Curriculum vitae

Univ.-Prof. Dr. med. habil. Christian Grefkes, MBA
Arbeitsgruppenleiter „Rehabilitation kognitiver Störungen“
Professor für Schlaganfall und Neurorehabilitation
Oberarzt der Klinik und Poliklinik für Neurologie, Uniklinik Köln

Expertise

- Humanmedizin (Schwerpunkt: Neurologie)
- Schlaganfall, Morbus Parkinson
- Funktionelle Magnetresonanztomographie (fMRT; SPM, DCM)
- Sensomotorisches System
- Bewegungskinematik
- Neuropharmakologie
- Transkranielle Magnetstimulation

Werdegang

- 2013
  Ernennung zum Universitätsprofessor (W2, unbefristet) für Schlaganfall und Neurorehabilitation, Medizinische Fakultät, Universität zu Köln

- 2011
  Habilitation “Das sensomotorische System des Menschen: Funktionelle Anatomie und nicht-invasive Neuromodulation bei Gesunden und Schlaganfall-Patienten”, Medizinische Fakultät, Universität zu Köln, 14.04.2011 (Experimentelle Medizin); 02.10.2012 (Neurologie)

- 2005
  Promotion (summa cum laude) zum “Dr. med.” zum Thema “Multimodale Kartierung der Area 2: Synthese von Struktur und Funktion im Gehirn des Menschen” Institut für Hirnforschung, Uni Düsseldorf (Prof. Dr. Karl Zilles)

- 2004
  Ärztliche Approbation

- 1998-2004
  Medizinstudium an der Universität Düsseldorf, University of Sydney (Australien) und University College London (UK)

- 1997–1998
  Chemiestudium (Diplom), Ruprecht-Karls-Universität Heidelberg

- 1996
  Abitur am Bischöfl. Albertus-Magnus-Gymnasium Viersen-Dülken, Viersen

Positionen

- seit 2013
  Oberarzt, Neurologische Klinik (Direktor: Prof. Dr. med. G.R. Fink), Klinikum der Universität zu Köln

- seit 2013
  Arbeitsgruppenleiter der Gruppe „Rehabilitation kognitiver Störungen“ am Institut für Medizin und Neurowissenschaften (INM-3), Forschungszentrum Jülich

- seit 2012
  Facharzt für Neurologie

- 2007–2014
  Gruppenleiter der Forschungsgruppe “Neuromodulation & Neurorehabilitation”, Max-Planck-Institut für neurologische Forschung (Direktor Prof. Dr. med. J. Brüning; Direktor emeritus Prof. Dr. med. D. Yves von Cramon), Köln

- 2012
  Visiting Research Fellow am Sobell Department of Motor Neuroscience, Queen Square 33, London (Prof. J. Rothwell)

- 2007–2012
  Assistenzarzt, Neurologische Klinik (Direktor: Prof. Dr. med. G.R. Fink), Klinikum der Universität zu Köln

- 2010–2011
  Assistenzarzt, Psychiatrische Klinik (Direktor: Prof. Dr. med. J. Klosterkötter), Klinikum der Universität zu Köln

- 2005–2007
  Assistenzarzt, Neurologische Klinik (Direktor: Prof. Dr. med. J. Noth), Universitätsklinikum der RWTH Aachen, mit Forschungsaufenthalt in 2006 im Institut für Neurowissenschaften und Medizin des Forschungszentrums Jülich (INM3 – Kognitive Neurologie, Direktor: Prof. Dr. med. G.R. Fink)

Mitgliedschaften in Fachgesellschaften

- Organization for Human Brain Mapping (OHBM), Program Committee Member 2013-2016
- Deutsche Gesellschaft für Neurologie (DGN)
- Deutsche Gesellschaft für Klinische Neurophysiologie u. fkt. Bildgebung (DGKN)

