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CURRENT POSITION

Deputy Head of the Research group & Group leader

01/2020 – Present

09/2015 – Present

“Brain stimulation, neuroplasticity and learning”.

Central Institute of Mental Health, Mannheim, Germany.

Research collaboration (McGill University, Canada; CRIC Bristol, UK)

01/2013 – Present

CAREER HISTORY

Postdoctoral research fellow (Central Institute of Mental Health, Heidelberg University, Mannheim, Germany)

2013 – 08/2015

Supervisor: Prof. Herta Flor, Medical Faculty Mannheim,

Heidelberg University, Mannheim, Germany

Research associate (University of Bristol, UK)

07 – 12/2012

University of Bristol, Clinical Research and Imaging Centre.

Postdoctoral research fellow (McGill University, Montreal, Canada)

2009 – 2012

Supervisor Prof. RJ Zatorre, Montreal Neurological Institute.

Research collaboration (MRC Nottingham, UK)

2011 – 2012

Supervisor Dr K. Krumbholz, Institute of Hearing research.

Postdoctoral research fellow (University of Nottingham, UK)

2007 – 2009

Supervisors Prof. Dr. T Paus and Prof. R. Bowtell, School of psychology and Sir Peter Mansfield Magnetic Resonance Centre.

EDUCATION

PhD Physics (University Paris XI, Paris, France)

2003 – 2006

Institute for Health and Medical Research (INSERM), and Atomic Energy Commission (CEA). Title: “Modulation of language processing using functional Magnetic Resonance and Transcranial Magnetic Stimulation”, Supervisor JL Martinot, MD, PhD (awarded highest grade with honors).

Master of Medical Physics (University Paul Sabatier, Toulouse, France)

2002 – 2003

University Paul Sabatier, *Speciality:* Morphologic, metabolic and functional imaging: acquisition, analysis and evaluation of medical images.

Bachelor's in Physics (University Montpellier, France)

2000 – 2002

DEUG MIAS (University Montpellier, France)

1997 – 2000

Diploma of general higher education in mathematics, data processing and applications to science.

Speciality: Computer Sciences

SKILLS PROFILE AND TRAINING

• Programming

Advanced knowledge in Matlab (inc. Psychtoolbox), Python (inc. Psychopy), E-Prime, Presentation, C, IDL, Scheme, Assembleur x86 / 68000.

• Statistical software

Advanced knowledge in JMP, StatView, SPSS, R package, Matlab.

• Neuroimaging software

Expertise in SPM, FSL, Freesurfer, Brainsight, Anatomist, Brainvisa,

• Advanced training in Magnetoencephalography (Mannheim, Germany) 03-07/2018

MEG System Start + IHR training program (Elekta Neuromag TRIUX)

• Advanced training in Neuroimaging (UCLA, Los Angeles, USA) 08/2015

Neuroimaging Training Program (NITP), California, USA.

Including Bootstrapping analyses (R package and Matlab), MVPA, DCM.

• European Pain School (Siena, Italy) 06/2015

Training in neural plasticity as a mechanism in chronic pain.

• Neuroimaging data analyses 03/2014

Training using Python for Multivariate Pattern Analysis (MVPA).

Hanse-Wissenschaftskolleg, Delmenhorst, Germany.

