

Assessment of Arginase I Enzyme Level In Children with Bronchial Asthma and Its Correlation with Their Pulmonary Functions

Thesis

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بسم الله الرحمن الرحيم

يرفع الله الذين آمنوا منكم

والذين أوتوا العلم درجات

صرق الله العظيم

سورة المجادلة آية (11)

Dedication

To:

*My dear and lovely parents
Who gave me everything and received nothing and
my family*

*My wonderful future husband Ahmed
Who helped and support me a lot
I wish for all of them a long and happy life*



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List of Abberviations

Abb.	Full term
AHR	Airway hyperreactivity
ALT	Alanine transferase
AMP	Adenosine mono phosphate
ASL	Argino succinate lyase
ASS	Argino succinate synthase
AST	Aspartate transferase
BHR	Bronchial hyper responsiveness
CD	Cluster of differentiation
COPD	Chronic obstructive pulmonary disease
CXR	Chest X ray
DCs	Denderitic cells
DNA	Deoxy riboneuclic acid
EAR	Early asthmatic reaction
EIB	Exercise induced broncospasm
eNOS	Endothelial nitric oxide synthase
FEV/FVC	Forced expiratory volume/Forced vital capacity
FEV1	Forced expiratory volume in 1 st second
GERD	Gastro esophageal reflux disease
GINA	Global initiative for asthma
GM-CSF	Granulocyte macrophage colony stimulating factor
HDM	House dust mites
ICS	Inhaled corticosteroids
IgE	Immunoglobulin E
IL	Interlukien
iNANC	Inhibitory non adrenergic non cholinergic
INK-T	In variant natural killer cell
LAR	Late asthmatic reaction
NCHS	National center for health statistics
NHLBI	National heart lung blood institute
NK	Natural killer

nNOS	Neuronal nitric oxide synthase
NO	Nitric oxide
NOHA	N-hydroxy L-arginine
NOS	Nitric oxide synthase
ODC	Ornithine decarboxylase
PDE	Phosphodiesterase
PDGF	Platelet derived growth factor
PEF	Peak expiratory flow
PGE2	Prostaglandins E2
PUFA	Poly unsaturated fatty acid
Th1	T-helper cell
TNF	Tumor necrosis factor
US	United states
WHO	World health organization