Herausgeberschaften/Editoral Boards

- Neuroimage
- Neuroimage: Clinical

Stipendien und Preise

- Symposiumspreis der Felgenhauer-Stiftung, Deutsche Gesellschaft für Neurologie (2013)
- Habilitationspreis der Medizinischen Fakultät der Universität zu Köln (2012)
- Deutschland - Land der Ideen, "Ausgewählter Ort" zum Thema "Frührehabilitation von Schlaganfallpatienten durch Hirnstimulation" 2012
- Förderpreis der Deutschen Gesellschaft für Neurotraumatologie und Klinische Neurorehabilitation 2011
- Young-Investigator-Award des Kompetenznetzwerks Schlaganfall (2011)
- Niels-A.-Lassen-Preis der Deutschen Gesellschaft für Klin. Neurophysiologie (2011)
- Posterpreis der Deutschen Gesellschaft für Klin. Neurophysiologie (2009)
- Posterpreis der Deutschen Gesellschaft für Neurologie (2007)
- Posterpreis der Nordrhein-Westf. Akademie der Wissenschaften Düsseldorf (2005)
- Stipendiat der Studienstiftung des Deutschen Volkes (2000-2004)
- Stipendiat des Neurograduiertenkollegs der Universität Düsseldorf (2000-2002)
- Travel Awards der Organization for Human Brain Mapping (OHBM) 2000, 2002 & 2007

Publikationen (peer-reviewed)

Kumulativer Impact Factor:	501,8
Mittlerer Impact Factor:	6,4
Median Impact Factor :	6,1
Hirsch-Index:	30
Summe Anzahl der Zitate:	5220
Durchschnittliche Zitate pro Item:	62,9

Stand: Januar 2016 Quelle: ISI Web of Science

5 beste Publikationen der letzten 5 Jahre (Impact Factoren 2014)

Michely J, Volz LJ, Barbe MT, Hoffstaedter F, Viswanathan S, Timmermann L, Eickhoff SB, Fink GR, **Grefkes C**.
Dopaminergic modulation of motor network dynamics in Parkinson's disease. Brain. 2015 Mar;138(Pt 3):664-78. (Impact Factor 10.2)

Grefkes C, Fink GR.
Connectivity-based approaches in stroke and recovery of function. Lancet Neurol. 2014 Feb;13(2):206-16. doi: 10.1016/S1474-4422(13)70264-3. Review. (Impact Factor 21.8)

Wang LE, Fink GR, Diekhoff S, Rehme AK, Eickhoff SB, **Grefkes C**. Noradrenergic enhancement improves motor network connectivity in stroke patients. Ann Neurol. 2011 Feb;69(2):375-88 (Impact Factor 11.9)

Grefkes C, Fink GR
Reorganization of cerebral networks after stroke: New insights from neuroimaging using connectivity approaches. Brain. 2011 May;134(Pt 5):1264-76. Epub 2011 Mar 16. (Impact Factor 10.2)

Rehme AK, Fink GR, von Cramon DY, **Grefkes C**. The role of the contralesional motor cortex for motor recovery in the early days after stroke assessed with longitudinal fMRI. Cereb Cortex. 2011 Apr;21(4):756-68. (Impact Factor 8.3)

Vollständige Publikationsliste (Stand: Januar 2016; Impact Factoren 2014)

Krall SC, Volz LJ, Oberwelland E, **Grefkes C**, Fink GR, Konrad K.
The right temporoparietal junction in attention and social interaction: A transcranial magnetic stimulation study. Hum Brain Mapp. 2016 Feb;37(2):796-807. (Impact Factor: 6.9)

Mathys C, Caspers J, Langner R, Südmeyer M, **Grefkes C**, Reetz K, Moldovan AS, Michely J, Heller J, Eickhoff CR, Turowski B, Schnitzler A, Hoffstaedter F, Eickhoff SB.
Functional Connectivity Differences of the Subthalamic Nucleus Related to Parkinson's Disease.
Hum Brain Mapp. 2015 Dec 24. doi: 10.1002/hbm.23099 (Impact Factor: 6.9)

Camilleri JA, Reid AT, Müller VI, **Grefkes C**, Amunts K, Eickhoff SB.
Multi-Modal Imaging of Neural Correlates of Motor Speed Performance in the Trail Making Test. Front Neurol. 2015 Oct 27;6:219. doi: 10.3389/fneur.2015.00219.

