



## Postdoctoral Training in Informatics, Genomics, Machine Learning, Artificial Intelligence, and Biomedical Data Science – Boston Children’s Hospital / Harvard Medical School

The [Computational Health Informatics Program \(CHIP\)](#) at Boston Children’s Hospital (BCH) hosts [a training program for postdoctoral fellows to be trained in Informatics, Genomics, Machine Learning, Artificial Intelligence \(AI\), and Biomedical Data Science](#). The program is funded by the Eunice Kennedy Shriver National Institute of Child Health and Human Development (NICHD) at the National Institute of Health (T32HD040128-16) and is open to US citizens and permanent residents.

CHIP, an affiliate of Harvard Medical School and a collaborating program of the Harvard Medical School Department of Biomedical Informatics, is recruiting postdoctoral fellows. Founded in 1994, CHIP is a multidisciplinary applied research and education program. Biomedical informatics has become a major theme and methodology for biomedical science, health care delivery, and population health, involving high-dimensional modeling and understanding of patients from the molecular to the population levels. We design information infrastructure for medical decision making, diagnosis, care redesign, public health management, and re-imagined clinical trials. The field is inherently interdisciplinary, drawing on traditional biomedical disciplines, the science and technology of computing, data science, biostatistics, epidemiology, decision theory, omics, implementation science, and health care policy and management. Our faculty are trained in medicine, data science, computer science, mathematics and epidemiology. Our faculty are world-leading experts who have been featured in The New York Times, Wall Street Journal, ABC News, CNBC, Bloomberg, CNN, Forbes, Financial Times, NBC News, GQ Magazine, U.S. News & World Report, Politico, BBC News and more.

We seek outstanding candidates passionate about advancing the ability to acquire and then reason over an entire spectrum of data types ranging from molecular and genomic to clinical, epidemiological, environmental and social. Focus areas may include, but are not limited to, research applications of machine learning/AI including COVID-19, medical applications of machine learning/AI including clinical decision support and predictive medicine, genomic and precision medicine, population health, health IT architectures and standards (e.g. SMART on FHIR apps and infrastructure), re-imagined clinical trials, real-world evidence, data visualization, and integrative omics. Candidates should have strong quantitative backgrounds.

### Program Structure

Fellows in the training program work toward independence in two interrelated phases:

- 1) Mentored research project: fellows will be mentored by a faculty member of choice and will select a research topic.
- 2) Formal course work: fellows may have the option of formal coursework. The Program Director and faculty mentor work with the fellow to tailor the curriculum based on the skills required for the fellow’s research project and long-term objectives. Often, this can lead to coursework at the Harvard Department of Biomedical Informatics or the Harvard School of Public Health. Many projects have an emphasis on pediatric emergency and acute care.

### Admissions

Applications are open and admissions are available on a rolling basis.

### Eligibility

Citizens or permanent residents of the United States enrolled in a research doctoral, research postdoctoral, clinical doctoral, or clinical postdoctoral are eligible to apply. Preference will be given to candidates, who have, or are seeking, board certification in pediatric emergency medicine, or who have research interests that are aligned with CHIP’s core research areas.

The program has been committed to recruiting and retaining postdoctoral trainees who are URiM. We have maintained our commitment to diversity through prioritizing applications from diverse and disadvantaged backgrounds. Women and underrepresented minority groups are strongly encouraged to apply.

### How to Apply

[Click here to ask questions](#). To apply, send a CV, cover letter, personal statement and three letters of reference to [megan.rollins@childrens.harvard.edu](mailto:megan.rollins@childrens.harvard.edu).

*BCH offers competitive compensation and unmatched benefits, including a flexible schedule, affordable health, vision, and dental insurance, generous levels of time off, 403(b) Retirement Savings plan, Pension, Tuition Reimbursement and discounted rates on T-passes (50% off). Discover your best.*

*BCH is an Equal Opportunity / Affirmative Action Employer. Qualified applicants will receive consideration for employment without regard to their race, color, religion, national origin, sex, sexual orientation, gender identity, protected veteran status or disability.*