

# ToxFile

## FILE DESCRIPTION

**ToxFile** covers the toxicological, pharmacological, biochemical, and physiological effects of drugs and other chemicals: adverse drug reactions, chemically induced diseases, carcinogenesis, mutagenesis, teratogenesis, environmental pollution, waste disposal, radiation, and food contamination are typical areas of coverage.

ToxFile includes toxicology records derived from MEDLINE (Dialog Files 154/155). These are journal citations related to toxicology, also called TOXBIB (or TOXLINE Core) records by the National Library of Medicine (NLM).

ToxFile also includes citations referred to as TOXNET (or TOXLINE Special) records from the following organizations and data repositories:

- Aneuploidy File (ANEUPL)
- International Labor Office (CIS)
- Toxicology Research Projects (CRISP)
- Developmental and Reproductive Toxicology (DART)
- Environmental Mutagen Information Center File (EMIC)
- Epidemiology Information System (EPIDEM)
- Environmental Teratology Information Center File (ETICBACK)
- Federal Research in Progress (FEDRIP)
- Health Aspects of Pesticides Abstract Bulletin (HAPAB)
- Toxicological Aspects of Environmental Health (HEEP)
- Hazardous Materials Technical Center File (HMTC)
- National Institute for Occupational Safety and Health (NIOSH)
- Toxicology Document and Data Repository (NTIS)
- Pesticides Abstracts (PESTAB)
- Poisonous Plants Bibliography (PPBIB)
- Swedish National Chemicals Inspectorate (RISKLINE)
- Toxic Substances Control Act Test Submissions (TSCATS)

The combination of the toxicology journal citations extracted from MEDLINE and the additional data from these other sources in ToxFile greatly facilitates searching this subject area.

## SOURCES

ToxFile includes toxicology-related material extracted from MEDLINE (Dialog Files 154/155) as well as journal articles, monographs, technical reports, theses, letters, meeting abstracts, research projects from NLM-affiliated organizations. See "File Description" for a list.

## SUBJECT COVERAGE

- Adverse Drug Reactions
- Air Pollution
- Animal Venom
- Antidotes
- Carcinogenesis via Chemicals
- Chemically Induced Diseases
- Drug Evaluation
- Environmental Pollution
- Food Contamination
- Mutagenesis
- Occupation
- Pesticides
- Radiation
- Teratogene
- Toxicology
- Waste Disposal

## TIPS

### USE THE (L) OPERATOR

to link descriptors and subheadings:

S RADIATION MONITORING(L)MT

### USE EXPLODE (!)

to search narrower descriptors in the MeSH vocabulary:

SELECT RADIATION DOSAGE!

### USE THE ONLINE THESAURUS

to check and select MeSH thesaurus terms for TOXBIB records:

E (MORPHINE)

### USE FREE-TEXT SEARCHING and not MESH

to search TOXNET records:

SELECT GREENHOUSE GASES

### USE MAP

to take CAS® Registry Numbers to another file:

MAP RN TEMP S1

### USE LIMITS

/HUMAN for human subjects

/ABS for articles with abstracts

## DIALOG FILE DATA

Inclusive Dates: 1964 to the present

Update Frequency: Daily for Toxfile data

File Size: More than 2,700,000 records as of June 2006

## CONTACT

TOXFILE is produced by Dialog and based on material received from the U.S. National Library of Medicine (NLM). Questions concerning file content should be directed to:

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Cary, NC 27511

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E-Mail: dialogcustomer@thomson.com

## SAMPLE TOXBIB RECORD

DIALOG(R)File 156:ToxFile  
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AA= 4583359 NLM Doc No: 16690014  
/TI Safety of incremental inhaled lipopolysaccharide challenge in humans.  
AU= Sundry John S; Wood William A; Watt Janet L; Kline Joel N; Schwartz David

A

CS= Department of Medicine, Duke University Medical Center, Durham, North Carolina 27710, USA. sundy001@mc.duke.edu

JN=,CP=,PY=, SO=,SN=,JC= Journal Name: Journal of endotoxin research (England) Pub. Year: 2006  
12 (2) p113-9, ISSN: 0968-0519 -- Print Journal Code: 9433350

