

## Curriculum Vitae

Dr Alexandra FORT

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I am currently working in the Multisensory Group with Dr Gemma Calvert at the Department of Physiology, Oxford University, Oxford.

**PERSONAL DATA**

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Address            3 Tyndale Road  
                       Oxford OX4 1JL  
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Civil status       Born on July 05, 1976 in Villeurbanne (France)  
                       Single  
                       French nationality

**EDUCATION**

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1996-2002        **Department of Cognitive Sciences**, University Lumière Lyon II  
 1994-1996        **Department of Psychology**, Lyon Catholic University

**DEGREES HELD**

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2002              **Ph.D.** in Cognitive Sciences passed with Distinction  
 1999              **Diplôme d'Etudes Approfondies (DEA)** (Cognitive Psychology) - Cum laude  
 1998              **Master of Sciences** (Cognitive Sciences) - Cum laude  
 1996              **Bachelor of Psychology**

**COMPLEMENTARY TRAININGS**

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2003              Training period in **Magnetoencephalography**, Helsinki (Finland), February 8-10, 2003

2001              Continuing Education in **English**, granted by INSERM (Jan-Dec 2001)

2000              Training School of CNRS "**Interdisciplinary Approaches in Cognitive Sciences**" Roscoff (Fr), October 9-14, 2000

2000              Training period in **functional Magnetic Resonance Imaging**, Orsay (Fr), May 8-11, 2000

## RESEARCH EXPERIENCE AND SKILLED ACQUIRED

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- 2003 Post-Doctoral position, Department of Physiology, Oxford University, Oxford.  
Supervisor: Dr Gemma Calvert  
Research topic: *Study of auditory-visual integration in humans using magnetoencephalography and functional magnetic resonance imaging.*
- 1998-2002 DEA and Ph.D. training, INSERM U280 "Mental Process and Brain Activation",  
Supervisor: Dr. Marie-Helene GIARD.  
Research topic: *Electrophysiological correlates of auditory-visual integration in human perception, Electrical neuroimaging.*  
Technique acquired: **Electroencephalography** (EEG)  
EEG recording, evoked potentials analysis, statistical analysis, dipole modeling
- 1997/1998 Master training, Institut des Sciences Cognitives, Neurobiology of Olfactory Memory,  
Supervisors: Prof. Rémi GERVAIS and Dr. Anne-Marie MOULY  
Research topic: *Learning and Synaptic plasticity in rat.*  
Technique acquired: **Evoked Field Potential**  
Intracranial recording in rats, evoked field potential analysis, statistical analysis

## AWARDS AND FELLOWSHIPS

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- 1999 "**Tursky Award**" for the best student poster, Annual Meeting of the Society for Psychophysiological Research (SPR), Grenada (Spain) October 6-10, 1999.
- 1999-2002 Awarded PhD grant from the National Ministry of Education, Research and Technology.

## TEACHING

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- 2000-2002 **Statistics**, Department of Psychology, University Lumière Lyon II

## OTHER SCIENTIFIC ACTIVITIES

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- Ad hoc reviewer *Handbook of Multisensory Processing* (G. Calvert, C. Spence and B.E. Stein Eds).
- 2001-2003 **Associate Editor** of the "Cognitive Neuropsychology and Neuroscience" sections and "Abstracts of thesis" for *In Cognito*, French-Language Journal of Cognitive Science, ed.: *In Cognito et Estigma* Associations.
- 2001 **Member of the Organization Committee** for the "4<sup>th</sup> Meeting of Young Researchers in Cognitive Science", Lyon, May 3-5, 2001.
- 2000 **Member of the Program Committee** for the "40<sup>th</sup> Annual Meeting of the Society for Psychophysiological Research" (SPR), San Diego (USA), October 18-22, 2000.

- 1999-2000     **Treasurer of the Estigma Association** (Lyon Association of Students in Cognitive Sciences).
- 1999-2002     Member of the "Society for Psychophysiological Research" (SPR).
- 1999-2002     Member of the French Society of Cognitive Psychophysiology.

