

Annex to: Update of the risk assessment of inorganic arsenic in food.
doi:10.2903/j.efsa.2024.8488

© European Food Safety Authority, 2024

Annex B Literature searches

B.1. Comprehensive literature search, 14th April 2021

Search terms for relevant compounds, synonyms and their abbreviations

| Controlled vocabulary [Mesh] | Free-text term |
|--|-------------------------|
| "Arsenic"[Mesh] | arsenic |
| "arsenite" [Supplementary Concept] | arsenate |
| "Arsenites"[Mesh] | arsenite |
| "Cacodylic Acid"[Mesh] | "as III" |
| "dimethylarsinous acid" [Supplementary Concept] | "as V" |
| "monomethylarsonic acid" [Supplementary Concept] | asiii |
| "methylarsonite" [Supplementary Concept] | asV |
| "thio-dimethylarsinate" [Supplementary Concept] | iAs |
| 7440-38-2[rn] | Dimethylarsinate |
| 15584-04-0[rn] | Dimethylarsinite |
| 15132-04-4[rn] | Methylarsonate |
| 51952-65-9[rn] | Methylarsonite |
| 25400-23-1[rn] | Thio-dimethylarsinate |
| | "DMA III" |
| | dmaIII |
| | "Thio DMA" |
| | "Dimethyl arsenic acid" |
| | "Methyl arsenic acid" |
| | "MA III" |
| | MAIII |
| | dimethylarsinous acid |
| | monomethylarsonic acid |
| | 7440-38-2 |
| | 15584-04-0 |
| | 15132-04-4 |
| | 51952-65-9 |
| | 25400-23-1 |

Search terms toxicokinetics**Controlled vocabulary [Mesh]**

"Biological Transport"[Mesh]
"Pharmacokinetics"[Mesh]
"Toxicokinetics"[Mesh]
"pharmacokinetics" [Subheading]
"metabolism"[Subheading]

Free-text term

ADME
accumulat*
bioavail*
bioconcentr*
biodistribut*
"biologic avail*"
biotrans*
clearance*
degrad*
detox*
distribut*
dosim*
eliminat*
excret*
kinetic*
metaboli*
"mode of action"
"mechanism of action"
pharmacokinetic*
PBPK
"pb pk"
PBTK
"pb tk"
"pk model*"
"tk model*"
Reabsor*
Retain*
Retention*
secrete*
secretion*
toxicokinetic*
transport*
uptake*
urinat*
((absorb
absorbs
absorbed
absorption*
deposit)* NOT (atomic
optical
spectra*
spectros*
spectrum*
infrared)

Search terms toxicity

Controlled vocabulary (Mesh)

"Toxic Actions"[Mesh]
 "toxicity" [Subheading]
 "Toxicity Tests"[Mesh]
 "Toxicological Phenomena"[Mesh]
 "Toxicology"[Mesh]
 "adverse effects" [Subheading]
 "chemically induced" [Subheading]
 "Death"[Mesh]
 "Mortality"[Mesh]
 "drug effects" [Subheading]
 "Chemically-Induced Disorders"[Mesh:noexp]
 "Drug-Related Side Effects and Adverse Reactions"[Mesh:noexp]
 "Long Term Adverse Effects"[Mesh]
 "Substance-Related Disorders"[Mesh:noexp]
 "Neurotoxins"[Mesh]
 "Nervous System Diseases"[Mesh]
 "Brain"[Mesh]
 "Neuroanatomy"[Mesh]
 "Nervous System"[Mesh]
 "Nervous System Diseases"[Mesh]
 "Neuropathology"[Mesh]
 "Neurologic Manifestations"[Mesh]
 "Neurotoxicity Syndromes"[Mesh]
 "Neurologic Manifestations"[Mesh]
 "Carcinogens"[Mesh:noExp]
 "Carcinogens" [Pharmacological Action]
 "Carcinogenicity Tests"[Mesh]
 "Biomarkers, Tumor"[Mesh]
 "Lymphoma"[Mesh]
 "Neoplasms"[Mesh]
 "Cell Growth Processes"[Mesh]
 "Allergy and Immunology"[Mesh]
 "Immune System"[Mesh]
 "Immunotoxins"[Mesh]
 "Lymph Nodes"[Mesh]
 "Lymphoid tissue"[Mesh]
 "Spleen"[Mesh]
 "Thymus Gland"[Mesh]
 "Cardiotoxins"[Mesh]
 "Cardiovascular Diseases"[Mesh]
 "Chemical and Drug Induced Liver Injury"[Mesh]
 "Heart"[Mesh]
 "Kidney"[Mesh]
 "Kidney Diseases"[Mesh]
 "Liver"[Mesh]
 "Liver Diseases"[Mesh]
 "Lung"[Mesh]

Free-text search terms

"dose response"
 "dose effect*"
 Hypertoxic*
 intox*
 lethal*
 "No Observed Adverse Effect Level"
 "No Observed Adverse Effect Levels"
 "No Observed Effect Level"
 "No Observed Effect Levels"
 "No Observable Adverse Effect Level"
 "No Observable Adverse Effect Levels"
 "No Observable Effect Level"
 "No Observable Effect Levels"
 NOAEL
 NOAEls
 NOEL
 NOELs
 Toxic*
 Brain
 Brains
 Cerebellum
 Cortex
 Hippocamp*
 Neurobehav*
 ((neurologic OR nervous) AND (disease* OR disorder* OR dysfunction* OR manifestation*))
 "nervous system*"
 Neuroanatom*
 neurocognit*
 neurolog*
 neuropath*
 Neurotoxi*
 Adenocar*
 Cancer*
 Carcino*
 "Cell grow*"
 Cocarcino*
 Lymphom*
 Neoplas*
 Tumor*
 Tumour*
 Allerg*
 Immunol*
 Immunotox*
 "Immune system"
 Lymph node*
 Lymphatic node*
 Lymphoid tissue*
 Lymphatic tissue*
 Macrophage*

| | |
|---|-----------------------|
| "Lung Diseases"[Mesh] | Peyer's patch* |
| "Urinary Bladder"[Mesh] | Peyer patch* |
| "Urinary Tract"[Mesh] | sensitisation |
| "abnormalities" [Subheading] | sensitization |
| "Abortion, Spontaneous"[Mesh] | Spleen* |
| "Congenital, Hereditary, and Neonatal Diseases and Abnormalities"[Mesh] | Thymic |
| "Congenital Abnormalities"[Mesh] | Thymus |
| "Embryonic Structures"[Mesh] | Bladder |
| "Fetus"[Mesh] | Cardiotox* |
| "Genital Diseases, Female"[Mesh] | Cardiomiopath* |
| "Genital Diseases, Male"[Mesh] | Coronary |
| "Maternal-Fetal Relations"[Mesh] | Heart |
| "Pregnancy"[Mesh] | Hepati* |
| "Pregnancy Complications"[Mesh:noexp] | Hepato* |
| "Prenatal Injuries"[Mesh] | Kidney* |
| "Prenatal Exposure Delayed Effects"[Mesh] | Liver |
| "Reproduction"[Mesh:noexp] | Lung |
| "Reproductive Physiological Phenomena"[Mesh] | Lungs |
| "Spermatozoa"[Mesh] | Myocardit* |
| "Spermatogenesis"[Mesh] | Nephropath* |
| "Sperm Count"[Mesh] | Nephrotox* |
| "Teratogenesis"[Mesh] | Pericardit* |
| "Teratogens"[Mesh] | Pulmonar |
| "Teratogens" [Pharmacological Action] | Renal disease |
| "Teratology"[Mesh] | Renal disorder |
| "Urogenital System"[Mesh] | Renal injur* |
| "Uterus"[Mesh] | Abortion* |
| "Growth and Development"[Mesh] | Abortiv* |
| "Behavior"[Mesh:noExp] | Abnormalit* |
| "Behavior, Animal"[Mesh] | Congeni* |
| "Behavioral Symptoms"[Mesh] | Embryo* |
| "Cognition"[Mesh] | Fetal |
| "Cognition Disorders"[Mesh] | Foetal |
| "Cognitive Dysfunction"[Mesh] | Fertility |
| "Depression" | Fetotoxic* |
| "Developmental Biology"[Mesh] | Foetotoxic* |
| "Embryonic and Fetal Development"[Mesh] | Fetus |
| "Executive Function"[Mesh] | Fetuses |
| "Intelligence"[Mesh:NoExp] | Foetus |
| "Learning"[Mesh] | Foetuses |
| "Memory"[Mesh] | Genital disease* |
| "Motor Activity"[Mesh] | Gestation* |
| "Motor Skills"[Mesh] | "In utero" |
| "Morphogenesis"[Mesh] | Infertility |
| "Neuropathology"[Mesh] | Malformat* |
| "Neurocognitive Disorders"[Mesh] | Miscarriage* |
| "Neuropsychological Tests"[Mesh] | Ovary |
| "Psychomotor Disorders"[Mesh] | Ovari* |
| "Psychomotor Performance"[Mesh] | Pregnan* |
| "Skin"[Mesh] | "Prenatal disorder*" |
| "Skin Diseases"[Mesh] | "Prenatal exposure*" |
| "adverse effects" [Subheading] | "Prenatal structure*" |
| "chemically induced" [Subheading] | Perinatal |
| "Death"[Mesh] | Postnatal |
| | Reproducti* |
| | Reprotox* |