PUBLICATIONS

- Thøgersen M, **Andoh J**, Milde C, Graven-Nielsen T, Flor H, Petrini L (2020). Individualized augmented reality training reduces phantom pain and cortical reorganization in amputees: A proof of concept study. *J Pain*. [Epub ahead of print]
- **Andoh J**, Milde C, Diers M, Bekrater-Bodmann, Trojan J, Fuchs X, Becker S, Desch S, Flor H (2020) Assessment of cortical reorganization and preserved function in phantom limb pain: a methodological perspective. *Scien. Rep. 2020;10(1):11504*.
- Liu H, **Andoh J**, Lyu Y, Milde C, Desch S, Zidda F, Schmelz M, Curio M, Flor H (2020). Peripheral input and phantom limb pain: A somatosensory event-related potential. *Eur J Pain*, 24(7):1314-1329
- Rosero Pahi M, Cavalli J, Nees F, Flor H, **Andoh J** (2020). Disruption of the Prefrontal Cortex Improves Implicit Contextual Memory-Guided Attention: Combined Behavioral and Electrophysiological Evidence. *Cereb Cortex*. 30(1):20-30.
- **Andoh J** & Larbig W, Huse E, Stahl-Corino D, Montoya P, Seltzer Z, Flor H (2019). Pre- and postoperative predictors of phantom limb pain. *Neurosci Lett*. 702:44-50.
- Zidda F, Griebel M, Ebert A, Ruttorf M, Roßmanith C, Gass A, **Andoh J**, Nees F, Szabo K (2019). Resting-state connectivity alterations during transient global amnesia. *Neuroimage Clin*. 23;23:101869.
- **Andoh J**, Matsushita R, Zatorre RJ (2018). Insights into auditory cortex dynamics from non-invasive brain stimulation. *Frontiers in Neuroscience*, 13;12:469.
- Zidda F, **Andoh J**, Pohlack S, Winkelmann T, Dinu-Biringer R, Nees F, Flor H (2018). Resting state functional connectivity of cue and context conditioning: implications for anxiety disorders. *NeuroImage*, 165:190-199.
- **Andoh J**, Milde C, Tsao JW, Flor H (2017). Cortical plasticity as a basis of phantom limb pain: Fact or fiction? *Neuroscience*, S0306-4522(17)30809-6.
- **Andoh J**, Flor H (2017) Origin of phantom limb pain: A dynamic network perspective. *Neuroforum*. <https://doi.org/10.1515/nf-2017-A018>
- **Andoh J**, Diers M, Milde C, Köppe C, Kleinböhl D, Flor H (2017) Neural correlates of evoked phantom limb sensations. *Biological Psychology*, 126:89-97.
- Matsushita R, **Andoh J**, Zatorre R. (2017). Direct Current Stimulation Disrupts Consolidation of Auditory Pitch Discrimination Learning. *Brain Stimulation*. 10. E2.10.1016/j.brs.2016.11.023. Impact Faktor: 6.919
- Paillere-martinot ML, Galinowski A, Plaze M, **Andoh J**, Bartrés-Faz D, Bellivier F, Lefaucheur JP, Rivière D, Gallarda T, Martinot JL, and Artiges E. Active and placebo transcranial magnetic stimulation effects on external and internal auditory hallucinations of schizophrenia: functional Magnetic Resonance Imaging-guided double-blind controlled study. *Acta Psychiatrica Scandinavica*. 135(3):228-238.

