

*Desktop Version (1.43)*

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Characteristics of Carcinogens Search Strategies

# Search Strategies

This document lists contains the detailed search strings used in SWIFT-Review to automatically tag documents in various categories of interest to environmental health researchers. To quickly move to a specific search strategy, click on the search topic below to move to the relevant section of the document.

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# Characteristics of Carcinogens

## Acts as an Electrophile

(tiab\_stemmed:("adduct formation" OR "DNA Adduct")) OR (tiab:(electrophile OR electrophilic)) OR (mesh\_mh:"DNA Adducts")

## Alters Cell Proliferation, Cell Death, Cell Nutrition

(mesh\_mh:("Cell Proliferation" OR "homeostasis" OR "Cyclin-Dependent Kinases" OR "Cyclin-Dependent Kinase Inhibitor Proteins" OR "mitogens" OR "Apoptosis" OR "Cytotoxicity, Immunologic" OR "Caspases" OR "autophagy" OR "necrosis" OR "Autolysis" OR "Angiogenesis Modulating Agents" OR "Angiogenesis Inducing Agents" OR "Neovascularization, Pathologic" OR "Cell Hypoxia")) OR

(pharm\_action:(Mitogens OR "Angiogenesis Inducing Agents")) OR

(tiab:("cell cycle control\*" OR "mitotic checkpoint\*" OR "hepatocellular proliferation\*" OR "cellular replication\*" OR "hypoxic cell\*")) OR (tiab:(Cytogenesis OR Cytogenic OR hyperplasia OR Neoplasia OR mitogenesis OR survivin OR Cytotoxin OR Caspases OR angiogenic OR "cellular energetics" OR "cell hypoxia" OR "cellular hypoxia")) OR

(((tiab:("cellular-homeostasis" OR mitogens OR mitogen OR Apoptosis OR autophagy OR necrosis OR autolysis OR angiogenesis) OR ("Cell Proliferator" OR "Cell Proliferation" OR "Cellular Proliferator" OR "Cellular Proliferation") OR "cyclin dependent kinase\*")) AND (mesh\_mh\_tagbrowser:("No MeSH Codes"))) OR tiab\_stemmed:( cytotox OR apoptosis OR neurotox ) OR

mesh\_mh:( "cell survival" OR "cell cycle" )

## Alters sDNA Repair

(mesh\_mh:("SOS Response (Genetics)" OR "Polyploidy" OR "Genomic Instability" OR "DNA Repair" OR "Aneuploidy")) OR (tiab: ("microsatellite instability" OR "chromosomal instability" OR binucleation OR binucleated)) OR (((tiab:("SOS Response\*" OR "Genomic Instabilit\*" OR "DNA Repair\*")) OR (tiab\_stemmed:(Aneuploid OR Polyploid))) AND (mesh\_mh\_tagbrowser:( "No MeSH Codes"))) OR

OR tiab\_stemmed:( "genotox" ) OR

mesh\_mh:( "DNA Damage" OR "Cell Cycle" OR "Karyotyping" OR "Gene Frequency" OR "Genotype" )

## Causes Epigenetic Change

(mesh\_mh:("ubiquitination" OR "Gene Expression Regulation" OR "epigenomics" OR "DNA methylation" OR "gene silencing" OR "histone deacetylases" OR "RNA Interference" OR "microRNAs" OR "RNA, Small Interfering")) OR

(tiab\_stemmed: (epimutation OR epigenetic OR epigenomic)) OR

(tiab:("CpG island Methylator\*" OR "histone modification\*" OR "histone tail modification\*" OR epigenotype OR proteasome OR "rna interference" OR "gene activation" OR "methylation associated silencing" OR "chromatin organization")) OR

## (((tiab:("gene-silencer" OR "gene-silencing" OR "deacetylation" OR "DNA-methylation" OR ubiquitination OR "gene-expression")) OR (tiab\_stemmed:("histone deacetylase" OR microRNA OR miRNA OR "non-coding-RNA" OR SiRNA OR "small-inhibitory-RNA" OR "Small-interfering-RNA"))) AND (mesh\_mh\_tagbrowser:("No MeSH Codes")))

## Causes Immortalization

(tiab: ("cellular Immortalization" OR "retinoblastoma protein" OR "alternative lengthening of telomeres" OR senescent OR senescence) OR (p53 AND inactivat\*) OR (p53 AND inhibit\*) OR (p53 AND delet\*) OR (pRb AND inactivat\*) OR (pRb AND inhibit\*) OR (pRb AND delet\*) OR (Rb?p16INK4a AND inactiv\*))