"Mortality"[Mesh]
"drug effects" [Subheading]
"Chemically-Induced
Disorders"[Mesh:noexp]
"Drug-Related Side Effects and Adverse
Reactions"[Mesh:noexp]
"Long Term Adverse Effects"[Mesh]
"Substance-Related
Disorders"[Mesh:noexp]
"Diabetes Mellitus"[Mesh]
"Glucose/metabolism"[Mesh]
"Glucose Metabolism
Disorders"[Mesh:NoExp]

Sterility
Sperm*
Teratogen*
Testes
Testis
Testicle*
Testicular*
Thyroid*
Thyrotox*
Urogenital disease*
Uterus
Skin
dermal
Development*
"behavioural"
"behavioral"
Behaviour*
Behavior*
Cognition*
Cognitiv*
Comprehensi*
Depressi*
DNT
developmental
Development*
(Executive AND (control OR function* OR
dysfunction* OR impair*))
intelligence
Learning
Locomotor*
(memor* AND (disorder*OR dysfunction*
OR impair*))
metamemory*
Ontogen*
Organogene*
Neurocognitive*
Neuropsycholog*
neurodevelopment*
placental barrier*
"adverse effect*" "
"adverse health effect*" "
"adverse reaction"
Death*
Dead
"Fatal outcome"
Mortalit*
Diabet*
Glucose homeostases
Glucose homeostasis
"Glucose metabolism

Search terms cytotoxicity and genotoxicity

Controlled vocabulary

"Cell Survival"[Mesh]
 "Cytotoxins"[Mesh]
 "Endocrine disruptors"[Mesh]
 "Hormones"[Mesh]
 "Macrophages"[Mesh]
 "Aneugens"[Mesh]
 "Aneuploidy"[Mesh]
 "apoptosis"[Mesh]
 "Chromatids"[Mesh]
 "Chromosomes"[Mesh]
 "Chromosome Aberrations"[Mesh]
 "DNA Damage"[Mesh]
 "DNA Repair"[Mesh]
 "Mutagenicity Tests"[Mesh]
 "Mutagens" [Pharmacological Action]
 "Mutagens"[Mesh]
 "Mutagenesis"[Mesh]
 "Oxidative Stress"[Mesh]

Free-text terms

Cell impairment*
 Cells impairment*
 Cell toxicity
 Cells toxicity
 Cell prolifer*
 Cells prolifer*
 Cell survival
 Cells survival
 cytotox*
 Endocrine disruptor*
 Hormon*
 Estrogen*
 Oestrogen*
 Androgen*
 Apoptoses
 Apoptosis
 Aneugen*
 Aneuploid*
 Chromatid*
 Chromosome*
 Clastogen*
 "DNA binding"
 DNA fragment*
 DNA damage*
 "DNA lesion"
 "DNA lesions"
 "DNA repair*"
 genotox*
 mutagen*
 Mutat*
 oxidative stress*

Search terms In vitro toxicity

Controlled vocabulary

"In Vitro Techniques"[Mesh]
 "Caco-2 Cells"[Mesh]
 "Cells, Cultured"[Mesh]
 "Culture Media"[Mesh]
 "Lysosomes"[Mesh]
 "Hypoxanthine
 Phosphoribosyltransferase"[Mesh]
 "Autopsy"[Mesh]
 "Micronucleus Tests"[Mesh]
 "Pathology"[Mesh]

Free-text terms

Autops*
 histopath*
 "in vivo"
 "in vitro"
 GALT
 3T3
 A549
 "BEAS 2B"
 Caco 2 cell*
 CHO cell*
 HELA
 HEpG2
 HepaRG
 Jurkat

"MCF 7"
 "cell line"
 "cell lines"
 "cell culture"
 Colonic Epithelial Cell*
 Colorectal epithelial cell*
 Comet assay*
 HPRT
 "Hypoxanthine
 Phosphoribosyltransferase"
 "hypoxanthin phosphoribosyl
 transferase"
 Lysosom*
 "M cell"
 "M cells"
 "Microfold cell"
 "Microfold cells"
 Micronucleus assay*
 Micronucleus test*
 "read across"
 SCGE assay*
 single-cell gel electrophoresis assay*
 Tissue*
 "xanthine guanine phosphoribosyl
 transferase"
 "xanthine guanine
 phosphoribosyltransferase"
 Xprt

Search terms epidemiologic studies

Controlled vocabulary

"Epidemiologic Research Design"[Mesh]
 "Epidemiologic Studies"[Mesh]
 "epidemiology" [Subheading]
 "Clinical Study" [Publication Type]
 "Case Reports" [Publication Type]
 "Randomized Controlled Trial" [Publication Type]
 "Meta-Analysis" [Publication Type]
 "Biomarkers"[Mesh]
 "Biological Monitoring"[Mesh]

Free-text terms

"case control*"
 Case history*
 "case report"
 "case reports"
 Case stud*
 Case serie*
 "clinical trial*"
 cohort
 cohorts
 "cross sectional"
 Epidemiol*
 "follow-up study"
 Longitudinal
 Observational
 prospective
 "randomized control trial*"
 Retrospective
 Metaanalys*
 "meta analys*"
 Biomarker*
 Biochemical marker*

Biologic marker*
Biological marker*
Clinical marker*
Laboratory marker*
BiomonitoringBio monitoring
Biologic monitoring
Biological monitoring

Search terms Animal experiments

Controlled vocabulary

"Animal Experimentation"[Mesh]
"Guinea Pigs"[Mesh]
"Muridae"[Mesh]
"Rodentia"[Mesh:NoExp]
"Cats"[Mesh]
"Dogs"[Mesh]
"Mink"[Mesh]
"Swine"[Mesh]
"Primates"[Mesh:NoExp]

Free-text terms

Cavia
Cricetinae
Cricetus
"guinea pig"
"guinea pigs"
Hamster*
Mice
Mouse
Muridae
Murinae
Murine
Mus
Rat
Rats
Rattus
Rodent*
Felis
Cat
Cats
Catus
Dog
Dogs
Canine*
Canis
Mink
Minks
Mustela*
Pig
Pigs
Swine
Piglet*
Monkey
Monkeys
Nomascus
Primate*

Search terms human data**Controlled vocabulary**

"Age Groups"[Mesh]
"Human Experimentation"[Mesh]
"Humans"[Mesh]
"Patients"[Mesh]
"Patient Participation"[Mesh]
"Research Subjects"[Mesh]

Free-text terms

Aged
Baby
Babies
Boy
Boys
Boyhood
Centenarian*
Child*
Citizen*
Client*
Elder*
Girl
Girls
Girlhood
Human*
Inpatient*
Kindergarten*
Man
Men
"middle age"
Newborn*
"new born*"
Nonagenarian*
Octogenarian*
Outpatient*
Participant*
Patient*
Pediatric*
Paediatric*
Person*
People
Preschool*
Retiree*
"Research subject"
"pre school"
Septuagenarian*
Schoolchild*
Seniors
Sexagenarian*
Student*
Teen
Teenager*
Teens
Toddler*
Volunteer*
Woman
Women
Youngster*

Queries

| Set | Query Web of Science | Results | Comments |
|------|--|------------------|--|
| #16 | (#10 AND #2 AND #1) AND LANGUAGE: (English) AND DOCUMENT TYPES: (Review) Indexes=SCI-EXPANDED, ESCI, CCR-EXPANDED, IC Timespan=2010-2021 | <u>434</u> | ADME reviews ADME AND Arsenic AND (Humans OR Animals) AND Reviews |
| #15 | (#14 OR #13) AND LANGUAGE: (English) Indexes=SCI-EXPANDED, ESCI, CCR-EXPANDED, IC Timespan=2010-2021 | <u>3,430</u> | Toxicity Animals OR Genotoxicity |
| # 14 | #8 AND #3 AND #1 Indexes=SCI-EXPANDED, ESCI, CCR-EXPANDED, IC Timespan=2010-2021 | <u>2,195</u> | Toxicity Animals: Toxicity AND Animals AND Arsenic |
| # 13 | #12 AND #4 AND #1 Indexes=SCI-EXPANDED, ESCI, CCR-EXPANDED, IC Timespan=2010-2021 | <u>2,352</u> | Genotoxicity: Genotoxicity AND (Animals OR In vitro/In vivo) AND Arsenic |
| # 12 | #8 OR #5 Indexes=SCI-EXPANDED, ESCI, CCR-EXPANDED, IC Timespan=2010-2021 | <u>2,847,778</u> | (Animals OR In vitro/In vivo) |
| # 11 | #10 AND #2 AND #1 Indexes=SCI-EXPANDED, ESCI, CCR-EXPANDED, IC Timespan=2010-2021 | <u>5,059</u> | ADME AND Arsenic AND (Humans OR Animals) |
| # 10 | #8 OR #7 Indexes=SCI-EXPANDED, ESCI, CCR-EXPANDED, IC Timespan=2010-2021 | <u>8,264,675</u> | (Humans OR Animals) |
| # 9 | (#7 AND #6 AND #1) AND LANGUAGE: (English) Indexes=SCI-EXPANDED, ESCI, CCR-EXPANDED, IC Timespan=2010-2021 | 2,822 | Human studies: Humans AND Epidemiological studies AND Arsenic |
| # 8 | (TI=(Cavia OR Cricetinae OR Cricetus OR "guinea pig" OR "guinea pigs" OR Hamster* OR Mice OR Mouse OR Muridae OR Murinae OR Murine OR Mus OR Rat OR Rats OR Rattus OR Rodent* OR Felis OR Cat OR Cats OR Catus OR Dog OR Dogs OR Canine* OR Canis OR Mink OR Minks OR Mustela* OR Pig OR Pigs OR Swine OR Piglet* OR Monkey OR Monkeys OR Nomascus OR primate*) OR AB=(Cavia OR Cricetinae OR Cri- cetus OR "guinea pig" OR "guinea pigs" OR Ha- mster* OR Mice OR Mouse OR Muridae OR Mu- rinae OR Murine OR Mus OR Rat OR Rats OR Ra- tus OR Rodent* OR Felis OR Cat OR Cats OR Catus OR Dog OR Dogs OR Canine* OR Canis OR Mink OR Minks OR Mustela* OR Pig OR Pi- gs OR Swine OR Piglet* OR Monkey OR Monke- ys OR Nomascus OR primate*) OR AK=(Cavia OR Cricetinae OR Cricetus OR "guinea pig" OR "guinea pigs" OR Hamster* OR Mice OR Mous- e OR Muridae OR Murinae OR Murine OR Mus OR Rat OR Rats OR Rattus OR Rodent* OR Felis | <u>1,363,076</u> | Animals (experimental) |

