Nathalie GEORGE

Born: 03-20-1970   **Nationality:** French
Present position: CNRS Research Director, *classe 2* (DR2) since 2012

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After a PhD on evoked potential studies of face processing, I did a post-doc in the Functional Imaging Laboratory of the Wellcome Departement for Cognitive Neuroscience of London. I then became a lecturer in the Université Paris 8 (1998-2001) before being recruited as a research scientist at the CNRS. I was promoted as Research Professor (DR2, CNRS) in 2012. My research focus has been on face perception from the early stages of my career. I moved from a focus on visual cognitive processes to the study of social and affective processes involved in face processing. I am now moving toward the study of the interaction between socio-affective processes and motor control, with a focus on the electrophysiology of the involved subcortico-cortical networks. To tackle these issues, I use the variety of methods available in the field of human cognitive neuroscience, with an emphasis on EEG and MEG methods that give access to the dynamics of information processing

Education

2007	« *Qualification to Research Direction* » (HDR), Paris 6 University
1997	PhD, Life Sciences / Cognitive Sciences, Paris 6 University
1989/93	Pupil of the Ecole Normale Supérieure d'Ulm-Sèvres, Paris:

- Research Masters in Biology-Biochemistry, ENS – Paris 6 University
- BSc and MSc in Psychology, Paris 5 University

Professional experience

2019-present	Member of the Experimental Neurosurgery team, ICM, Paris, France
2012-present	Scientific head of the MEG-EEG platform of the Centre for Neuroimaging Research (www.cenir.org) at the Institut du Cerveau et de la Moelle Epinière (ICM, CNRS UMR7225 / Inserm U1127 / UPMC UMR_S 1127), Paris, France
2014-2018	Co-head of the "Social and Affective Neuroscience" research team, ICM, Paris, France.
2012-2014	Co-coordinator of the « Cognition, Emotion, Behavior » axis of research at the ICM, with M.Pessiglione
Oct 2012	CNRS Research Director (DR2), CRICM – CNRS / Inserm / UPMC, Paris.
2011-13	Co-head of the "Cognitive Neuroscience and Brain Imaging - Cogimage" research team, CRICM, CNRS UMR7225 /Inserm UMRS975/ UPMC, Hôpital de la Salpêtrière, Paris.
2005-2008	Co-head of the "Vision and Cognition" research team with C.Tallon-Baudry, CNRS UPR 640-LENA.
Oct. 2001	CNRS Full-time Researcher (CR1), CNRS UPR 640 – LENA, Paris, France.
1998-2001	Lecturer (MCF) in Neuroscience, Université Paris 8, Saint-Denis, France.
1997-98	Post-doc, Functional Imaging Laboratory, Wellcome Dept of Cognitive Neurology, London, UK (Pr. R. Dolan and Pr. J. Driver), grant awarded by the Fyssen foundation (France)
1996-97	Teaching Assistant (ATER), Neuroscience, Rennes I University, France.
1993-97	PhD student, Cognitive Neuroscience, LENA - CNRS URA 654, Univ. Paris 6 (Pr. N. Fiori and B. Renault), Research Fellowship awarded by the French Ministry of Higher Education and Research

Reviewing and Evaluation activities

- Since Septembre 2017, I am a member of the "Brain, Cognition and Behaviour » Section (section 26) of the French National Committee for Scientific Research (CoNRS)
- 2018-2019: Member of the Evaluation Committee 37 (CE 37) of the Agence Nationale de la Recherche (ANR)
- 2018 & 2019: expert for the HCERES (French High Council for the Evaluation of Research and Higher Education); member of the evaluation committees for the 5-year grant renewal of the CERCO (Toulouse) CNRS research unit and of the SCALAB (Lille) CNRS research unit.

- Expert reviewer for: the Fonds National de La recherche Scientique Belge (FNRS) (since 2014), the Swiss National Science Foundation (2010, 2015), the Israelian Science Foundation (ISF, 2006, 2015), the Agence Nationale de la Recherche (ANR) (2006, 2011, 2019, 2020)
- Regular member and expert examiner in PhD and HDR (French 'Habilitation à Diriger des Recherches') jurys (45 PhD jurys, 10 HDR jurys in total)

Educational boards and teaching
- Adjunct professor of Indiana University, Bloomington, Indiana (US), from Septembre 2018
- Member of the educational board of the Masters in Cognitive Science, EHESS / Université Paris 5 / ENS
- Regular courses at Masters level on the social and affective neuroscience of face perception and impression formation, MEG and EEG brain imaging methods, experimental paradigms, fundamentals of neuropsychology and neuroimaging…

Student and post-doctoral fellow supervision
- Supervision of one on-going PhD, one ongoing post-doc, and one master's thesis
- In addition, across my carrer, I supervised a total of 9 PhDs, 5 post-docs, 47 master's thesis / engineering school or other internships.

