شبكة المعلومات الجامعية

بسم اللّه الرحمن الرحيم

شبكة المعلومات الجامعية

التوثيق الالكتروني والميكروفيلم

شبكة المعلومات الجامعية

جامعة عين شمس

التوثيق الإلكتروني والميكروفيلم

قسم

نقسم باللّه العظيم أن المادة التي تم توثيقها وتسجيلها علي هذه الأقراص المدمجة قد أعدت دون أية تغيرات

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Ain Shams University
Faculty of Science
Department of Biochemistry

Assessment of Ionizing Radiation-Induced Bystander Effect in Stem Cells

Thesis Submitted by

Heba Fathy Abass Kenawy El-Komey
(B.Sc. in Biochemistry – Ain Shams University, 2012)

For the Award of the Degree of master of Science in Biochemistry

Under Supervision of

Prof. Dr. Mohamed Ragaa Mohamed
Professor of Biochemistry & Molecular Biology
Faculty of Science
Ain Shams university

Prof. Dr. Soheir Saad Korraa
Professor of Molecular Biology
National Center for Radiation Research and Technology
Atomic Energy Authority

Dr. Marwa Galal El-Deen Abdou Hegazy
Associate professor of Biochemistry
Faculty of Science
Ain Shams university

Ain Shams University
Faculty of Science
Biochemistry Department
2020

Ain Shams University

Faculty of Science
Biochemistry
Department

Biography

Name:	Heba Fathy Abbass Kenawy Elkomey
Degree Awarded:	B.Sc. in Biochemistry
Faculty:	Faculty of Science
University:	Ain Shams University
Specialty:	Biochemistry
Date of Graduation:	June 2012
Grade:	Very Good

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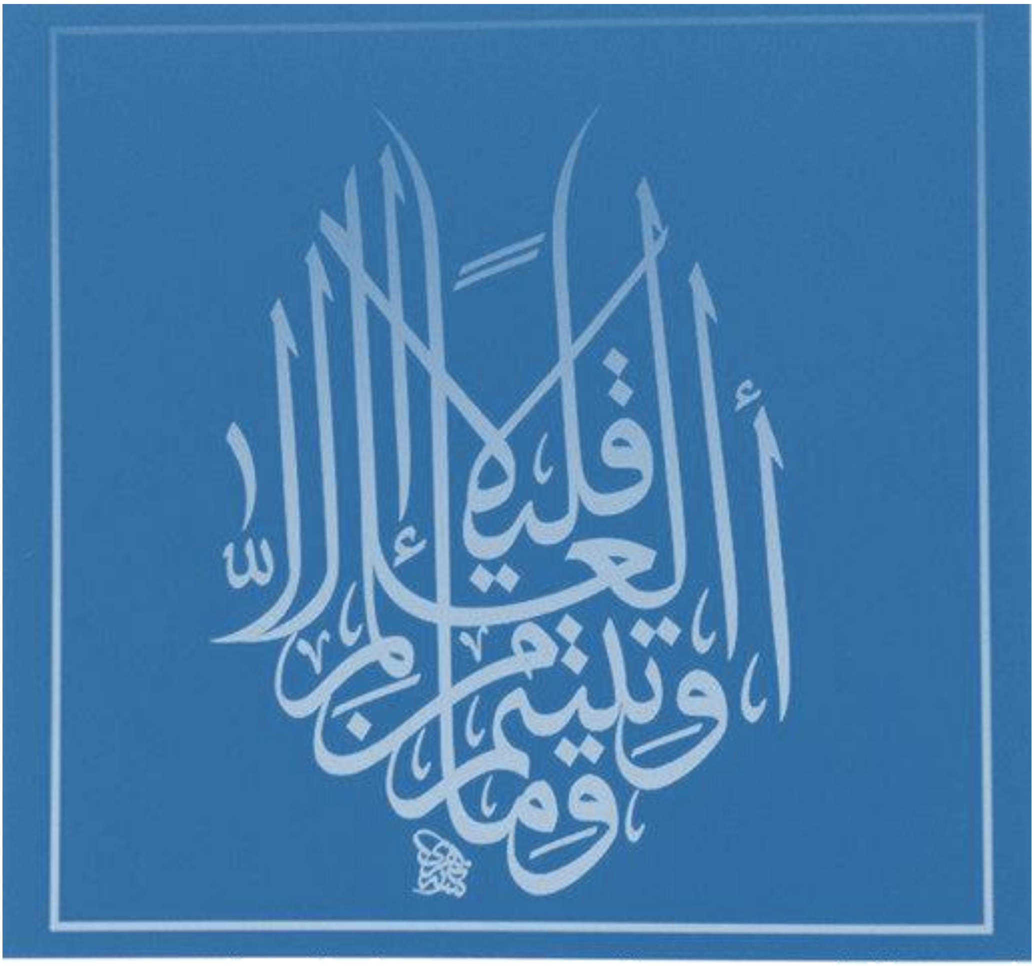
وما أوتيتم من العلم إلا قليلا

