

7 March 2014 European Congress of Radiology, Vienna/AT

4 December 2013 99th annual meeting of the Radiological Society of North America, Chicago, IL/US

*Molecular Imaging and phenotypes of brain tumors*

18 September 2015 38th annual meeting of the European Society of Neuroradiology, Naples/IT

*Advanced multimodal imaging for brain tumors*

17 September 2015 38th annual meeting of the European Society of Neuroradiology, Naples/IT

*Imaging of metabolism and blood flow in dementia (MRI/PET)*

18 May 2015 British Institute of Radiology, London/UK

*fMRI and DTI of brain tumours*

8 April 2015 European Course of Neuroradiology, Rhodes/GR

*Brain tumours: type, grade and genetics*

8 April 2015 European Course of Neuroradiology, Rhodes/GR

*Standardisation of imaging in neuro-oncology*

27 March 2015 EORTC-EANO-ESMO, Istanbul/TR

*Optimised imaging for trials in brain tumours*

7 March 2015 European Congress of Radiology, Vienna/AT

*Imaging correlates of brain tumour genotypes*

5 March 2015 European Congress of Radiology, Vienna/AT

*Advanced MR neuroimaging techniques*

4 March 2015 European Congress of Radiology, Vienna/AT

6 March 2014 European Congress of Radiology, Vienna/AT

*Functional neuroanatomy: motor system, sensory system, cognition*

10 November 2014 European Course of Neuroradiology, Antalya/TR

*MR perfusion imaging*

25 October 2014 XLIII Annual meeting of the Spanish Society of Neuroradiology, Seville/ES

*DTI in clinical practice*

25 October 2014 XLIII Annual meeting of the Spanish Society of Neuroradiology, Seville/ES

*fMRI in clinical practice*

25 October 2014 XLIII Annual meeting of the Spanish Society of Neuroradiology, Seville/ES

*fMRI: BOLD and beyond*

11 September 2014 XXth Symposium Neuroradiologicum, Istanbul/TR

*Multimodal imaging*

11 September 2014 XXth Symposium Neuroradiologicum, Istanbul/TR

*Neuroanatomy of behavior and higher functions*

19 April 2016 European Course of Neuroradiology, Rhodes/GR

6 April 2014 European Course of Neuroradiology, Athens/GR

*Coma, vegetative persistent state, brain death*

19 April 2016 European Course of Neuroradiology, Rhodes/GR

6 April 2014 European Course of Neuroradiology, Athens/GR

*The use of Arterial Spin Labeling in non-vascular brain disease*

6 March 2014 European Congress of Radiology, Vienna/AT

*Advanced MR imaging of brain tumours*

25 January 2014 Patient information day, Maarssen/NL

*fMRI as a clinical and research tool*

31 October 2013 Annual Congress of the NL Society of Physical and Rehabilitation Medicine, Noordwijk/NL

*Diffusion tensor imaging in clinical practice*

19 October 2013 ESMRMB School of MRI – Advanced Neuro Imaging, Split/HR

25 October 2012 ESMRMB School of MRI – Advanced Neuro Imaging, Antwerp/BE

*Review of existing studies on ASL in dementia*

1 October 2013 COST ASL Training School for physicists, Toulouse/FR

*Assessing brain scans from the memory clinic*

19-20 June 2013 Sandwich Course on Neuroradiology, Ede/NL

*Arterial spin labelling MRI in clinical practice: current and future applications*

22 May 2013 51st Annual Meeting of the American Society of Neuroradiology, San Diego, CA/US

*fMRI Tips&Tricks*

9-10 April 2013 European Course of Neuroradiology, Athens/GR

*Advanced MR neuroimaging in multicentre trials: Experience from the EORTC Brain Tumour Group*