CN= Contract/Grant No.: ES 11185; ES; NIEHS; ES 11375; ES; NIEHS; ES 12496;  
ES; NIEHS; ES005605; ES; NIEHS; ES07498; ES; NIEHS; RR00059; RR; NCRR

NT= Publishing Model Print

DT= Document type: Journal Article

LA= Languages: ENGLISH

OA= Main Citation Owner: NLM

RT= Record type: MEDLINE; Completed

SF= Subfile: Toxibib ; INDEX MEDICUS; Toxibib

/AB BACKGROUND: Inhalation of environmental endotoxin is important in the pathogenesis of asthma and other environmental airway diseases. Inhaled airway challenge using lipopolysaccharide in humans has been performed for over 20 years to assess the airway response to endotoxin. However, there are no published data on the short-term safety of endotoxin inhalation protocols. OBJECTIVE: To characterize the safety and tolerability of incremental inhaled lipopolysaccharide challenge in humans. PATIENTS AND METHODS: We performed a retrospective analysis of data obtained from 119 subjects who underwent inhaled challenge with up to 41.5 mug of lipopolysaccharide. We measured pulmonary function, temperature, mean arterial pressure, heart rate, and systemic symptoms for 3 h after challenge. RESULTS: Fever occurred in 30% of subjects and was associated with a higher cumulative dose of lipopolysaccharide. Reduced mean arterial pressure occurred in 21% of subjects and was dose-related. There was no association between fever or decreased mean arterial pressure and airway responsiveness to inhaled lipopolysaccharide. Common symptoms reported by subjects included: chills (64%), malaise (56%), cough (56%), chest tightness (49%), headache (43%), and myalgias (27%). None of the subjects experienced delayed discharge or a serious adverse event. CONCLUSIONS: Inhaled lipopolysaccharide causes dose-related systemic responses that include fever, reduced blood pressure, and constitutional symptoms that are not associated with the airway response to inhaled lipopolysaccharide. Systemic responses to inhaled lipopolysaccharide should be expected and subjects undergoing inhaled lipopolysaccharide challenge in the research setting should be carefully monitored for non-pulmonary adverse events for several hours after challenge.

/GS Tags: Female; Male

/DE Descriptors: \*Lipopolysaccharides--toxicity--TO; Administration, Inhalation; Adolescent; Adult; Blood Pressure--drug effects--DE; Body Temperature--drug effects--DE; Dose-Response Relationship, Drug; Escherichia coli--chemistry--CH; Fever--chemically induced--CI; Fever--physiopathology--PP; Heart Rate--drug effects--DE; Humans; Lipopolysaccharides--administration and dosage--AD; Middle Aged; Research Support, N.I.H., Extramural; Research Support, U.S. Gov't, Non-P.H.S.; Respiratory Function Tests; Retrospective Studies

/ID, RN= CAS Registry No.: 0 (Lipopolysaccharides)

