

TGF\_beta

No\_TGF\_sig

TGF\_sig

Hedgehog

SHH\_OFF

SHH\_Basal

SHH\_ON

GF\_PI3K

Basal\_PI3K

Oscill\_PI3K

Adhesion

Unanchored

Attached

Neighbors

CIP

Contact\_Inhibition

Can\_Stretch

Migration\_SW

Nonmigrating

Slow\_Migrating

Fast\_Migrating

EMT

Epithelial

Hybrid\_EM

Mesenchymal

Restriction\_SW

Before\_RP

Post\_RP

Phase\_SW

G0\_G1

G2

SAC

Cell\_Cycle\_Process

Quiescence

CellCycle

Apoptotic\_SW

Survival

Apoptosis

Neighbors

CellDensity\_High

CellDensity\_Low

Matrix

COL1\_3

Elastin

Laminin\_5a

Collagen\_4

Basement\_Membrane

Fibronectin

MMP2

MMP7

MMP9

ECM

Stiff\_ECM

Transforming\_env

TGFb\_ext

SHH\_ext

Self\_Loop

TGF\_beta - TGF\_sig

TGF\_bRII

TGF\_bRI

SMAD2\_3\_4

ILK\_Rictor

HMGGA2

p15

DUSP4

Runtx1

Hedgehog - SHH\_ON

SHH\_secr

PTCH1

SMO

SUFU

GLI\_H

GLI\_L

GLI3R

HHIP

CEBP\_alpha

GrowthFactor\_Env

GF

GF\_High

GF\_Basal\_MAPK

RTK

Shc

Grb2

SOS

Ras

RAF

MEK

ERK

MCRIP1

mTORC2

PI3K

PIP3

PDK1

AKT\_B

GF\_PI3K

p110\_H

PI3K\_H

AKT\_H

FoxO3

PLCgamma

IP3

Ca2p

Nedd4L

GF\_mTOR

TSC2

PRAS40

DAG

Rheb

mTORC1

S6K

h\_4EBP1

eIF4E

GF\_connect

GSK3

FoxO1

p21\_mRNA

IKKa

NfYb

e\_Myb

Adhesion

Integrin

ILK

FAK

Src

Nectin3

Nect5

SPRY2

J\_Ecadherin

J\_bcatenin

J\_acatenin

CIP - Can\_Stretch

FocalAdhesions

Stress\_Fibers

YAP

TRIO

WT1

TAZ

Ecadherin\_mRNA\_H

ApicalBasal\_Pol

N\_bcatenin

Mst1\_2

Lats1\_2

AMOT

miR\_29c

PTEN\_c

Migration\_SW - Fast\_Migrating

Merlin

IQGAP1\_LeadingE

Rass1a

RhoA

Horizontal\_Pol

Rac1

Rac1\_H

PAK1

Migration

Fast\_Migration

EMT - Mesenchymal

SNAI1

LEF1

Twist

SNAI2

ZEB1

N\_bcatenin\_H

ZEB1\_H

b\_catenin\_TCF4

ZEB2

HMGGA1

TGFb\_secr

miR\_34

miR\_200\_b

miR\_200\_c

Ecadherin\_mRNA

Restriction\_SW - Before\_RP

p21

pRB

p27Kip1

Myc

CyclinD1

E2F1

CyclinE

Origin\_Licensing

ORC

Cdc6

Cdt1

Pre\_RC

geminin

Phase\_SW - G0\_G1

CyclinA\_mRNA

Emi1

FoxM1

Cdc25A

CyclinA

Wee1

UbcH10

CyclinB

Cdc25B

Plk1

Cdc25C

Cdk1

pAPC

Cdc20

Cdh1

Cell\_Cycle\_Process - Quiescence

Replication

ATR

CHK1

f4N\_DNA

U\_Kinetochores

Mad2

A\_Kinetochores

Plk1\_H

Ect2

Cytokinesis

TRAIL

Trail

Apoptotic\_SW - Survival

DR4\_5

Casp8

Casp2

MCL\_1

BCLXL

BCL2

BAD

BIK

BIM

BID

BAK

BAX

Cyto\_C

SMAC

IAPs

Casp9

Casp3

DNA\_Fragmentation

CAD

Time