

# NEUROBIOLOGIE - « Brain bases of musical rhythm » - Open PhD position in Brussels at the Rhythm and Brains Lab

vendredi 14 juin 2024, par [Rhuthmos](#)

**Open PhD position in Brussels**, at the Rhythm and Brains Lab, to work with PI Prof. Sylvie Nozaradan and her team (at the Institute of Neuroscience, Université catholique de Louvain, UCLouvain, Belgium), in collaboration with Nori Jacoby (U. Cornell, USA/ Max Planck Institute for Empirical Aesthetics, Germany) and Rainer Polak (RITMO, U. Oslo, Norway).

The PhD student will be funded by the Special Research Funds of UCLouvain, with a starting date preferably between October 2024 and January 2025, to work on a project aiming at clarifying the **brain bases of musical rhythm categorization across the senses in humans**.

Recent technological advances have allowed the investigation of rhythm categorization through sensory-motor reproduction data collected from large pools of participants worldwide, offering novel insights into the universality and diversity of rhythm perception across cultures. However, the brain bases of rhythm categorization remain unknown. To progress in this endeavor, this research will use an innovative approach combining electroencephalography (EEG) with frequency-tagging and a Representational Similarity Analysis (RSA) framework to capture neural categories of rhythm in healthy humans. Behavioral and neural categories of rhythm will be compared in response to different sensory inputs including auditory, visual and tactile inputs, to test the extent to which rhythm categorization relies on a large network of cortical areas shared across the senses beyond audition.

The candidate should have a Master's degree in neuroscience, cognitive science, biology, engineering, psychology or equivalent. Ideally, he/she should also have a solid background in cognitive neuroscience, experience in designing experiments, collecting and analyzing human data using Matlab or equivalent software, and a good level of English. Knowledge of electrophysiology, neuropsychology, programming skills (e.g., R, Matlab or Python), and music/dance practice are a plus. High motivation, curiosity, creativity, perseverance, and the ability to work in a team are key personal skills.

The successful candidate will receive a tax free monthly stipend according to Belgian standards for 2 years, with possibilities of extension to 2 extra years. Applications should be sent preferably before August 30, 2024 (candidates may be selected earlier, don't wait to apply if you are interested).

Please submit (i) a letter of interest, (ii) a detailed CV including a summary of research interests and experience, and (iii) names of two references, as a single pdf to D<sup>F</sup>. Sylvie Nozaradan (sylvie.nozaradan@uclouvain.be).