Declaration

I declare that this thesis has been composed by myself and that the work of which it is a record has been done by myself. This thesis has not been submitted for a degree at this or any other university.

Heba Fathy Abbass Kenawy El-Komey

This work is dedicated to my father Dr.Fathy Abbass El-Komey, my mother Dr.Asmaa Mohamed, my sisters and my late Grandpa and Grandma.

Acknowledgement

Thanks are due first and last to Allah by whose grace this work had been completed and by whose grace all my life is arranged in the best. Nobody can imagine this way that had drawn by the mercifulness of Allah.

My deep gratefulness and special thanks to ***Prof. Dr. Mohamed Ragaa Mohamed****, Professor of Biochemistry and Molecular Biology, Biochemistry Department, Faculty of Science, Ain Shams University, for his endless help, guidance, continuous encouragement, valuable advice and critism. It is great honor for me to work under his supervision throughout my postgraduate carrier.*

It is really difficult for me to find words that can express my deep feelings, heartfull gratitude towards ***Prof. Dr. Soheir Saad Korraa,*** *Professor of Molecular Biology, National Center for Radiation Research and Technology (NCRRT), for her creative thinking , instructive guidance, valuable suggestion, valuable advices, valuable comments and whole hearted support, supervision, kind encouragement, her fruitful reading, reviewing constructive criticizing of the manuscript and kind offer of all*

possible laboratory facilities to accomplish the practical part of this study.

Words are also inadequate to express my deepest gratitude to ***Dr.*** **Marwa Galal El-Deen Abdou Hegazy,** *Assist. Prof. of Biochemistry, Biochemistry Department, Faculty of Science, Ain Shams University valuable advice, review the manuscript, unlimited help, kind encouragement, without her tremendous concern and care the performance of this work would be difficult.*

It is really difficult for me to find words that can express my deep gratitude and sincere appreciation towards ***Dr. Monda Mohamed Maher,*** *Health Radiation Research Department, NCRRT for her creative thinking, valuable suggestions.*

Much thanks to all staff members and colleagues at National Center for Radiation Research and Technology, Atomic Energy Authority, for their sincere support and assistance.

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LIST OF ABBREVIATIONS

AEA	Atomic Energy Authority
AP-endonuclease	Apurinic/apyrimidinic (AP) endonuclease
BDNF	Brain-derived Neurotrophic Fact
BMC	Bone Marrow Cells
BMSCs	Bone marrow Mesenchymal Stem Cells
cDNA	Complementary DNA
CNS	Central Nervous system
CXCR4	Chemotaxis Cytokine Receptor-4
DSBs	Double-Strand Breaks
fMNPCEs	Frequency of Micronucleated Polychromatic Erythrocytes
GAPDH	Glyceraldehyde-3-Phosphate Dehydrogenase
GFAP	Glial Fibrillary Acidic Protein
GPx	Glutathione Peroxidase
GR	Glutathione Reductase
GSH	Glutathione
H_2O_2	Hydrogen Peroxide
HCl	Hydrochloric Acid