Rehme AK, Volz LJ, Feis DL, Eickhoff SB, Fink GR, **Grefkes C.**
Individual prediction of chronic motor outcome in the acute post-stroke stage: Behavioral parameters versus functional imaging. Hum Brain Mapp. 2015 Nov;36(11):4553-65. (Impact Factor: 6.9)

Neuschmelting V, Weiss Lucas C, Stoffels G, Oros-Peusquens AM, Lockau H, Shah NJ, Langen J, Goldbrunner R, **Grefkes C.**
Multimodal Imaging in Malignant Brain Tumors: Enhancing the Preoperative Risk Evaluation for Motor Deficits with a combined Hybrid MR-PET and Navigated TMS Approach. AJNR Am J Neuroradiol. 2015 (in press) (Impact Factor: 3.6)

Volz LJ, Eickhoff SB, Pool EM, Fink GR, **Grefkes C.**
Differential modulation of motor network connectivity during movements of the upper and lower limbs. Neuroimage. 2015 Oct 1;119:44-53. doi: 10.1016/j.neuroimage.2015.05.101. (Impact Factor: 6.1)

Nettekoven C, Volz LJ, Leimbach M, Pool EM, Rehme AK, Eickhoff SB, Fink GR, **Grefkes C.**
Inter-individual variability in cortical excitability and motor network connectivity following multiple blocks of rTMS. Neuroimage. 2015 Sep;118:209-18. doi: 10.1016/j.neuroimage.2015.06.004. (Impact Factor: 6.1)

New AB, Robin DA, Parkinson AL, Rottschy C, Reetz K, HoffstaedteR F, Mathys C, Sudmeyer M, **Grefkes C**, Larson CR, Ramig LO, Fox PT, Eickhoff SB
The intrinsic resting state voice network in Parkinson's disease. Hum Brain Mapp. 2015 May;36(5):1951-62. (Impact Factor: 6.9)

Weiss C, Tursunova I, Neuschmelting V, Lockau H, Nettekoven C, Peusquens AM, Stoffels G, Rehme AK, Faymonville A, Shah NJ, Langen KJ, Goldbrunner R, **Grefkes C**
Improved nTMS- and DTI-derived CST tractography though anatomical ROI seeding on anterior pontine level compared to internal capsule. Neuroimage Clin. 2015 Jan 20;7:424-37.

Pool EM, Rehme AK, Eickhoff SB, Fink GR, **Grefkes C**
Functional resting-state connectivity of the human motor network: Differences between right- and left-handers. Neuroimage 2015, in press (Impact Factor: 6.1)

Michely J, Volz LJ, Barbe MT, Hoffstaedter F, Viswanathan S, Timmermann L, Eickhoff SB, Fink GR, **Grefkes C**.
Dopaminergic modulation of motor network dynamics in Parkinson's disease. Brain. 2015 Jan 6. pii: awu381. [Epub ahead of print] in press (Impact Factor: 10.2)

Cieslik EC, Müller VI, Kellermann TS, **Grefkes C**, Halfter S, Eickhoff SB.
Shifted neuronal balance during stimulus-response integration in schizophrenia: an fMRI study. Brain Struct Funct. 2015 Jan;220(1):249-61. doi: 10.1007/s00429-013-0652-1. (Impact Factor: 4.6)

Mathys C, Hoffstaedter F, Caspers J, Caspers S, Südmeyer M, **Grefkes C**, Eickhoff SB, Langner R.
An age-related shift of resting-state functional connectivity of the subthalamic nucleus: a potential mechanism for compensating motor performance decline in older adults. Front Aging Neurosci. 2014 Jul 23;6:178. doi: 10.3389/fnagi.2014.00178. (Impact Factor: 2.8)

Pool EM, Rehme AK, Fink GR, Eickhoff SB, **Grefkes C**.
Handedness and effective connectivity of the motor system. Neuroimage. 2014 Oct 1;99:451-60. doi: 10.1016/j.neuroimage.2014.05.048. (Impact Factor: 6.1)

Rehme AK, Volz LJ, Feis DL, Bomilcar-Focke I, Liebig T, Eickhoff SB, Fink GR, **Grefkes C**.
Identifying Neuroimaging Markers of Motor Disability in Acute Stroke by Machine Learning Techniques. Cereb Cortex. 2014 May 16. pii: bhu100. [Epub ahead of print] (Impact Factor: 8.3)