| Set | Query Web of Science | Results | Comments |
|-----|---|------------------|----------|
| | <p>s OR Cat OR Cats OR Catus OR Dog OR Dogs OR Canine* OR Canis OR Mink OR Minks OR M ustela* OR Pig OR Pigs OR Swine OR Piglet* O R Monkey OR Monkeys OR Nomascus OR prim ate*)) AND LANGUAGE: (English) <i>Indexes=SCI-EXPANDED, ESCI, CCR- EXPANDED, IC Timespan=2010-2021</i></p> | | |
| # 7 | <p>(TI=(Aged OR Baby OR Babies OR Boy OR Boys OR Boyhood OR Centenarian* OR Child* OR Citizen* OR Client* OR Elder* OR Girl OR Girls OR Girlhood OR Human* OR Inpatient* OR Kindergarten* OR Man OR Men OR "middle age" OR Newborn* OR "new born*" OR Nonagenarian* OR Octogenarian* OR Outpatient* OR Participant* OR Patient* OR Pediatric* OR Paediatric* OR Person* OR People OR Preschool* OR Retiree* OR "Research subject" OR "pre school" OR Septuagenarian* OR Schoolchild* OR Seniors OR Sexagenarian* OR Student* OR Teen OR Teenager* OR Teens OR Toddler* OR Volunteer* OR Woman OR Women OR Youngster* OR Youth* OR AB=(Aged OR Baby OR Babies OR Boy OR Boys OR Boyhood OR Centenarian* O R Child* OR Citizen* OR Client* OR Elder* OR Girl OR Girls OR Girlhood OR Human* OR Inp atient* OR Kindergarten* OR Man OR Men OR "middle age" OR Newborn* OR "new born**" OR Nonagenarian* OR Octogenarian* OR Out patient* OR Participant* OR Patient* OR Pedia tric* OR Paediatric* OR Person* OR People OR Preschool* OR Retiree* OR "Research subject " OR "pre school" OR Septuagenarian* OR Sch oolchild* OR Seniors OR Sexagenarian* OR St udent* OR Teen OR Teenager* OR Teens OR T oddler* OR Volunteer* OR Woman OR Women OR Youngster* OR Youth*) OR AK=(Aged OR Baby OR Babies OR Boy OR Boys OR Boyhood OR Centenarian* OR Child* OR Citizen* OR C lient* OR Elder* OR Girl OR Girls OR Girlhood OR Human* OR Inpatient* OR Kindergarten* OR Man OR Men OR "middle age" OR Newborn * OR "new born*" OR Nonagenarian* OR Octo genarian* OR Outpatient* OR Participant* OR Patient* OR Pediatric* OR Paediatric* OR Pers on* OR People OR Preschool* OR Retiree* OR "Research subject" OR "pre school" OR Septua genarian* OR Schoolchild* OR Seniors OR Sex agenarian* OR Student* OR Teen OR Teenage r* OR Teens OR Toddler* OR Volunteer* OR W oman OR Women OR Youngster* OR Youth*) AND LANGUAGE: (English) <i>Indexes=SCI-EXPANDED, ESCI, CCR-</i></p> | <u>7,365,008</u> | Humans |

| Set | Query Web of Science | Results | Comments |
|------------|--|------------------|-------------------------|
| # 6 | <p><i>EXPANDED, IC Timespan=2010-2021</i></p> <p>(TI=((case NEAR/3 (control* OR histor* OR report OR reports OR stud OR serie*)) OR "clinical trial*" OR cohort OR cohorts OR "cross sectional" OR "follow up stud*" OR longitudinal OR observational OR prospective OR trial OR retrospective OR "meta analys*" OR metaanalys* OR epidemiol* OR Biomarker* OR "Biochemical marker*" OR "Biologic marker*" OR "Biological marker*" OR "Clinical marker*" OR "Laboratory marker*" OR Biomonitoring OR "Bio monitoring" OR "Biologic monitoring" OR "Biological monitoring") OR AB=((case NEAR/3 (control* OR histor* OR report OR reports OR stud OR serie*)) OR "clinical trial*" OR cohort OR cohorts OR "cross sectional" OR "follow up stud*" OR longitudinal OR observational OR prospective OR trial OR retrospective OR "meta analys*" OR metaanalys* OR epidemiol* OR Biomarker* OR "Biochemical marker*" OR "Biologic marker*" OR "Biological marker*" OR "Clinical marker*" OR "Laboratory marker*" OR Biomonitoring OR "Bio monitoring" OR "Biologic monitoring" OR "Biological monitoring") OR AK=((case NEAR/3 (control* OR histor* OR report OR reports OR stud OR serie*)) OR "clinical trial*" OR cohort OR cohorts OR "cross sectional" OR "follow up stud*" OR longitudinal OR observational OR prospective OR trial OR retrospective OR "meta analys*" OR metaanalys* OR epidemiol* OR Biomarker* OR "Biochemical marker*" OR "Biologic marker*" OR "Biological marker*" OR "Clinical marker*" OR "Laboratory marker*" OR Biomonitoring OR "Bio monitoring" OR "Biologic monitoring" OR "Biological monitoring")) AND LANGUAGE: (English)</p> <p><i>Indexes=SCI-EXPANDED, ESCI, CCR-EXPANDED, IC Timespan=2010-2021</i></p> | <u>3,040,693</u> | Epidemiological studies |
| # 5 | <p>(TI=(Autops* OR histopath* OR "in vivo" OR "in vitro" OR GALT OR 3T3 OR A549 OR "BEAS 2B" OR "Caco 2 cell*" OR "CHO cell*" OR HEla OR HEpG2 OR HepaRG OR Jurkat OR "MCF 7" OR "cell line" OR "cell lines" OR "cell culture" OR "Colonic Epithelial Cell*" OR "Colorectal epithelial cell*" OR "Comet assay*" OR HPRT OR "Hypoxanthine Phosphoribosyltransferase" OR "hypoxanthin phosphoribosyl transferase" OR Lysosom* OR "M cell" OR "M cells" OR "Microfold cell" OR "Microfold cells" OR "Micronucleus assay*" OR "Micronucleus test*" OR "read across" OR SCGE assay* OR "single-cell gel</p> | <u>1,994,915</u> | In vitro/In vivo |

| Set | Query Web of Science | Results | Comments |
|-----|---|------------------|--------------|
| | electrophoresis assay*" OR Tissue* OR "xanthine guanine phosphoribosyl transferase" OR "xanthine guanine phosphoribosyltransferase" OR xprt) OR AB=(Autops* OR histopath* OR "in v ivo" OR "in vitro" OR GALT OR 3T3 OR A549 O R "BEAS 2B" OR "Caco 2 cell*" OR "CHO cell*" OR HELA OR HEpG2 OR HepaRG OR Jurkat O R "MCF 7" OR "cell line" OR "cell lines" OR "cel l culture" OR "Colonic Epithelial Cell*" OR "Col orectal epithelial cell*" OR "Comet assay*" OR HPRT OR "Hypoxanthine Phosphoribosyltransf erase" OR "hypoxanthin phosphoribosyl transf erase" OR Lysosom* OR "M cell" OR "M cells" OR "Microfold cell" OR "Microfold cells" OR "Mi cronucleus assay*" OR "Micronucleus test*" O R "read across" OR SCGE assay* OR "single- cell gel electrophoresis assay*" OR Tissue* O R "xanthine guanine phosphoribosyl transferas e" OR "xanthine guanine phosphoribosyltransf erase" OR xprt) OR AK=(Autops* OR histopat h* OR "in vivo" OR "in vitro" OR GALT OR 3T3 OR A549 OR "BEAS 2B" OR "Caco 2 cell*" OR "CHO cell*" OR HELA OR HEpG2 OR HepaRG OR Jurkat OR "MCF 7" OR "cell line" OR "cell li nes" OR "cell culture" OR "Colonic Epithelial C ell*" OR "Colorectal epithelial cell*" OR "Come t assay*" OR HPRT OR "Hypoxanthine Phosph ribosyltransferase" OR "hypoxanthin phospho ribosyl transferase" OR Lysosom* OR "M cell" OR "M cells" OR "Microfold cell" OR "Microfold cells" OR "Micronucleus assay*" OR "Micronucl eus test*" OR "read across" OR SCGE assay* OR "single- cell gel electrophoresis assay*" OR Tissue* O R "xanthine guanine phosphoribosyl transferas e" OR "xanthine guanine phosphoribosyltransf erase" OR xprt)) AND LANGUAGE: (English) | | |
| # 4 | <i>Indexes=SCI-EXPANDED, ESCI, CCR- EXPANDED, IC Timespan=2010-2021</i> (TI=((Cell OR cells) NEAR/3 (impairment* OR toxicity OR prolifer* OR survival)) OR cytotox* OR "Endocrine disrupt or*" OR Hormon* OR Estrogen* OR Oestroge n* OR Androgen* OR Apoptoses OR Apoptosis OR Aneugen* OR Aneuploid* OR Chromatid* OR Chromosome* OR Clastogen* OR (DNA NEAR/3 (binding OR fragment* OR damage* OR lesion* OR repair*))) OR genotox* OR mutagen* OR Mut at* OR "oxidative stress*") OR AB=((Cell OR cells) NEAR/3 (impairment* OR toxicity OR prolifer* OR | <u>1,545,796</u> | Genotoxicity |

