

Nanotechnology-based Diagnostics and Therapeutics in Acute Lymphoblastic Leukemia: A Systematic Review of Preclinical Studies

Search Strategy

1. PubMed

(((((("searched"[All Fields] OR "searches"[All Fields] OR "searching"[All Fields] OR "searchs"[All Fields]) AND "Nanotechnology"[MeSH Terms]) OR ("Dendrimer"[Text Word] OR "drug polymer conjugate"[Text Word] OR "Liposome"[Text Word] OR "Nanocapsule"[Text Word] OR "Nanoconjugate"[Text Word] OR "polymeric drug"[Text Word] OR "PLGA"[Text Word] OR ("polylactic acid polyglycolic acid copolymer"[MeSH Terms] OR ("polylactic"[All Fields] AND "acid polyglycolic"[All Fields] AND "acid"[All Fields] AND "copolymer"[All Fields]) OR "polylactic acid polyglycolic acid copolymer"[All Fields] OR ("polylactic"[All Fields] AND "acid"[All Fields] AND "polyglycolic"[All Fields] AND "acid"[All Fields] AND "copolymer"[All Fields]) OR "polylactic acid polyglycolic acid copolymer"[All Fields]) OR "PEG"[Text Word] OR "Chitosan"[Text Word] OR "Gelatin"[Text Word] OR "block polymer"[Text Word] OR "micelle"[Text Word] OR "amphiphilic block co polymer"[Text Word] OR "protein polymer conjugate"[Text Word] OR "pegylated protein"[Text Word] OR "nanoparticles"[MeSH Terms] OR "Nanoparticle"[Text Word] OR "nanoparticle*"[Text Word] OR "nano-suspension"[Text Word] OR "nanocrystal"[Text Word] OR "graphene oxide"[Supplementary Concept] OR "graphene"[Text Word] OR "metal nanoparticle"[Text Word] OR ("magnetite"[All Fields] AND "Nanoparticle"[Text Word]) OR "magnetic nanoparticle"[Text Word] OR "gold nanoparticle"[Text Word] OR "colloidal gold"[Text Word] OR "quantum dot"[Text Word] OR "noble metal nanoparticle"[Text Word] OR "silicate nanoparticle"[Text Word] OR "calcium nanoparticle"[Text Word] OR "fullerene"[Text Word] OR "nanoshell"[Text Word] OR "phototherapy"[Text Word] OR "hyperthermia"[Text Word] OR ("hypothermal"[All Fields] OR "hypothermia"[MeSH Terms] OR "hypothermia"[All Fields] OR "hypothermic"[All Fields] OR "hypothermically"[All Fields]) AND "Therapy"[Text Word]) OR "aptamers, nucleotide"[MeSH Terms] OR "aptamer"[Text Word] OR "sgc8 aptamer"[Text Word] OR "Nanotechnology"[MeSH Terms] OR "Nanotechnologies"[Text Word] OR "Nanomedicine"[Text Word] OR "Theranostic"[Text Word] OR "theranostic*"[Text Word] OR "nanomedicine theranostic"[Text Word] OR "biocompatible materials"[Pharmacological Action] OR "biocompatible materials/therapeutic use"[MeSH Terms] OR "Biomaterial"[Text Word] OR "vaccines"[MeSH Terms] OR "Vaccine"[Text Word] OR "polymeric based sirna delivery"[Text Word] OR "sirna delivery systems"[Text Word])) AND (((("search"[All Fields] OR "searched"[All Fields] OR "searches"[All Fields] OR "searching"[All Fields] OR "searchs"[All Fields]) AND ("drug therapy"[MeSH Terms] OR "Treatment"[Text Word] OR "Therapy"[Text Word] OR "Diagnosis"[MeSH Terms] OR "Diagnosis"[Text Word] OR "drug resistance, neoplasm"[MeSH Terms] OR "reversal of multidrug resistance"[Text Word] OR "antineoplastic agents/therapeutic use"[MeSH Terms] OR "drug delivery systems"[MeSH Terms:noexp] OR "Targeting"[Text Word] OR "leukemia/diagnosis"[MeSH Terms] OR "leukemia/drug therapy"[MeSH Terms] OR