## Genotoxic

(mesh\_mh:("Comet Assay" OR "Germ-line-mutation" OR "Mutagenesis" OR "Mutagenicity tests" OR "Sister-chromatid exchange" OR "Mutation")) OR

(tiab\_stemmed:(Clastogen)) OR

(tiab:("Ames Assay\*" OR "Ames-test" OR "Ames-tests" OR "DNA Repair" OR "DNA Repairs" OR "micronucleus test\*" OR "chromosomal aberration\*" OR "Chromosome aberration\*" OR "DNA damage" OR "chromosome translocation\*" OR "DNA protein crosslink\*" OR (DNA AND inhibit\*) OR (Strand AND break\*) OR "Unscheduled DNA synthes\*" OR "chromosomal abnormalit\*" OR "chromosome abnormalit\*")) OR

((tiab:("Comet assay" OR Mutagenic OR Mutagenicity OR mutations OR "chromosomal aberration test" OR "Sister chromatid exchange")) AND (mesh\_mh\_tagbrowser:("No MeSH Codes"))) OR

tiab\_stemmed:genotox OR

mesh\_mh:( mutagens OR "DNA Damage" OR "DNA Adducts" ) OR

suppchem:( "DNA Adducts" OR "Mutagens" )

## Induces Chronic Inflammation

(mesh\_mh:("C-reactive protein" OR "eosinophils")) OR

 (tiab:("chronic inflammation" OR "chronically inflamed" OR "pro-inflammatory" OR proinflammatory OR "macrophage recruitment")) OR

(tiab\_stemmed:"inflammatory leukocytes" OR "leukocyte infiltration" OR "infiltrating leukocytes") OR

(tiab:(fibrinogen AND Inflammation)) OR

((tiab\_stemmed:("C reactive protein" OR eosinophil)) AND (mesh\_mh\_tagbrowser:("No MeSH Codes"))) OR

tiab\_stemmed:inflamm OR suppchem:"inflammation mediators"

## Induces Immunomodulation

(mesh\_mh:("Cytotoxicity, Immunologic" OR "Immunologic Factors" OR "Immunomodulation" OR "B-Cell Activation Factor Receptor" OR Antigenic Modulation OR "B-Cell Activating Factor")) OR

 (pharm\_actions:"Immunologic Factors") OR

(tiab:("b cell activation" OR "immune surveillance" OR immunostimulant OR "immune activation"~2 OR "somatic hypermutation" OR "Chronic antigenic stimulation")) OR

(tiab\_stemmed:("immune suppress" OR immunodeficient OR immunosuppress)) OR

((tiab:(autoimmunity OR Immunomodulation OR "Immune modulation")) AND (mesh\_mh\_tagbrowser:("No MeSH Codes"))) OR

tiab\_stemmed:( "immun" OR "lymphocyt" OR "infect" OR "dermat" ) OR

mesh\_mh:( "Immunity, Cellular" OR "Lymphocytes" OR "Leukocytes" OR "Disease Susceptibility" OR "Dermatitis, Allergic Contact" )

OR mesh\_code:( "C20\*" )

## Induces Oxidative Stress

(mesh\_mh:("Free Radicals" OR "Reactive Oxygen Species" OR "Oxidative stress" OR "Electron Transport")) OR (tiab\_stemmed: ("Oxidative damage" OR "superoxide radical" OR "hydroxyl radical" OR "glutathione deplet")) OR (tiab:"reactive nitrogen species") OR

((tiab\_stemmed:("electron transport chain" OR "reactive oxygen species" OR "Oxidative stress" OR "free radical")) AND (mesh\_mh\_tagbrowser:("No MeSH Codes"))) OR

mesh\_mh:( "lipid peroxidation" OR "glutathione\*" OR "superoxide dismutase" ) OR

suppchem:( "glutathione\*" OR "superoxide dismutase" ) OR

tiab\_stemmed:( "peroxid" OR "lipoperoxid" OR "oxid" OR "glutathion" OR "antioxid" OR "superoxid" OR "peroxidas" )

## Modulates receptor-mediated effects

(mesh\_mh:("Receptors, Aryl Hydrocarbon" OR "Transcriptional Activation")) OR (tiab\_stemmed: ("Aryl hydrocarbon receptor" OR "Ah receptor" OR "receptor mediated" OR "transcription factor" OR "transcriptional activation" OR "Xenobiotic sensor" OR xenosensor)) OR

suppchem:( "Receptors\*" ) OR

mesh\_mh:( "Receptors\*" ) OR

tiab\_stemmed:( "receptor" )