Nettekoven C, Volz LJ, Kutscha M, Pool EM, Rehme AK, Eickhoff SB, Fink GR, **Grefkes C**.
Dose-dependent effects of theta burst rTMS on cortical excitability and resting-state connectivity of the human motor system. J Neurosci. 2014 May 14;34(20):6849-59. doi: 10.1523/JNEUROSCI.4993-13.2014. (Impact Factor: 6.7)

Volz LJ, Hamada M, Rothwell JC, **Grefkes C**.
What Makes the Muscle Twitch: Motor System Connectivity and TMS-Induced Activity. Cereb Cortex. 2014 Mar 7. [Epub ahead of print] (Impact Factor: 8.3)

Grefkes C, Fink GR.
Connectivity-based approaches in stroke and recovery of function. Lancet Neurol. 2014 Feb;13(2):206-16. doi: 10.1016/S1474-4422(13)70264-3. Review. (Impact Factor: 21.2)

Volz LJ, Sarfeld AS, Diekhoff S, Rehme AK, Pool EM, Eickhoff SB, Fink GR, **Grefkes C**.
Motor cortex excitability and connectivity in chronic stroke: a multimodal model of functional reorganization. Brain Struct Funct. 2014 Jan 11. [Epub ahead of print] (Impact Factor: 4.6)

Hoffstaedter F, **Grefkes C**, Roski C, Caspers S, Zilles K, Eickhoff SB.
Age-related decrease of functional connectivity additional to gray matter atrophy in a network for movement initiation. Brain Struct Funct. 2014 Jan 8. [Epub ahead of print] (Impact Factor: 4.6)

Hermann MM, van Asten F, Muether PS, Smailhodzic D, Lichtner P, Hoyng CB, Kirchhof B, **Grefkes C**, den Hollander AI, Fauser S.
Polymorphisms in vascular endothelial growth factor receptor 2 are associated with better response rates to ranibizumab treatment in age-related macular degeneration. Ophthalmology. 2014 Apr;121(4):905-10. doi: 10.1016/j.ophtha.2013.10.047. Epub 2013 Dec 21. (Impact Factor: 6.2)

Binder E, Hagelweide K, Wang LE, Kornysheva K, **Grefkes C**, Fink GR, Schubotz RI.
Sensory-guided motor tasks benefit from mental training based on serial prediction. Neuropsychologia. 2014 Feb;54:18-27. doi: 10.1016/j.neuropsychologia.2013.11.018. Epub 2013 Dec 7. (Impact Factor: 3.5)

Langner R, Sternkopf MA, Kellermann TS, **Grefkes C**, Kurth F, Schneider F, Zilles K, Eickhoff SB.
Translating working memory into action: behavioral and neural evidence for using motor representations in encoding visuo-spatial sequences. Hum Brain Mapp. 2014 Jul;35(7):3465-84. doi: 10.1002/hbm.22415. (Impact Factor: 6.9)

Hoffstaedter F, **Grefkes C**, Caspers S, Roski C, Palomero-Gallagher N, Laird AR, Fox PT, Eickhoff SB.
The role of anterior midcingulate cortex in cognitive motor control: evidence from functional connectivity analyses. Hum Brain Mapp. 2014 Jun;35(6):2741-53. doi: 10.1002/hbm.22363. (Impact Factor: 6.9)

Grefkes C, Ward NS.
Cortical reorganization after stroke: how much and how functional? Neuroscientist. 2014 Feb;20(1):56-70. doi: 10.1177/1073858413491147. Review. (Impact Factor: 7.6)

Cárdenas-Morales L, Volz LJ, Michely J, Rehme AK, Pool EM, Nettekoven C, Eickhoff SB, Fink GR, **Grefkes C**.
Network connectivity and individual responses to brain stimulation in the human motor system. Cereb Cortex. 2014 Jul;24(7):1697-707. doi: 10.1093/cercor/bht023. (Impact Factor: 8.3)

Pool EM, Rehme AK, Fink GR, Eickhoff SB, **Grefkes C**.
Network dynamics engaged in the modulation of motor behavior in healthy subjects. Neuroimage. 2013 Nov 15;82:68-76. doi: 10.1016/j.neuroimage.2013.05.123. (Impact Factor: 6.1)

