

Branch Chief, Senior Investigator/Senior Scientist

Lister Hill National Center for Biomedical Communications, NLM

(deadline: May 15\*)

The Lister Hill National Center for Biomedical Communications (LHNCBC) at the National Library of Medicine (NLM), a research component of the National Institutes of Health (NIH), is seeking an outstanding research scientist with extensive experience in natural language processing to lead the research program of its Cognitive Science Branch (CgSB). The Branch applies linguistic, statistical, and knowledge-based research and development of techniques for improving the management and computer understanding of biomedical and clinical information. The Branch Chief will conduct research and manage development teams focused on novel and useful tools and techniques for extracting computable information from narrative text for use by clinicians, researchers, and consumers. The teams will identify and study the issues that make this problem difficult and carefully quantify their success. NLM has a long-term interest in the use of natural language processing, linguistics and machine learning. This interest originated in the need to provide search access to, and automated indexing of, the published biomedical literature. The opportunities in that space are becoming even larger with the burgeoning numbers of full text articles in PubmedCentral and the advent of electronic health records (EHR). Most clinical data stored within EHR, including visit notes, discharge summaries, operative notes, and radiology reports are also recorded as narrative (traditionally from transcribed dictation and more recently directly entered by physicians). New and effective techniques for converting this EHR information into a computable form could result in huge benefits to clinical research, quality measures, decision support and patient care improvement, and for the development of the consumer oriented Personal Health Record (PHR).

On-going research projects in the Branch include the Indexing Initiative, which provides automated and semi-automated techniques for indexing the biomedical literature, and includes the MetaMap and Medical Text Indexer (MTI) natural language processing (NLP) tools. MetaMap translates biomedical text to UMLS Metathesaurus concepts. The MTI tool gives suggestions and assistance to humans who index the published journals. Additionally, CgSB staff developed SemRep, a tool that provides usable semantic representation of biomedical free text, and SPECIALIST, a lexical system for the biomedical domain. All of these tools are internationally recognized applications and some are used by researchers around the world. The Branch also houses the

development staff for ClinicalTrials.gov, a critical information resource for consumers and researchers concerned with clinical trials in the U.S. and abroad, supports Profiles in Science, a digital library comprising the works of prominent biomedical scientists, and produces Genetics Home Reference, a rich resource for understanding how genetics affects human health. As an active member of the Lister Hill Center senior management team, the CgSB Branch Chief works closely with the LHCBC Director in defining the overall biomedical research and development goals and policies for the branch and the Center.

The position requires a doctoral level education in one or more of the following: medicine, biomedical informatics, computer science, cognitive science or related discipline; experience and a track record in natural language processing research documented by peer reviewed publications; experience in managing research teams and projects; and peer recognition of outstanding scientific contributions. To apply, please submit your curriculum vitae, three letters of recommendation and a complete bibliography of significant publications to: Lister Hill National Center for Biomedical Communications; Attention: CgSB Branch Chief Search; Building 38A - Room 10S1004; 8600 Rockville Pike; Bethesda, MD 20894. Salary is commensurate with research experience and accomplishments and a full Civil Service package of benefits (including retirement, health, life and long term care insurance, Thrift Savings Plan participation, etc.) is available. For further information, you may contact CgSB Search Committee Chair at (301) 496-4496 or e-mail [thoma@nlm.nih.gov](mailto:thoma@nlm.nih.gov). Review of applications will begin on or about May 15, 2010, but applications will be accepted until the position is filled. HHS and NIH are Equal Opportunity Employers.