

POSTDOCTORAL RESEARCHER POSITION

MISSIONS	The Bordeaux PharmacoeEpi (BPE) platform from the University of Bordeaux, France (https://www.bordeauxpharmacoeEpi.eu/) is seeking a highly motivated post-doctoral researcher in biostatistics or data science to support an interdisciplinary team of epidemiologists, biostatisticians and project managers within the BPE platform, on a project about repurposing drugs in Alzheimer's Disease (REMIND) starting in September 2025. The BPE platform possesses extensive expertise in analysing the French nationwide health claims database (the SNDS) and operates within a secure IT infrastructure designed to host, access and analyse these sensitive patient data. With over 20 years of experience, the BPE has a strong track record in conducting pharmacoepidemiological research using SNDS data. The REMIND project aims to use drug repurposing methods to identify existing approved treatments for other indications that may prevent Alzheimer's disease and related disorders (ADRD), using the French SNDS database. This project is being carried out in collaboration with leading French and US researchers in the fields of neurodegenerative disease epidemiology, neurobiology and the development of causal inference methods (INSERM, Harvard Medical School, NIA-NIH, Rutgers Institute for health). ADRD affect more than a million people in France and 55 million people worldwide, with serious consequences for patients, families and society as a whole. Despite extensive research and funding, ADRDs currently have no curative or preventive treatment. Numerous treatments—including oral medicines, vaccines and immunotherapy — have been developed to treat or slow the progression of Alzheimer's disease, but few have been granted market authorization and none offer a satisfactory benefit/risk ratio. Drug repurposing methods offer an opportunity to evaluate the benefit of drugs approved for other indications in preventing ADRD occurrence. Recently, our team launched a new project, called REMIND, in which 2 different approaches will be used to identify and evaluate candidate drugs for ADRD prevention. First, we will focus on previously identified candidates targeting dysfunctional metabolic pathways that proceed or interact with the accumulation of ADRD lesions identified at the molecular level. This first approach relies on previous work conducted by our US partners called the DREAM study. Secondly, as unknown mechanisms may drive ADRD progression, we will identify and evaluate new candidates and combinations of candidates using a mechanism-agnostic approach, with the objective of demonstrating a causal relationship between drug(s) and disease. As a postdoctoral researcher, you will contribute to a project that bridges epidemiology, molecular biology, data science and biostatistics, leveraging innovative techniques such as: ▪ Machine learning algorithms combining high-throughput screening and drug repurposing ▪ Screening and target trial emulation methods adapted to drug combinations in order to identify molecular pathways acting in synergy Part of the REMIND project will constitute a PhD thesis starting in September 2025. As a post-doctoral researcher, you will be in charge of specific parts of the project but will also be expected to work in collaboration with the PhD candidate and the rest of the project's team.
PROFIL	▪ A recent or upcoming PhD graduate in a relevant field of medical data science, epidemiology or biostatistics or an engineering school graduate ▪ Demonstrated expertise in machine learning is required ▪ Good understanding of at least one of the following: molecular pathways / neurodegenerative diseases / causal inference methods in non-observational studies / repurposing methods ▪ Strong demonstrated coding skills (R, Python or SAS ideally) ▪ Good knowledge and ability to manipulate SNDS data or another large medical claims database is a plus ▪ Written and spoken English language
WHY JOINING US?	▪ Work in a dynamic, supportive, and productive lab environment with both academic and private partnerships ▪ Join a large fascinating and collaborative project and apply the most innovative epidemiological methods accompanied by a strong experienced team of scientists and biostatistician We value creativity, teamwork, and scientific rigor. If you're interested in using innovative epidemiological approaches to advance knowledge in ADRD drug research, we would love to hear from you! The successful candidate will be appointed for a period of 18 months. The position is to be filled as soon as possible. To apply, please send your CV, a brief statement of research interests, and contact information for 2-3 references to: Dr. Laure Carcaillon-Bentata – laure.carcaillon-bentata@u-bordeaux.fr