8 March 2013 European Congress of Radiology, Vienna/AT

*Functional MRI of the Brain*

17 January 2013 Erasmus School of Accounting & Assurance Executive Programme, Rotterdam/NL

19 January 2012 Erasmus School of Accounting & Assurance Executive Programme, Rotterdam/NL

*Functional neuroanatomy*

14 December 2012 ESMRMB Hands-on Course: fMRI&DTI in Clinical Practice, Paris/FR

*Diffusion tensor imaging: presurgical evaluation of white matter tracts*

6 October 2012 ESMRMB annual meeting teaching session, Lisbon/PT

*fMRI for the MRI-tech*

6 October 2012 ESMRMB annual meeting teaching session, Lisbon/PT

*Neuroradiology of brain tumours*

19 September 2012 EURO-CNS course on neuropathology, Zagreb/HR

*What is the proven role of perfusion weighted imaging?*

7-8 September 2012 EANO 10th annual meeting, Marseille/FR

*Poster highlights: Advanced neuroimaging of brain tumours*

7-8 September 2012 EANO 10th annual meeting, Marseille/FR

*DSC perfusion imaging in clinical practice*

20 July 2012 GE Healthcare application specialist training, Paris/FR

*Neurotrauma: the evidence*

26 June 2012 Trauma physicians' regional meeting, Antwerp/BE

*fMRI of vascular disease*

24 April 2012 Dutch vascular meeting, Noordwijk/NL

*Neurotrauma*

3 April 2012 Siemens CT users day, Dordrecht/NL

*DTI of vascular disorders*

28-30 October 2011 European Course of Neuroradiology, Tarragona/ES

*fMRI of vascular disorders*

28-30 October 2011 European Course of Neuroradiology, Tarragona/ES

*Round table discussion: "MR tractography: why DTI is not enough"*

8 October 2011 ESMRMB annual meeting teaching session, Leipzig/DE

*Perfusion weighted imaging: DSC, DCE or ASL?*

8 October 2011 ESMRMB annual meeting teaching session, Leipzig/DE

*Advanced brain tumour imaging*

21, 24 June 2011 Sandwich Course Neuroradiology, Ede/NL

*Perfusion imaging of brain tumours*

10 June 2011 Dutch Society for Radiotherapy and Oncology, Utrecht/NL

*Clinical symptoms correlated with anatomy*

3 March 2011 European Congress of Radiology, Vienna/AT

*Imaging in minor head injury: early complications and late consequences*

19 January 2011 Benecke Annual Symposium of Neurology, Utrecht/NL

*Morbus Behçet, Antiphospholipid syndrome and Susac syndrome: imaging*

15 April 2010 7<sup>th</sup> International Conference Course of the Dutch Society of Neuroradiology, Groningen/NL

*Clinical applications of fMRI & DTI*

6 November 2009 ESMRMB Hands-on fMRI&DTI, Rotterdam/NL

*Evidence based medicine in neurotrauma imaging*

18 July 2009 International Symposium on State-of-the-Art Imaging, Taormina/IT

*Imaging and neurovascular intervention in acute stroke*

18 July 2009 International Symposium on State-of-the-Art Imaging, Taormina/IT

*Neuro-applications at 3T: what can you expect?*

10 March 2007 European Congress of Radiology – GE Healthcare lunch symposium, Vienna/AT

*Fusion of fMRI and diffusion tensor: practical applications*

23 September 2006 ESMRMB – GE Healthcare lunch symposium, Warsaw/PL

## conference presentations

1. Koene S, Incekara F, Van der Voort S, Vincent A, Van den Bent M, Lycklama a Nijeholt G, Nandoe Tewarie R, **Smits M**. *Identifying molecular subtypes of non-enhancing glioma using MRI perfusion and diffusion parameters*. EANO 2018, Stockholm/SE.
2. Gahrman R, Leemans A, Van der Holt B, Vernhout RM, Bromberg J, Taal W, Vos J, De Groot JC, Hanse M, Van den Bent MJ, **Smits M**. *Minimum apparent diffusion coefficient (ADC<sub>min</sub>) decrease after bevacizumab and lomustine predicts overall survival (OS) in recurrent glioblastoma*. 40th annual scientific meeting of the ESNR 2017, Malmö/SE.
