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تحت إشراف

الأستاذ الدكتور/ محمد سامي الشيمي أستاذ طب الأطفال- جامعة عين شمس الأستاذ الدكتور/ هشام عبد السميع عوض أستاذ طب الأطفال- جامعة عين شمس الأستاذ الدكتورة/ سحر محمد أحمد حسنين أستاذ طب الأطفال- جامعة عين شمس الأطفال- جامعة عين شمس

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# Study of some neuroprotective therapies in near term and older neonates with hypoxic ischemic insult

**Ehesis** 

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Presented by

Hebat Allah Ali Mahmoud Shabaan M.B.B.Ch., M.Sc.Pediatrics

Under supervision of

Prof. Dr. Mohamed Samy El Shimi

Professor of Pediatrics-Ain Shams University

**Prof. Dr. Hesham Abd El Samie Awad**Professor of Pediatrics-Ain Shams University

Prof. Dr. Sahar Mohamed Ahmed Hassanein

Professor of Pediatrics-Ain Shams University

Prof. Dr. Safaa Shafik Imam

Professor of Pediatrics-Ain Shams University

Dr. Ghada Ibrahim Gad

Assistant Professor of Pediatrics-Ain Shams University

Faculty of Medicine Ain Shams University 2011

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#### LIST OF ABBREVIATIONS

**AAP** : American Academy of Pediatrics

**ACOG** : American College of Obstetrics and Gynecology **aEEG** : Amplitude integrated electroencephalography

**AIF** : Apoptosis inducible factor

**BBB** : Blood brain barrier

**BDNF** : Brain derived neurotrophic factor

CTG : Cardiotocograph
CBF : Cerebral blood flow
CSF : Cerebrospinal fluid

**CFM** : Cerebral function monitor **CNS** : Central nervous system

**Cho** : Choline

CT: Computed tomography
CUS: Cranial ultrasonography

**Cr** : Creatine

DNA : Deoxyribonucleic acid
 DWI : Diffusion weighted imaging
 EEG : Electroencephalography
 EDV : End diastolic velocity

ELISA : Enzyme linked immunsorbant assay
ESP : Erythropoiesis stimulating protein

**Epo** : Erythropoietin

**EpoR** : Erythropoietin receptor

ERK : Extracellularly regulated kinase FDA : Food and drug administration

**GABA** : γ-aminobutyric acid

**G-CSF** : Granulocyte colony stimulating factor

**HIF** : Hypoxia inducible factor

**HI** : Hypoxia ischemia

HIE : Hypoxic ischaemic encephalopathy
HI–R : Hypoxic ischemic reperfusion
iNOS : Inducible nitric oxide synthetase

IL : Interleukin

ICH : Intracranial hemorrhageMRI : Magnetic resonance imagingMRS : Magnetic resonance spectroscopy

MPP : Matrix metalloproteinases mRNA : Messenger ribonucleic acid **MAPK** : Mitogen activated protein kinase

NICHD : National Institute of Child Health and Human Development

**NAA** : N-acetyl aspartate

**NMDA** : N-methyl-D-aspartate receptor

receptor

NIRS : Near infrared spectroscopy NICU : Neonatal intensive care unit

NGF : Nerve growth factor NSE : Neuron specific enolase

Ngb : Neuroglobin NTs : Neurotrophins NO : Nitric oxide

NOS : Nitric oxide synthase NPO : Nothing by mouth

**PaCO2** : Partial pressure of carbon dioxide

PaO2 : Partial pressure of oxygen PSV : Peak systolic velocity PCM : Phase changing material

**PI** : Pulsatility index

**rEpo** : Recombinant human erythropoietin **rSO2** : Regional cerebral oxygen saturation

**ROP** : Retinopathy of prematurity

RI : Resistive index SWC : Sleep-wake cycles

**TOBY**: Total Body Hypothermia for Neonatal Encephalopathy Trial

TNF : Tumor necrosis factor
Trk : Tyrosine kinase
US : Ultrasound

**VEGF** : Vascular endothelial growth factor

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