

**Prof. Dr. med., Dipl.-Phys.
Heinz-Peter Schlemmer**

Director of Department of Radiology & Coordinator Research Program Imaging and Radiooncology at the German Cancer Research Centre (DKFZ), Heidelberg, Germany

Member of the Directorate, National Centre for Tumor Diseases (NCT), Heidelberg, Germany

Full Professor of Oncologic Radiology, University of Heidelberg, Medical Faculty



Research topics

- Multiparametric and multimodal oncologic imaging
- Whole-body imaging
- High and ultra-high field MRI
- PET/MRI hybrid imaging
- Imaging in radiation therapy
- Special focus on imaging, image-guided biopsy and focal treatment in prostate cancer

Education/ Degrees

Full professor of Oncologic Radiology, University of Heidelberg	2010
Professor of Radiology, University of Tuebingen	2006
Associate Professor of Radiology, University of Tuebingen	2002
Habilitation, Heidelberg (MD, PhD)	2002
Residency in Radiology, Dept. of Radiology at DKFZ, University Hospitals Heidelberg and Mannheim, Germany	1995 - 2000
Academic studies:	
- Medicine (MD), University of Heidelberg, Germany	1987 - 1994
- Physics (Master of Science), University of Heidelberg, Germany	1980 - 1987

Previous appointments

Professor of Radiology & attending Radiologist, Uni. Hosp. Tuebingen	2002 - 2009
Resident, Dept. of Radiology DKFZ and University Hospital of Heidelberg & Mannheim	1990 - 2002
Scientist/Physicist, Max-Planck-Inst.f.Med.Res.,Dept.of. Mol. Phys. Heidelberg	1984 - 1987

Publications

Peer-reviewed research articles:	> 250
Book chapter:	16
Review article:	27
Invited lectures on international meetings	> 400

Stays abroad

University Hospital Vienna Central Institute for Diagnostic Radiology Vienna, Austria	08/1989
Yale University, Medical School Department of Diagnostic Radiology New Haven, CT, USA	09/1991
Yale University, Medical School Department of Diagnostic Radiology New Haven, CT, USA	02/1993 – 05/1993
Visiting Professorship at Chinese University of Hong Kong, Prince of Wales Hospital Department of Diagnostic Radiology and Organ Imaging, Shatin, Hong Kong, China	10/2000
Visiting Professorship at Hamad Medical Center Department of Diagnostic Radiology, Doha, Qatar	11/2005
Visiting Professorship at Faculty of Medicine & Health Science University Putra Kuala Lumpur, Malaysia	04/2016
Visiting Professorship at Faculty of Medicine Khon Kaen University and Chiang Mai University, Thailand	07/2016
Visiting Professorship at Memorial Sloan Kettering Cancer Center New York, USA	09/2016

Activities in the scientific community

European Society of Radiology (ESR):

Chairman program planning committee ECR, 2015

Chairman subcommittee Oncologic Imaging, 2014

Fellow of the European Society of Oncologic Imaging (ESOI): since 2011

Member of European Society of Urogenital Radiology (ESUR): since 2015

European Society of Oncologic Imaging (ESOI):

Chairperson within the ESOI Research Committee: 2017 – 2019

Vice president since 2019

International Cancer Imaging Society (ICIS):

Fellow since 2006

President in 2014

Member Executive Committee since 2015

German Röntgen Ray Society (DRG):

Founder and Chairman of the Working Group Oncologic Imaging: 2013 - 2016

Member of the Management Board since 2016

German Cancer Society (DKG):

Chairman of the Working Group Oncologic Imaging in 2014 and 2015

Vice Chairman of the Working Group Oncologic Imaging: 2016 - 2017

German Cancer Consortium (DKTK):

Program Coordinator "Imaging" within the Research Program Imaging and Radiooncology since 2015

German-Japanese Radiological Association (GJRA):

President: 2019 - 2020

Selected publications

Radiomics Based on Adapted Diffusion Kurtosis Imaging Helps to Clarify Most Mammographic Findings Suspicious for Cancer.

Bickelhaupt S, Jaeger PF, Laun FB, Lederer W, Daniel H, Kuder TA, Wuesthof L, Paech D, Bonekamp D, Radbruch A, Delorme S, **Schlemmer HP**, Steudle FH, Maier-Hein KH. *Radiology*. 2018 Feb 20:170273. [Epub ahead of print]

Prognostic significance of tumor burden assessed by whole-body magnetic resonance imaging in multiple myeloma patients treated with allogeneic stem cell transplantation.

Mosebach J, Shah S, Delorme S, Hielscher T, Goldschmidt H, **Schlemmer HP**, Schönland S, Hegenbart U, Hillengass J. *Haematologica*. 2018 Feb;103(2):336-343. Epub 2017 Dec 7.