| Set | Query Web of Science | Results | Comments |
|-----|---|------------------|----------|
| | <p>survival)) OR cytotox* OR "Endocrine disrupt or*" OR Hormon* OR Estrogen* OR Oestroge n* OR Androgen* OR Apoptoses OR Apoptosis OR Aneugen* OR Aneuploid* OR Chromatid* OR Chromosome* OR Clastogen* OR (DNA NEAR/3 (binding OR fragment* OR damage* OR lesion* OR repair*)) OR genotox* OR mutagen* OR Mut at* OR "oxidative stress*") OR AK=((Cell OR cells) NEAR/3 (impairment* OR toxicity OR prolifer* OR survival)) OR cytotox* OR "Endocrine disrupt or*" OR Hormon* OR Estrogen* OR Oestroge n* OR Androgen* OR Apoptoses OR Apoptosis OR Aneugen* OR Aneuploid* OR Chromatid* OR Chromosome* OR Clastogen* OR (DNA NEAR/3 (binding OR fragment* OR damage* OR lesion* OR repair*)) OR genotox* OR mutagen* OR Mut at* OR "oxidative stress*") AND LANGUAGE: (English)</p> <p><i>Indexes=SCI-EXPANDED, ESCI, CCR-EXPANDED, IC Timespan=2010-2021</i></p> | | |
| # 3 | (TI=("dose response" OR "dose effect*" OR Hypertoxic* OR intox* OR lethal* OR "No Observed Adverse Effect Level" OR "No Observed Adverse Effect Levels" OR "No Observed Effect Level" OR "No Observed Effect Levels" OR "No Observable Adverse Effect Level" OR "No Observable Adverse Effect Levels" OR "No Observable Effect Level" OR "No Observable Effect Levels" OR NOAEL OR NOAEls OR NOEL OR NOELs OR Toxic* OR Brain OR Brains OR Cerebellum OR Cortex OR Hippocamp* OR Neurobehav* OR ((neurologic OR nervous) AND (disease* OR disorder* OR dysfunction* OR manifestation*)) OR "nervous system*" OR N euroanatom* OR neurocognit* OR neurolog* OR neuropath* OR Neurotoxi* OR Adenocar* OR Cancer* OR Carcino* OR "Cell grow*" OR Cocarcino* OR Lymphom* OR Neoplas* OR Tu mor* OR Tumour* OR Allerg* OR Immunol* OR Immunotox* OR "Immune system" OR Lym ph node* OR Lymphatic node* OR Lymphoid ti ssue* OR Lymphatic tissue* OR Macrophage* OR Peyer's patch* OR Peyer patch* OR sensitization OR sensitization OR Spleen* OR Thymic OR Thymus+OR Bladder OR Cardiotox* OR Cardiomiopath* OR Coronary OR Heart OR Hep ati* OR Hepato* OR Kidney* OR Liver OR Lun g OR Lungs OR Myocardit* OR Nephropath* OR Nephrotox* OR Pericardit* OR Pulmonar OR | <u>8,771,162</u> | Toxicity |

| Set | Query Web of Science | Results | Comments |
|-----|---|---------|----------|
| | Renal disease OR Renal disorder OR Renal inj ur* OR Abortion* OR Abortiv* OR Abnormalit* OR Congeni* OR Embryo* OR Fetal OR Foetal OR Fertility OR Fetotoxic* OR Foetotoxic* OR Fetus OR Fetuses OR Foetus OR Foetuses OR Genital disease* OR Gestation* OR "In utero" OR Infertility OR Malformat* OR Miscarriage* OR Ovary OR Ovari* OR Pregnant* OR "Prenat al disorder*" OR "Prenatal exposure*" OR "Pre natal structure*" OR Perinatal OR Postnatal O R Reproducti* OR Reprotox* OR Skin OR der mal OR Sterility OR Sperm* OR Teratogen* O R Testes OR Testis OR Testicle* OR Testicular* OR Thyroid* OR Thyrotox* OR Urogenital dis ease* OR Uterus OR Development* OR "beha vioural" OR "behavioral" OR ((Behaviour* OR Behavior*) AND (animal* OR human* OR pup OR litter OR child* OR adult*))) OR Cognition* OR Cognitiv* OR Com prehensi* OR Depressi* OR DNT OR develop mental OR (Development* AND (animal* OR human* OR pup OR litter OR child* OR adult*))) OR (Executive AND (control OR function* OR dysfunction* OR impair*))) OR intelligence OR Learning OR Loc omotor* OR (memor* AND (disorder*OR dysfunction* OR impair*))) OR metamemory* OR Ontogen* O R Organogene* OR Neurocognitive* OR Neuro psycholog* OR neurodevelopment* OR "place ntal barrier*" OR "adverse effect*" OR "adver se health effect*" OR "adverse reaction" OR D eath* OR Dead OR "Fatal outcome" OR Mortali t* OR diabet* OR (glucose NEAR/3 (homeosta* OR metabolism*))) OR AB=("dose response" OR "dose effect*" OR Hypertoxic* OR intox* OR I ethal* OR "No Observed Adverse Effect Level" OR "No Observed Adverse Effect Levels" OR " No Observed Effect Level" OR "No Observed Ef fect Levels" OR "No Observable Adverse Effect Level" OR "No Observable Adverse Effect Lev els" OR "No Observable Effect Level" OR "No Observable Effect Levels" OR NOAEL OR NOAE Ls OR NOEL OR NOELs OR Toxic* OR Brain OR Brains OR Cerebellum OR Cortex OR Hippoca mp* OR Neurobehav* OR ((neurologic OR nervous) AND (disease* OR disorder* OR dysfunction* OR manifestation*))) OR "nervous system*" OR N euroanatom* OR neurocognit* OR neurolog* OR neuropath* OR Neurotoxi* OR Adenocarc* OR Cancer* OR Carcino* OR "Cell grow*" OR Cocarcino* OR Lymphom* OR Neoplas* OR Tu | | |

| Set | Query Web of Science | Results | Comments |
|-----|--|---------|----------|
| | <p>mor* OR Tumour* OR Allerg*</p> <p>OR Immunol* OR Immunotox* OR "Immune system" OR Lymph node* OR Lymphatic node*</p> <p>OR Lymphoid tissue* OR Lymphatic tissue* OR Macrophage* OR Peyer's patch* OR Peyer patch* OR sensitisation OR sensitization OR Spleen* OR Thymic OR Thymus OR Bladder OR Cardiotox* OR Cardiomiopath* OR Coronary OR Heart OR Hepati* OR Hepato* OR Kidney* OR Liver OR Lung OR Lungs OR Myocardit* OR Nephropath* OR Nephrotox* OR Pericardit* OR Pulmonar OR Renal disease OR Renal disorder OR Renal injur* OR Abortion* OR Abortiv*</p> <p>OR Abnormalit* OR Congeni* OR Embryo* OR Fetal OR Foetal OR Fertility OR Fetotoxic* OR Foetotoxic* OR Fetus OR Fetuses OR Foetus OR Foetuses OR Genital disease* OR Gestation* OR "In utero" OR Infertility OR Malformat* OR Miscarriage* OR Ovary OR Ovari* OR Pregn an* OR "Prenatal disorder*" OR "Prenatal exposure*" OR "Prenatal structure*" OR Perinatal OR Postnatal OR Reproducti* OR Reprotox* OR Skin OR dermal OR Sterility OR Sperm* OR Teratogen* OR Testes OR Testis OR Testicle* OR Testicular* OR Thyroid* OR Thyrotox* OR Urogenital disease* OR Uterus OR Developme nt* OR "behavioural" OR "behavioral" OR ((Behaviour* OR Behavior*) AND (animal* OR human* OR pup OR litter OR child* OR adult*)) OR Cognition* OR Cognitiv* OR Com prenhensi* OR Depressi* OR DNT OR developmental OR (Development* AND (animal* OR human* OR pup OR litter OR child* OR adult*)) OR (Executive AND (control OR function* OR dysfunction* OR impair*)) OR intelligence OR Learning OR Loc omotor* OR (memor* AND (disorder*OR dysfunction* OR impair*)) OR metamemory* OR Ontogen* OR Organogene* OR Neurocognitive* OR Neuro psycholog* OR neurodevelopment* OR "place ntal barrier*" OR "adverse effect*" OR "adver se health effect*" OR "adverse reaction" OR Death* OR Dead OR "Fatal outcome" OR Mortali t* OR diabet* OR (glucose NEAR/3 (homeosta* OR metabolism*)) OR AK=("dose response" OR "dose effect*" OR Hypertoxic* OR intox* OR I ethal* OR "No Observed Adverse Effect Level" OR "No Observed Adverse Effect Levels" OR "No Observed Effect Level" OR "No Observed Effect Levels" OR "No Observable Adverse Effect Level" OR "No Observable Adverse Effect Levels" OR "No Observable Effect Level" OR "No</p> | | |

