

Supplementary Document 1

Uncovering the Effects of Genes, Proteins, and Medications on Functions of Wound Healing: A Dependency Rule-Based Text Mining Approach Leveraging GPT-4

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I. RELATION TRIGGERS

Relation	Triggers	
	Verbs	Nouns
Positive	promote, induce, increase, upregulate, elevate, overexpress, amplify, support, facilitate, boost, enhance	promotion, increase, upregulation, elevation, overexpression, amplification, positive-regulation
Negative	inhibit, suppress, decrease, downregulate, reduce, underexpress, hinder, alleviate	inhibition, suppression, decrease, downregulation, reduction, underexpression, negative-regulation, silencing, knockdown, deletion

II. ALLOWED UMLS SEMANTIC TYPES FOR ENTITY LINKING

TABLE I

UMLS Semantic Type	TUI
Gene or Genome	T028
Biologic Function	T038
Physiologic Function	T039
Organism Function	T040
Organ or Tissue Function	T042
Cell Function	T043
Molecular Function	T044
Genetic Function	T045
Pathologic Function	T046
Cell or Molecular Dysfunction	T049
Organic Chemical	T109
Amino Acid, Peptide, or Protein	T116
Pharmacologic Substance	T121
Immunologic Factor	T129
Antibiotic	T195
Clinical Drug	T200