

Appendix A. Molecular Elements in the Model

Yaki Setty, Irun R. Cohen, Yuval Dor and David Harel

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Genes:

foxa2
hes1
ngn3
ptf1
hnf1 β
hnf6
hb9
pdx1
pbx1
shh
Ptc
Delta
Notch
jagged
rpb_jk
nueroD1
Hes1
Pax4
Pax6
Nkx2.2
Nkx6.1
isl1
DbpA
Foxa1
Brn4
Lmx1.1

Receptors:

FGF2R
ActR
FGF10R
BMP4R

Factors:

FGF2 (specification)
Activin β (specification)
FGF10 (proliferation, patterning and DN activation)
BMP4 (proliferation and patterning)
isl1

Tissues:

Notochord (secretes FGF2 and Activin β)
Aorta and Blood Vessels (promote FGF10 and BMP4)
Mesenchyme (enhances factors)

- Elements that are currently not yet implemented in the model are marked with italic typeface.