| Set | Query Web of Science | Results | Comments |
|-----|---|---------|----------|
| | <p>Observable Effect Levels" OR NOAEL OR NOAE Ls OR NOEL OR NOELs OR Toxic* OR Brain OR Brains OR Cerebellum OR Cortex OR Hippoca mp* OR Neurobehav* OR ((neurologic OR nervous) AND (disease* OR disorder* OR dysfunction* OR manifestation*)) OR "nervous system*" OR N euroanatom* OR neurocognit* OR neurolog* OR neuropath* OR Neurotoxi* OR Adenocarcinoma* OR Cancer* OR Carcino* OR "Cell grow*" OR Cocarcino* OR Lymphom* OR Neoplas* OR Tu mor* OR Tumour* OR Allerg* OR Immunol* OR Immunotox* OR "Immune system" OR Lym ph node* OR Lymphatic node* OR Lymphoid ti ssue* OR Lymphatic tissue* OR Macrophage* OR Peyer's patch* OR Peyer patch* OR sensiti sation OR sensitization OR Spleen* OR Thymic OR Thymus OR Bladder OR Cardiotox* OR Ca rdiomiopath* OR Coronary OR Heart OR Hepati ti* OR Hepato* OR Kidney* OR Liver OR Lung OR Lungs OR Myocardit* OR Nephropath* OR Nephrotox* OR Pericardit* OR Pulmonar OR R enal disease OR Renal disorder OR Renal injur * OR Abortion* OR Abortiv* OR Abnormalit* OR Congeni* OR Embryo* OR Fetal OR Foetal OR Fertility OR Fetotoxic* OR Foetotoxic* OR Fetus OR Fetuses OR Foetus OR Foetuses OR Genital disease* OR Gestation* OR "In utero" OR Infertility OR Malformat* OR Miscarriage* OR Ovary OR Ovari* OR Pregnant* OR "Prenat al disorder*" OR "Prenatal exposure*" OR "Pre natal structure*" OR Perinatal OR Postnatal OR Reproducti* OR Reprotox* OR Skin OR der mal OR Sterility OR Sperm* OR Teratogen* OR Testes OR Testis OR Testicle* OR Testicular* OR Thyroid* OR Thyrotox* OR Urogenital dis ease* OR Uterus OR Development* OR "beha vioural" OR "behavioral" OR ((Behaviour* OR Behavior*) AND (animal* OR human* OR pup OR litter OR child* OR adult*)) OR Cognition* OR Cognitiv* OR Com prehensi* OR Depressi* OR DNT OR develop mental OR (Development* AND (animal* OR human* OR pup OR litter OR child* OR adult*)) OR (Executive AND (control OR function* OR dysfunction* OR impair*)) OR intelligence OR Learning OR Loc omotor* OR (memor* AND (disorder* OR dysfunction* OR impair*)) OR metamemory* OR Ontogen* OR Organogene* OR Neurocognitive* OR Neuro psycholog* OR neurodevelopment* OR "place ntal barrie*" OR "adverse effect*" OR "advers e health effect*" OR "adverse reaction" OR De</p> | | |

| Set | Query Web of Science | Results | Comments |
|-----|---|------------------|----------|
| | <p>ath* OR Dead OR "Fatal outcome" OR Mortalit * OR diabet* OR (glucose NEAR/3 (homeostas* OR metabolism*)))) AND LANGUAGE: (English)</p> <p><i>Indexes=SCI-EXPANDED, ESCI, CCR- EXPANDED, IC Timespan=2010-2021</i></p> | | |
| # 2 | <p>(TI=(ADME OR accumulat* OR bioavail* OR bioconcentr* OR biodistribut* OR "biologic avail*" OR biotrans* OR clearance* OR degrad* OR detox* OR distribut* OR dosim* OR eliminat* OR excret* OR kinetic* OR metaboli* OR "mode of action" OR "mechanism of action" OR pharmacokinetic* OR PBPK OR "pb pk" OR PBT OR "pb tk" OR "pk model*" OR "tk model*" OR reabsorption OR retention OR secretion* OR toxicokinetic* OR transport* OR uptake* OR urination OR ((absorb OR absorbs OR absorbed OR absorption* OR deposit*) NOT (atomic OR optical OR spectra* OR spectros* OR spectrum* OR infrared))) OR AB=(ADME OR accumulat* OR bioavail* OR bioconcentr* OR biodistribut* O R "biologic avail*" OR biotrans* OR clearance* OR degrad* OR detox* OR distribut* OR dosi m* OR eliminat* OR excret* OR kinetic* OR metaboli* OR "mode of action" OR "mechanis m of action" OR pharmacokinetic* OR PBPK O R "pb pk" OR PBT OR "pb tk" OR "pk model* " OR "tk model*" OR reabsorption OR retentio n OR secretion* OR toxicokinetic* OR transpor t* OR uptake* OR urination OR ((absorb OR absorbs OR absorbed OR absorption* OR deposit*) NOT (atomic OR optical OR spectra* OR spectros* OR spectrum* OR infrared))) OR AK=(ADME OR accumulat* O R bioavail* OR bioconcentr* OR biodistribut* OR "biologic avail*" OR biotrans* OR clearanc e* OR degrad* OR detox* OR distribut* OR d osim* OR eliminat* OR excret* OR kinetic* O R metaboli* OR "mode of action" OR "mechani sm of action" OR pharmacokinetic* OR PBPK OR "pb pk" OR PBT OR "pb tk" OR "pk model *" OR "tk model*" OR reabsorption OR retenti on OR secretion* OR toxicokinetic* OR transp ort* OR uptake* OR urination OR ((absorb OR absorbs OR absorbed OR absorption* OR deposit*) NOT (atomic OR optical OR spectra* OR spectros* OR spectrum* OR infrared)))) AND LANGUAGE: (English)</p> <p><i>Indexes=SCI-EXPANDED, ESCI, CCR- EXPANDED, IC Timespan=2010-2021</i></p> | <u>4,987,764</u> | ADME |

| Set | Query Web of Science | Results | Comments |
|--|--|----------------|-----------------|
| <i>EXPANDED, IC Timespan=2010-2021</i> | | | |
| # 1 | (TI=(arsenic OR arsenate OR arsenite OR "as III" OR "as V" OR asiii OR asV OR iAs OR Dimethylarsinate OR Dimethylarsinite OR Methylarsonate OR Methylarsonite OR "Thio dimethylarsinate" OR "DMA III" OR dmaIII OR "Thio DMA" OR "Dimethyl arsenic acid" OR "Methyl arsenic acid" OR "MA III" OR MAIII OR "dimethylarsinous acid*" OR "monomethylarsonic acid**" OR 7440-38-2 OR 15584-04-0 OR 15132-04-4 OR 51952-65-9 OR 25400-23-1) OR AB=(arsenic OR arsenate OR arsenite OR "as III" OR "as V" OR asiii OR asV OR iAs OR Dimethylarsinate OR Dimethylarsinite OR Methylarsonate OR Methylarsonite OR "Thio-dimethylarsinate" OR "DMA III" OR dmaIII OR "Thio DMA" OR "Dimethyl arsenic acid" OR "Methyl arsenic acid" OR "MA III" OR MAIII OR "dimethylarsinous acid*" OR "monomethylarsonic acid**" OR 7440-38-2 OR 15584-04-0 OR 15132-04-4 OR 51952-65-9 OR 25400-23-1) OR AK=(arsenic OR arsenate OR arsenite OR "as III" OR "as V" OR asiii OR asV OR iAs OR Dimethylarsinate OR Dimethylarsinite OR Methylarsonate OR Methylarsonite OR "Thio dimethylarsinate" OR "DMA III" OR dm aIII OR "Thio DMA" OR "Dimethyl arsenic acid" OR "Methyl arsenic acid" OR "MA III" OR MAIII OR "dimethylarsinous acid*" OR "monomethylarsonic acid**" OR 7440-38-2 OR 15584-04-0 OR 15132-04-4 OR 51952-65-9 OR 25400-23-1)) AND LANGUAGE: (English) | <u>39,398</u> | Arsenic |

