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DRINKING COFFEE, MATE, AND VERY HOT BEVERAGES

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ON THE EVALUATION
OF CARCINOGENIC RISKS
TO HUMANS

International Agency for Research on Cancer



LIST OF ABBREVIATIONS

5-CQA	5-caffeoylquinic acid
γ -GCL	γ -glutamylcysteine ligase
11 β -HSD1	11 β -hydroxysteroid dehydrogenase 1
1-MU	1-methyluric acid
1-MX	1-methylxanthine
3-NT	nitrotyrosine
8-OHdG	8-hydroxydeoxyguanosine
1-OHPG	1-hydroxypyrene glucuronide
8-OxodG	8-oxodeoxyguanosine
AAF	2-acetylaminofluorene
Ab	antibody
ABTS	2,2'-azino-bis 3-ethylbenzothiazoline-6-sulfonic acid
AHA	aromatic and heterocyclic amines
AHH	aryl hydrocarbon hydroxylase
AHR	aryl hydrocarbon receptor
AL	acute leukaemia
ALL	acute lymphoblastic leukaemia
ALT	alanine aminotransferase
AML	acute myeloid leukaemia
ANLL	acute non-lymphoblastic leukaemia
AOPP	advanced protein oxidation product
ARCAGE	Alcohol-Related Cancers and Genetic Susceptibility in Europe
ARE	antioxidant response element
ATBC	Alpha-Tocopherol, Beta-Carotene Cancer Prevention
ATM	ataxia telangiectasia mutated
AUC	area under the curve
BMI	body mass index
BOP	<i>N</i> -nitrosobis(2-oxopropyl) amine
BPH	benign prostatic hypertrophy
bw	body weight
CA	caffeic acid
CAT	catalase
CCl ₄	carbon tetrachloride
CGA	chlorogenic acid

CH	chloric acid equivalent
CHL	Chinese hamster lung
CHO	Chinese hamster ovary
CHUM	Centre hospitalier de l'Université de Montréal
CI	confidence interval
CLD	chronic liver disease
CLL	chronic lymphocytic leukaemia
C _{max}	maximum plasma concentration
COSM	Cohort of Swedish Men
CRP	C-reactive protein
CSI	cumulative smoking index
CTS	California Teachers Study
CX3CL1	fractalkine
DHCA	dihydrocaffeic acid
DHEA	dihydroferulic acid
diCQA	dicafeoylquinic acid
DMBA	dimethylbenz[<i>a</i>]anthracene
DMN	dimethylnitrosamine
DPPH	2,2-diphenyl-1-picrylhydrazyl
d-ROM	derivative of reactive oxygen metabolite
EDGE	Estrogen, Diet, Genetics, and Endometrial Cancer
EFSA	European Food Safety Authority
EMA	European Medicines Agency
EOR	excess odds ratio
EPIC	European Prospective Investigation into Cancer and Nutrition
EpRE	electrophile response element
ER	estrogen receptor
ER α	estrogen receptor α
ESCALE	Etude Sur les Cancers et les Leucémies de l'Enfant
FA	ferulic acid
FAO	Food and Agriculture Organization of the United Nations
FFQ	food frequency questionnaire
FGF-2	fibroblast growth factor-2
FISH	fluorescence in situ hybridization
FQA	feruloylquinic acid
FRAP	ferric ion-reducing antioxidant power
FXR	farnesoid X receptor
GGT	gamma-glutamyltransferase
GLP-1	glucagon-like peptide 1
GPx	glutathione peroxidase
GSH	glutathione
GSSG	glutathione disulfide
GST	glutathione S-transferase
GWAS	genome-wide association study
HBeAg	hepatitis B virus e-antigen
HBsAg	hepatitis B surface antigen
HBV	hepatitis B virus
HCC	hepatocellular carcinoma
HCE	health-check examinees