Rehme AK, Eickhoff SB, **Grefkes C**.
State-dependent differences between functional and effective connectivity of the human cortical motor system. Neuroimage. 2013 Feb 15;67:237-46. doi: 10.1016/j.neuroimage.2012.11.027. (Impact Factor: 6.1)

Weiss C, Nettekoven C, Rehme AK, Neuschmelting V, Eisenbeis A, Goldbrunner R, **Grefkes C**.
Mapping the hand, foot and face representations in the primary motor cortex - retest reliability of neuronavigated TMS versus functional MRI. Neuroimage. 2013 Feb 1;66:531-42. doi: 10.1016/j.neuroimage.2012.10.046. (Impact Factor: 6.1)

Volz L, **Grefkes C**.
Neurophysiological and neuroimaging predictors of functional recovery after stroke. Klin Neurophysiol. 2013; 44: 238-46.(Impact Factor 0.3)

Rehme AK, **Grefkes C**.
Cerebral network disorders after stroke: Evidence from imaging-based connectivity analyses of active and resting brain states in humans. J Physiol. 2013 Jan 1;591(Pt 1):17-31 (Impact Factor 4.5)

Hoffstaedter F, **Grefkes C**, Zilles K, Eickhoff SB.
The 'What' and 'When' of Self-initiated Movements. Cereb. Cortex 2013 23: 520-530 (Impact Factor 8.3)

Grefkes C, Fink GR
Stroke-induced Disturbed Motor Network Connectivity and its Non-invasive Neuromodulation. Curr Opin Neurol. 2012 Dec;25(6):670-5. (Impact Factor: 5.47)

Wang LE, Tittgemeyer M, Imperati D, Diekhoff D, Ameli M, Fink GR, **Grefkes C**.
Degeneration of corpus callosum and recovery of motor function after stroke: A multimodal magnetic resonance imaging study. Hum Brain Mapp. 2012 Dec;33(12):2941-56. (Impact Factor 6.9)

Michely J, Barbe MT, Hoffstaedter F, Timmermann L, Eickhoff SB, Fink GR, **Grefkes C**
Differential effects of dopaminergic medication on basic motor performance and executive functions in Parkinson's disease. Neuropsychologia Aug;50(10):2506-14. (Impact Factor 3.5)

Hasan A, Wobrock T, **Grefkes C**, Labusga M, Levold K, Schneider-Axmann T, Falkai P, Müller H, Klosterkötter J, Bechdolf A.
Deficient inhibitory cortical networks in antipsychotic-naive subjects at-risk of developing first-episode psychosis and first-episode schizophrenia patients: a cross-sectional study. Biol Psychiatry 2012 Nov;72(9):744-51 (Impact Factor 9.5)

Hoffstaedter F, Sarlon J, **Grefkes C**, Eickhoff SB.
Internally vs. externally triggered movements in patients with major depression. Behav Brain Res Behav Brain Res. 2012 Mar 1;228(1):125-32. Epub 2011 Nov 28. (Impact Factor 3.4)

Rehme AK, Eickhoff SB, Rottschy C, Fink GR, **Grefkes C**.
Activation likelihood estimation meta-analysis of motor-related neural activity after stroke. Neuroimage. 2012 Feb 1;59(3):2771-82. Epub 2011 Oct 17. (Impact Factor 6.1)

Sarfeld AS, Diekhoff S, Wang LE, Liuzzi G, Uludag K, Eickhoff SB, Fink GR, **Grefkes C**.
Convergence of human brain mapping tools: Neuronavigated TMS parameters and fMRI activity in the hand motor area. Hum Brain Mapping 2012 May;33(5):1107-23. doi: 10.1002/hbm.21272. (Impact Factor 6.9)

Grefkes C.
Network Disorders after Stroke: New Aspects from Functional Magnetic Resonance Imaging. Klin Neurophysiol 2011; 42(03): 177-182 (Impact Factor 0.3)

Cieslik EC, Zilles K, **Grefkes C**, Eickhoff SB.
Dynamic interactions in the fronto-parietal network during a manual stimulus-response compatibility task. Neuroimage. 2011 Oct 1; 58(3):860-9. Epub 2011 Jun 25. (Impact Factor 6.1)

Eickhoff SB, **Grefkes C**
Approaches for the integrated analysis of structure, function and connectivity of the human brain. Clin EEG Neurosci. 2011 Apr;42(2):107-21. (Impact Factor 1.8)