UP= Record Date Created: 20060512

RC= Record Date Completed: 20060531

## SAMPLE TOXNET RECORD

DIALOG(R)File 156:ToxFile  
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AA= 694830 NLM Doc No: CRISP/2004/DK054507-07 Sec. Source ID:  
 AX= CRISP/2004/DK054507-07  
 /TI Cell Response To Iron Starvation & Intoxication in Yeast  
 AU= PHILPOTT CC  
 CS= carolina@intra.niddk.nih.gov, LIVER DISEASES SECTION, NIDDK, BETHESDA, MD  
 20892  
 SO= Source: Crisp Data Base National Institutes of Health  
 ZP= Zip Code: 20892  
 PY= Pub. Year: 2004  
 SP= Sponsoring Agency: U.S. DEPT. OF HEALTH AND HUMAN SERVICES; PUBLIC HEALTH  
 SERVICE; NATIONAL INSTITUTES OF HEALTH, NATIONAL INSTITUTE OF DIABETES AND  
 DIGESTIVE AND KIDNEY DISEASES  
 AW= Award Type: Intramural Project  
 DT= Document type: Research  
 LA= Languages: ENGLISH  
 RT= Record type: Completed  
 SF= Subfile: CRISP  
 /AB Iron is an essential nutrient for virtually every organism, yet it can  
 also be a potent cellular toxin. Dysregulated iron metabolism and iron  
 overload are features of a growing number of human diseases. Some genes  
 involved in cellular iron uptake and export have been identified, yet very  
 little is known about inter- and intracellular iron transport,  
 intracellular iron utilization, and the regulation of these processes. A  
 combination of genetic, biochemical, and cell biological approaches is  
 needed to understand iron metabolism and the role of iron in human disease.  
 These approaches can be combined in the simple eukaryote, *Saccharomyces*  
*cerevisiae*. Studies of metal metabolism in budding yeast have yielded  
 important insights into iron, copper, and zinc metabolism in both humans  
 and pathogenic microorganisms. Genetic studies of iron metabolism in a  
 simple eukaryote will allow us to discover new genes involved in iron  
 homeostasis as well as to determine the cellular response to iron overload  
 and iron deprivation. We have used cDNA microarrays representing the entire  
 yeast genome to identify genes that are regulated according to the  
 availability of iron and the activity of Aft1p, the major iron-dependent  
 transcription factor. Using available genome and protein databases, we have  
 grouped these newly identified genes into families and have begun their  
 functional evaluation. We have identified and genetically characterized a  
 novel system of eukaryotic iron uptake. Four homologous genes regulated as  
 part of the Aft1-regulon (ARN1-4) were found to facilitate the transport of  
 siderophores. We have determined that, in the absence of transport  
 substrate, Arn1p is sorted directly from the Golgi to the late  
 endosome/pre-vacuolar compartment and does not cycle to the plasma  
 membrane.  
 (...)  
 Very little is known about heme transport in eukaryotes and no  
 fungal heme transporters have been identified. We have identified a gene  
 from *C. albicans* that, when overexpressed in *S. cerevisiae*, facilitates the  
 uptake of heme. This gene, tentatively termed HUF1 for heme utilization  
 factor 1, is part of a fungal gene family with three homologues in *C.*  
*albicans* and, surprisingly, three orthologues in *S. cerevisiae*. These genes  
 have ten predicted transmembrane domains and may function as transporters.  
 Members of this family of genes serve an essential function in yeast, as  
 deletion of two members of this family is lethal in *S. cerevisiae*. We have  
 constructed a double deletion strain in *S. cerevisiae* that expresses Huf1p  
 from a regulatable promoter, and we are phenotypically characterizing this  
 strain. Localization studies with an epitope-tagged Huf1p and a screen for  
 genes that rescue the growth defects of the double deletion mutant are  
 underway.  
 /ID Identifiers: glutamate ammonia ligase; intracellular transport;  
*Saccharomyces cerevisiae*; genetic regulation; transcription factor; fungal  
 genetics; gene deletion mutation; iron poisoning; iron metabolism;  
 siderophore; protein localization; genetic screening; protein protein  
 interaction; microarray technology  
 UP= Record Date Created: 200412

**File 156**  
**SEARCH OPTIONS**

**ToxFile**

**BASIC INDEX**

SEARCH SUFFIX	DISPLAY CODE	FIELD NAME	INDEXING	SELECT EXAMPLES
—	—	All Basic Index Fields	Word	S COSMIC(W)RADIATION
/AB	AB	Abstract <sup>1</sup>	Word	S ENVIRONMENTAL(W)ENDOTOXIN?/AB
/DE	DE	Descriptor <sup>2</sup>	Phrase	S LINEAR ENERGY TRANSFER/DE
/GS	GS	Check Tag <sup>3</sup>	Phrase	S COMPARATIVE STUDY/GS
/ID	ID	Identifier <sup>4,5</sup>	Phrase	S POLYETHYLENE GLYCOLS/ID
/NM	NM	Named Person	Word & Phrase	S WARKANY/NM S WARKANY JOSEPH/NM
/TI	TI	Title	Word	S SAFETY(1W)LIPOPOLYSACCHARIDE/TI

<sup>1</sup> Abstracts are present for more than 70% of records.

