

**PhD scholarship – European ITN program EBRAMUS -
Boosting language processing and implicit learning with temporal structures**

Supervisor: Dr. Barbara Tillmann; CNRS-UMR 5020, University of Lyon, France

A PhD scholarship (3 years) is available as part of the European research project EBRAMUS (Europe **BRA**in and **MUS**ic). Enrolment as a PhD student will begin in October or November 2010.

EBRAMUS is a consortium of European research centres based in Belgium, France, Germany, Great Britain, and Poland (for further information: <http://leadserv.u-bourgogne.fr/ebramus>). EBRAMUS offers a unique interdisciplinary graduate programme to study the behavioural, functional, structural, and plastic effects of music on cognitive functions such as language, memory, learning, and motor behaviour through an integrative and interdisciplinary approach. Its goal is to train PhD students in the multidisciplinary aspects of music in rehabilitation, learning, and facilitation of cognitive processes with behavioural and neuroscience (EEG, fMRI, etc.) methods.

As a member of the EBRAMUS project, the PhD will be:

- working in collaboration with the other centres of the network based in Belgium, France, Germany, Great Britain, and Poland.
- participating, together with the 9 other PhD students of the network (1 per team), at 3 workshops and 2 summerschools organized by the EBRAMUS consortium.
- including mobility to at least one other research site up to 6 months.

For details on project, application and eligibility criteria: <http://leadserv.u-bourgogne.fr/ebramus>

For further information, contact EBRAMUS at: EBRAMUS@gmail.com

Applications should be submitted to: EBRAMUS@gmail.com and btillmann@olfac.univ-lyon1.fr

NOTE: Applications will be evaluated as they come in, and the position will be open until filled (or at the latest for August 30, 2010).

Project Description

Objective of the PhD research

The PhD project investigates the influence of metrical structures on language processing (i.e., requiring syntax processing or segmentation) and on implicit learning of statistical regularities (musical or verbal material).

Methods planned for the PhD research:

Behavioural methods (implicit and explicit paradigms) and EEG methods with healthy populations and patient populations with language and/or learning deficits (e.g., children with developmental language disorders, aphasics, basal ganglia patients)

Expected added value provided by the ITN

Collaborations with network partners with the relevant expertise in language, neuropsychology and EEG (Kotz, Schön), implicit learning (Bigand, Schön) as well as access to patient pools (Kotz, Samson, Schön).

Competences of the candidate:

(in addition to general requirements, see: <http://leadserv.u-bourgogne.fr/ebramus>)

Required

Master in experimental psychology, neuroscience or neuropsychology.

Preferable

Knowledge of research design, statistical skills, basic programming skills (e.g., MATLAB)

Interest in music/language processing and/or implicit learning

French fluency

Prior experience of EEG techniques