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Title: Large-scale Text Mining for Knowledge Discovery and Precision Medicine

Abstract: The explosion of biomedical big data and information in the past decade or so has created new opportunities for discoveries to improve the treatment and prevention of human diseases. But the large body of knowledge—mostly exists as free text in journal articles for humans to read—presents a grand new challenge: individual scientists around the world are increasingly finding themselves overwhelmed by the sheer volume of research literature and are struggling to keep up to date and to make sense of this wealth of textual information. Our research aims to break down this barrier and to empower scientists towards accelerated knowledge discovery. We will discuss our work on developing open resources (e.g. data & software tools) as well as their uses in real-world applications for precision medicine.

Brief Biography: Dr. Lu is Earl Stadtman investigator at NCBI, part of the National Library of Medicine/National Institutes of Health, where he directs the text mining research and its applications to biocuration, knowledge discovery, and health informatics. At NCBI/NLM, Dr. Lu also oversees the R&D for PubMed search to enhance information access to the biomedical literature. Dr. Lu is an Associate Editor for BMC Bioinformatics and serves on the editorial board for the Journal Database. He is also an organizer of the BioCreative challenge and has authored over 100 publications.