**BRIGHAM AND WOMEN’S HOSPITAL**

Job Title: Research Fellow Date: 11/23/2021

Job Code: 000027 Grade: 000 FLSA Status: Exempt

Department/ Unit/ Section: Division of Pharmacoepidemiology & Pharmacoeconomics, Department of Medicine, Brigham and Women's Hospital

Reports To: Principal Investigator and Division Administrator

***GENERAL SUMMARY/ OVERVIEW STATEMENT:*** Summarize the nature and level of work performed.

The Division of Pharmacoepidemiology and Pharmacoeconomics at Brigham and Women’s Hospital Department of Medicine and Harvard Medical School (the Division) is accepting applications for several postdoctoral fellows in pharmacoepidemiology. The Division is a 100-member interdisciplinary research center that brings together the various specialties of medicine, epidemiology, biostatistics, health services research, legal, regulatory and the social sciences to evaluate the effectiveness of prescription drugs in relation to their risks and costs; to study how medications are prescribed and used; to develop methods to optimize prescription drug use; to understand how medicines are approved and regulated after their marketing.

We are seeking one or more self-motivated, diligent, and independent fellows to work with Division faculty in one or more of the following areas:

* **Developing cutting edge tools for valid causal inference incorporating machine learning and deep learning methods in combine electronic health records (EHRs) and claims data:** A fellow working in this area will lead a series of studies aimed at expanding the capacity of machine learning methods to make causal inference in comparative effectiveness research in a semi-automated and data-adaptive fashion. Division faculty have access to multiple large-scale datasets that link longitudinal claims data with EHR data, including both structured data and free-text clinical notes and reports. Opportunities for both methodological and applied epidemiological research are available. Specific topic areas include, but are not limited to: data-adaptive high-dimensional causal inference analytics applying machine learning and deep learning methods to claims and EHR data; and natural language processing of unstructured data for confounding adjustment, risk profiling, and patient phenotyping.
* **Answering high impact questions to inform clinical decision making on the comparative effectiveness and safety of medications in the geriatric pharmacoepidemiology by applying and advancing cutting edge methods:** Collaborate closely withDivision faculty who are leaders in the field of geriatric pharmacoepidemiology. A fellow working in this area will answer critical clinical questions on the prescribing and deprescribing of medications and their comparative effectiveness and safety in older adults leveraging real world data, including administrative claims, electronic health records, and a variety of clinical assessment files, with the opportunity to lead several important research studies each year. The ideal candidate would be a team player and have a doctoral degree in epidemiology, aging research, or clinical geriatrics. Having a clinical background or a degree in medicine combined with epidemiology training is desirable.

Fellows will have an appointment at Harvard Medical School, receive close mentorship from faculty members in the Division, and engage in one or more projects intended to advance their careers in *Geriatric pharmacoepidemiology* or *Causal inference method development* research. Fellows will be highly encouraged to publish the results of their research during the appointment period. This opportunity is suited to individuals who are both independently motivated and collaborative and who thrive in a vibrant research environment working as part of a large team of experienced faculty and staff. Fellows must be comfortable giving and receiving feedback and integrating this feedback into their work. Fellows must enjoy recognizing the ideas and contributions of their colleagues and be comfortable being transparent in their work and decision making.

***PRINCIPAL DUTIES AND RESPONSIBILITIES:*** Indicate key areas of responsibility, major job duties, special projects and key objectives for this position. These items should be evaluated throughout the year and included in the written annual evaluation.

The duties and responsibilities will vary depending on the specific topic area in which the fellow works, but will generally include:

1. Researching, developing, designing, executing, and interpreting epidemiologic studies in the specific topic areas.
2. Collaborating with methodologic and clinical colleagues on applied and/or methodological studies.
3. Investigating, creating, and applying new methods and technologies for research advancement in the specified topic areas.
4. Contributing to the scientific literature by way of reports, journals articles, and presentations.

***QUALIFICATIONS:*** (MUST be realistic, neither overstated nor understated, and related to the essential functions of the job.)

Applications are invited from researchers with doctoral degrees (PhD/ScD/DrPH, MD, PharmD, or equivalent) and strong research and publication records in epidemiology, statistics, bioinformatics, or clinical medicine. Candidates are expected to have experience analyzing healthcare data (e.g., claims, EHR). Strong programming skills are highly desirable, depending on the specific topic areas of interest (e.g., R, Python, SAS).

***SKILLS/ ABILITIES/ COMPETENCIES REQUIRED:*** (MUST be realistic, neither overstated nor understated, and related to the essential functions of the job.)

* Outstanding team player.
* Strong research design and analytical skills.
* Meticulous in all aspects of their work.
* Excellent time management and organizational skills.
* Ability to thrive in a dynamic environment and to adapt to shifting priorities, demands, and timelines.
* Strong written and oral communication skills.
* Strong programing skills are highly desirable and a willingness to learn new methods and tools relevant to their research is a must.

***WORKING CONDITIONS:*** Describe the conditions in which the work is performed.

Hybrid with in-person and remote activities in compliance with the facility and MA government guidelines

***SUPERVISORY RESPONSIBILITY:***  List the number of FTEs supervised.

none

***FISCAL RESPONSIBILITY:*** Indicate financial “scope” information, i.e.: size of budget, volume, revenue, etc.

none

**If interested, please apply the position by sending your CV and cover letter to Lewis Seton at:** **LSETON@BWH.HARVARD.EDU**