

LIST OF ABBREVIATIONS USED IN THIS VOLUME

- 3-ABP**: 3-aminobiphenyl
4-ABP: 4-aminobiphenyl
AC: adenylyl cyclase
AH: acetylhydrolase
AHH: aryl hydrocarbon hydroxylase
ALDH: aldehyde dehydrogenase
AMI: acute myocardial infarction
ApoE: apolipoprotein E
BaP: benzo[*a*]pyrene
BPDE: benzo[*a*]pyrene diolepoxide
CDK: cyclin-dependent kinase
CEVal: *N*-(2-cyanoethyl)valine
ChAT: choline acetyltransferase
CHD: coronary heart disease
CO: carbon monoxide
COHb: carboxyhaemoglobin
COPD: chronic obstructive pulmonary disease
COTAC: cotinine acid 4-(methylamino)-4-(3-pyridyl)butyric acid
COX: cyclooxygenase
CSC: cigarette smoke condensate
DDD: dichlorodiphenyldichloroethane
DDE: 1,1-dichloro-2,2-bis(p-chlorophenyl)ethylene
DDT: 1,1,1-trichloro-2,2-di-(4-chlorophenyl)ethane
DHEAS: dihydroepiandrosterone sulfate
DMBA: 7,12-dimethylbenz[*a*]anthracene
DRZ: diagonal radioactive zone
EH: epoxide hydrolase
ELISA: enzyme-linked immunosorbent assay
ERK: extracellular signal-regulated protein kinase
FAL: fractional allelic loss
FCTC: Framework Convention on Tobacco Control
FEF: forced expiratory flow

FEV₁: forced expiratory volume in 1 second
FGF-2: fibroblast growth factor-2
FHIT gene: a gene coding for a dinucleoside 5',5'''-P¹,P³-triphosphate hydrolase, a putative tumour suppressor protein
FID: flame ionizing detection
FISH: fluorescence in-situ hybridization
FPM: fluorescent particulate matter
FTC: Federal Trade Commission
FVC: forced vital capacity
GC-MS: gas chromatography-mass spectrometry
gluc: glucuronide
GSH: glutathione
GST: glutathione-S-transferase
HCAs: heterocyclic amines
HC-3: [³H]hemicholinium-3
HOEtVal: *N*-(2-hydroxyethyl)valine
1-HOP: 1-hydroxypyrene
HPB: 4-hydroxy-1-(3-pyridyl)-1-butanone
HPLC: high-performance liquid chromatography
ICCSS: International Committee for Cigar Smoke Study
IgE: immunoglobulin E
IGF1: insulin-like growth factor 1
IgG: immunoglobulin G
IHD: ischaemic heart disease
IL: interleukin
iNOS: inducible nitric oxide synthase
ISO: International Standardization Organization
iso-NNAC: 4-(*N*-nitrosomethylamino)-4-(3-pyridyl)butyric acid
KRAS oncogene: Kirsten-*ras* oncogene
LALN: lung-associated lymph nodes
LDL: low-density lipoproteins
LOH: loss of heterozygosity
MAPK: mitogen-activated protein kinase
7-MedG: 7-methyldeoxyriboguanosine
MEF: maximal expiratory flow
MEH: mitochondrial epoxyde hydrolase
MEK1: mitogen-activated extracellular kinase 1
MeP: methylpurine
MF: mutant frequency
MT: myocardial infarction
NAC: *N*-acetyl-L-cysteine
nAChRs: nicotinic acetylcholine receptors

- NADPH**: nicotinamide-adenine dinucleotide phosphate
NAT: *N*-acetyltransferase
NBOPA: *N*-nitrosobis(2-oxopropyl)amine
NDEA: *N*-nitrosodiethylamine
NDELA: *N*-nitrosodiethanolamine
NDMA: *N*-nitrosodimethylamine
NEMA: *N*-nitroethylmethylamine
NF: nuclear factor
nic: nicotine
NMBA: 4-(*N*-nitroso-*N*-methylamino)butyric acid
NMPA: 3-(*N*-nitroso-*N*-methylamino)propionic acid
NMTCA: *N*-nitroso-2-methylthiazolidine 4-carboxylic acid
iso-NNAC: see under *iso*
NNAL: 4-(*N*-nitrosomethylamino)-1-(3-pyridyl)-1-butanol
NNAL-*O*-gluc: [4-(methylnitrosamino)-1-(3-pyridyl)but-1-yl]- β -*O*-D-glucosiduronic acid
NNK: 4-(*N*-nitrosomethylamino)-1-(3-pyridyl)-1-butanone
NNN: *N'*-nitrosonornicotine
NO: nitric oxide
NO₂: nitrogen dioxide, also called nitrous oxide
NOx: nitrogen oxides
NOS: NO synthase
NPIC: *N*-nitrosopiperic acid
NPIP: *N*-nitropiperidine
NPRO: *N*-nitrosoproline
NPYR: *N*-nitrosopyrrolidine
NSAR: *N*-nitrososarcosine
NTCA: *N*-nitrosothiazolidine 4-carboxylic acid
***O*⁶-MedG**: *O*⁶-methyldeoxyriboguanosine
25-OH vitamin D: 25-hydroxyvitamin D
8-OHdG: 8-hydroxy-2'-deoxyguanosine
OVA/AL: aluminium hydroxide-precipitated ovalbumin
8-oxodG: 8-oxo-7,8-dihydro-2'-deoxyguanosine
P450: cytochrome P450
PAF: platelet-activating factor
PAH: polycyclic aromatic hydrocarbons
PCDD: polychlorodibenzodioxins
PCDF: polychlorodibenzofurans
PEF: peak expiratory flow
PhIP: 2-amino-1-methyl-6-phenylimidazo[4,5-*b*]pyridine
PKC: protein kinase C
RB gene: retinoblastoma gene

ROS: reactive oxygen species
RSP: respirable suspended particles
RYO: roll-your-own
SCN: serum thiocyanate
SFS: synchronous fluorescence spectroscopy
SH: spontaneously hypertensive
S-PMA: *S*-phenylmercapturic acid
S9: supernatant of 9000 g centrifugation
tar: particulate phase
TCDD: 2,3,7,8-tetrachloro-*para*-dibenzodioxin
TPM: total particulate matter
TSNA: tobacco-specific nitrosamines
***tt*-MA:** *trans,trans*-muconic acid
UDP: uridine-5'-diphosphate
UGT: uridine-5'-diphosphate glucuronosyltransferase
UVPM: ultraviolet particulate matter
V(D)J recombination: combinatorial rearrangement of multiple V (variable),
D (diversity) and J (junctional) coding gene segments
VOC: volatile organic compounds
WBC: white blood cell