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- Analysis of Rhetorical and Argumentation Structure in Biomedical Texts (collaboration with Biochemistry, The University of Alberta, University of Waterloo)
- Storm tracking (collaboration with Dr. J. Barron)
- Using social media sites to determine privacy concerns (collaboration with Syracuse University)

## Recent PhD and MSc Student Thesis Titles

- A computational linguistic approach towards understanding Wikipedia's article for deletion (AFD) discussions
- A real-time n-gram approach to choosing synonyms based on context
- Discovering higher order relations from biomedical text
- Identification of informativeness in text using natural language stylometry
- Developing a genotype-phenotype table ontology
- Investigating genotype-phenotype relationship extraction from biomedical text

#### Example of a Higher Order Relation

A neurotoxic fragment of PROTEIN0, Abeta 25-35, incubated in the presence of endogenous Ca2+, increased significantly the PROTEIN1 activity of normoxic brain. Thus, **PROTEIN0 exerts a similar effect on the membrane-bound PROTEIN1 from normoxic brain or subjected to ischemia reperfusion injury**.

# Current PhD and MSc Student Thesis Topics

- On the promotion of social web intelligence
- Finding phenotype-genotype information in tables in biomedical articles
- Describing rhetorical structure in Method section of biomedical texts
- Citation linking in biomedical papers using bag of words and sentence type

### Example of a Word Embedding



Graduate Course

# CS 9660 Computational Linguistics winter term