Combined Clinical Parameters and Multiparametric Magnetic Resonance Imaging for Advanced Risk Modeling of Prostate Cancer-Patient-tailored Risk Stratification Can Reduce Unnecessary Biopsies.

Radtke JP, Wiesenfarth M, Kesch C, Freitag MT, Alt CD, Celik K, Distler F, Roth W, Wiczorek K, Stock C, Duensing S, Roethke MC, Teber D, **Schlemmer HP**, Hohenfellner M, Bonekamp D, Hadaschik BA. *Eur Urol*. 2017 Dec; 72 (6):888-896 [Epub ahead of print]

Pediatric Brain: No Increased Signal Intensity in the Dentate Nucleus on Unenhanced T1-weighted MR Images after Consecutive Exposure to a Macrocyclic Gadolinium-based Contrast Agent.

Radbruch A, Haase R, Kickingereeder P, Bäumer P, Bickelhaupt S, Paech D, Wick W, **Schlemmer HP**, Seitz A, Bendszus M. *Radiology*. 2017 Mar 8:162980. [Epub ahead of print]

Fast and Quantitative T1p-weighted Dynamic Glucose Enhanced MRI.

Schuenke P, Paech D, Koehler C, Windschuh J, Bachert P, Ladd ME, **Schlemmer HP**, Radbruch A, Zaiss M. *Sci Rep*. 2017 Feb 7;7:42093.

Local recurrence of prostate cancer after radical prostatectomy is at risk to be missed in 68Ga-PSMA-11-PET of PET/CT and PET/MRI: comparison with mpMRI integrated in simultaneous PET/MRI.

Freitag MT, Radtke JP, Afshar-Oromieh A, Roethke MC, Hadaschik BA, Gleave M, Bonekamp D, Kopka K, Eder M, Heusser T, Kachelriess M, Wiczorek K, Sachpekidis C, Flechsig P, Giesel F, Hohenfellner M, Haberkorn U, **Schlemmer HP**, Dimitrakopoulou-Strauss A. *Eur J Nucl Med Mol Imaging*. 2017 May;44(5):776-787. Epub 2016 Dec 17.

Radiomic Profiling of Glioblastoma: Identifying an Imaging Predictor of Patient Survival with Improved Performance over Established Clinical and Radiologic Risk Models.

Kickingereeder P, Burth S, Wick A, Götz M, Eidel O, **Schlemmer HP**, Maier-Hein KH, Wick W, Bendszus M, Radbruch A, Bonekamp D. *Radiology*. 2016 Sep;280(3):880-9. Epub 2016 Jun 20.

Automatic Analysis of Cellularity in Glioblastoma and Correlation with ADC Using Trajectory Analysis and Automatic Nuclei Counting.

Eidel O, Neumann JO, Burth S, Kieslich PJ, Jungk C, Sahm F, Kickingereeder P, Kiening K, Unterberg A, Wick W, **Schlemmer HP**, Bendszus M, Radbruch A. *PLoS One*. 2016 Jul 28;11(7):e0160250. eCollection 2016.

Comparison of hybrid (68)Ga-PSMA PET/MRI and (68)Ga-PSMA PET/CT in the evaluation of lymph node and bone metastases of prostate cancer.

Freitag MT, Radtke JP, Hadaschik BA, Kopp-Schneider A, Eder M, Kopka K, Haberkorn U, Roethke M, **Schlemmer HP**, Afshar-Oromieh A.

Eur J Nucl Med Mol Imaging. 2016 Jan;43(1):70-83. Epub 2015 Oct 28.

Multiparametric Magnetic Resonance Imaging (MRI) and MRI-Transrectal Ultrasound Fusion Biopsy for Index Tumor Detection: Correlation with Radical Prostatectomy Specimen.

Radtke JP, Schwab C, Wolf MB, Freitag MT, Alt CD, Kesch C, Popeneciu IV, Huettenbrink C, Gasch C, Klein T, Bonekamp D, Duensing S, Roth W, Schueler S, Stock C, **Schlemmer HP**, Roethke M, Hohenfellner M, Hadaschik BA.

Eur Urol. 2016 Jan 19. [Epub ahead of print]

Magnetic Resonance Imaging-Guided Transurethral Ultrasound Ablation of Prostate Tissue in Patients with Localized Prostate Cancer: A Prospective Phase 1 Clinical Trial.

Chin JL, Billia M, Relle J, Roethke MC, Popeneciu IV, Kuru TH, Hatiboglu G, Mueller-Wolf MB, Motsch J, Romagnoli C, Kassam Z, Harle CC, Hafron J, Nandalur KR, Chronik BA, Burtnyk M, **Schlemmer HP**, Pahernik S.

