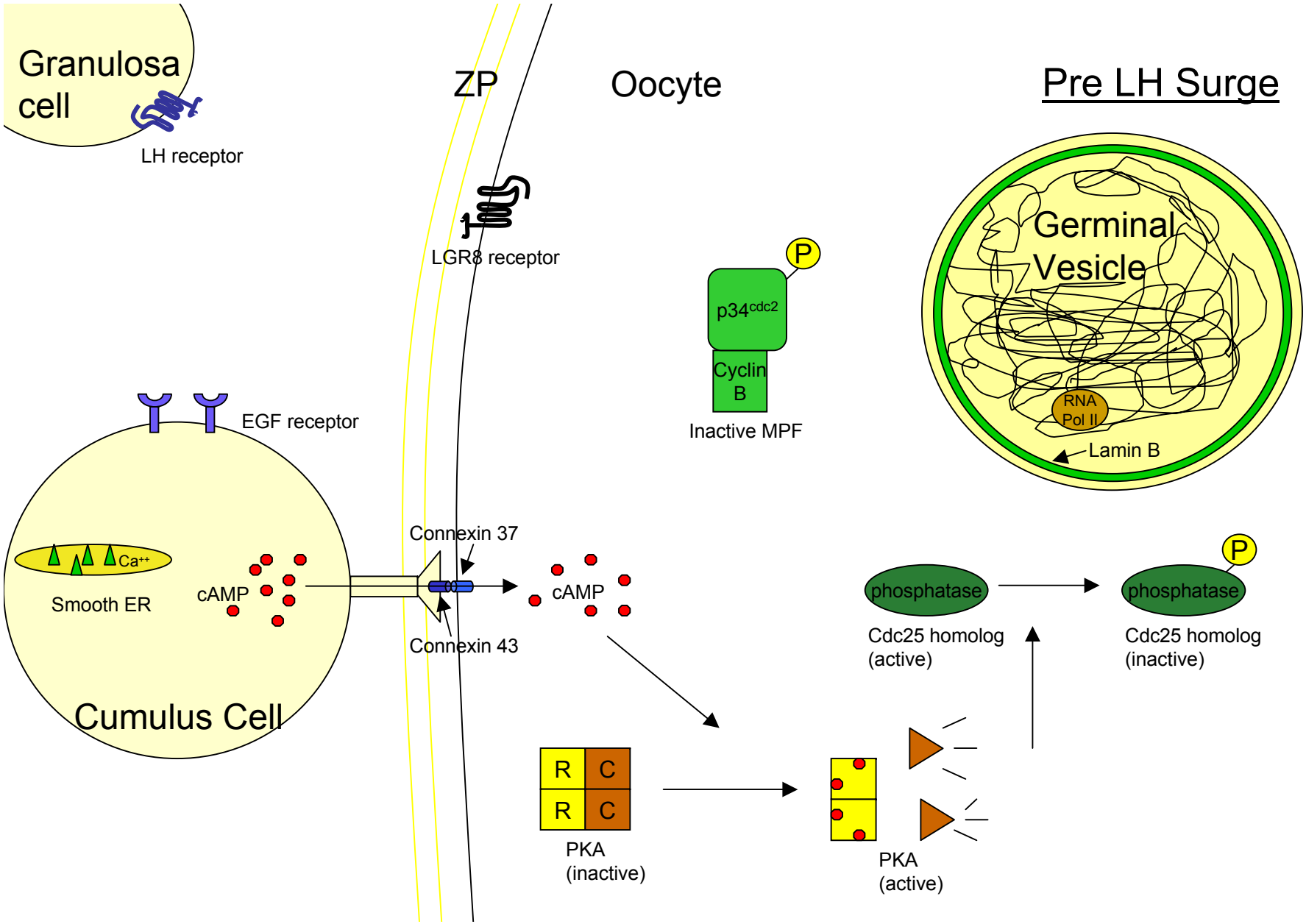