Recent grants
- 2021-2024: PI and scientific coordinator of a grant in Integrative and Cognitive Neuroscience from the French Agence Nationale de la Recherche (ANR): "BETAPARK – Neurofeedback for Parkinson's disease", with Camille Jeunet (co-PI, INCIA, Bordeaux) and Fabrizio De Vico Fallani (co-PI, ARAMIS team, ICM, Paris) – 656 288 €
- 2020-2023: co-PI of an ANR-NSF/NIH Collaborative Research in Computational Neuroscience, CRCNS: US-France Data Sharing Proposal: Open science & cloud computing of MEEG (MEEGbrainlife), with Aina Puce (PI, Indiana University), Franco Pestilli (co-PI, Texas University), Laurent Hugueville et Maximilien Chaumon (co-PIs, Centre MEG-EEG, ICM) – 285 660 euros
- 2016-2019: Big Brain Theory program grant from IHU-A-ICM, "COGBLIND", co-PI with L. Cohen. 199.5 k€
- 2016-2019: Big Brain Theory program grant from IHU-A-ICM, "LIBERATE", co-PI with B. Dubois. 200 k€

Publications
~60 peer-reviewed articles, 6 book chapters, Web of Science: ~4000 citations (without self-citations)

Selected publications:
- Babo-Rebelo, M.[co-1st], Puce, A.[co-1st], Bullock, D., Hugueville, L., Pestilli, F., Adam, C., Lehongre, K., Lambrecq, V., Dinkelacker, V., & George N. (2020). Visual information routes in the posterior dorsal and ventral face network studied with intracranial neurophysiology, and white matter tract endpoints. *bioRxiv*, 2020.05.22.102046. doi: 10.1101/2020.05.22.102046. Submitted to *Cerebral Cortex*.
- Chaumon, M., Puce, A., & George, N. (2020). Statistical power: implications for planning MEG studies. *bioRxiv* 852202; doi: 10.1101/852202. Submitted in *NeuroImage*
- Guesdon, A., Lejeune, F.-X., Rotge, J.-Y., George, N., & Fossati, P. (2020). Mind-wandering changes in dysphoria. *Frontiers in Psychiatry*, 11: 544999. doi 10.3389/fpsyt.2020.544999.
- Ioannucci, S., George, N., Friedrich, P., Cerliani, L., & Thiebaut de Schotten, M. (2020). White matter correlates of hemi-face dominance in happy and sad expression. *Brain Structure and Function*, 225: 1379–1388. doi: 10.1007/s00429-020-02040-7.
- Varriale, P.*, Collomb-Clerc, A.*, Van Hamme, A., Perrochon, A., Kemoun, G., Sorrentino, G., George, N., Lau, B., Karachi, C., & Welter, M.-L. (2018). Decreasing subthalamic deep brain stimulation frequency reverses cognitive interference during gait initiation in Parkinson's disease. *Clinical Neurophysiology*, 129(11): 2482-2491. doi: 10.1016/j.clinph.2018.07.013. *: equal contribution.
- Hazem, N., Beaurenaut, M., George, N.*, & Conty, L.* (2018). Social Contact Enhances Bodily Self-Awareness. *Scientific Reports*, 8: 4195. doi: 10.1038/s41598-018-22497-1. *: equal contribution
- Lemaréchal, J.-D., George, N., & David, O. (2018) Comparison of two integration methods for dynamic causal modeling. *NeuroImage*, 173, 623-631. doi: 10.1016/j.neuroimage.2018.02.031.
- Burra, N., Baker, S., & George, N. (2017). Processing of gaze direction within the N170 / M170 time window: A combined EEG / MEG study. *Neuropsychologia*, 100, 207-219. doi: 10.1016/j.neuropsychologia.2017.04.028

- Huijgen, J.[co-1st], Dinkelacker, V. [co-1st], Lachat, F., Yahia-Cherif, L., El Karoui, I., Lemaréchal, J.-D., Adam, C., Hugueville, L., & <u>George, N.</u> (2015). Amygdala processing of social cues from faces: an intracrebral EEG study. *Social Cognitive and Affective Neuroscience (SCAN),* 10 (11), 1568-1576. doi: 10.1093/scan/nsv048

- Ulloa, J.L., Puce, A., Hugueville, L., & <u>George, N</u>. (2014). Sustained neural activity to gaze and emotion perception in dynamic social scenes. *Social Cognitive and Affective Neuroscience (SCAN)*, 9, 350-357. doi: 10.1093/scan/nss141

- Dumas, T., Dubal, S., Attal, Y., Morel, S., Chupin, M., Jouvent, R., & <u>George, N.</u> (2013). MEG evidence for early amygdala responses to fearful faces in healthy adults. *PloS ONE,* 8(9): e74145. doi:10.1371/journal.pone.0074145

- Morel, S., Beaucousin, V., Perrin, M., <u>& George, N.</u> (2012). Very early modulation of brain responses to neutral faces by a single prior association with an emotional context: evidence from MEG. *NeuroImage*, 61, 1461-70. doi:10.1016/j.neuroimage.2012.04.016

- <u>George, N.</u>, Dolan, R.J., Fink, G.R., Baylis, G.C., Russell, C., & Driver, J. (1999). Contrast polarity and face recognition in the human fusiform gyrus. *Nature Neuroscience*, 2(6), 574-580.

- Rodriguez, E., <u>George, N.,</u> Lachaux, J.-P., Martinerie, J., Renault, B., & Varela, F. (1999). Perception's shadow: long-distance gamma band synchronization of human brain activity. *Nature*, 397, 430-433.