## **LIST OF PUBLICATIONS**

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### **Peered Reviewed Papers in International Journals**

- GIARD M.H., FORT A., MOUCHETANT-ROSTAING Y. & PERNIER J. Neurophysiological mechanisms of auditory selective attention in humans. *Frontiers in Bioscience*, 2000, 5, d84-94.
- MOULY A.M., FORT A., BENBOUTAYAB N. & GERVAIS R. Olfactory learning induces structure-specific synaptic changes in rat central olfactory pathway. *Neuroscience*, 2001, 102:11-21.
- FORT A., DELPUECH C., PERNIER J & GIARD M.H. Early auditory-visual interactions in human cortex during nonredundant target identification. *Cognitive Brain Research*, 2002, 14:20-30.
- FORT A., DELPUECH C., PERNIER J. & GIARD M.H. Dynamics of cortico-subcortical operations involved in audio-visual object detection in humans. *Cerebral Cortex*, 2002, 12:1031-1039.

### **Book Chapters**

- FORT A. & GIARD M.H. Multiple electrophysiological mechanisms of audio-visual integration in human perception. In: *Handbook of multisensory processes*. Eds: G. Calvert, C. Spence and B.E. Stein, MIT Press. (In Press).
- FORT A. & GIARD M.H. Intégration multisensorielle et perception intermodale. In: *L'imagerie fonctionnelle électrique (EEG) et magnétique (MEG): Ses applications en sciences cognitives*. Eds: B. Renaud et N. Fiori, Hermès, Collection Sciences Cognitives. (In press).

### **Published Abstracts**

- MOULY A.M., FORT A. & GERVAIS R. Structure-specific synaptic changes following an olfactory learning in rat. *Abstracts Society for Neuroscience*, 1998, 24: 1421.
- FORT A. & GIARD M.H. Integration of non-redundant auditory-visual information during object recognition in humans: a behavioral and ERP study. *Psychophysiology*, 1999, 36, Suppl.1, S51.

FORT A., GIARD M.H., PERONNET F. & PERNIER J. Electrophysiological correlates of multisensory integration during auditory-visual object detection task in humans. *Clinical Neurophysiology*, 2000, 111, Suppl.1, S19.

FORT A., GIARD M.H. & PERNIER J. Behavioral and electrophysiological correlates of auditory-visual integration during target detection in humans. *Abstracts Society for Neuroscience*, 2000, 26, 1978.

FORT A. & GIARD M.H. Influence of the perceptual task on the electrophysiological correlates of auditory-visual integration in humans. *International Journal of Psychophysiology*, 2001, S7.1, 207.

FORT A. & GIARD M.H. Is attention necessary for multisensory (auditory-visual) integration in perception? *Abstracts Society for Neuroscience*, 2001, 511.13.

FORT A. & GIARD M.H. Does attention influence audio-visual neural interactions during bimodal object recognition? *Journal of Cognitive Neuroscience*, 2002, B114:68

## **COMMUNICATIONS IN SCIENTIFIC MEETINGS**

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### **Oral Communications**

FORT A. & GIARD M.H. Intégration des informations multimodales dans la reconnaissance d'objets audio-visuels. *Réunion de la Société de Psychophysologie Cognitive*, Toulouse, November 19-20, 1999.

GIARD M.H., FORT A. & PERONNET F. Perception of multimodal objects: Comparison of redundant vs non-redundant multisensory information processing. *VIIth International Conference on Cognitive Neuroscience (ICON VII)*, Budapest (Hungary), June 28- July 31 1999.

GIARD M.H. & FORT A., Integration of redundant and non-redundant auditory-visual informations during object recognition in humans: Behavioral and electrophysiological data. *Workshop on crossmodal attention and multisensory integration*, Oxford (GB), October 1-2, 1999.

