**Semantic MEDLINE Database (SemMedDB):**

It is a database of semantic predictions extracted from Medline abstracts. The predictions are extracted by SemRep [1] that uses UMLS (especially Semantic Network) to extract semantic predictions from biomedical free text. SemMedDB contains around 70 million predictions such as:

Hemofiltration-**TREATS**-Patients   
Digoxin overdose-**PROCESS\_OF**-Patients   
hyperkalemia-**COMPLICATES**-Digoxin overdose   
Hemofiltration-**TREATS (INFER)**-Digoxin overdose

those are extracted from this sentence:

“We used hemofiltration to treat a patient with digoxin overdose that was complicated by refractory hyperkalemia.”

For our application, I extracted all “INTERACTS\_WITH” predictions and stored them in a csv file. The table contains 7 columns:

1. PMID
2. Subject CUI
3. Subject name
4. Object CUI
5. Object Name

As CUIs for subject and object are provided, we can extract more information about them from UMLS. For example, if we want to extract specific type/s of interactions we can utilize CUIs.

As PMIDs are provided, I am able to extract more information from Medline and generate another file with these columns:

1. Subject name
2. Object Name
3. Evidence (PMID)
4. Evidence Source (Journal)
5. Evidence Type (Type of citation)
6. Link ( Link to citation in PubMed)

Please to do so, first tell me whether the records in the first table are what we want or I should filter some of them?

[1] Rindflesch, T.C. and Fiszman, M. (2003). The interaction of domain knowledge and linguistic structure in natural language processing: interpreting hypernymic propositions in biomedical text. Journal of Biomedical Informatics, 36(6), 462-477.