HCL	hairy cell leukaemia
HCV	hepatitis C virus
HF	high-fat (diet)
HF+C	high-fat diet plus cancer
HHQ	hydroxyhydroquinone
HPFS	Health Professionals Follow-up Study
HR	hazard ratio
HRT	hormone replacement therapy
HsCRP	high-sensitivity C-reactive protein
IARC	International Agency for Research on Cancer
IC ₅₀	half-maximal inhibitory concentration
ICC	intrahepatic cholangiocarcinoma
iFA	isoferulic acid
IFN γ	interferon gamma
IGF-1R	insulin-like growth factor 1 receptor
IL	interleukin
INHANCE	International Head and Neck Cancer Epidemiology
IRR	incidence rate ratio
IRS-1	insulin-receptor substrate-1
ISO	International Organization for Standardization
IWHS	Iowa Women's Health Study
JACC	Japan Collaborative Cohort Study for Evaluation of Cancer Risk
JPHC	Japan Public Health Center-based
LCL	lymphoblastoid cell line
LDL	low-density lipoprotein
LEC	Long Evans Cinnamon
LPDY	litres consumed per day \times years of drinking
LPS	lipopolysaccharide
LUTS	lower urinary tract symptom
LW	low-fat (diet)
MALOVA	Danish MALignant OVarian cancer
MARIE	Mamma Carcinoma Risk Factor Investigation
MCCS	Melbourne Collaborative Cohort Study
MEC	Multiethnic Cohort
MGMT	O ⁶ -methylguanine-DNA methyltransferase
MIP-1 β	microphage inflammatory protein-1 β
MM	multiple myeloma
MN	micronuclei
MNNG	<i>N</i> -methyl- <i>N'</i> -nitro- <i>N</i> -nitrosoguanidine
NAFLD	non-alcoholic fatty liver disease
NAT2	<i>N</i> -acetyltransferase 2
NC	neighbourhood controls
NDEA	<i>N</i> -nitrosodiethylamine
NDMA	<i>N</i> -nitrosodimethylamine
NECSS	National Enhanced Cancer Surveillance System
NF- κ B	nuclear factor κ B
NHL	non-Hodgkin lymphoma
NHS	Nurses' Health Study
NIH-AARP	National Institutes of Health–American Association of Retired Persons
NLCS	Netherlands Cohort Study

NLM	National Library of Medicine
NMBzA	<i>N</i> -nitrosomethylbenzylamine
NMP	<i>N</i> -methylpyridinium
NMSC	non-melanoma skin cancer
NOMAS	Northern Manhattan Study
NOWAC	Norwegian Women and Cancer
NQO1	NAD(P)H:quinone oxidoreductase 1
NRCH	National Registry of Childhood Haematopoietic Malignancies
NRCL	National Registry of Childhood Blood Malignancies
Nrf2	nuclear factor-erythroid-2-related factor
NYSC	New York State Cohort
OAT	organic anion transporter
OR	odds ratio
ORAC	oxygen radical antioxidant capacity
oxLDL	oxidized low-density lipoprotein
PAH	polycyclic aromatic hydrocarbons
PAI-1	plasminogen-activator inhibitor type-1
PBL	peripheral blood lymphocyte
PCNA	proliferation cell nuclear antigen
PEDS	Patient Epidemiology Data System
PGF2 α	8-epi-prostaglandin F2 α
PH	partial hepatectomy
PhIP	2-amino-1-methyl-6-phenylimidazo[4,5- <i>b</i>]pyridine
PLCO	Prostate, Lung, Colorectal, and Ovarian
PPAR γ	peroxisome proliferator-activated receptor γ
ppm	parts per million
PR	progesterone receptor
PSA	prostate-specific antigen
PX	paraxanthine
PXR	pregnane X receptor
RCT	randomized controlled trial
RDD	random-digit dialling
RH	resistant hepatocyte
ROS	reactive oxygen species
RPCI	Roswell Park Cancer Institute
RPMI	Roswell Park Memorial Institute
RR	relative risk
SC	surgical controls
SCC	squamous cell carcinoma
SCE	sister-chromatid exchange
SCGE	single-cell gel electrophoresis
SD	standard deviation
SEER	Surveillance, Epidemiology, and End Results
SHBG	sex hormone-binding globulin
SHR	subhazard ratio
SMC	Swedish Mammography Cohort
SNP	single nucleotide polymorphism
SOD	superoxide dismutase
sTNFR _{II}	soluble tumour necrosis factor receptor II
SU.VI.MAX	Supplémentation en Vitamines et Minéraux Anti-oxydants

SULT	sulfotransferase
sVACM-1	soluble vascular cell adhesion molecule-1
TAC	total antioxidant capacity
TAS	total antioxidant status
TBARS	thiobarbituric acid-reactive substance
TCC	transitional cell carcinoma
tGSH	total glutathione
THLE	transformed liver epithelial cell line
T _{max}	time to peak concentration
TNF- α	tumour necrosis factor alpha
TRAP	total peroxy radical-trapping antioxidant parameter
UGT	UDP-glucuronosyl transferase
VIP	Västerbotten Intervention Project
vs	versus
WABOHS	Western Australian Bowel Health Study
WLH	Women's Lifestyle and Health