3. Thust S, Yousry T, Bargallo N, Vernooij MW, **Smits M**. *Glioma Magnetic Resonance Imaging Practices in Europe: Results from the European Society for Neuroradiology (ESNR) Diagnostic Subcommittee Survey on Glioma Imaging*. RSNA 2016, Chicago, IL/US: oral presentation.
4. Gahrman R, Van den Bent M, Van der Holt B, Vernhout R, Taal W, Taphoorn MJB, De Groot JC, Beerepoot L, Jasperse B, **Smits M**. *Radiological response assessment in the era of bevacizumab: RANO or volumetry? A report from the BELOB trial*. SNO annual meeting, Scottsdale, AZ/US: oral presentation (selected as 'Daily Highlight').
5. Thust S, Yousry T, Bargallo N, Vernooij MW, **Smits M**. *Glioma Magnetic Resonance Imaging Practices in Europe: Results from the European Society for Neuroradiology (ESNR) Diagnostic Subcommittee Survey on Glioma Imaging*. ESMRMB 2016, Vienna/AT: oral presentation.
6. Incekara F, Satoer D, Visch-Brink E, Vincent A, **Smits M**. *Correlation between pre-operative cognitive deficits and language white matter tract invasion in presumed low grade glioma patients*. ESMRMB 2016, Vienna/AT: oral presentation.
7. Tjiong R, Van den Bent M, **Smits M**. *High diagnostic accuracy of dynamic susceptibility contrast (DSC) magnetic resonance (MR) perfusion imaging to distinguish radiation necrosis from recurrent tumor in high grade glioma patients*. European Congress of Radiology, Vienna/AT, 1-5 March 2012: oral presentation.
8. **Smits M**, Seelaar HC, Van Swieten JC, Van der Lugt A. *Neuroimaging in dementia: how to get your head around it*. Radiological Society of North America 96<sup>th</sup> Scientific Assembly and Annual Meeting, Chicago, IL/US, 28 Nov-3 Dec 2010: educational exhibit.
9. **Smits M**, Van den Hauwe L, Steens SC, Meiners LC. *Beware the MS mimics: Behçet's, antiphospholipid, and Susac's disease*. Radiological Society of North America 96<sup>th</sup> Scientific Assembly and Annual Meeting, Chicago, IL/US, 28 Nov-3 Dec 2010: educational exhibit.
10. Klip SHJ, Van de Sandt-Koenderman WME, Van der Meulen AC, Van der Lugt A, Visch-Brink EG, **Smits M**. *Spoken versus melodic language processing in healthy volunteers: an fMRI study*. European Congress of Radiology, Vienna/AT, 4-8 March 2009: oral presentation.
11. Michielsen ME, Selles RW, Van der Geest JN, Eckhart M, Stam HJ, Ribbers GM, Bussmann JBJ, **Smits M**. *Functional improvement and cortical reorganisation after mirror therapy in stroke patients: a randomised, controlled trial*. European Congress of Radiology, Vienna/AT, 4-8 March 2009: oral presentation.
12. **Smits M**, Dippel DWJ, Houston GC, Wielopolski PA, Hunink MGM, Van der Lugt A. *Brain plasticity of selective attention processing in patients with chronic postconcussion syndrome after complicated minor head injury*. Radiological Society of North America 95<sup>th</sup> Scientific Assembly and Annual Meeting, Chicago, IL/US, 29 Nov-4 Dec 2009: oral presentation.
13. **Smits M**, Dippel DWJ, Houston GC, Wielopolski PA, Hunink MGM, Van der Lugt A. *Brain plasticity of selective attention processing in patients with chronic postconcussion syndrome after complicated minor head injury*. European Society for Magnetic Resonance in Medicine and Biology 26th Annual Meeting, Antalya/TK, 1-3 Oct 2009: oral presentation.
14. **Smits M**, Dippel DWJ, Houston GC, Wielopolski PA, Koudstaal PJ, Hunink MGM, Van der Lugt A. *Compensatory brain activity of selective attention in patients with postconcussion syndrome one month after minor head injury*. European Congress of Radiology, Vienna/AT, 6-10 March 2009: oral presentation.