- **Andoh J**, Ferreira M, Leppert I, Matsushita R, Pike GB, Zatorre RJ (2017) How restful is it with all that noise? Comparison of Interleaved silent steady state (ISSS) and continuous imaging in resting-state fMRI. *NeuroImage*, 15;147:726-735.
- **Andoh J**, Matsushita R, Zatorre RJ (2015) Asymmetric interhemispheric transfer in the auditory network: evidence from TMS, resting-state fMRI, and diffusion imaging. *Journal of Neuroscience*, 35(43): 14602-14611.
- Kamping S, **Andoh J**, Bomba IC, Diers M, Diesch E, Flor H (2016) Contextual modulation of pain in masochists: involvement of the parietal operculum and the insula. *Pain*, 157 (2): 445-55.
- Matsushita R, **Andoh J**, Zatorre RJ (2015) Polarity-Specific Transcranial Direct Current Stimulation Disrupts Auditory Pitch Learning. *Frontiers in neuroscience*, 9:174.
- Driver I, **Andoh J**, Blockley NP, Francis ST, Gowland PA, Paus T (2015) Hemispheric asymmetry in cerebrovascular reactivity of the human primary motor cortex: an in vivo study at 7 T. *NMR in Biomedicine*, 28(5): 538-45.
- Foell J, **Andoh J**, Bekrater-Bodmann R, Diers M, Fuchs X, Colloca L, Flor H (2014) Peripheral origin of phantom limb pain: is it all resolved? *Pain* 155(10):2205-6.
- Flor H, Diers M, **Andoh J** (2013) The neural basis of phantom limb pain. *Trends Cogn Sci.*; 17(7):307-8.
- **Andoh J**, Zatorre RJ (2013) Mapping interhemispheric connectivity using functional MRI after transcranial magnetic stimulation on the human auditory cortex. *NeuroImage* 1;79:162-71.
- **Andoh J**, Zatorre RJ (2012) Mapping the after-effects of theta burst stimulation on the human auditory cortex with functional imaging. *Journal of Visualized experiments* 12;(67):e3985.
- **Andoh J**. Zatorre RJ (2011) Interhemispheric connectivity influences the degree of modulation of TMS-induced effects during auditory processing. *Front psychology*. 2:161.
- **Andoh J**, Paus T (2011) Combining functional neuroimaging with off-line brain stimulation: modulation of task-related activity in language areas, *Journal Of Cognitive Neuroscience*. 23(2):349-61.
- **Andoh J**, Riviere D, Mangin JF, Artiges E, Cointepas Y, Grevent D, Paillere-martinot ML, Martinot JL, Cachia A (2009) A triangulation-based MRI guided method for TMS coil positioning. *Brain stimulation*. 2(3):123-131.
- **Andoh J** & Chanraud S, Martelli C, Artiges E, Pallier C, Aubin HJ, Martinot JL, Reynaud M (2009) Imaging of language-related brain regions in detoxified alcoholics. *Alcohol Clin Exp Res*. 33:977-84.
- Leroy C, Chanraud S, Artiges E, Martelli C, Cachia A, **Andoh J**, Kostogianni N, Reynaud M, Aubin HJ, Trichard C, Martinot JL (2009) Imaging usual addictions : Tobacco, cannabis and alcohol. *European Psychiatry* 24(1):S174.
- **Andoh J** (2009) Magnetic Stimulations and functional imaging: study of functional connectivity. *Fyssen Annals*.
- **Andoh J** & JL Martinot (2008) Interhemispheric compensation: a hypothesis of TMS-induced effects on language-related areas. *European Psychiatry*. 23(4):281-8.
- **Andoh J**, Artiges E, Pallier C, Riviere D, Mangin JF, Paillere-martinot, ML, Martinot, JL (2008) Priming magnetic stimulations over Wernicke's area modulates word detection. *Cerebral Cortex*. 18(1):210-6.
- **Andoh J**, Artiges E, Pallier C, Rivière D, Mangin JF, Cachia A, Plaze M, Paillere-martinot, ML, Martinot, JL (2006). Modulation of language areas with functional MR image-guided magnetic stimulation. *Neuroimage* 29:619-27.
- Plaze M, Paillere ML, Penttila J, Januel D, de Beaurepaire R, Bellivier F, **Andoh J**, Galinowski A, Gallarda T, Artiges E, Olie JP, Mangin JF, Martinot JL, Cachia A (2011). Where Do Auditory Hallucinations Come From? A Brain Morphometry Study of Schizophrenia Patients With Inner or Outer Space Hallucinations. *Schizophr Bull* 37:212-221.
- Cachia A, Paillère-Martinot ML, Galinowski A, Januel D, Beaurepaire R, Bellivier F, Artiges E, **Andoh J**, Bartrés Faz D, Duchesnay E, Rivière D, Plaze M, Mangin JF & Martinot JL (2007) Cortical folding abnormalities in schizophrenia patients with resistant auditory hallucinations. *Neuroimage* 39(3):927-35.
- Plaze M, Bartres-Faz D, Martinot JL, Januel D, Bellivier F, De Beaurepaire R, Chanraud S, **Andoh J**, Lefaucheur JP, Artiges E, Pallier C, Paillere-Martinot ML (2006) Left superior temporal gyrus activation during sentence perception negatively correlates with auditory hallucination severity in schizophrenia patients. *Schizophr Res*. 87(1-3):109-115.