<sup>2</sup> Also /DE\*, /DF, /DF\*. Most OLDMEDLINE records (with publication dates of 1951-1965) have at least one MeSH term.

<sup>3</sup> As of 2006, the only remaining Check Tags are: Male and Female.

<sup>4</sup> Also /IF. CAS Registry Number, Enzyme Commission Number, Gene Symbol, Enzyme Name, and Chemical Name display in /ID.

<sup>5</sup> Chemical Names and Enzyme Names are searchable in /ID. CAS Registry Numbers and Enzyme Commission Numbers are searchable in RN= and EC=, respectively, and the display includes the chemical and enzyme names in parentheses.

## ADDITIONAL INDEXES

SEARCH PREFIX	DISPLAY CODE	FIELD NAME	INDEXING	SELECT EXAMPLES
AA=	AA	NLM Document Number	Phrase	S AA=16690014
—	AN	DIALOG Accession Number		
AU=	AU	Author	Phrase	S AU=SUNDY JOHN?
AW=	AW	Award Type <sup>6</sup>	Phrase	S AW=INTRAMURAL PROJECT
AX=	AX	Secondary Source ID <sup>6</sup>	Phrase	S AX="CRISP/2004/DK054507-07"
BN=	BN	International Standard Book Number (ISBN) <sup>6</sup>	Phrase	S BN=0-08-042975-0
CC=	CC	Classification <sup>6</sup>	Word & Phrase	S CC=TSCA S CC="TSCA SECT. FYI REC 12/31/91"
CD=	CD	Coden <sup>6</sup>	Phrase	S CD=AACHA
CN=	CN	Contract Number	Phrase	S CN=ES 11185
CP=	CP	Country of Publication	Phrase	S CP=ENGLAND
CS=	CS	Corporate Source <sup>7</sup>	Word & Phrase	S CS=(MEDICINE(S) DUKE(W)UNIVER?) S CS=LIVER DISEASES?
DC=	—	MeSH Descriptor Code <sup>8</sup>	Phrase	S DC=H1.671.579.404.467.?
DT=	DT	Document Type	Phrase	S DT=JOURNAL ARTICLE
EC=	EC	Enzyme Commission Number <sup>4,5</sup>	Phrase	S EC=2.5.1.18
FD=	FD	Project Final Date <sup>6</sup>	Phrase	S FD=20060831
JC=	JC	NLM Journal Code	Phrase	S JC=9433350
JN=	JN	Journal Name <sup>9</sup>	Phrase	S JN=JOURNAL OF ENDOTOXIN?
LA=	LA	Language	Phrase	S LA=ENGLISH
MI=	MI	Mission Name <sup>10</sup>	Phrase	S MI=FLIGHT EXPERIMENT
NT=	NT	Notes/Comments <sup>11</sup>	Word	S NT=(COMMENT AND LANCET)
OA=	OA	Main Citation Owner <sup>10</sup>	Phrase	S OA=NLM
OB=	OB	Other Citation Owner <sup>10</sup>	Phrase	S OB=NASA
OC=	OC	Abstract Source <sup>10</sup>	Phrase	S OC=KIE
—	OR	Order Number <sup>6</sup>		
—	PR	Price <sup>6</sup>		
PY=	PY	Publication Year	Phrase	S PY=2006
RC=	RC	Record Completed Date	Phrase	S RC=20060531
—	RF	Number of References		
RI=	RI	Record Identifier <sup>10</sup>	Phrase	S RI=00027236
RN=	RN	CAS(r) Registry Number <sup>4,5</sup>	Phrase	S RN=25656-90-0
RT=	RT	Record Type	Phrase	S RT=COMPLETED
SD=	SD	Project Start Date <sup>6</sup>	Phrase	S SD=20020401
SF=	SF	Subfile	Phrase	S SF=TOXBIB
SN=	SN	International Standard Serial Number (ISSN)	Phrase	S SN=0968-0519
SO=	SO	Source Information <sup>12</sup>	Word	S SO=(JOURNAL(1W)ENDOTOXIN AND 2)
SP=	SP	Sponsoring Agency <sup>6</sup>	Phrase	S SP=PUBLIC HEALTH SERVICE?
SQ=	SQ	Molecular Sequence Databank Number <sup>10,13</sup>	Word & Phrase	S SQ=(GENBANK(W)AA273731) S SQ=GENBANK AA273731?
ST=	ST	City or State <sup>6</sup>	Phrase	S ST=ILLINOIS
UD=	—	Update	Phrase	S UD=9999
UP=	UP	Record Date Created	Phrase	S UP=200412
ZP=	ZP	Zip Code <sup>6</sup>	Phrase	S ZP=20892