Indexes=SCI-EXPANDED, ESCI, CCR-EXPANDED, IC Timespan=2010-2021

| Search | Query Pubmed | Results | Comments |
|---------------|--|-------------------|---|
| #20 | Search: #19 OR #17 Sort by: Most Recent | <u>4,079</u> | Animal toxicity OR Genotoxicity |
| #19 | Search: #18 AND ("2010"[Date - Publication] : "3000"[Date - Publication]) AND ("english"[Language]) Sort by: Most Recent | <u>2,534</u> | Animal Toxicity: Arsenic AND Toxicity AND Animals AND Time and Language limits |
| #18 | Search: #1 AND #3 AND #5 Sort by: Most Recent | <u>5,740</u> | Arsenic AND Toxicity AND Animals |
| #17 | Search: #16 AND ("2010"[Date - Publication] : "3000"[Date - Publication]) AND ("english"[Language]) Sort by: Most Recent | <u>3,022</u> | Genotoxicity: Arsenic AND Genotoxicity AND (Animals OR In vitro/in vivo) AND Time and Language limits |
| #16 | Search: #1 AND #4 AND #15 Sort by: Most Recent | <u>5,800</u> | Arsenic AND Genotoxicity AND (Animals OR In vitro/in vivo) |
| #15 | Search: #5 OR #7 Sort by: Most Recent | <u>7,732,244</u> | Animals OR In vitro/In vivo |
| #14 | Search: ("review"[Publication Type] OR "systematic review"[Filter]) AND #13 Sort by: Most Recent | <u>701</u> | ADME reviews: Arsenic AND ADME AND (Animals OR Humans) AND Time and Language limits AND reviews |
| #13 | Search: #12 AND ("2010"[Date - Publication] : "3000"[Date - Publication]) AND ("english"[Language]) Sort by: Most Recent | <u>7,640</u> | Arsenic AND ADME AND (Animals OR Humans) AND Time and Language limits |
| #12 | Search: #1 AND #2 AND #11 Sort by: Most Recent | <u>14,595</u> | Arsenic AND ADME AND (Animals OR Humans) |
| #11 | Search: #5 OR #6 Sort by: Most Recent | <u>24,449,665</u> | Animals OR Humans |
| #10 | Search: #9 AND ("2010"[Date - Publication] : "3000"[Date - Publication]) AND ("english"[Language]) Sort by: Most Recent | <u>4,468</u> | Human studies: Arsenic AND Humans AND Epidemiological studies AND Time and Language limit |
| #9 | Search: #1 AND #6 AND #8 Sort by: Most Recent | <u>7,884</u> | Arsenic AND Humans AND Epidemiological studies |
| #8 | Search: "Epidemiologic Research Design"[Mesh] OR "Epidemiologic Studies"[Mesh] OR "epidemiology" [Subheading] OR "Clinical Study" [Publication Type] OR "Case Reports" [Publication Type] OR "Randomized Controlled Trial" [Publication Type] OR "Meta-Analysis" [Publication Type] OR | <u>9,297,424</u> | Epidemiological studies |

| | Search | Query Pubmed | Results | Comments |
|----|---------------|---|------------------|------------------|
| #7 | | <p>"Biomarkers"[Mesh] OR "Biological Monitoring"[Mesh] OR "case control*"[tiab] OR Case history* [tiab] OR "case report"[tiab] OR "case reports"[tiab] OR Case stud*[tiab] OR Case serie*[tiab] OR "clinical trial*"[tiab] OR cohort [tiab] OR cohorts[tiab] OR "cross sectional" [tiab] OR "follow-up study" [tiab] OR Longitudinal[tiab] OR Observational[tiab] OR prospective [tiab] OR "randomized control trial*"[tiab] OR Retrospective[tiab] OR Metaanalys*[tiab] OR "meta analys*"[tiab] OR epidemiol*[tiab] OR biomarker*[tiab] OR biochemical marker*[tiab] OR biologic marker*[tiab] OR biological marker*[tiab] OR clinical marker*[tiab] OR laboratory marker*[tiab] OR biomonitoring[tiab] OR "bio monitoring"[tiab] OR "biologic monitoring"[tiab] OR "biological monitoring"[tiab]</p> <p>Sort by: Most Recent</p> <p>Search: "In Vitro Techniques"[Mesh] OR "Caco-2 Cells"[Mesh] OR "Cells, Cultured"[Mesh] OR "Culture Media"[Mesh] OR "Lysosomes"[Mesh] OR "Hypoxanthine Phosphoribosyltransferase"[Mesh] OR "Autopsy"[Mesh] OR "Micronucleus Tests"[Mesh] OR "Pathology"[Mesh] OR Autops*[tiab] OR histopath*[tiab] OR "in vivo"[tiab] OR "in vitro"[tiab] OR GALT[tiab] OR 3T3[tiab] OR A549[tiab] OR "BEAS 2B"[tiab] OR Caco 2 cell*[tiab] OR CHO cell*[tiab] OR HEla[tiab] OR HEpG2[tiab] OR HepaRG[tiab] OR Jurkat[tiab] OR "MCF 7"[tiab] OR "cell line"[tiab] OR "cell lines"[tiab] OR "cell culture"[tiab] OR Colonic Epithelial Cell*[tiab] OR Colorectal epithelial cell*[tiab] OR Comet assay*[tiab] OR HPRT[tiab] OR "Hypoxanthine Phosphoribosyltransferase"[tiab] OR "hypoxanthin phosphoribosyl transferase"[tiab] OR Lysosom*[tiab] OR "M cell"[tiab] OR "M cells"[tiab] OR "Microfold cell"[tiab] OR "Microfold cells"[tiab] OR Micronucleus assay*[tiab] OR Micronucleus test*[tiab] OR "read across"[tiab] OR SCGE assay*[tiab] OR single-cell gel</p> | <u>5,243,942</u> | In vitro/In vivo |

| Search | Query Pubmed | Results | Comments |
|--------|---|-------------------|----------|
| #6 | <p>electrophoresis assay*[tiab] OR Tissue*[tiab] OR "xanthine guanine phosphoribosyl transferase"[tiab] OR "xanthine guanine phosphoribosyltransferase"[tiab] OR xprt[tiab] Sort by: Most Recent</p> <p>Search: "Age Groups"[Mesh] OR "Human Experimentation"[Mesh] OR "Humans"[Mesh] OR "Patients"[Mesh] OR "Patient Participation"[Mesh] OR "Research Subjects"[Mesh] OR Aged[tiab] OR Baby[tiab] OR Babies[tiab] OR Boy[tiab] OR Boys[tiab] OR Boyhood[tiab] OR Centenarian*[tiab] OR Child*[tiab] OR Citizen*[tiab] OR Client*[tiab] OR Elder*[tiab] OR Girl[tiab] OR Girls[tiab] OR Girlhood[tiab] OR Human*[tiab] OR Inpatient*[tiab] OR Kindergarten*[tiab] OR Man[tiab] OR Men[tiab] OR "middle age"[tiab] OR Newborn*[tiab] OR "new born*"[tiab] OR Nonagenarian*[tiab] OR Octogenarian*[tiab] OR Outpatient*[tiab] OR Participant*[tiab] OR Patient*[tiab] OR Pediatric*[tiab] OR Paediatric*[tiab] OR Person*[tiab] OR People[tiab] OR Preschool*[tiab] OR Retiree*[tiab] OR "Research subject"[tiab] OR "pre school"[tiab] OR Septuagenarian*[tiab] OR Schoolchild*[tiab] OR Seniors[tiab] OR Sexagenarian*[tiab] OR Student*[tiab] OR Teen[tiab] OR Teenager*[tiab] OR Teens[tiab] OR Toddler*[tiab] OR Volunteer*[tiab] OR Woman[tiab] OR Women[tiab] OR Youngster*[tiab] OR Youth*[tiab] Sort by: Most Recent</p> | <u>21,467,843</u> | Humans |
| #5 | <p>Search: "Animal Experimentation"[Mesh] OR "Guinea Pigs"[Mesh] OR "Muridae"[Mesh] OR "Rodentia"[Mesh:NoExp] OR "Cats"[Mesh] OR "Dogs"[Mesh] OR "Mink"[Mesh] OR "Swine"[Mesh] OR "Models, Animal"[Mesh] OR "Primates"[Mesh:NoExp] OR Cavia[tiab] OR Cricetinae[tiab] OR Cricetus[tiab] OR "guinea pig"[tiab] OR "guinea pigs"[tiab] OR Hamster[tiab] OR Mice[tiab] OR Mouse[tiab] OR Muridae[tiab] OR Murinae[tiab] OR Murine[tiab] OR Mus[tiab] OR Rat[tiab] OR Rats[tiab] OR Rattus[tiab] OR Rodent*[tiab] OR Felis[tiab] OR</p> | <u>4,568,796</u> | Animals |