Manuscripts under review/ minor revisions

- Lyu Y, Zidda F, Radev S, Liu H, Guo X, Tong Shanbao, Flor H, **Andoh J**. Gamma band oscillations reflect sensory and affective dimensions of pain.
- Zidda F, Lyu Y, Radev S, Flor H, **Andoh J**. Negative priming enhances perceived pain unpleasantness and evoked activity.
- Christelle van Antwerpen C, Jarrold C, **Andoh J**, Gilchrist I, Crawley E and Thai NJ. Mapping the neural substrates of the residual variance of working memory.
- Milde C, Diers M, **Andoh J**, Becker S, Fuchs X, Trojan J, Bekrater-Bodmann R, Flor H. Evoked phantom sensations in amputees: A link between neural processing of body illusions and pathologically altered body perception. *Brain*.
- Maide Bucolo M, Rance M, **Andoh J**, Ruttorf M, and Flor H. Pain Networks Underlying Successful Control in Pain-Related Real Time fMRI Neurofeedback. *IEEE*

BOOK CHAPTERS

- **Andoh J.** and JL Martinot (2012) A triangulation-based MRI-guided method for TMS coil positioning http://www.intechopen.com/source/pdfs/28791/InTech-A_triangulation_based_mri_guided_method_for_tms_coil_positioning.pdf. (Intech publisher).
- **Andoh J.** Modulation du langage avec l'Imagerie par Résonance Magnétique et la Stimulation Magnétique Transcrânienne (French Edition). *Publisher: Editions Universitaires Europeennes. 2009.*
- **Andoh J.** in *Les cahiers de l'audition (Vol 20-n°1, janvier-février 2007)*. Stimulation magnétique transcranienne et imagerie par résonance magnétique : application à la modulation du traitement du langage.
- **Andoh J.** in *Les cahiers de l'audition (vol 20-n°3, mai/juin 2007)*. Les fréquences d'amorçage modulent les performances lors d'une tâche de détection des mots.
- **Andoh J.** in *Les cahiers de l'audition (vol 20-n°3, mai/juin 2007)*. Modulation du processus de la perception du langage avec la TMS répétée (rTMS) à basse fréquence.

GRANTS & FELLOWSHIPS

- **German Research Foundation SFB 1158 / B07** **07/2019 – 2023**
Co-PI with prof. Herta Flor, German Research Foundation SFB 1158 / B07
“Neural Circuits Involved in Phantom Limb Pain”.
- **EFIC-GRUENENTHAL Grant** (30,000 €) **2015 – 2017**
“Circuits of pain memory in Chronic Pain patients”
- **German Research Foundation SFB 1158 / B07** (600,000€) **2015 – 07/2019**
Co-PI with prof. Herta Flor, German Research Foundation SFB 1158 / B07
“Neural Circuits Involved in Phantom Limb Pain”.
- **Auditory Cognitive Neuroscience** **2013**
Erasmus Mundus Staff Exchange Network (£5.000)
- **Guarantors of Brain** **2012**
Travel award (£800)
- **Auditory Cognitive Neuroscience** (14.600 €) **2012**
Erasmus Mundus Staff Exchange Network
- **Auditory Cognitive Neuroscience** (7.400 €) **2011**
Erasmus Mundus Staff Exchange Network
- **Natural Sciences and Engineering Research Council of Canada** **2010 – 2015**
Co-PI with prof. Robert Zatorre, (\$250.000) for 5 years.
- **Centre for Interdisciplinary Research in Music Media and Technology** **2012**
Travel award (\$1000)
- **Canadian Imperial Bank of Commerce** **2009 – 2010**
Postdoctoral fellowship (\$50.000)

- **Fyssen Foundation** **2009 – 2010**
Postdoctoral fellowship (20.000€)
- **Medical Research Foundation** **2003 – 2006**
PhD fellowship (45,000€)

AWARDS

- **Selected for advanced training in Neuroimaging** **08/2015**
UCLA, Los Angeles, California, USA.
- **Selected scholar for European Pain School** **06/2015**
Siena, Italy.
- **Selected for training in Multivariate Pattern Analysis of Neuroimaging Data** **03/2014**
PyMVPA, Hanse-Wissenschaftskolleg, Delmenhorst, Germany.
- **Finalist at the FALLING WALLS LAB BERLIN** **2013 – 2014**
Presentation of a research idea to a distinguished international jury, Berlin, Germany.