<sup>6</sup> Present in TOXNET records only.<sup>7</sup> Beginning in 1988.<sup>8</sup> You can EXPLODE either the Descriptor Code followed by a question mark (S DC=A4.411.?) or the Descriptor Name followed by an exclamation point (e.g., S LUNGI!) . Descriptor Codes do not display in records.<sup>9</sup> Journal Names are searchable as the full name and the abbreviated name, displayable as the full name.<sup>10</sup> Present in TOXBIB records only.<sup>11</sup> Beginning in 1989.<sup>12</sup> Search and display for TOXBIB records include Journal Name, Volume, Issue, Pagination, and Publication Year. For TOXNET records, all elements of this field should be searched separately; display depends on document type and subfile.<sup>13</sup> Beginning in 1996.

**SPECIAL FEATURES**

For command descriptions, enter HELP LIMIT, HELP SORT, HELP RANK, HELP MAP, HELP DUP online.

<b>LIMIT</b>	/ABS -- Abstract Present /ENG -- English-Language Records <sup>14</sup> /HUMAN -- Human /MAJ -- Major Descriptor /NOABS -- No Abstract Present /NONENG -- Non-English Language Records /YYYY -- Publication Year	S S1/ABS S SF=CIS/ENG S S2/HUMAN S LIPOPOLYSACCHARIDES/MAJ S DT=RESEARCH/NOABS S S3/NONENG S S4/2006
<b>SORT</b>	<b>AU, CS, JN, PY, TI</b>	SORT S3/ALL/AU SORT S1/ALL/PY/D
<b>RANK</b>	All phrase- and numeric-indexed fields in the Additional Indexes can be ranked. Other RANK codes include: DE, ID, SQ	RANK AU S3 RANK DE
<b>MAP</b>	DE, RN	MAP RN TEMP S2
<b>RD, ID</b>	Remove duplicates (RD) or identify duplicates (ID,IDO).	RD S5

<sup>14</sup> Searches LIMITED to /ENG will also include records with LA=UNSPECIFIED.**PREDEFINED FORMAT OPTIONS**

NO.	DIALOGWEB FORMAT	RECORD CONTENT
1	--	DIALOG Accession Number
2	--	Full Record except Abstract
3	Medium	Bibliographic Citation
4	--	Full Record with Tagged Fields
5	--	Full Record
6	Short	Title and Publication Year
7	Long	Bibliographic Citation and Abstract
8	Free	Title, Indexing, and Publication Year
9	Full	Full Record
K	--	KWIC (Key Word In Context) displays a window of text; may be used alone or with other formats

**OTHER OUTPUT OPTIONS**

For an explanation, enter HELP TYPE, HELP UDF, HELP TAG online.

<b>USER DEFINED FORMATS</b>	Output may be specified using the display codes indicated in the Search Options tables.	TYPE S2/AU,TI,SO/1-5 PRINT S1/AU,TI,AB/ALL
<b>TAG</b>	TAG may be used for tagged fields.	TYPE S2/5/1-5 TAG PRINT S1/9/ALL TAG DISPLAY S3/7/ALL TAG
<b>DIRECT RECORD ACCESS</b>	DIALOG Accession Number	TYPE 03905436/9 DISPLAY 03905436/5 PRINT 03905436/4

**FOR ONLINE HELP:**

See HELP FIELDS 156 for searchable fields; HELP FORMAT 156 for output formats; HELP LIMIT 156 for limits; HELP RATES 156 for cost information; HELP SORT 156 for sorts.