"neoplasms, second primary"[MeSH Terms] OR "cancer therapy"[Text Word] OR "precursor cell lymphoblastic leukemia lymphoma/diagnosis"[MeSH Terms] OR "precursor cell lymphoblastic leukemia lymphoma/therapy"[MeSH Terms] OR "biological therapy"[MeSH Terms] OR "biological therapies"[Text Word] OR "Immunotherapy"[Text Word] OR "antineoplastic agents"[MeSH Terms] OR "antineoplastic agents"[Text Word] OR "therapeutics"[MeSH Terms] OR "Therapeutic"[Text Word] OR "Diagnostics"[Text Word] OR "Nanotheranostics"[Text Word] OR "hematopoietic stem cell transplantation"[MeSH Terms] OR "transplantation hematopoietic stem cell"[Text Word] OR "stem cell transplantation hematopoietic"[Text Word] OR "drug resistance"[MeSH Terms] OR "drug resistance"[Text Word] OR ("neoplasm, residual"[MeSH Terms] OR ("neoplasm"[All Fields] AND "residual"[All Fields]) OR "residual neoplasm"[All Fields] OR ("minimal"[All Fields] AND "residual"[All Fields] AND "disease"[All Fields]) OR "minimal residual disease"[All Fields])) AND "MRD"[All Fields])) OR "neoplasm, residual"[MeSH Terms])) OR "Chemotherapy"[Text Word] OR "vaccines"[MeSH Terms] OR "Vaccine"[Text Word] OR "Monitoring"[Text Word] OR "Flowcytometry"[Text Word] OR "genetic techniques"[MeSH Terms] OR ("polymerase chain reaction"[MeSH Terms] OR ("polymerase"[All Fields] AND "chain"[All Fields] AND "reaction"[All Fields]) OR "polymerase chain reaction"[All Fields])) AND "PCR"[All Fields] AND (("search"[All Fields] OR "searched"[All Fields] OR "searches"[All Fields] OR "searching"[All Fields] OR "searchs"[All Fields]) AND ("Survival"[MeSH Terms] OR "Survival"[Text Word] OR "complete survival"[Text Word] OR "partial survival"[Text Word] OR "EFS"[Text Word] OR "treatment outcome"[MeSH Terms] OR "Efficacy"[Text Word] OR "Effectiveness"[Text Word] OR "cell death"[MeSH Terms] OR "Apoptosis"[Text Word] OR "cell differentiation"[MeSH Terms] OR "Differentiation"[Text Word] OR "cell proliferation"[MeSH Terms] OR "Proliferation"[Text Word])) AND "english"[Language] AND "english"[Language]) NOT ("review"[Publication Type] OR "review literature as topic"[MeSH Terms] OR "review"[All Fields])) AND (english[Filter])

2. Web of Science

TS= (acute lymphoblastic leukemia) OR TS= (Precursor Cell Lymphoblastic Leukemia) OR TS= (Precursor Cell Lymphoblastic Leukemia-Lymphoma) OR TS= (Acute Lymphocytic Leukemia) OR TS= (Acute Lymphoid Leukemia) OR TS= (Precursor Cell Lymphoblastic Leukemia) OR TS= (philadelphia acute lymphoblastic leukemia)

AND

TS= (Nanotechnology) OR TS= (Dendrimer) OR TS= (drug polymer conjugate) OR TS= (Liposome) OR TS= (Nanocapsule) OR TS= (Nanoconjugate) OR TS= (polymeric drug) OR TS= (PLGA) OR TS= (Polylactic Acid-Polyglycolic Acid Copolymer) OR TS= (PEG) OR TS= (Chitosan) OR TS= (Gelatin) OR TS= (block polymer) OR TS= (micelle) OR TS= (amphiphilic block co-polymer) OR TS= (protein polymer conjugate) OR TS= (pegylated protein) OR TS= (Nanoparticle*) OR TS= (nano-suspension) OR TS= (nanocrystal) OR TS= (graphene oxide) OR TS= (graphene) OR TS= (Metal Nanoparticle) OR TS= (magnetite nanoparticle) OR TS= (magnetic nanoparticle) OR TS= (gold nanoparticle) OR TS= (colloidal gold) OR TS= (quantum dot) OR TS= (noble metal nanoparticle) OR TS= (silicate nanoparticle) OR TS= (calcium nanoparticle) OR TS= (fullerene) OR TS= (nanoshell) OR TS=

(phototherapy) OR TS= (hyperthermia) OR TS= (hypothermal therapy) OR TS= (Aptamer) OR TS= (Sgc8 aptamer) OR TS= (Nanomedicine) OR TS= (Theranostic*) OR TS= (Biocompatible Material) OR TS= (Biomaterial) OR TS= (Vaccine) OR TS= (polymeric-based siRNA delivery) OR TS= (siRNA delivery system)

AND

English (Languages) and Review Articles (Exclude – Document Types)

3. Scopus

(TITLE-ABS-KEY (*acute* AND *lymphoblastic* AND *leukemia*) OR TITLE-ABS-KEY (*precursor* AND *cell* AND *lymphoblastic* AND *leukemia*) OR TITLE-ABS-KEY (*acute* AND *lymphocytic* AND *leukemia*) OR TITLE-ABS-KEY (*acute* AND *lymphoid* AND *leukemia*) OR TITLE-ABS-KEY (*childhood* AND *acute* AND *lymphoblastic* AND *leukemia*) OR TITLE-ABS-KEY (*children* AND *acute* AND *lymphoblastic* AND *leukemia*) OR TITLE-ABS-KEY (*adult* AND *acute* AND *lymphoblastic* AND *leukemia*) OR TITLE-ABS-KEY (*pediatrics* AND *acute* AND *lymphoblastic* AND *leukemia*) OR TITLE-ABS-KEY (*philadelphia* AND *acute* AND *lymphoblastic* AND *leukemia*)) AND (((TITLE-ABS-KEY (*nanotechnology*) OR TITLE-ABS-KEY (*nanostructures*) OR TITLE-ABS-KEY (*nanomedicine*) OR TITLE-ABS-KEY (*nanoparticles*) OR TITLE-ABS-KEY (*biomaterial*) OR TITLE-ABS-KEY (*vaccine*) OR TITLE-ABS-KEY (*nanotheranostics*))) OR (((*drug* AND *delivery* OR *targeted* AND *drug* OR *drug* AND *targeting* OR *nanotechnology* OR *nanostructures* OR *nanomedicine* OR *diagnosis* OR *plga* OR *peg* OR *chitosan* OR *gelatin* OR *block* AND *copolymer* OR *inorganic* AND *nanoparticles* OR *metal* AND *nanoparticle* OR *detection* OR *diagnosis*)))) AND (LIMIT-TO (LANGUAGE , "English")) AND (EXCLUDE (DOCTYPE , "re"))