



Women's College for Arts
Science and Education
physics Department

Effect of ionizing radiation and He-Ne laser on enhancing the growth of vascular endothelial cells on nano based scaffold

A Thesis Submitted for the partial fulfillment of
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List of abbreviations

HUVECs	: human umbilical vein endothelial cells
ETO	: ethylene oxide
OEC	: outgrowth endothelial cells
EPCs	: endothelial progenitor cells
ECs	: endothelial cells
He–Ne	: helium–neon
LLLT	: low level laser therapy
LELI	: low-energy laser irradiation
PCL	: polycaprolactone
PDA	: poly(dopamine)
VEGF	: vascular endothelial growth factor
ECM	: extracellular matrix
SEM	: scanning electron microscope
BSE	: backscattered electrons
NO	: Nitric Oxide
DMSO	: Dimethylsulphoxide
TBARS	: Thiobarbituric acid reactive substances

PBS : Phosphate Buffered Saline

DNA : deoxyribonucleic acid

NO : nitric oxide

MDA : malondialdehyde

ATP : adenosine triphosphate

An. : Analar

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