

شبكة المعلومات الجامعية التوثيق الإلكتروني والميكروفيلو

# بسم الله الرحمن الرحيم





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## جامعة عين شمس التوثيق الإلكتروني والميكروفيلم قسم

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## Study on potential protective effect of acetaminophen in experimentally induced Parkinson's disease in rats

A thesis submitted for the partial fulfillment of requirements for the Master degree in Pharmaceutical Sciences (Pharmacology & Toxicology)

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### **List of abbreviations**

5-HT	5-hydroxytryptamine
6-OHDA	6-hydroxydopamine
A%	Area percentage
AADC	Aromatic L-amino acid decarboxylase
Ac-DEVD-pNA	Acetyl-Asp-Glu-Val-Asp p-nitroanilide
ACh	Acetylcholine
ACM	Acetaminophen
AM404	N-arachidonoylphenolamine
ANOVA	Analysis of variance
BBB	Blood brain barrier
BDNF	Brain-derived neurotrophic factor
BSA	Bovine serum albumin
CB1	Cannabinoid receptor type 1
CB2	Cannabinoid receptor type2
ССН	Chronic cerebral hypoperfusion
cDNA	Complementary DNA
COX-2	Cyclooxygenase 2
CSF	Cerebrospinal fluid
DA	Dopamine
DAT	Dopamine transporter
DMSO	Dimethylsulphoxide
DTNB	5,5'-dithio-bis-(2-nitrobenzoic acid)
ECB	Endocannabinoid
ECD	Electrochemical detector
FAAH	Fatty acid amide hydrolase
GPi	Globus pallidus interna

GSH	Reduced glutathione
NP-SH	Non-protein thiol
GSH-Px	Glutathione peroxidase
H&E	Hematoxyline and eosine
$H_2O_2$	Hydrogen peroxide
HPLC	High performance liquid chromatography
HRP	Horseradish peroxidase
IFN-γ	Interferon-γ
IHC	Immunohistochemistry
IL-1β	Interleukin-1β
iNOS	Inducible nitric oxide synthase
LB	Lewy bodies
L-dopa	Levodopa
LID	Levodopa-induced dyskinesia
MAO	Monoamine oxidase
MAPK	Mitogen-activated protein kinases
MDS	Movement disorder society
MMLV-RT	Moloney Murine Leukemia Virus reverse transcriptase
MOMP	Mitochondrial outer membrane permeabilization
$MPDP^+$	1-methyl-4-phenyl-2,3-dihydropyridinium
$MPP^+$	1- methyl-4-phenylpyridinium
MPTP	1-methyl-4-phenyl-1,2,3,4-tetrahydropyridine
MRI	Magnetic resonance imaging
NAC	N-acetyl cysteine
NAPQI	<i>N</i> -acetyl- <i>p</i> -benzoquinone imine
NF-κB	Nuclear factor kappa-light chain-enhancer of activated B cells
NMDA	N-methyl-D-aspartate

NO	Nitric oxide
NSAIDs	Non-steroidal anti-inflammatory drugs
OD	Optical density
p value	Probability value
PBS	Phosphate buffered saline
PD	Parkinson's disease
PET	Positron emission tomography
PGs	Prostaglandins
PI3K	Phosphoinositide 3-kinase
pNA	P-nitroaniline
qPCR	Quantitative PCR
ROS	Reactive oxygen species
RQ	Relative quantification
RT-PCR	Real time polymerase chain reaction
SEM	Standard error of mean
SN	Substantia nigra
SNpc	Substantia nigra pars compacta
SOD	Super oxide dismutase
STZ	Streptozotocin
TCA	Trichloroacetic acid
TH	Tyrosine hydroxylase
TMB	Tetramethylbenzidine
TNF-α	Tumor necrosis factor-α
TRPV1	Transient receptor potential vanilloid type 1
UPS	Ubiquitin proteosome system
URB597	Cyclohexylcarbamic acid 3'-(Aminocarbonyl)-[1,1'-biphenyl]-3-yl ester
VMAT-2	Vesicular monoamine transporter-2

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