| Search | Query Pubmed | Results | Comments |
|--------|---|------------------|--------------|
| | Cat[tiab] OR Cats[tiab] OR Catus[tiab] OR Dog[tiab] OR Dogs[tiab] OR Canine*[tiab] OR Canis[tiab] OR Mink[tiab] OR Minks[tiab] OR Mustela*[tiab] OR Pig[tiab] OR Pigs[tiab] OR Swine[tiab] OR Piglet*[tiab] OR Monkey[tiab] OR Monkeys[tiab] OR Nomascus[tiab] OR Primate*[tiab] Sort by: Most Recent | | |
| #4 | Search: "Cell Survival"[Mesh] OR "Cytotoxins"[Mesh] OR "Endocrine disruptors"[Mesh] OR "Hormones"[Mesh] OR "Macrophages"[Mesh] OR "Aneugens"[Mesh] OR "Aneuploidy"[Mesh] OR "apoptosis"[Mesh] OR "Chromatids"[Mesh] OR "Chromosomes"[Mesh] OR "Chromosome Aberrations"[Mesh] OR "DNA Damage"[Mesh] OR "DNA Repair"[Mesh] OR "Mutagenicity Tests"[Mesh] OR "Mutagens" [Pharmacological Action] OR "Mutagens"[Mesh] OR "Mutagenesis"[Mesh] OR "Oxidative Stress"[Mesh] OR Cell impairment*[tiab] OR Cells impairment*[tiab] OR Cell toxicity [tiab] OR Cells toxicity[tiab] OR Cell prolifer*[tiab] OR Cells prolifer* [tiab] OR Cell survival [tiab] OR Cells survival[tiab] OR cytotox* [tiab] OR Endocrine disruptor*[tiab] OR Hormon* [tiab] OR Estrogen*[tiab] OR Oestrogen*[tiab] OR Androgen*[tiab] OR Apoptoses[tiab] OR Apoptosis[tiab] OR Aneugen*[tiab] OR Aneuploid*[tiab] OR Chromatid*[tiab] OR Chromosome*[tiab] OR Clastogen*[tiab] OR "DNA binding"[tiab] OR DNA fragment*[tiab] OR DNA damage*[tiab] OR "DNA lesion"[tiab] OR "DNA lesions"[tiab] OR "DNA repair*" [tiab] OR genotox*[tiab] OR mutagen*[tiab] OR Mutat*[tiab] OR oxidative stress*[tiab] Sort by: Most Recent | <u>4,187,976</u> | Genotoxicity |
| #3 | Search: "Toxic Actions"[Mesh] OR "toxicity" [Subheading] OR "Toxicity Tests"[Mesh] OR "Toxicological Phenomena"[Mesh] "Toxicology"[Mesh] OR "adverse effects" [Subheading] OR | 16,989,269 | Toxicity |

| Search | Query Pubmed | Results | Comments |
|--------|---|---------|----------|
| | <p>"chemically induced"[Subheading] OR "Death"[Mesh] OR "Mortality"[Mesh] OR "drug effects" [Subheading] OR "Chemically-Induced Disorders"[Mesh:noexp] OR "Drug- Related Side Effects and Adverse Reactions"[Mesh:noexp] OR "Long Term Adverse Effects"[Mesh] OR "Substance-Related Disorders"[Mesh:noexp] OR "Neurotoxins"[Mesh] OR "Nervous System Diseases"[Mesh] OR "Brain"[Mesh] OR "Neuroanatomy"[Mesh] OR "Nervous System"[Mesh] OR "Nervous System Diseases"[Mesh] OR "Neuropathology"[Mesh] OR "Neurologic Manifestations"[Mesh] OR "Neurotoxicity Syndromes"[Mesh] OR "Neurologic Manifestations"[Mesh] OR "Carcinogens"[Mesh:noExp] OR "Carcinogens" [Pharmacological Action] OR "Carcinogenicity Tests"[Mesh] OR "Biomarkers, Tumor"[Mesh] OR "Lymphoma"[Mesh] OR "Neoplasms"[Mesh] OR "Cell Growth Processes"[Mesh] OR "Allergy and Immunology"[Mesh] OR "Immune System"[Mesh] OR "Immunotoxins"[Mesh] OR "Lymph Nodes"[Mesh] OR "Lymphoid tissue"[Mesh] OR "Spleen"[Mesh] OR "Thymus Gland"[Mesh] OR "Cardiotoxins"[Mesh] OR "Cardiovascular Diseases"[Mesh] OR "Chemical and Drug Induced Liver Injury"[Mesh] OR "Heart"[Mesh] OR "Kidney"[Mesh] OR "Kidney Diseases"[Mesh] OR "Liver"[Mesh] OR "Liver Diseases"[Mesh] OR "Lung"[Mesh] OR "Lung Diseases"[Mesh] OR "Urinary Bladder"[Mesh] OR "Urinary Tract"[Mesh] OR "abnormalities" [Subheading] OR "Abortion, Spontaneous"[Mesh] OR "Congenital, Hereditary, and Neonatal Diseases and Abnormalities"[Mesh] OR "Congenital Abnormalities"[Mesh] OR "Embryonic Structures"[Mesh] OR "Fetus"[Mesh] OR "Genital Diseases, Female"[Mesh] OR "Genital Diseases, Male"[Mesh] OR "Maternal-Fetal Relations"[Mesh] OR "Pregnancy"[Mesh] OR "Pregnancy" </p> | | |

| Search | Query Pubmed | Results | Comments |
|--------|---|---------|----------|
| | Complications"[Mesh:noexp] OR "Prenatal Injuries"[Mesh] OR "Prenatal Exposure Delayed Effects"[Mesh] OR "Reproduction"[Mesh:noexp] OR "Reproductive Physiological Phenomena"[Mesh] OR "Spermatozoa"[Mesh] OR "Spermatogenesis"[Mesh] OR "Sperm Count"[Mesh] OR "Teratogenesis"[Mesh] OR "Teratogens"[Mesh] OR "Teratogens" [Pharmacological Action] OR "Teratology"[Mesh] OR "Urogenital System"[Mesh] OR "Uterus"[Mesh] OR "Growth and Development"[Mesh] OR "Behavior"[Mesh:noExp] OR "Behavior, Animal"[Mesh] OR "Behavioral Symptoms"[Mesh] OR "Cognition"[Mesh] OR "Cognition Disorders"[Mesh] OR "Cognitive Dysfunction"[Mesh] OR "Depression"[Mesh] OR "Developmental Biology"[Mesh] OR "Embryonic and Fetal Development"[Mesh] OR "Executive Function"[Mesh] OR "Intelligence"[Mesh:NoExp] OR "Learning"[Mesh] OR "Memory"[Mesh] OR "Motor Activity"[Mesh] OR "Motor Skills"[Mesh] "Morphogenesis"[Mesh] OR "Neuropathology"[Mesh] OR "Neurocognitive Disorders"[Mesh] OR "Neuropsychological Tests"[Mesh] OR "Psychomotor Disorders"[Mesh] OR "Psychomotor Performance"[Mesh] OR "adverse effects" [Subheading] OR "chemically induced" [Subheading] OR "Death"[Mesh] OR "Mortality"[Mesh] OR "drug effects" [Subheading] OR "Chemically-Induced Disorders"[Mesh:noexp] OR "Drug- Related Side Effects and Adverse Reactions"[Mesh:noexp] OR "Long Term Adverse Effects"[Mesh] OR "Substance-Related Disorders"[Mesh:noexp] OR "Skin"[Mesh] OR "Skin diseases"[Mesh] OR "Diabetes Mellitus"[Mesh] OR "Glucose/metabolism"[Mesh] OR "Glucose Metabolism Disorders"[Mesh:noexp] OR "dose response"[tiab] OR "dose effect*"[tiab] OR Hypertoxic*[tiab] OR intox*[tiab] OR lethal*[tiab] OR "No Observed Adverse Effect Level"[tiab] OR "No | | |

| Search | Query Pubmed | Results | Comments |
|--------|---|---------|----------|
| | Observed Adverse Effect Levels"[tiab] OR "No Observed Effect Level"[tiab] OR "No Observed Effect Levels"[tiab] OR "No Observable Adverse Effect Level"[tiab] OR "No Observable Adverse Effect Levels"[tiab] OR "No Observable Effect Level"[tiab] OR "No Observable Effect Levels"[tiab] OR NOAEL[tiab] OR NOAELs[tiab] OR NOEL[tiab] OR NOELs[tiab] OR Toxic*[tiab] OR Brain [tiab] OR Brains [tiab] OR Cerebellum [tiab] OR Cortex [tiab] OR Hippocamp* [tiab] OR Neurobehav* [tiab] OR ((neurologic[tiab] OR nervous[tiab]) AND (disease*[tiab] OR disorder*[tiab]) OR dysfunction*[tiab] OR manifestation*[tiab])) OR "nervous system*" [tiab] OR Neuroanatom*[tiab] OR neurocognit*[tiab] OR neurolog*[tiab] OR neuropath*[tiab] OR Neurotoxi*[tiab] OR Adenocar*[tiab] OR Cancer*[tiab] OR Carcino*[tiab] OR "Cell grow*"[tiab] OR Cocarcino*[tiab] OR Lymphom*[tiab] OR Neoplas*[tiab] OR Tumor*[tiab] OR Tumour*[tiab] OR Allerg*[tiab] OR Immunol*[tiab] OR Immunotox*[tiab] OR "Immune system"[tiab] OR Lymph node*[tiab] OR Lymphatic node*[tiab] OR Lymphoid tissue*[tiab] OR Lymphatic tissue*[tiab] OR Macrophage*[tiab] OR Peyer's patch*[tiab] OR Peyer patch*[tiab] OR sensitisation[tiab] OR sensitization[tiab] OR Spleen*[tiab] OR Thymic[tiab] OR Thymus[tiab] OR Bladder[tiab] OR Cardiotox*[tiab] OR Cardiomopath*[tiab] OR Coronary[tiab] OR Heart[tiab] OR Hepati*[tiab] OR Hepato*[tiab] OR Kidney*[tiab] OR Liver[tiab] OR Lung[tiab] OR Lungs[tiab] OR Myocardit*[tiab] OR Nephropath*[tiab] OR Nephrotox*[tiab] OR Pericardit*[tiab] OR Pulmonar [tiab] OR Renal disease[tiab] OR Renal disorder[tiab] OR Renal injur*[tiab] OR Abortion*[tiab] OR Abortiv*[tiab] OR Abnormalit*[tiab] OR Congeni*[tiab] OR Embryo*[tiab] OR Fetal[tiab] OR Foetal[tiab] OR Fertility[tiab] OR Fetotoxic*[tiab] OR Foetotoxic*[tiab] OR Fetus[tiab] OR Fetuses[tiab] OR | | |

