# RT-PCR Assay of RECK Gene and Osteopontin Immuno-expression in Jaw Osteosarcoma: Correlation with Clinical Behavior and Histological Subtypes

Thesis

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### BY

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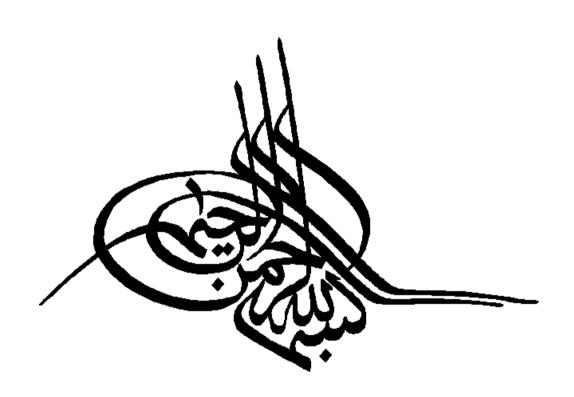
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### List of Abbreviations

**ACCs:** Adenocystic Carcinomas

**AK:** Actinic Keratosis

ALP: Alkaline Phosphatase

**ANOVA:** Analysis Of Variance

**BCC:** Basal Cell Carcinoma

**Bcl-2:** B-cell Lymphoma 2

**BSP I:** Bone Sialoprotein I

**BSP II:** Bone Sialoprotein II

cDNA: Complementary Deoxyribonucleic Acid

**CD44:** Cluster of Differentiation 44

**CDK4:** Cyclin-Dependent Kinase 4

CT: Computerised Tomography

Ct: Cycle Threshold

CTGF: Connective Tissue Growth Factor

**DAB:** Diamino Benzidine

**DNA:** Deoxyribonucleic Acid

**dNTPs:** Deoxy Nucleotid Triphosphate

**DPX:** Distyrene, a Plasticizer and Xylene

**ECM:** Extracellular Matrix

ECs: Endothelial Cells

**EGF:** Epidermal Growth Factor

**FGF:** Fibroblast Growth Factor

**GAPDH:** Glyceraldehyde-3-Phosphate Dehydrogenase

**GPI:** Glycosyl Phosphatidyl Inositol

**GLUT 1:** Glucose Transporter 1

**GLUT 2:** Glucose Transporter 2

**GLUT 3:** Glucose Transporter 3

**H&E:** Hematoxylin and Eosin

**HCC:** Hepato Cellular Carcinoma

**HDAC1:** Histone Deacetylase 1

**HER2/Neu:** Human Epidermal Growth Factor Receptor 2

**HIER:** Heat Induced Epitope Antigen Retrieval

**HIF-1** $\alpha$ : Hypoxia Inducible Factor-1 $\alpha$ 

JOS: Jaw Osteosarcoma

**kDa:** Kilodalton

**LDH:** Lactate Dehydrogenase

**MAPK:** Mitogen-Activated Protein Kinase

**MEK:** Mitogen Extracellular signal-regulated Kinase.

**MMP-2:** Matrix Metalloproteinase-2

**MMP-9:** Matrix Metalloproteinase-9

**MMPs:** Matrix Metalloproteinases

**MRI:** Magnetic Resonance Imaging

mRNA: messenger Ribonucleic Acid

MT1-MMP: Membrane Type-1 Matrix Metalloproteinase

**MVD:** Microvessel Density

**OKC:** Odontogenic Keratocyst

**OPN:** Osteopontin

**OS:** Osteosarcoma

**PBS:** Phosphate Buffer Saline

**pH:** Power of Hydrogen

**PTC:** Papillary Thyroid Carcinoma

**PTH:** Parathyroid Hormone

**qPCR:** quantitative Polymerase Chain Reaction

Raf: Rapidly Accelerated Fibrosarcoma

**Rb gene:** Retinoblastoma gene

**RECK:** Reversion-Inducing-Cysteine-Rich Protein with Kazal Motifs

**RQ:** Relative Quantification

**RT-PCR:** Real Time Polymerase Chain Reaction

SCC: Squamous Cell Carcinoma

SIBLING: Small Integrin-Binding LIgand, N-linked Glycoprotein

**Sp:** Specificity Protein

**Sp3:** Member of the Sp Transcription Factor Family

**SPI:** Serine Protease Inhibitor-like

**SPP1:** Secreted Phosphoprotein 1

SPSS: Statistical Package for Social Science

SV40: Simian Virus 40

**TGF-β:** Transforming Growth Factor Beta

**TIMP-1:** Tissue Inhibitor of Metalloproteinase-1

**TIMPs:** Tissue Inhibitors of Matrix Metalloproteinases

**uPA:** Urokinase Plasminogen Activator

**USA:** United States of America

**VEGF:** Vascular Endothelial Growth Factor

WHO: World Health Organization

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