15. **Smits M**, Vincent A, Bruininks S, Wielopolski P, Van der Lugt A. *Functional MRI and diffusion tensor imaging in clinical practice: everything you need to know from acquisition to interpretation*. Radiological Society of North America 94<sup>th</sup> Scientific Assembly and Annual Meeting, Chicago, IL/US, 30 Nov-5 Dec 2008: educational exhibit.
16. **Smits M**, Houston GC, Dippel DWJ, Wielopolski PA, Koudstaal PJ, Hunink MGM, Van der Lugt A. *Microstructural white matter damage in postconcussion syndrome after minor head injury*. European Society for Magnetic Resonance in Medicine and Biology 25<sup>th</sup> Annual Meeting, Valencia/ES, 2-4 Oct 2008: oral presentation.
17. **Smits M**, Dippel DWJ, Van Rijssel DA, Dekker HM, Vos PE, Kool DR, Nederkoorn PJ, Twijnstra A, Hofman PAM, Tanghe HLJ, Hunink MGM. *Cost-effectiveness of CT scanning in minor head injury: selective strategies versus scanning all patients*. European Congress of Radiology, Vienna/AT, 7-11 March 2008: oral presentation.
18. Bos D, Van der Lugt A, **Smits M**. *Optimisation of hypercapnia paradigms using cued breath holding at 1.5T and 3.0T*. European Congress of Radiology, Vienna/AT, 7-11 March 2008: poster presentation.
19. **Smits M**, Hunink MGM, Van Rijssel DA, Dekker HM, Vos PE, Kool DR, Nederkoorn PJ, Twijnstra A, Hofman PAM, Tanghe HLJ, Dippel DWJ. *Long-term outcome after complicated minor head injury*. Radiological Society of North America 93<sup>rd</sup> Scientific Assembly and Annual Meeting, Chicago, IL/US, 25-30 Nov 2007: oral presentation.
20. **Smits M**, Wielopolski PA, Houston GC, Tanghe HLJ, Van der Lugt A. *Advanced Magnetic Resonance (MR) neuroimaging at 3T: What to expect?* Radiological Society of North America 93<sup>rd</sup> Scientific Assembly and Annual Meeting, Chicago, IL/US, 25-30 Nov 2007: educational exhibit.
21. **Smits M**, Dippel DWJ, Houston GC, Wielopolski PA, Koudstaal PJ, Hunink MGM, Van der Lugt A. *Brain activation changes of working memory in minor head injury with functional Magnetic Resonance Imaging (fMRI)*. 12<sup>th</sup> Dutch Radiology Conference, Rotterdam/NL, 27-28 Sep 2007: oral presentation.
22. **Smits M**, Hunink MGM, Van Rijssel DA, Dekker HM, Vos PE, Kool DR, Nederkoorn PJ, Twijnstra A, Hofman PAM, Tanghe HLJ, Dippel DWJ. *Long-term outcome after complicated minor head injury*. 12<sup>th</sup> Dutch Radiology Conference, Rotterdam/NL, 27-28 Sep 2007: oral presentation.
23. **Smits M**, Dippel DWJ, Wielopolski PA, Houston GC, Koudstaal PJ, Hunink MGM, Van der Lugt A. *Working memory related differences in brain activation measured with functional Magnetic Resonance Imaging (fMRI) in patients 1 month after minor head injury compared to healthy controls*. Joint annual meeting of the ESMRMB-ISMRM, Berlin/DE, 19-25 May 2007: oral presentation.
24. **Smits M**, Dippel DWJ, Wielopolski PA, Houston GC, Koudstaal PJ, Hunink MGM, Van der Lugt A. *Brain activation changes related to working memory in minor head injury patients compared to healthy controls measured with functional Magnetic Resonance Imaging (fMRI)*. European Congress of Radiology, Vienna/AT, 9-13 March 2007: oral presentation.
25. **Smits M**, Vernooij MW, Wielopolski PA, Houston GC, Krestin GP, Van der Lugt A. *Fiber density asymmetry of the Arcuate Fasciculus in relation to functional hemispheric language lateralization in both right and left-handed healthy subjects: a combined functional MRI and DT-tractography study*. European Congress of Radiology, Vienna/AT, 9-13 March 2007: oral presentation.
26. **Smits M**, Hunink MGM, Nederkoorn PJ, Dekker HM, Vos PE, Kool DR, Hofman PAM, Twijnstra A, De Haan GG, Tanghe HLJ, Dippel DWJ. *Loss of consciousness in minor head injury: "conditio sine qua non" or just a risk factor?* European Congress of Radiology, Vienna/AT, 9-13 March 2007: oral presentation.
27. **Smits M**, Dippel DWJ, Wielopolski PA, Koudstaal PJ, Hunink MGM, Van der Lugt A. *Brain activation changes of working memory in minor head injury patients measured with functional Magnetic Resonance Imaging (fMRI)*. Radiological Society of North America 92<sup>nd</sup> Scientific Assembly and Annual Meeting, Chicago, IL/US, 26 Nov -1 Dec 2006: oral presentation.
28. **Smits M**, Dippel DWJ, De Haan GG, Nederkoorn PJ, Kool DR, Vos PE, Dekker HM, Twijnstra A, Hofman PAM, Tanghe HLJ, Hunink MGM. *The Dutch prediction rule for the use of Computed Tomography (CT) in patients with minor head injury*. Radiological Society of North America 92<sup>nd</sup> Scientific Assembly and Annual Meeting, Chicago, IL/US, 26 Nov-1 Dec 2006: oral presentation.