INVITED SPEAKER

- **Andoh J.** “Phantomschmerz” Nov 29-30th 2019. Thuringen.
- **Andoh J.** Brain learning circuitry in chronic pain. *IGSN/SFB 1280/BIOME*, Bochum, Germany, 24-25th April 2018.
- **Andoh J.** “Neural circuits involved in phantom limb pain. Heidelberg Oct 5th 2017
- **Andoh J.** Disruption of emotional modulation in chronic pain patients. *EFIC*, Copenhagen September 07th 2017.
- **Andoh J.** Neuroanatomy of pain and new therapeutic strategies (IV *Jornadas Internacionales de Graduados en ciencias de la Salud*, Almeria, Spain, July 14th 2017.
- **Andoh J.** Comparative network connectivity of tactile, thermal and electrical noxious stimuli using graph theory. *European Pain school EPS*, Siena Italy June 07-14th 2015.
- **Andoh J.** Breaking the wall of Chronic Pain. *Fallings Walls* Berlin, Germany Nov. 08-09th 2014.
- **Andoh J.** Somatotopic maps of tactile and nociceptive stimuli, *Ectop projects*, Heidelberg, Oct. 2014.
- **Andoh J.** Breaking the wall of brain plasticity, *Fallings Walls* Berlin, Germany, Nov. 08-09th 2013.
- **Andoh J.** Optimization of therapeutic application of Transcranial Magnetic Stimulation in clinical settings. *IZN Retreat: ‘Diseases of the Nervous System’*. Kloster Schöntal, Germany, Jun 30th-Jul 1st 2013.
- **Andoh J.** TMS-induced changes in neural activity: Functional reorganisation or compensatory mechanisms? Institute for Medical Psychology and Behavioral Neurobiology. University of Tübingen. June 17th 2013.
- **Andoh J.** Colloquium: Department of Cognitive and Clinical Neuroscience, Mannheim, Germany. May 13th 2013.
- **Andoh J.** Influence of TMS on resting state functional activity in the auditory network. Oxford, UK. May 4-5th 2013.
- **Andoh J.** Modulation of Auditory Processing Using Combined Transcranial Magnetic stimulation and fMRI. *Clinical Research and Imaging Centre*, Bristol, UK, Oct. 10th 2012.
- **Andoh J.** Role of interhemispheric connectivity in the auditory network: a combined TMS and fMRI study. OHBM, Beijing, China, June 10-14th 2012.
- **Andoh J.** Mapping the effects of Transcranial magnetic stimulation with functional MRI (CRIUGM, Montreal). April 25th 2012.
- **Andoh J.** Modulation of auditory perception with brain stimulations. European Conference on Clinical Neuroimaging. Chair of a conference on the theme “schizophrenia”. Lille, France, March 12-13th 2012.
- **Andoh J.** Functional connectivity influences the degree of modulation of behavioral performance with TMS. OHBM, Centre des Congres de Quebec City, Canada. June 26-30th 2011.

- **Andoh J.** Interhemispheric connectivity determines the degree of modulation of behavioral performance (poster and oral presentation). Hotel Loews Le Concorde. Quebec city, Canada. June 24-25th 2011.
- **Andoh J.** Effect of stimulation frequency on the modulation of behavioral performance. “The neurosciences and music - learning and memory”. Edinburgh, Scotland. June 9-12th 2011.
- **Andoh J.** TMS-induced effects on melody processing depends on sex. *Auditory Cognitive Neuroscience*. Leipzig, Germany, April 20th -21st 2011.
- **Andoh J.** Modulation of music processing using rTMS and fMRI. Presented at “Crossing the Corpus Callosum II: Neuroscience, Healing, and Music”. Cambridge, MA, USA, 01/2011.
- **Andoh J.** Modulation of auditory perception using magnetic stimulations and brain imaging. *Department of psychiatry, Grand Rounds, Allan Memorial Institute*. February 2011.
- **Andoh J.** TMS and auditory processing. *Centre for speech, language and the brain*, Cambridge, UK, 12/2010 (Host Lorraine K Tyler).
- **Andoh J.** Modulation of auditory processing with magnetic stimulation. *Centre for Research on Language, Mind and Brain*. Rabinovitch House, October 2010.
- **Andoh J.** Modulation of language processing using TMS and MRI. *Brams conferences*. University of Montreal, May 2010.
- **Andoh J.** Modulation of language processing using TMS and MRI. *Seminars in Cognitive Neuroscience*. Montréal Neurological Institute, December 2009.
- **Andoh J.** A low-cost triangulation-based manual method for TMS coil positioning, *Atomic Energy Commission, Neurospin*, Orsay, 2007.
- **Andoh J.** Combining fMRI with off-line TMS: study of functional connectivity in language-related areas. *Transcranial Magnetic Stimulation and Neuroimaging in Cognition and Behavior*. Montreal, Canada, 09/2008.

