ROLES OF ACTIN REMODELING PROTEINS, GELSOLIN AND FLIGHTLESS-I IN EPIDERMAL WOUND HEALING

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DECLARATION

I declare that this thesis does not contain without acknowledgement any work submitted previously for any academic award and that to the best of my knowledge and belief it does not contain any material previously published or written by another person except where otherwise acknowledged.

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ABBREVIATIONS

A	Absorbance
α	Alpha
ABP	Actin binding protein
APS	Ammonium persulfate
AR	Androgen receptor
β-tubulin	Beta-tubulin
bp	Base pair
β	Beta
BCA	Bicinchoninic acid
BSA	Bovine serum albumin
°C	Degrees celcius
Ca^{2+}	Calcium
$CaCl_2$	Calcium chloride
CaMK-II	Calcium/calmodulin-dependent protein kinase type II

cDNA	Complementary deoxyribonucleic acid
CISK	Cytokine-independent survival kinase
CO_2	Carbon dioxide
Cy3	Cyanine 3
dATP	Deoxyadenocine triphosphate
dCTP	Deoxycytidine triphosphate
dGTP	Deoxyguanosine triphosphate
dTTP	Deoxythyamine triphosphate
D0	Day 0 post-wounding
D3	Day 3 post-wounding
D7	Day 7 post-wounding
D14	Day 14 post-wounding
D21	Day 21 post-wounding
DEPC	Diethylpyrocarbonate
DHT	Dihydrotestosterone

DMEM	Dulbecco's modified Eagle's media
DNA	Deoxyribonucleic acid
ECL	Enhanced chemical luminescence
ECM	Extracellular matrix
EDTA	Ethyldiaminetetraacetic acid
EGF	Epidermal growth factor
ELISA	Enzyme linked immunosorbent assay
FCS	Fetal calf serum
FITC	Fluorescein isothiocyanate
FGF	Fibroblast growth factor
FLAP	Flightless-I associated protein
Flii	Flightless-I protein
$Flii^{Tg/+}$	Flightless-I transgenic
$Flii^{+/-}$	Flightless-I heterozygous knockout
x g	Times the force of gravity

g	Grams
GTP	Guanosine triphosphate
H&E	Hematoxylin and eosin
HFFs	Human foreskin fibroblasts
hr	Hour
HRP	Horse radish peroxidase
H_2O_2	Hydrogen peroxide
IgG	Immunoglobulin-G
IL	Interleukin
KCl	Potassium chloride
kDa	Kilo Daltons
KD	Knock down
L	Litre
LAP	Latency associated peptide
λ_{ex}	Lambda (wavelength) of excitation

λ_{em}	Lambda (wavelength) of emmitance
LRR	Leucine-rich repeats
LTBP	latent TGFβ binding protein
M	Molar
MAPK	Mitogen-activated protein kinase
$MgCl_2$	Magnesium chloride
min	Minutes
mM	Millimolar
MMP	Matrix metalloproteinases
mm^2	Millimeter square
mRNA	Messenger ribonucleic acid
NaCl	Sodium chloride
NHS	Normal horse serum
NLS	Nuclear localization signal
nM	Nano molar

PBS	Phosphate buffered saline
PDGF	Platelet derived growth factor
PIP_2	Phosphatidylinositol 4,5-bisphosphate
PI3K	Phosphoinositide 3-kinase
RNA	Ribonucleic acid
Rpm	Rounds per minute
RTq-PCR	Real time quantitative polymerase chain reaction
SDS	Sodium dodecylsulphate
SDS-PAGE	Sodium dodecylsulphate polyacrylamde gel electrophoresis
SEM	Standard error of mean
sec	Seconds
siRNA	Short interfering ribonucleic acid
TAE	Tri(hydroxymethyl)methylamine-acetate-ethylediaminetetraacetic acid
TβRI	Transforming growth factor beta receptor one

TβRII	Transforming growth factor beta receptor two
TEMED	N,N,N,N-tetramethylethylenediamine
TGFβ1	Transforming growth factor beta one
TGFβ2	Transforming growth factor beta two
TGFβ3	Transforming growth factor beta three
TNF	Tumour necrosis factor
Tris	Tri(hydroxymethyl)methylamine
TRS	Target retrieval solution
μg	Microgram
μl	Microlitre
μm	Micrometer
μM	Micromolar
VEGF	Vascular endothelial growth factor
WT	Wild-type

WST-1	2-(4-iodophenyl)-3-(4-nitropheyl)-5-(2,4-disulfophenyl)-2H-tetrazolium
x	Times
x g	Times the force of gravity
%	Percent
=	Equals
+	Plus