# Mutation Impact Analysis System: Automated Extraction of Protein Mutation Impacts from the Biomedical Literature

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| Title | Mutation Impact Analysis System: Automated Extraction of Protein Mutation Impacts from the Biomedical Literature |
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| Abstract | Mutations as sources of evolution have long been the focus of attention in the biomedical literature. Accessing the mutational information and their impacts on protein properties facilitates research in various domains, such as enzymology and pharmacology. However, manually reading through the rich and fast growing repository of biomedical literature is expensive and time-consuming. Thus, there is a growing need for automated approaches to extract this information. In this book, based on the thesis of the author, a comprehensive system is presented to automatically extract and summarize impact information from protein mutations. The system extraction module is split into subtasks: organism analysis, mutation detection, protein property extraction and impact analysis. The output of the presented system is populated to an OWL-DL ontology, which can then be queried to provide structured information. In addition, the performance of the system is evaluated on both external and internal corpora and databases. The results show the reliability of the approaches. |

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