Biochemical Study On Stem Cells Isolated From Patients With Hepatocellular Carcinoma (HCC)

Thesis

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(Medical Biochemistry & Molecular Biology)

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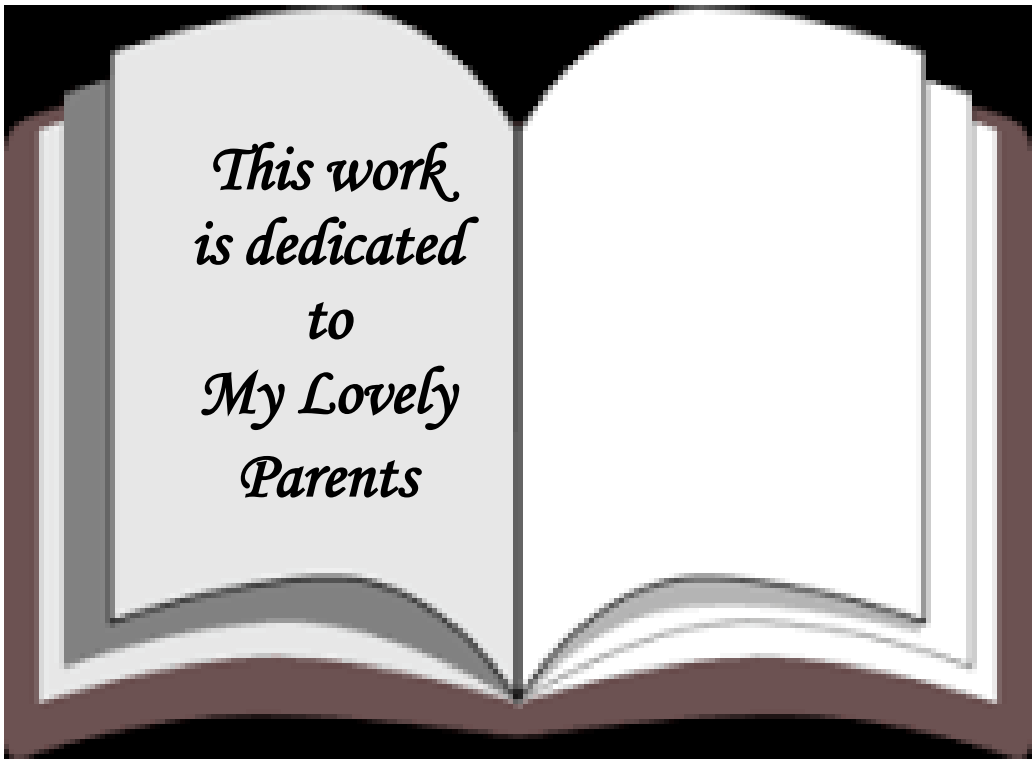
بسم الله الرحمن الرحيم

"قالوا سبحانك لا علم لنا إلا ما علمتنا إنك أنت العليم الحكيم "

"سورة البقرة – آية 32"


This work
is dedicated
to
My Lovely
Parents

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May ALLAH accept the work of all those and reward them for it.

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5-FU	5-flouro uracil
AFP	Alpha fetoprotein
AFU	Alpha –L- fucosidase
AIH	Autoimmune hepatitis
b-FGF	Basic fibroblast growth factor
BMI	Body mass index
CD	Cluster differentiation
CDK	Cyclin- dependent kinase
cDNA	Complementary deoxyribonucleic acid
CKI	Cyclin- dependent kinase inhibitor
c-kit	Stem cell factor receptor
CLD	Chronic liver disease
CSCs	Cancer stem cells
CT	Computed tomography
DN	Dysplastic nodule
DENA	Diethyl Nitrosamine
DNA	Deoxyribonucleic acid
ECM	Extracellular matrix
EDTA	Ethylene diamin tetra- acetate
EGF	Epidermal growth factor
ER	Endoplasmic reticulum

ESCs	Embryonic Stem Cells
FCM	Flow cytometry
FGF	Fibroblast growth factor
FITC	Fluorescein isothiocyanate
H&E	Hematoxillin – Eosin
HBSS	Hanks balanced salt solution
HBV	Hepatitis B virus
HCC	Hepatocellular carcinoma
HCV	Hepatitis C virus
HSCs	Hepatic stellate cells
PSCs	Peri-sinusoidal cells
INF-α	Interferon alpha
iPSCs	Induced pluripotent stem cells
Mm	Micro – meter
MRI	Magnetic resonance imaging
MSCs	Mesenchymal stem cells
MW	Microwave
NAFLD	Non- alcoholic fatty liver disease
NASH	Non alcoholic steato-hepatitis
NPCs	Non parenchymal cells
NT	Non tumor
PTFs	Portal Tract Fibroblasts
O S M	Oncostatin

RBCs	Red blood cells
RF	Radiofrequency
RNA	Ribonucleic acid
RT-PCR	Reverse transcription polymerase chain reaction
SCF	Stem cell factor
SECs	Sinusoidal endothelial cells.
SVR	Sustained viral response
T	Tumor
TGF-β	Transforming growth factor beta
UCB	Umbilical cord blood
US	Ultrasonography
VEGF	Vascular endothelial growth factor