INTERNATIONAL CONFERENCES AND POSTER PRESENTATION

- **Andoh J.** Maladaptive reorganization and preserved function in phantom pain go hand in hand: differential involvement of sensory and motor maps. *IASP*, Boston USA, September 11-19th 2018.
- **Andoh J,** Trojan J, Bekrater-Bodmann R, Diers R, Rance M, Ruttorf M, Flor H (2014). Structural interhemispheric interactions in primary somatosensory cortices in upper-limb amputees. OHBM, June 07-12th Hamburg, Germany.
- **Andoh J,** Matsushita R, Zatorre RJ. Asymmetric influence of TMS on resting state functional activity in the auditory network (2014). OHBM, June 07-12th Hamburg, Germany.
- **Andoh J,** Ferreira M, Leppert I, Matsushita R, Pike GB, Zatorre RJ (2014). How restful is “Resting” State with all that noise? OHBM, June 07-12th Hamburg, Germany.
- Matsushita R, **Andoh J,** Zatorre R (2014). Direct current stimulation disrupts consolidation of auditory pitch discrimination learning. Society for neuroscience, Nov. 15-19th, Washington, DC. USA.
- **Andoh J,** Trojan J, Bekrater-Bodmann R, Diers M, Kamping S, Rance M, Ruttorf M, Flor H (2013). Structural reorganization in amputees with phantom limb pain: a diffusion tensor imaging study. EFIC Satellite.
- **Andoh J,** Matsushita R, Zatorre R (2013). Influence of TMS on resting state functional activity in the auditory network. May 4-5th, Oxford, UK.
- **Andoh J,** & Zatorre RJ (2012). Mapping hemispheric interactions in the auditory network with combined TMS and fMRI. 4th Conference on Auditory Cortex. August 31st to September 3rd, 2012, in Lausanne, Switzerland.
- **Andoh J,** Heinrich A, Hutchinson G, Zatorre RJ and Krumboltz K. Perceptual and neuro-electric evidence suggesting that human auditory cortex is selective for musical pitch. 4th Conference on Auditory Cortex. August 31st to September 3rd, 2012, in Lausanne, Switzerland.
- **Andoh J.** Role of interhemispheric connectivity in the auditory network: a combined TMS and fMRI study. OHBM, Beijing, China, June 10-14 2012.