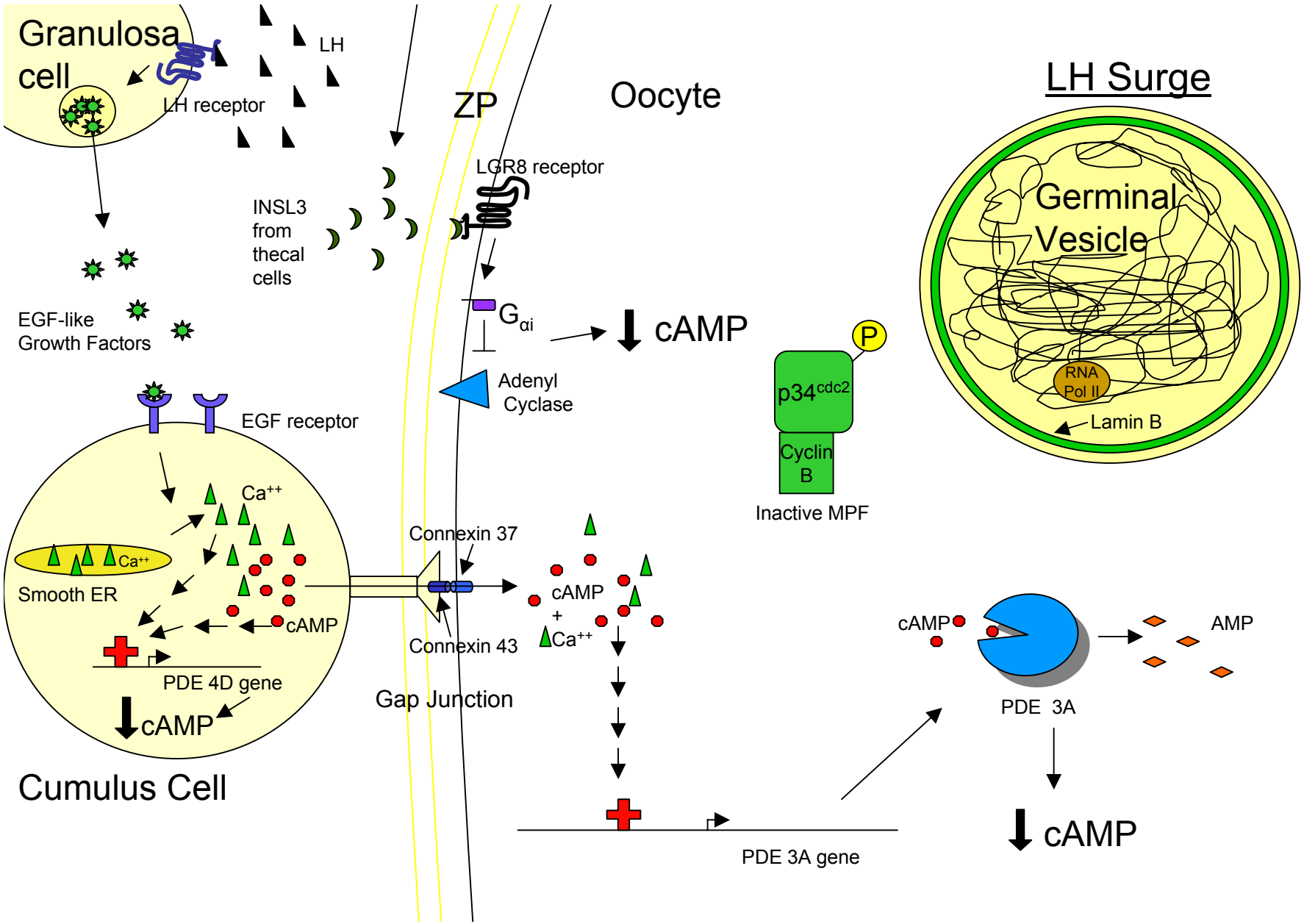