| Search | Query Pubmed | Results | Comments |
|--------|--|---------|----------|
| | Foetus[tiab] OR Foetuses[tiab] OR Genital disease*[tiab] OR Gestation*[tiab] OR "In utero"[tiab] OR Infertility[tiab] OR Malformat*[tiab] OR Miscarriage*[tiab] OR Ovary[tiab] OR Ovari*[tiab] OR Pregnant*[tiab] OR "Prenatal disorder*" [tiab] OR "Prenatal exposure*" [tiab] OR "Prenatal structure*" [tiab] OR Perinatal[tiab] OR Postnatal[tiab] OR Reproducti*[tiab] OR Reprotox*[tiab] OR Skin[tiab] OR dermal[tiab] OR Sterility[tiab] OR Sperm*[tiab] OR Teratogen*[tiab] OR Testes[tiab] OR Testis[tiab] OR Testicle*[tiab] OR Testicular*[tiab] OR Thyroid*[tiab] OR Thyrotox*[tiab] OR Urogenital disease*[tiab] OR Uterus[tiab] OR Development*[tiab] OR "behavioural"[tiab] OR "behavioral"[tiab] OR ((Behaviour*[tiab] OR Behavior*[tiab]) AND (animal*[tiab] OR human*[tiab] OR pup[tiab] OR litter[tiab] OR child*[tiab] OR adult*[tiab])) OR Cognition*[tiab] OR Cognitiv*[tiab] OR Comprehensi*[tiab] OR Depressi*[tiab] OR DNT[tiab] OR developmental[tiab] OR (Development*[tiab] AND (animal*[tiab] OR human*[tiab] OR pup[tiab] OR litter[tiab] OR child*[tiab] OR adult*[tiab])) OR (Executive[tiab] AND (contro[tiab]) OR function*[tiab] OR dysfunction*[tiab] OR impair*[tiab])) OR intelligence[tiab] OR Learning[tiab] OR Locomotor*[tiab] OR (memor*[tiab] AND (disorder*[tiab] OR dysfunction*[tiab] OR impair*[tiab])) OR metamemory*[tiab] OR Ontogen*[tiab] OR Organogene*[tiab] OR Neurocognitive*[tiab] OR Neuropsycholog*[tiab] OR neurodevelopment*[tiab] OR placental barrier*[tiab] OR "adverse effect*" [tiab] OR "adverse health effect*" [tiab] OR "adverse reaction" [tiab] OR Death*[tiab] OR Dead[tiab] OR "Fatal outcome" [tiab] OR Mortalit*[tiab] OR diabet*[tiab] OR "glucose homeostasis" [tiab] OR "glucose homeostasis" [tiab] OR (glucose[tiab] AND metabolism*[tiab])) Sort by: Most | | |

| Search | Query Pubmed | Results | Comments |
|--------|---|----------------------------|----------|
| | Recent | | |
| #2 | Search: ("Biological Transport"[Mesh] OR "Pharmacokinetics"[Mesh] OR "Toxicokinetics"[Mesh] OR "pharmacokinetics" [Subheading] OR "metabolism"[Subheading] OR ADME[tiab] OR accumulat*[tiab] OR bioavail*[tiab] OR bioconcentr*[tiab] OR biodistribut*[tiab] OR "biologic avail*"[tiab] OR biotrans*[tiab] OR clearance*[tiab] OR degrad*[tiab] OR detox*[tiab] OR distribut*[tiab] OR dosim*[tiab] OR eliminat*[tiab] OR excret*[tiab] OR kinetic*[tiab] OR metaboli*[tiab] OR "mode of action"[tiab] OR "mechanism of action"[tiab] OR pharmacokinetic*[tiab] OR PBPK[tiab] OR "pb pk"[tiab] OR PBTK[tiab] OR "pb tk"[tiab] OR "pk model*"[tiab] OR "tk model*"[tiab] OR reabsor*[tiab] OR retain*[tiab] OR retention*[tiab] OR secrete*[tiab] OR secretion*[tiab] OR toxicokinetic*[tiab] OR transport*[tiab] OR uptake*[tiab] OR urinat*[tiab] OR ((absorb[tiab] OR absorbs[tiab] OR absorbed[tiab] OR absorption*[tiab] OR deposit*[tiab]) NOT (atomic[tiab] OR optical[tiab] OR spectra*[tiab] OR spectros*[tiab] OR spectrum*[tiab] OR | 10,425,664 | ADME |
| #1 | Search: "Arsenic"[Mesh] OR "arsenite" [Supplementary Concept] OR "Arsenites"[Mesh] OR "dimethylarsinous acid" [Supplementary Concept] OR "monomethylarsonic acid" [Supplementary Concept] OR "methylarsonite" [Supplementary Concept] OR "thio-dimethylarsinate" [Supplementary Concept] OR 7440-38- 2[rn] OR 15584-04-0[rn] OR 15132- 04-4[rn] OR 51952-65-9[rn] OR 25400-23-1[rn] OR arsenic[tiab] OR arsenate[tiab] OR arsenite[tiab] OR "as III"[tiab] OR "as V"[tiab] OR asiii[tiab] OR asV[tiab] OR iAs[tiab] OR Dimethylarsinate[tiab] OR Dimethylarsinite[tiab] OR Methylarsonate[tiab] OR Methylarsonite[tiab] OR Thio- dimethylarsinate[tiab] OR "DMA III"[tiab] OR dmaIII[tiab] OR "Thio DMA"[tiab] OR "Dimethyl arsenic | 43,920 | Arsenic |

Search Query Pubmed

acid"[tiab] OR "Methyl arsenic
acid"[tiab] OR "MA III"[tiab] OR
MAIII[tiab] OR "dimethylarsinous
acid"[tiab] OR "monomethylarsonic
acid"[tiab] OR 7440-38-2[tiab] OR
15584-04-0[tiab] OR 15132-04-4[tiab]
OR 51952-65-9[tiab] OR 25400-23-
1[tiab] Sort by: Most Recent

Results**Comments**

B.2. Search epigenetic studies, 22th September 2021

| Search | Query | Results | Comments |
|--------|---|------------------|--------------------------------|
| #1 | TS=(Dimethylarsinate OR Dimethylarsinite OR Methylarsonate OR Methylaronite OR "Arsenic" OR "arsenite" OR "Arsenites" OR arsenic OR arsenate OR arsenite OR Thio-dimethylarsinate OR "Dimethyl arsenic acid" OR "Methyl arsenic acid" OR "dimethylarsinous acid" OR "monomethylarsonic acid") | <u>72,185</u> | MAIN SEARCH WOS |
| #2 | TS=(Cavia OR Cricetinae OR Cricetus OR "guinea pig" OR "guinea pigs" OR Hamster* OR Mice OR Mouse OR Muridae OR Murinae OR Murine OR Mus OR Rat OR Rats OR Rattus OR Rodent*) | <u>2,518,196</u> | LAB ANIMALS WOS |
| #3 | TS=("epigen*" OR "transgeneration*") | <u>184,291</u> | WOS |
| | #1 AND #2 AND #3 | <u>178</u> | Results of interest for WOS |
| #4 | Dimethylarsinate [Title/Abstract] OR Dimethylarsinite [Title/Abstract] OR Methylarsonate [Title/Abstract] OR Methylaronite [Title/Abstract] OR "Arsenic" [Title/Abstract] OR "arsenite" [Title/Abstract] OR "Arsenites" [Title/Abstract] OR arsenic [Title/Abstract] OR arsenate [Title/Abstract] OR arsenite [Title/Abstract] OR Thio-dimethylarsinate [Title/Abstract] OR "Dimethyl arsenic acid" [Title/Abstract] OR "Methyl arsenic acid" [Title/Abstract] OR "dimethylarsinous acid" [Title/Abstract] OR "monomethylarsonic acid" [Title/Abstract] Filters: from 2010 – 2021 | <u>20,070</u> | MAIN SEARCH PUBMED |
| #5 | Cavia [Title/Abstract] OR Cricetinae [Title/Abstract] OR Cricetus [Title/Abstract] OR "guinea pig" [Title/Abstract] OR "guinea pigs" [Title/Abstract] OR Hamster* [Title/Abstract] OR Mice [Title/Abstract] OR Mouse [Title/Abstract] OR Muridae [Title/Abstract] OR Murinae [Title/Abstract] OR Murine [Title/Abstract] OR Mus [Title/Abstract] OR Rat [Title/Abstract] OR Rats [Title/Abstract] OR Rattus [Title/Abstract] OR Rodent* [Title/Abstract] Filters: from 2010 – 2022 | <u>1,048,056</u> | LAB ANIMALS PUBMED |
| #6 | "epigen*"[Title/Abstract] OR "transgeneration*"[Title/Abstract] Filters: from 2010 - 2022 | <u>89,063</u> | PUBMED |
| | #4 AND #5 AND #6 | <u>54</u> | Results of interest for PUBMED |