- **Andoh J**, Bungert A. Combining TMS and fMRI. *Sir Peter Mansfield Magnetic Resonance Centre* (University of Nottingham; UK, 2007).
- Bungert A, **Andoh J**, Herve PY, Francis S, Paus T, Bowtell R. Combining TMS and fMRI. *European Society for Magnetic Resonance in Medicine and Biology*. 26th Annual Scientific Meeting, Antalya, Turkey, 1–3 Oct 2009.
- Driver I, **Andoh J**, Francis S, Gowland P, Paus T. Assessing hemodynamic causes underlying hemispheric asymmetry in BOLD response in M1. *Human Brain Mapping HBM*, 16th Annual Meeting, Barcelona, Spain June 6-10, 2010.
- Paillère-Martinot ML, Galinowski A, Plaze M, **Andoh J**, Bartrés-Faz D, Bellivier F, Lefaucheur JP, Rivière D, Gallarda T, Olié JP, Leboyer M, Guéguen B, Martinot JL, Artiges E. The power of sham rTMS on chronic hallucinated voices in schizophrenia patients. An fMRI-guided rTMS randomized, double-blind, sham-controlled study. *Society of Biological Psychiatry*, ^{SEP}65th Annual Meeting, May 20-22, New Orleans, Louisiana, 2010.
- Bungert A, **Andoh J**, Herve PY, Francis S, Paus T, Bowtell R. Combining TMS and ASL in 3T. ISMRM 17th Scientific Meeting & Exhibition, Honolulu, Hawaii, USA 18-24 April 2009
- **Andoh J**, Artiges E, Pallier C, Riviere R, Mangin JF, Paillere-Martinot ML, Martinot JL. Transcranial Magnetic Stimulation priming frequencies over Wernicke's area modulate word detection. *Human Brain Mapping HBM*, 13th Annual Meeting, Chicago, IL USA June 10-14, vol. 36(1), S48-49, 2007.
- **Andoh J**, Cachia A, Mangin JF, Artiges E, Cointepas Y, Paillere-Martinot ML, Riviere D, Martinot JL. A low-cost triangulation-based manual method for TMS coil positioning, *Human Brain Mapping HBM*, 12th Annual Meeting, Florence, Italy June 11-15, vol. 31(1), S106-706, 2006.
- **Andoh J**, Cachia A, Mangin JF, Artiges E, Cointepas E, Paillere-Martinot ML, Riviere D, Martinot JL. A low-cost triangulation-based manual method for TMS coil positioning, Association of European Psychiatrists. Neuroimaging section, 3rd annual meeting, Utrecht, The Netherlands, 4th and 5th may 2006.
- Cachia A, Duchesnay E, Plaze M, Paillère-Martinot ML, Januel D, Bellivier F, Galinowski A, **Andoh J**, Bartrés-Faz D, De Beaurepaire R, Artiges E, Rivière D, Mangin JF, Martinot JL. Sulcus-based morphometry of heteromodal cortex in schizophrenia patients with resistant auditory hallucinations. In Proc. 11th HBM, *Neuroimage* vol 26 (1), Toronto, Canada, 2005.
- Martinot JL, Kircher T, Paillère-Martinot ML, Plaze M, Januel D, Bellivier F, **Andoh J**, De Beaurepaire R, Chanraud S, Artiges E, Duchesnay E, Mangin JF, Kellermann T, Leube D, Bartrès-Faz D, Cachia A. Brain folding in schizophrenia. In Proc. 8th World congress of biological psychiatry. *The world journal of biological psychiatry* vol s6 (1), Vienna, Austria, pages 57, 2005.

RESEARCH PROJECTS

- Somatotopic maps of tactile and nociceptive stimuli in primary somatosensory cortex at 3 and 7 Teslas.
- TMS-induced functional reorganization in patients with phantom-limb pain and referred sensations.
- Anatomical connectivity in the somatomotor cortex in upper-limb amputees using diffusion tensor imaging.
- Design of fMRI experiments: memory, auditory and visual tasks with eye-tracker (EyeLink 1000).
- Resting-state fMRI and TMS: study of interhemispheric connectivity in the auditory network.
- Comparison of two resting-state fMRI sequences: standard versus interleaved silent steady-state.
- Diffusion Tensor Imaging: study of anatomical connectivity in the auditory network.
- Transcranial direct current stimulation and intraparietal sulcus: Modulation of auditory mental transformations.
- TMS of auditory cortex and its effect on pitch processing.
- Combination of TMS, psychophysics and EEG to modulate auditory processing.
- Exploration of basic pitch processing mechanisms using “stimulus-specific” adaptation phenomenon.
- Repetitive TMS and Theta Burst Stimulation targeting Heschl's gyrus.
 - Functional connectivity in auditory processing using fMRI and Diffusion Tensor Imaging.
 - Development of melody tasks (Perl, Audacity, Praat, Max/MSP).

