

**“Assessment Of The Anti-angiogenic Effect Of
Imatinib And Epigallocatechin-3-Gallate On
Laryngeal Carcinoma Cell Line (Hep2)”**

In Vitro Study

Thesis submitted to Faculty of Dentistry Ain Shams University

in partial fulfillment of the requirements

for PhD Degree in Oral Pathology

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Thanks **ALLAH** for giving me strength and patience to fulfill
this job

May You (**ALLAH**) accept it from me and consider it good
and useful

To my lovely parents and brother, thank you for your constant
inspiration and support, I couldn't have done this without
you.....

To all who will read this one day and find it useful,

Thank you for your time and trust....

Acknowledgment

I would like to express my sincere gratitude to **Dr. Iman Mohamed Helmy**, Professor of Oral Pathology, Faculty of Dentistry, Ain Shams University, for her continuous support, patience, motivation, immense knowledge and accurate revision. Her guidance helped me through the whole period of research and writing this thesis.

I am also grateful to **Dr. Dina Sabry Abdel-Fatah**, Professor of Medical Biochemistry and Molecular Biology, Faculty of Medicine, Cairo University, for her effort in the practical part of the thesis.

My thanks extend also to all the members of Oral Pathology Department, Faculty of Dentistry, Ain Shams University.

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Arabic Summary

List of Abbreviations

AKT: Protein kinase B

ANG: Angiopoietins

ANOVA: Analysis of variance

APS: Ammonium persulfate

ATCC: American Type Culture Collection

ATP: Adenosine triphosphate

BCR-ABL: Breakpoint cluster region-Abelson murine leukemia viral oncogene homolog 1

BSA: Bovine serum albumin

CCBE1: Collagen- and calcium-binding epidermal growth factor domains 1

CCD: Charged coupled device

cDNA: Complementary DNA

CML: Chronic Myeloid Leukemia

CT: Cycle threshold

DLL: Delta-like ligand

DMEM: Dulbecco modified Eagle's medium

ECs: Endothelial cells

ECM: Extracellular matrix

EDTA: Ethylenediaminetetraacetic acid

EGCG: Epigallocatechin-3-gallate

EGFR: Epidermal growth factor receptor

ELISA: Enzyme linked immunosorbent assay

ERK: Extracellular signal-regulated kinase

FBS: Fetal bovine serum

FGF: Fibroblast growth factor

FLK1: *Fetal liver kinase 1*

FLT-1: FMS-like tyrosine kinase-1

HER2: Human epidermal growth factor receptor 2

HIF: Hypoxia-inducible transcription factor

HNSCC: Head and neck squamous cell carcinoma

HPV: Human papilloma virus

HRP: Horse raddish peroxidase

IC50: Inhibition of cell growth by 50%

JAG: Jagged

KDR: Kinase -insert domain receptor

MAPK: Mitogen-activated protein kinases

MEM-H: Minimum essential medium modified with Hank's salts

MMP: Matrix metalloproteinase

MTT: 3-[4,5-dimethylthiazole-2-yl]-2,5
diphenyltetrazoliumbromide

NADH: Nicotinamide adenine dinucleotide hydrogen

NADPH: Nicotinamide adenine dinucleotide phosphate hydrogen

NF-κB: Nuclear factor kappa B

NO: Nitric oxide

NRP: Neuropilin

O.D: Optical density

PBS: Phosphate buffer saline

PCR: Polymerase chain reaction

PDGF: Platelet-derived growth factor

PDGFR: Platelet- derived growth factor receptor

PI3K: Pospoinositol 3'-kinase

PLGF: Placental growth factor

PTEN: Phosphatase and tensin homolog

PVDF: Polyvinylidene difluoride

RIPA: Radioimmunoprecipitation assay

RPM: Rotation per minute

RQ: Relative quantitation

RT-PCR: Real time polymerase chain reaction

SCC: Squamous cell carcinoma

SCF: Stem cell factor

SDS: Sodium dodecyl sulphate

SDS-PAGE: Sodium dodecyl sulfate polyacrylamide gel electrophoresis

SPSS: Statistical package for the social sciences

Stat3: Signal transducer and activator of transcription 3

TBST: Tris-buffered saline with Tween 20

TEMED: Tetramethylethylenediamine

TGF β : Transforming growth factor β

TIE2: Endothelial-specific receptor tyrosine kinase with immunoglobulin-like loops and epidermal growth factor homology domains-2

VE-cadherin: Vascular endothelial cadherin

VEGF: Vascular endothelial growth factor

VEGFR: Vascular endothelial growth factor receptor

WHO: World health organization

WNT: Wingless type

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