Eur Urol. 2016 Jan 6. [Epub ahead of print]

Fast and Noninvasive Characterization of Suspicious Lesions Detected at Breast Cancer X-Ray Screening: Capability of Diffusion-weighted MR Imaging with MIPs1

Bickelhaupt S, Laun F, Tessdorf J, Lederer M, Daniel H, Stieber A, Delorme S, **Schlemmer HP**

Radiology. 2016 Mar; 278(3):689-97.

Gadolinium retention in the dentate nucleus and globus pallidus is dependent on the class of contrast agent

Radbruch A, Weberling LD, Kieslich PJ, Eidel O, Burth S, Kickingereeder P, Heiland S, Wick W, **Schlemmer HP**, Bendszus M.

Radiology. 2015 Jun; 275(3):783-91. Epub 2015 Apr 6.

Nuclear Overhauser Enhancement imaging of glioblastoma at 7 Tesla: region specific correlation with apparent diffusion coefficient and histology

Paech D, Burth S, Windschuh J, Meissner JE, Zaiss M, Eidel O, Kickingereeder P, Nowosielski M, Wiestler B, Sahm F, Floca RO, Neumann JO, Wick W, Heiland S, Bendszus M, **Schlemmer HP**, Ladd ME, Bachert P, Radbruch A

PLoS One. 2015 Mar 19; 10(3):e0121220. eCollection 2015.

Comparison of PET/CT and PET/MRI hybrid systems using a 68Ga-labelled PSMA ligand for the diagnosis of recurrent prostate cancer: initial experience

Afshar-Oromieh A, Haberkorn U, **Schlemmer HP**, Fenchel M, Eder M, Eisenhut M, Hadaschik BA, Kopp-Schneider A, Röhke M

Eur J Nucl Med Mol Imaging. 2014 May; 41(5):887-97. Epub 2013 Dec 19.

Recent developments of dual-energy CT in oncology

Simons D, Kachelriess M, **Schlemmer HP**

Eur Radiol. 2014 Apr; 24(4):930-9. Epub 2014 Jan 9. Review.

Evaluation of the ESUR PI-RADS scoring system for multiparametric MRI of the prostate with targeted MR/TRUS fusion-guided biopsy at 3.0 Tesla

Roethke MC, Kuru TH, Schultze S, Tichy D, Kopp-Schneider A, Fenchel M, **Schlemmer HP**, Hadaschik BA

Eur Radiol. 2014 Feb; 24(2):344-52. Epub 2013 Oct 3. Erratum in: Eur Radiol. 2014 Apr; 24(4):967

PET/MRI with a 68Ga-PSMA ligand for the detection of prostate cancer

Afshar-Oromieh A, Haberkorn U, Hadaschik B, Habl G, Eder M, Eisenhut M, **Schlemmer HP**, Roethke MC

Eur J Nucl Med Mol Imaging. 2013 Oct; 40(10):1629-30. Epub 2013 Jul 2.

A novel stereotactic prostate biopsy system integrating pre-interventional magnetic resonance imaging and live ultrasound fusion

Hadaschik BA, Kuru TH, Tulea C, Rieker P, Popeneciu IV, Simpfendorfer T, Huber J, Zogal P, Teber D, Pahernik S, Roethke M, Zamecnik P, Roth W, Sakas G, **Schlemmer HP**, Hohenfellner M

J Urol. 2011 Dec;186(6):2214-20. Epub 2011 Oct 19.

PET/MRI: Paving the Way for the Next Generation of Clinical Multimodality Imaging Applications

Pichler, Bernd J.; Kolb, Armin; Naegele, Thomas; **Schlemmer, HP**

J Nucl Med. 2010 Mar;51(3):333-6. Epub 2010 Feb 11.

Simultaneous MR/PET Imaging of the Human Brain: A Feasibility Study

Schlemmer HP, Pichler BJ, Schmand M, Burbar Z, Michel C, Ladebeck R, Jattke K, Townsend D, Nahmias C, Heiss WD, Claussen CD

Radiology. 2008 Sep; 248(3):1028-35.

Positron emission tomography/computed tomography and whole-body magnetic resonance imaging in staging of advanced nonsmall cell lung cancer--initial results

Plathow C, Aschoff P, Lichy MP, Eschmann S, Hehr T, Brink I, Claussen CD, Pfannenber C, **Schlemmer HP**

Invest Radiol. 2008 May; 43(5):290-7.

Tumor detection by Diffusion Weighted MRI and ADC-Mapping – Initial Clinical Experiences in Comparison to PET-CT

Lichy MP, Aschoff P, Plathow C, Stemmer A, Horger W, Müller-Horvat C, Steidle G, Horger M, Schäfer J, Eschmann SM, Claussen CD, Pfannenber C, **Schlemmer HP**

Invest Radiol. 2007 Sep; 42(9):605-13.