- Development of a breath holding method to assess the hemodynamic causes of the underlying hemispheric asymmetry in blood oxygenation level dependent response in the motor cortex [RespirAct™, Thornhill research Inc, Toronto]. 7-Tesla scanner.
- TMS combined with ASL-based fMRI: a feasibility study.
- Participation to an fMRI study on the neural bases of auditory hallucinations in schizophrenia.
- Setting up of a research protocol with fMRI and an auditory language task contrasting French and foreign languages (Polish, Korean, Japanese).
 - Measure of Motor-Evoked Potentials Amplitude using electromyography (EMG).
 - Design of an experience using low frequency stimulation over language-related areas.
 - Triggering of the TMS device (MagPro stimulator, Medtronic R30)
 - Application of theta burst stimulation (TBS) on language-related areas: Programming TBS frequency with Medtronic X100 and Eprime software.
- Study and optimization of a frameless stereotaxy system of TMS (Brainsight).
 - Development and plugging of a new visualization interface (Brainvisa) into Brainsight.
 - Comparison between Brainsight and a manual fMRI-guided approach using geodesic distances between head landmarks and the target location.
- A pilot study of Remote Telemedicine feasibility: Assistance for the diagnosis and medical supervision of cardiovascular pathologies (biomedical sensors and telemedicine, programming assembler). National Telecommunications Institute, INT, Evry, Paris.
- Elaboration of a WEB site on electronics and automatism.

TEACHING

- **Teaching** to Master students in Translational Medical Research “Hallmarks of Disease” **2016 – Present**
Medical Faculty Mannheim, University of Heidelberg, Germany
- **Teaching and Seminar**, “Patient-Doctor interactions”, Medical Faculty Mannheim **04/05 2016**
University of Heidelberg, Germany
- **Teaching and Seminar**, “Learning and Cognition”, Medical Faculty Mannheim **10/11 2015**
University of Heidelberg, Germany
- **Supervision** of PhD and master students **2008 – 2015**
- **Teaching** and demonstration of TMS to medical students. **2013 – 2015**
- **Teaching** to 2nd year “Audiology/Ortophony” medical students **2010**
Lecture in “speech perception”, University of Montreal, Faculty of Medicine, Canada.
- **Teaching** courses on neuroimaging methods (DTI, fMRI, structural MRI) **2013**
and neurophysiological methods (EEG, TMS, tDCS) and their combination
- **Supervision** of 9 students from Polytechnique, Palaiseau, France **2008**
Project entitled “Triangulation of TMS coil positioning and inter-operators reproducibility”.

REVIEW EDITOR

- Frontiers in Neuroscience and Psychology

REFEREE SCIENTIFIC JOURNAL

- Reviewer for Nature Neuroscience
- Journal Of Neuroscience
- Neuroscience
- Cerebral Cortex
- Journal Of Cognitive Neuroscience
- NeuroImage
- Human Brain Mapping
- European Journal Of Neuroscience
- Frontiers in Neuroscience

- Psychology of music

OTHER ACTIVITIES

- **Participation to a video for the SFB1158 website (ZI Mannheim)** **2018**
Transcranial Magnetic Stimulation, virtual reality, magnetic resonance imaging of the arm
- **Organizer of weekly colloquiums** **2014 – Present**
Progress reports, Journal clubs. Medical Faculty Mannheim, Heidelberg University, Germany.
- **Organizer of monthly workshops** **2014**
Statistical analyses methods and neuroimaging, Mannheim, Germany.
- **Member of organization and tutorage for FSL software** **09/2013**
4-day FSL course held at the University of Bristol (UK) in collaboration with Oxford University.
- **Member of organisation of a brain imaging workshop** **02/2012**
To introduce attendees to current brain imaging techniques (Montreal, Canada).
- **Vice-chair of the Student and Postdoc section (OHBM)** **2011**
Organization for Human Brain Mapping. <http://www.humanbrainmapping.org>
- **Volunteering in the brain awareness week in Montreal, Canada** **03/2011**
Organization of a scientific café entitled “the power of the mind”
- **Participation as a research day judge** **2010 – 2011**
Annual student research day at the Faculty of Medicine, Montreal, Canada
- **Participation in the creation of a movie for children** **2007**
Subject: Discovery of the mysteries of the brain at *Science Festival 2007*, Paris, France.
- **Participation to several TV programs** **2006 – 2007**
“France 2”, program “le journal de 20h” and France 5, program “Magazine de la santé”.
- **Participation in a scientific animation** **2006**
Inauguration of the NeuroSpin center, CEA Saclay (France).

LANGUAGES

- Arabic, Berber i.e. Amazigh (native)
- French, English (fluent)
- German (advanced)
- Spanish (scholar)