Grefkes C, Fink GR
Reorganization of cerebral networks after stroke: New insights from neuroimaging using connectivity approaches. Brain. 2011 May;134(Pt 5):1264-76. Epub 2011 Mar 16. (Impact Factor 10.2)

Rehme AK, Eickhoff SB, Wang LE, Fink GR, **Grefkes C**
Dynamic causal modeling of cortical activity from the acute to the chronic stage after stroke. Neuroimage. 2011b Apr 1;55(3):1147-58. (Impact Factor 6.1)

Wang LE, Fink GR, Diekhoff S, Rehme AK, Eickhoff SB, **Grefkes C**
Noradrenergic enhancement improves motor network connectivity in stroke patients. Ann Neurol. 2011 Feb;69(2):375-88 (Impact Factor 11.9)

Rehme AK, Fink GR, von Cramon DY, **Grefkes C**
The role of the contralesional motor cortex for motor recovery in the early days after stroke assessed with longitudinal fMRI. Cereb Cortex. 2011a Apr;21(4):756-68. (Impact Factor 8.3)

Diekhoff S, Uludag K , Sparing R , Tittgemeyer M , Cavusoglu M , von Cramon DY, **Grefkes C**
Functional localization in the human brain: Gradient-Echo, Spin-Echo, and Arterial Spin-Labeling fMRI compared with neuronavigated transcranial magnetic stimulation. Hum Brain Mapp. 2011 Mar;32(3):341-57. (Impact Factor 6.9)

Grefkes C, Nowak DA, Wang LE, Dafotakis M, Eickhoff SB, Fink GR
Modulating cortical connectivity in stroke patients by rTMS assessed with fMRI and dynamic causal modelling. *Neuroimage* 2010a, 50: 234-243 (Impact Factor 6.1)

Grefkes C, Fink GR
Functional Neuroimaging and Neuromodulation: Effects of Transcranial Magnetic Stimulation on Cortical Networks in Healthy Subjects and Patients. *Klin Neurophys.* 2009; 40:1–9 (Impact Factor 0.3)

Grefkes C, Wang LE, Eickhoff SB, Fink GR
Noradrenergic modulation of cortical networks engaged in visuomotor processing. *Cereb Cortex*. 2010b Apr;20(4):783-97. (Impact Factor: 8.3)

Ameli M, **Grefkes C**, Kemper F, Riegg F, Rehme AK, Karbe H, Fink GR, Nowak DA
Differential effects of high-frequency rTMS over ipsilesional primary motor cortex in cortical and subcortical MCA stroke. *Ann Neurol.* 2009 Sep;66(3):298-309. (Impact Factor 11.9)

Jakobs O, Wang LE; Dafotakis M, **Grefkes C**, Zilles K, Eickhoff SB
Effects of timing and movement uncertainty implicate the temporo-parietal junction in the prediction of forthcoming motor actions. *Neuroimage* 2009 Aug 15;47(2):667-77. (Impact Factor 6.1)

Nowak DA, **Grefkes C**, Ameli M, Fink GR
Interhemispheric competition after stroke: Brain stimulation to enhance recovery of function of the affected hand. *Neurorehabil Neural Repair* 2009 Sep;23(7):641-56. Review. (Impact Factor 4.6)

Wang LE, Fink GR, Dafotakis M, **Grefkes C**
Noradrenergic stimulation and motor performance: Differential effects of reboxetine on movement kinematics and visuomotor abilities in healthy human subjects. *Neuropsychologia* 2009, 47(5):1302-1312 (Impact Factor 3.5)

Eickhoff SB, Laird AR, **Grefkes C**, Wang LE, Zilles K, Fox PT
Coordinate-based activation likelihood estimation meta-analysis of neuroimaging data: A random-effects approach based on empirical estimates of spatial uncertainty. *Hum Brain Mapp*. 2009 Sep;30(9):2907-26. (Impact Factor 6.9)

Eickhoff SB, Dafotakis M, **Grefkes C**, Stöcker T, Shah NJ, Schnitzler A, Zilles K, Siebler M
fMRI reveals cognitive and emotional processing in a long-term comatose patient.
Exp Neurol. 2008 Dec;214(2):240-6. (Impact Factor 4.6)