29. **Smits M**, Dippel DWJ, De Haan GG, Nederkoorn PJ, Kool DR, Vos PE, Dekker HM, Twijnstra A, Hofman PAM, Tanghe HLJ, Hunink MGM. *The Dutch prediction rule for the use of Computed Tomography (CT) in patients with minor head injury*. 11<sup>th</sup> Dutch Radiology Conference, Kaatsheuvel/NL, 17 Nov 2006: oral presentation.
30. **Smits M**, Vernooij M, Wielopolski P, Houston G, Vrooman H, Krestin G, Van der Lugt A. *Combining functional MRI and Diffusion Tensor Imaging to visualize the Corticospinal Tract: tracking the homunculus*. Human Brain Mapping 12<sup>th</sup> annual meeting, Florence/IT, 11-15 June 2006: poster presentation.
31. Vernooij M, **Smits M**, Wielopolski P, Houston G, Vincent A, Krestin G, Van der Lugt A. *Using Diffusion Tensor Imaging to assess language hemispheric dominance in the pre-operative assessment of brain tumor patients*. Human Brain Mapping 12<sup>th</sup> annual meeting, Florence/IT, 11-15 June 2006: poster presentation.
32. **Smits M**, Schraa-Tam CK, Van der Geest JN, Koudstaal PJ, Van der Lugt A. *Evaluation of working memory with functional Magnetic Resonance Imaging (fMRI): an overview of several paradigms and research and clinical applications*. European Congress of Radiology, Vienna/AT, 3-7 March 2006: educational exhibit.
33. **Smits M**, Dippel DWJ, De Haan GG, Nederkoorn PJ, Kool DR, Vos PE, Dekker HM, Twijnstra A, Hofman PAM, Tanghe HLJ, Hunink MGM. *National and international guidelines for Computed Tomography in minor head injury patients: a prospective multicentre validation study*. Radiological Society of North America 91<sup>st</sup> Scientific Assembly and Annual Meeting, Chicago, IL/US, 27 Nov-2 Dec 2005: oral presentation.
34. **Smits M**, Dippel DWJ, De Haan GG, Nederkoorn PJ, Kool DR, Vos PE, Dekker HM, Twijnstra A, Hofman PAM, Tanghe HLJ, Hunink MGM. *Computed Tomography (CT) in patients with minor head injury: external validation of two published decision rules*. Radiological Society of North America 91<sup>st</sup> Scientific Assembly and Annual Meeting, Chicago, IL/US, 27 Nov-2 Dec 2005: poster presentation.
35. **Smits M**, Visch-Brink E, Schraa-Tam CK, Van der Geest JN, Koudstaal PJ, Van der Lugt A. *Functional Magnetic Resonance Imaging (fMRI) of language: an overview of easy to implement language paradigms for clinical and research purposes*. Radiological Society of North America 91<sup>st</sup> Scientific Assembly and Annual Meeting, Chicago, IL/US, 27 Nov-2 Dec 2005: education exhibit.
36. **Smits M**, Dippel DWJ, De Haan GG, Nederkoorn PJ, Kool DR, Vos PE, Dekker HM, Twijnstra A, Hofman PAM, Tanghe HLJ, Hunink MGM. *National and international guidelines for Computed Tomography in minor head injury patients: a prospective multicentre validation study*. 10<sup>th</sup> Dutch Radiology Conference, Noordwijkerhout/NL, 29-30 Sept 2005: oral presentation.
37. **Smits M**, Dippel DWJ, De Haan GG, Nederkoorn PJ, Kool DR, Vos PE, Dekker HM, Twijnstra A, Hofman PAM, Tanghe HLJ, Hunink MGM. *Computed Tomography (CT) in patients with minor head injury: external validation of two published decision rules*. 10<sup>th</sup> Dutch Radiology Conference, Noordwijkerhout/NL, 29-30 Sept 2005: oral presentation.
38. **Smits M**, Kovacs S, De Ridder D, Peeters R, Van Hecke P, Sunaert S. *Lateralization of signal change in the auditory pathway in patients with lateralized tinnitus studied with functional Magnetic Resonance Imaging (fMRI)*. Radiological Society of North America 90<sup>th</sup> Scientific Assembly and Annual Meeting, Chicago, IL/US, 27 Nov-3 Dec 2004: oral presentation.
39. **Smits M**, Dippel DWJ, De Haan GG, Tanghe HLJ, Hunink MGM. *Indications for computed tomography (CT) in patients with minor head injury: validation of published decision rules and individual risk factors*. Radiological Society of North America 90<sup>th</sup> Scientific Assembly and Annual Meeting, Chicago, IL/US, 27 Nov-3 Dec 2004: poster presentation.
40. Schraa-Tam CK, **Smits M**, Van der Lugt A, Van der Geest JN. *Functional Magnetic Resonance Imaging (fMRI) of vestibular and visual interactions in caloric vestibular stimulation*. Radiological Society of North America 90<sup>th</sup> Scientific Assembly and Annual Meeting, Chicago, IL/US, 27 Nov-3 Dec 2004: poster presentation.
41. **Smits M**, Dippel DWJ, De Haan GG, Tanghe HLJ, Hunink MGM. *Indications for computed tomography (CT) in patients with minor head injury: validation of published decision rules and individual risk factors*. 9<sup>th</sup> Dutch Radiology Conference, Noordwijkerhout/NL, 16-17 Sept 2004: oral presentation.

