HENRY FORD HEALTH Heat Cancer Post-Do

Cancer Epidemiology/ Health Services Research Post-Doctoral Fellowship Program 2025

The Henry Ford Health (HFH) Cancer Epidemiology Prevention and Control research program invites applications for a postdoctoral fellow to begin a 1-2-year fellowships to start in July 2025. The successful candidate will join a team of over 100 cancer researchers conducting studies across the cancer continuum and have the opportunity to share in Henry Ford Health + Michigan State University Health Sciences research mission to become an NCI-designation worthy cancer center with robust clinical, basic and population science research programs that translate findings into state-of-the-art clinical care for our cancer patients.

Postdoctoral Fellows work on 1-year assignments with an optional 2nd year under the leadership of Henry Ford Cancer researchers. In 2025, opportunities exist for fellows to work in one or more of the following areas: Lung cancer screening, patient reported outcomes, prostate cancer epidemiology, and Cancer bioinformatics.

<u>Cancer Screening</u>: Henry Ford Health has multiple on-going studies in the area of cancer screening. Postdoctoral fellows interested in screening will have access to a vast array of cancer screening data including more than 50,000 CTs among 18,000 patients who have been screened for lung cancer. HFH is also a recruitment hub for the NCI funded Cancer Screening Research Network Vanguard Study which will allow candidates to gain experience in the use of multi-cancer detection platforms for screening.

Patient Reported Outcomes and Cancer: Henry Ford Health has implemented routine clinical measurement of patient reported outcomes using the NIH's Patient-Reported Outcomes Measurement Information System (PROMIS®) scales for pain interference, physical function, fatigue, and depression system-wide using the Epic© electronic health record. Patient reported outcome measures (PROMs) are validated tools that report health-related perspectives directly from the patient. Focus on the patient's voice is essential in clinical assessments which traditionally center around provider generated and interpreted data. The candidate will have the opportunity to work on projects that are assessing barriers and facilitators PROMs completion, interventions that could be used to improve completion rate, the value of PROMs implementation among others. The candidate will work with a multidisciplinary team involving clinicians, clinical staff, research scientists, programmers, biostatisticians and epidemiologists.

<u>Prostate Cancer Epidemiology</u>: Our research involves the molecular epidemiology of prostate cancer with a focus on biological differences in prostate carcinogenesis by ancestry to address cancer health disparities. Ongoing research includes use of inflammatory biomarkers in benign prostate tissue to better understand the role of inflammation in prostate carcinogenesis. Genetic and environmental determinants of carcinogen DNA adducts and the role they play in prostate carcinogenesis are also studied. Genomic and epigenomic differences by race that affect prostate cancer susceptibility and progression is a research interest of our team. Finally, our team has an emerging interest prostate cancer histomics - leveraging our vast library of prostate biopsy and surgical specimen whole slide images and patient follow-up data to decipher interpretable signatures of disease progression in H&E images.

<u>Cancer Bioinformatics</u>: Research topics in this group that can be further developed by a postdoctoral fellow include: (1) integrative analysis of unimodal and multimodal single-cell omics data and (2) machine learning

or deep learning techniques to analyze imaging mass cytometry data. A postdoctoral fellow will support projects to develop and implement novel approaches to analyze single-cell omics and imaging data. Our group will provide mentorship in biostatistics, bioinformatics, computational immunology and biology, and next-generation sequencing data analysis and access to the software and infrastructure including the Linux server with a 240-core cluster parallel computing system and 100 terabytes of hard disk storage.

We seek talented and motivated candidates who wish to play a leading role on projects focused on cancer research. The fellowship offers opportunities for multi-disciplinary collaborations and professional development including preparation of scientific manuscripts, presentation at scientific conferences and grant proposal writing. Applicants are strongly encouraged to apply for independent funding the 2nd year of their fellowship.

Candidates must hold a PhD and/or MD and have experience in research design and a focus in cancer research. Strong analytic and communication skills with experience in scientific writing is required. The goal of a successful applicant should be to become an independent scientist.

Stipend support is at the current NIH level.

Please send a cover letter, CV, research statement, example of scientific writing and contact information for 2 professional references to the email address below. The application due date is Thursday, May 1, 2025. Awardees will be notified in late-May 2025 with funding to start as early as July 1, 2025.

Henry Ford Hospital is located in midtown Detroit, MI and is one of the top cancer hospitals in the United States with over 15,000 cancer-related visits a year. Detroit is experiencing a renaissance of culture and habitat. A new light rail transit line, factories converted to attractive loft housing, and diners and cafes abound. Apartment housing in nearby, and recently developed, midtown Detroit is available with assistance in relocation also offered.

Please address inquiries and send applications to Kathy Gusas at: HFCIResearch@hfhs.org