Quantitative Assessment of Glomerular Filtration Rate by Measuring Gadolinium Slope Clearance with MRI: A Phase I Trial

Boss A, Martirosian P, Gehrman M, Artunc F, Risler T, Oesingmann N, Claussen CD, Schick F, Küper K, **Schlemmer HP**

Radiology. 2007 Mar; 242(3):783-90. Epub 2007 Jan 5.

Prospective comparison of 18F-fluorodeoxyglucose positron emission tomography/computed tomography and whole-body magnetic resonance imaging in staging of advanced malignant melanoma

Pfannenber AC, Aschoff P, Eschmann SM, Plathow C, Eigentler TK, Garbe C, Brechtel K, Vonthein R, Bares R, Claussen CD, **Schlemmer HP**

Eur J Cancer. 2007 Feb; 43(3):557-64. Epub 2007 Jan 16.

Comparison of 11C-Choline-PET/CT and Whole body-MRI for Staging of Prostate Cancer

Eschmann SM, Pfannenber AC, Rieger A, Aschoff P, Müller M, Paulsen F, Anastasiadis A, Claussen CD, Bares R, **Schlemmer HP**

Nuklearmedizin 2007; 46(5):161-8.

MRI-guided biopsy of the prostate increases diagnostic performance in men with elevated or increasing PSA levels after previous negative TRUS biopsies

Anastasiadis AG, Lichy MP, Nagele U, Kuczyk MA, Merseburger AS, Hennenlotter J, Corvin

S, Sievert KD, Claussen CD, Stenzl A, **Schlemmer HP**
Eur Urol. 2006 Oct; 50(4):738-48; discussion 748-9. Epub 2006 Mar 24.

Prospective comparison of the impact on treatment decisions of whole-body magnetic resonance imaging and computed tomography in patients with metastatic malignant melanoma

Muller-Horvat C, Radny P, Eigentler TK, Schafer J, Pfannenbergs C, Horger M, Khorchidi S, Nagele T, Garbe C, Claussen CD, **Schlemmer HP**
Eur J Cancer. 2006 Feb; 42(3):342-50. Epub 2005 Dec 20.

Magnetic resonance imaging of the body trunk using a single-slab, 3-dimensional, T2-weighted turbo-spin-echo sequence with high sampling efficiency (SPACE) for high spatial resolution imaging - Initial clinical experiences

Lichy MP, Wietek BM, Mugler JP 3rd, Horger W, Menzel MI, Anastasiadis A, Siegmann K, Niemeyer T, Königsrainer A, Kiefer B, Schick F, Claussen CD, **Schlemmer HP**
Invest Radiol. 2005 Dec; 40(12):754-60.

Follow-up gliomas after radiotherapy: (1)H MR spectroscopic imaging for increasing diagnostic accuracy

Lichy MP, Plathow C, Schulz-Ertner D, Kauczor HU, **Schlemmer HP**
Neuroradiology. 2005 Nov; 47(11):826-34. Epub 2005 Sep 2.

Hepatic phospholipids in alcoholic liver disease assessed by proton-decoupled 31P magnetic resonance spectroscopy

Schlemmer HP, Sawatzki T, Sammet S, Dornacher I, Bachert P, van Kaick G, Seitz HK.
J Hepatol. 2005 May; 42(5):752-9.

Fast whole-body assessment of metastatic disease using a novel magnetic resonance imaging system

Schlemmer HP, Schäfer J, Pfannenbergs C, Radny P, Korchidi S, Müller-Horvat C, Nägele T, Tomaschko K, Fenchel M, Claussen CD
Invest Radiol. 2005 Feb; 40(2):64-71.

Assessment of irradiated brain metastases by means of arterial spin-labeling and dynamic susceptibility-weighted contrast-enhanced perfusion MRI - initial results

Weber MA, Thilmann C, Lichy MP, Günther M, Delorme S, Zuna I, Bongers A, Schad LR, Debus J, Kauczor HU, Essig M, **Schlemmer HP**
Invest Radiol. 2004 May; 39(5):277-87.

Can pre-operative contrast-enhanced dynamic MR imaging for prostate cancer predict microvessel density in prostatectomy specimens?

Schlemmer, HP; Merkle, J; Grobholz, R; et al.
Eur Radiol. 2004 Feb; 14(2):309-17. Epub 2003 Oct 3.

Proton MR spectroscopic evaluation of suspicious brain lesions after stereotactic radiotherapy

Schlemmer HP, Bachert P, Herfarth KK, Zuna I, Debus J, van Kaick G.
AJNR Am J Neuroradiol 2001, 22(7): 1316-1324.