GIARD M.H., FORT A., DELPUECH C. & PERNIER J. Crossmodal interactions in human cortex partly depend on the sensory dominance of the subject. *Second Annual Multisensory Research Conference*, New-York (USA), October 6-7, 2000.

FORT A., GIARD-STEINER M.H., DELPUECH C. & PERNIER J. Corrélats neurophysiologiques de l'intégration multisensorielle au cours de l'identification et de la détection d'objets audio-visuels. *Réunion de la Société de Psychophysologie Cognitive*, Bordeaux, October 20-21, 2000.

FORT A. & GIARD M.H. Influence of the perceptual task on the electrophysiological correlates of multisensory integration in humans. *13th Evoked Potentials International Congress (EPIC XIII)*, Paris, July 9-13, 2001.

GIARD M.H. & FORT A. Audio-visual integration during active *versus* passive bimodal processing. *8th International Conference on Cognitive Neuroscience (ICON VIII)*, Porquerolles, September 9-15, 2002.

BESLE J., FORT A. & GIARD M.H. Electrophysiological correlates of bimodal speech perception. *Réunion de la Société de Psychophysologie Cognitive*, Paris, 29-30 novembre 2002.

GIARD M.H., PERONNET F., FORT A. & BESLE J. L'intégration audio-visuelle dans la perception : Approche électrophysiologique chez l'homme. *CerCo CNRS-UMR5549*, Toulouse, October 25, 2002.

FORT A. & GIARD M.H., Etude des corrélats électrophysiologiques de l'intégration des informations auditives et visuelles dans la perception intermodale chez l'homme. *INSERM - U316*, Tours, January 6, 2003.

FORT A. & GIARD M.H., Flexible organisation of the cortical networks mediating multisensory integration in perception. *University Laboratory of Physiology*, Oxford (GB), February 21, 2003.

## Posters

FORT A. & GIARD M.H. Early auditory-visual interactions in non-redundant multimodal information processing. *39th Annual Meeting of the Society for Psychophysiological Research (SPR)*, Grenade (Espagne), October 6-10, 1999.

FORT A. & GIARD M.H. Corrélats électrophysiologiques de l'intégration multisensorielle dans une tâche de détection d'objets audio-visuels chez l'homme. *Réunion scientifique annuelle de la Société d'Anatomie Fonctionnelle Cérébrale (SAFC)*, Lyon, May 3, 2000.

FORT A., GIARD M.H., PERONNET F. & PERNIER J. Electrophysiological correlates of multisensory integration during auditory-visual object detection task in humans. *10th European Congress of Clinical Neurophysiology (ECCN)*, Lyon, August 26-30, 2000.

FORT A. & GIARD M.H. Is attention necessary for multisensory (auditory-visual) integration in perception? *31th meeting of the Society for Neuroscience (SFN)*, San Diego (USA), November 10-15, 2001

FORT A. & GIARD M.H. Does attention influence audio-visual neural interactions during bimodal object recognition? *9th annual meeting of the cognitive Neuroscience society (CNS)*, San Francisco (USA), April 14-16, 2002.

FORT A. & GIARD M.H. Crossmodal integration during active or passive processing of audio-visual stimuli. *3rd Annual Multisensory Research Conference*, Genève (Suisse), May 24-26, 2002.

BESLE J., FORT A. & GIARD M.H. Etude électrophysiologique de la perception audiovisuelle de la parole. *Journées d'études Imagerie cérébrale et langage (ICL)*, Lyon, December 3-4 2002.

BESLE J., FORT A. & GIARD M.H. Visual information relieves speech processing in the human auditory cortex. *4th Annual Multisensory Research Conference*, Ontario (Canada), June 14-17, 2003.

**FORT A. & GIARD M.H. Flexibility of the neural processes sustaining auditory-visual integration during intermodal perception in human. *5th Congress of the Federation of European Psychophysiology Societies*, Bordeaux (France), September 10-14, 2003.**