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Effects of low-frequency rTMS over contralesional M1 on movement kinematics and neural activity in subcortical stroke. *Arch Neurol* (2008) Jun;65(6):741-7 (Impact Factor 7.6)

Dafotakis M, **Grefkes C**, Wang L, Fink GR, Nowak DA
The effects of 1 Hz rTMS over the hand area of M1 on movement kinematics of the ipsilateral hand.
J Neural Transm. 2008 Sep;115(9):1269-74 (Impact Factor 2.9)

Nowak DA, **Grefkes C**, Fink GR
[Modern neurophysiological strategies in the rehabilitation of impaired hand function following stroke.]
Fortschr Neurol Psyc. 2008 Jun;76(6):354-60. Review. (Impact Factor 0.8)

Eickhoff SB, Dafotakis M, **Grefkes C**, Shah NJ, Zilles K, Piza-Katzer H
Central adaptation following heterotopic hand replantation probed by fMRI and effective connectivity analysis. *Exp Neurol.* 2008 Apr 6. Jul;212(1):132-44. (Impact Factor 4.6)

Buelte D, Meister IG, Staedtgen M, Dambeck N, Sparing R, **Grefkes C**, Boroojerdi B
The role of the anterior intraparietal sulcus in crossmodal processing of object features in humans: An rTMS study. *Brain Res*. 2008 Jun 27;1217:110-8. (Impact Factor 2.8)

Grefkes C, Eickhoff SB, Nowak DA, Dafotakis M, Fink GR
Dynamic intra- and interhemispheric interactions during unilateral and bilateral hand movements assessed with fMRI and DCM. *Neuroimage* 2008 Jul 15;41(4):1382-94 (Impact Factor 6.1)

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Effects of rTMS on grip force control following subcortical stroke. *Exp Neurol*. 2008 Jun;211(2):407-12. Epub 2008 Mar 6. (Impact Factor 4.6)

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Dexterity is impaired at both hands following unilateral subcortical middle cerebral artery stroke. *Eur J Neurosci* (2007) 25: 696-703 (Impact Factor 3.7)

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The somatotopic organization of cytoarchitectonic areas on the human parietal operculum. *Cereb. Cortex* (2007) 17: 1800-1811 (Impact Factor 8.3)

Scheperjans F, Palomero-Gallagher N, **Grefkes C**, Schleicher A, Zilles K
Transmitter receptors reveal segregation between areas in the human superior parietal lobe: relations between visual and somatosensory regions. *Neuroimage* (2005), Jul 27. (Impact Factor 6.1)

Grefkes C, Fink GR
The functional organization of the intraparietal sulcus in humans and monkeys. *J Anat* (2005) 207: 3-17. (Impact Factor 2.2)

Eickhoff S, Stephan KE, Mohlberg H, **Grefkes C**, Fink GR, Amunts K, Zilles K
A new SPM toolbox for combining probabilistic cytoarchitectonic maps and functional imaging data. *Neuroimage* (2005) 25: 1325-1335. (Impact Factor 6.1)

Scheperjans F, **Grefkes C**, Palomero-Gallagher N, Schleicher A, Zilles K
Subdivisions of human parietal area 5 revealed by quantitative receptor autoradiography: A parietal region between motor, somatosensory, and cingulate cortical areas. *Neuroimage* (2005) 25: 975-92 (Impact Factor 6.1)

Naito E, Roland PE, **Grefkes C**, Choi HJ, Eickhoff S, Geyer S, Zilles K, Ehrsson HH
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Human medial intraparietal cortex subserves visuomotor coordinate transformation. *Neuroimage* (2004) 23: 1494-1506. (Impact Factor 6.1)

Young JP, Herath P, Eickhoff S, **Grefkes C**, Choi HJ, Zilles K, Roland PE
Somatotopy and attentional modulation of the human parietal and opercular regions. *J Neurosci*. (2004) 24: 5391-5399. (Impact Factor 6.7)

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Regional cerebral blood flow correlations of somatosensory areas 3a, 3b, 1, and 2 in humans during rest: a PET and cytoarchitectural study. *Hum Brain Mapp*. (2003) 19: 183-96. (Impact Factor 6.9)

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