Al-Azhar University
Faculty of Science
(Girls branch)
Zoology Department

Research plan

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Title of research:

THE POSSIBLE EFFECTS OF SWINE FLU (H1N1) VACCINE ON ALBINO RATS. .

Aim of the Research:

The research aims to evaluate the physiological, Immunological and histopathological & histochemical changes in albino rats.

Research plan:

1) Physiological study.
2) Immunological study.
3) Histological and Histochemical studies. On some albino rats organs.

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Acknowledgement

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Didication

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THE POSSIBLE EFFECTS OF SWINE FLU (H1N1) VACCINE ON ALBINO RATS

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جامعة الأزهر
كلية العلوم(فرع البنات)
قسم علم الحيوان

التأثيرات المحتملة للقاح إنفلونزا الخنازير(H1N1)علي الجرذان البيضاء

رسالة مقدمة من
الطالبة

عليه محمد على محمد

معيده بكلية العلوم–بنات– جامعة الأزهر

الحاصله على

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للحصول على
درجة الماجستير في علم الحيوان

تحت إشراف

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Introduction

List of Abbreviations

AA	Arachidonic Acid
AFA	Fibrillarin Autoantibodies
AiF	Apoptosis Inducing Factor
AIHA	Auto Immune Hemolytic Anemia
ALS	Amyotrophic Lateral Sclerosis
ANA	Antinuclear Antibodies
ANoA	Antinucleolar Antibodies
APCs	Antigen-Presenting Cells
ASC	Antibody Secreting Cells
ASO3	Adjuvant System Containing α-tocopherol, Squalene and Polysorbate 80
B	B lymphocyte
BSA	Bovine Serum Albomine
Ca2+	Calcium
{Ca2+}i	Intracellular Calcium
CD3+	T lymphocytes
CD4+	Helper T lymphocytes
CD8+	Cytotoxic T lymphocytes
CII	Type 2 Collagen
Conc.	Concentration
CRF2	Coreceptor Cytokine Family
CTL	Cytotoxic T-lymphocyte
Cu.	Cubic
DC	Dendritic Cells
Dist.	Distilled
DNA	Deoxyribonucleic acid
DTT	Diethyothreitol
ELISA	Enzyme-linked Immunosorbent Assay
ESR	Erythrocyte Sedimentation Rate
Et-Hg	Ethylmercury
FBSA	Fetal Bovine Serum Albumin
FcεRI	Fragment, crystallizable epsilon RI
FMLB	Formile-Methionyl-Laucyl-Phenylalanine
GBS	Guillain-Barre Syindrone
G-CSF	Granulocyte Colony-Stimulating Factor
GM-CSF	Granulocyte-Macrophage Colony-Stimulating Factor

GSK	GlaxoSmithKline
GT	Glutathione
H	Hemagglutinin
H&E	Haematoxylin and Eosin
H1N1	Influenza virus composed one Hemagglutinin and one Neuraminidase protein
H2O2	Hydrogen peroxide
HAI	Hemagglutination Inhibition Assay
Hb	Hemoglobin
Hct/Ht	Haematocrit
HgCl 2	Mercuric Chloride
HgIA	Mercury-Induced Autoimmunity
HLA	Human Leukocyte Antigen
IC	Immuno-Complex
INF	Interferon
IFNAR	Interferon - Alpha Receptor
IFNGR	Interferon - Gamma Receptor
IgA	Immunoglobuline Alpha
IgE	Immunoglobuline Epsilon
IgG	Immunoglobuline Gamma
IL	Interleukin
ISCOMs	Immunostimulating Complexes
K+	Potassium
Kg	Kilogram
LAIV	Live Attenuated Influenza Vaccine
LO	Liboxygenase
LT	Lymphotoxin
M	Influenza Vaccine (mixture of suspension and adjuvant)
M1,2	Matrix Proteins
Mat-Hg	Methylmercury
MCH	Mean Corpuscular Hemoglobin
MCHC	Mean Corpuscular Hemoglobin Concentration
MCV	Mean Corpuscular Volume
MF59	Squalene/water Adjuvant Emulsion
Mn2+	Manganese
MNC	Mono Nuclear Cells
N	Neuraminidase
Na+	Sodium
NaCl	Sodium Chloride

Neg	Negative
Ni2+	Nickel
NK	Natural killer
NO	Nitric oxide
NP	Nucleoprotein
NS	Non-Structural Proteins
(O)-	Superoxide
OH^-	Hydroxil radical
ORS	Oculo Respiratory Syndrome
PA	Paused RNA polymerase
PAS	Periodic Acid-Schiff Reagent
PB1	Protein Induces Apoptosis
PBMC	Peripheral Blood Mononuclear Cells
PBS	Phosphate-buffered Saline
PCV	Packed cell volume
PD	Programmed Death
PGE2	prostaglandin-E2
Pg/ml	Picogram/Milliliter
PHA	Phytohemagglutinine
RBCs	Red blood Corpusles
RER	Rough Endoplasmic Reticulum
RNA	Ribonucleic Acid
ROS	Reactive Oxygen Species
RPMI	Roswell Park Memorial Institute Medium for cell culture and tissue culture
SAFs	Syntex Adjuvant Formulation
SE	Standard Error
SIV	Swine Influenza Virus
Sq	Squaline As Adjuvant
SQOOH	Squaline Monohydroberoxide
T	T lymphocyte
T3	Triiodothyronine (Thyroid Hormones)
T4	Thyroxine (Thyroid Hormones)
TC	T cytotoxic
TGF-β	Transforming Growth Factor_β
Th	T helper
TIV	Trivalent Inactivated Vaccine
TMC	Tonsillar mononuclear cell
TMR	Thimerosal
TNF-α	Tumor Necrosis Factor alpha

TREg	T-regulatory
V	Suspension of Vaccine
VEGF	Vascular Endothelial Growth Factor
WBCs	White blood cells
Zn	Zinc
α	Alpha
β	Beta
γ	Gamma

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