42. **Smits M**, Kovacs S, De Ridder D, Peeters R, Van Hecke P, Sunaert S. *Lateralization of signal change in the auditory pathway in patients with lateralized tinnitus studied with functional Magnetic Resonance Imaging (fMRI)*. 9<sup>th</sup> Dutch Radiology Conference, Noordwijkerhout/NL, 16-17 Sept 2004: oral presentation.
43. **Smits M**, Kovacs S, De Ridder D, Peeters R, Van Hecke P, Sunaert S. *Lateralization of signal change in the auditory pathway in patients with lateralized tinnitus studied with functional Magnetic Resonance Imaging (fMRI)*. European Society for Magnetic Resonance in Medicine and Biology 21<sup>st</sup> Annual Meeting, Copenhagen/DK, 9-12 Sept 2004: oral presentation.
44. **Smits M**, Peeters RR, Van Hecke P, Sunaert S. *A 3T event-related functional Magnetic Resonance Imaging (fMRI) study of natural taste perception*. International Society for Magnetic Resonance in Medicine 12<sup>th</sup> Scientific Meeting, Kyoto (JP), 15 -21 May 2004: poster presentation.
45. **Smits M**, Dippel DWJ, De Haan GG, Tanghe, HLJ, Hunink MGM. *Indications for Computed Tomography (CT) in patients with minor head injury: generalization of a published decision rule*. Radiological Society of North America 89<sup>th</sup> Scientific Assembly and Annual Meeting, Chicago, IL/US, 28 Nov -4 Dec 2003: poster presentation.
46. **Smits M**, Dippel DWJ, De Haan GG, Tanghe, HLJ, Hunink MGM. *Indications for Computed Tomography (CT) in patients with minor head injury: generalization of a published decision rule*. 8<sup>th</sup> Dutch Radiology Conference, Noordwijkerhout/NL, 2-3 Oct 2003: oral presentation.
47. **Smits M**, Wilmink JT, Vles JSH. *Synostotic and positional plagiocephaly: two types of skull deformity studied with 3D Computed Tomography (CT)*. 10<sup>th</sup> European Conference for Students and Young Doctors, Berlin/DE, 21-24 Oct 1998: oral presentation.
48. **Smits M**, Wilmink JT, Vles JSH. *Synostotic and positional plagiocephaly: two types of skull deformity studied with 3D Computed Tomography (CT)*. 3<sup>rd</sup> Dutch Radiology Conference, Veldhoven/NL, 18-19 Sept 1998: oral presentation.
49. **Smits M**, Wilmink JT, Vles JSH. *Synostotic and positional plagiocephaly: two types of skull deformity studied with 3D Computed Tomography (CT)*. 2<sup>nd</sup> Maastricht Medical Students Research Conference, Maastricht/NL, 18 March 1998: poster presentation.