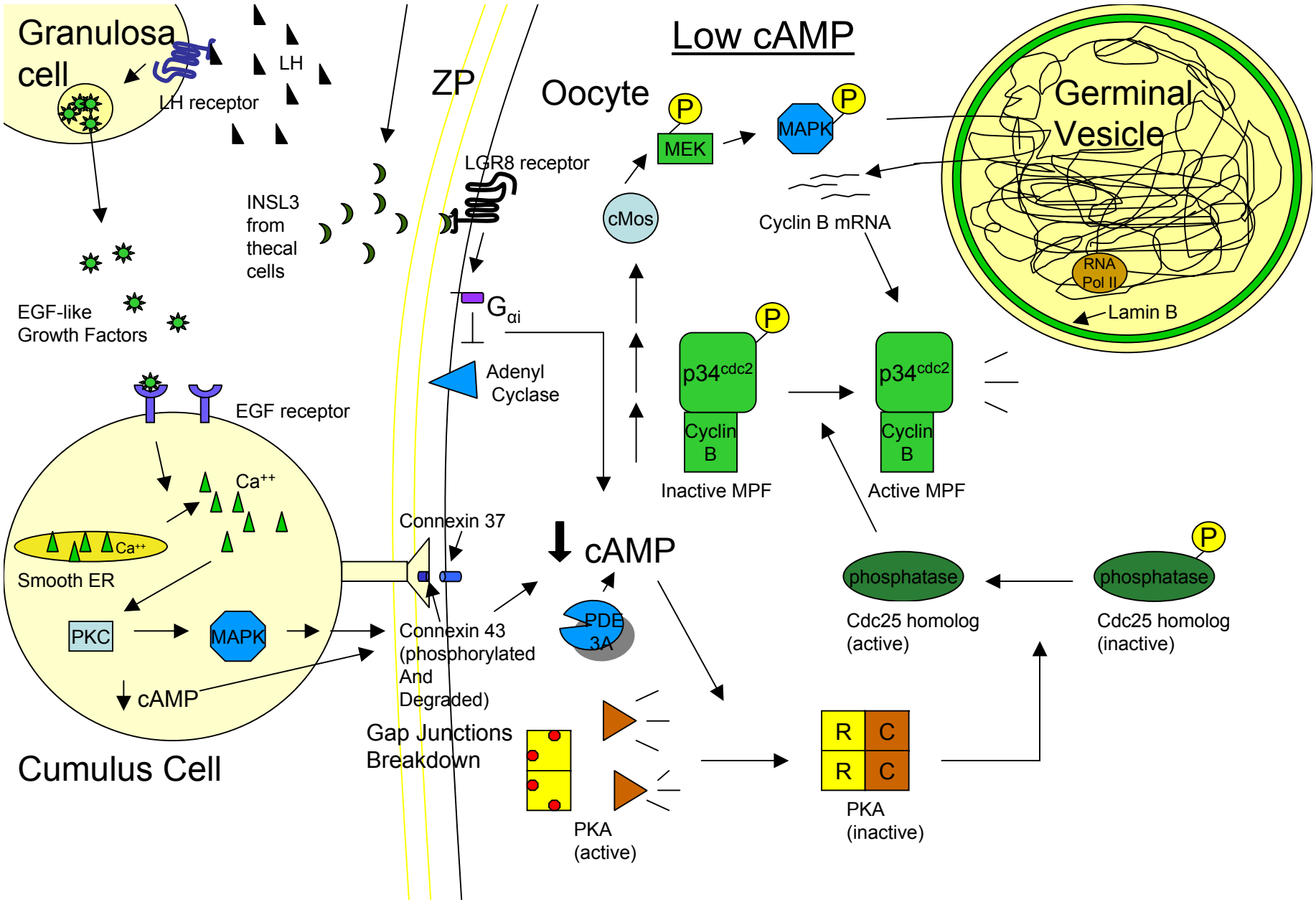
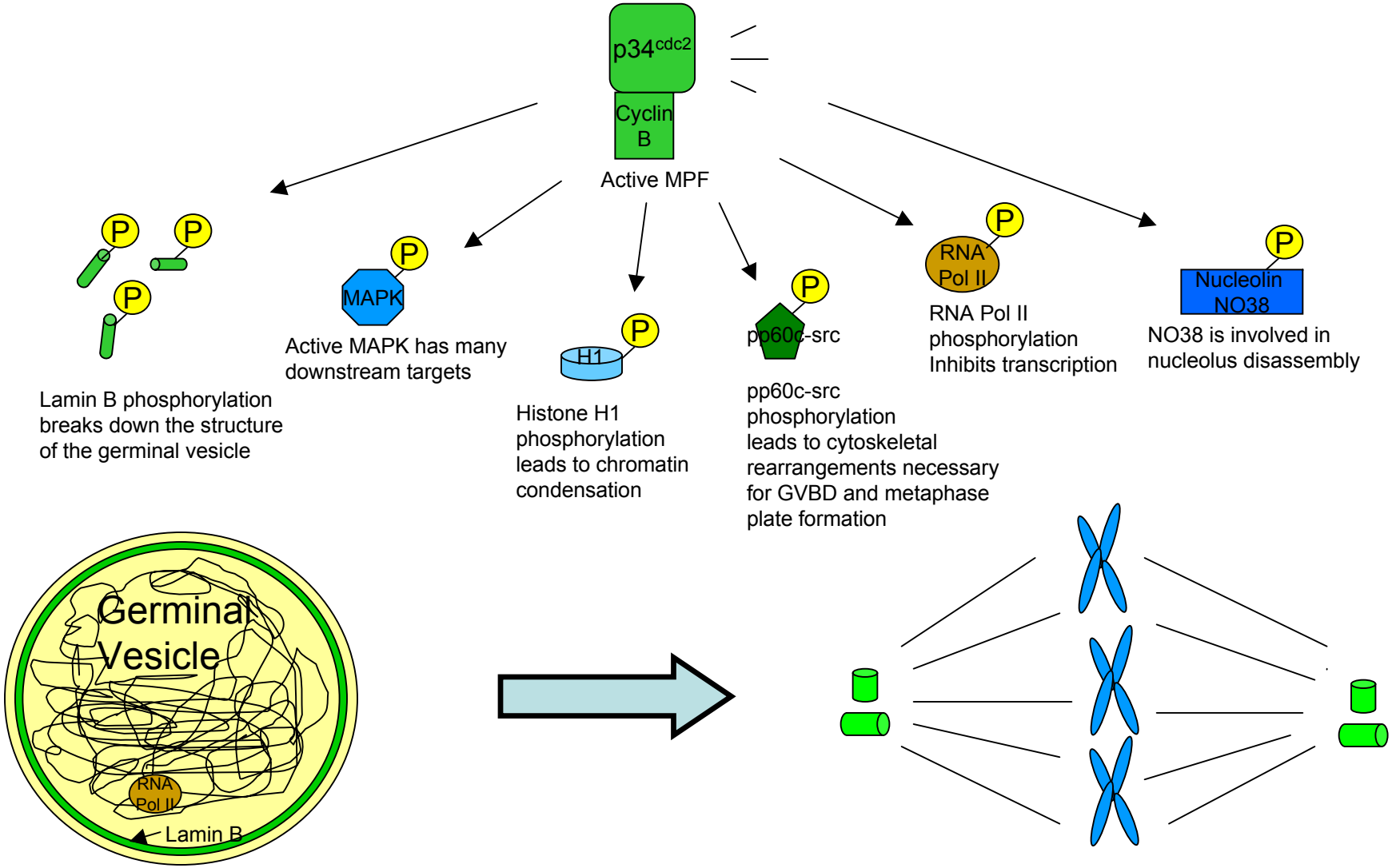

Granulosa cell
LH receptor
ZP
Oocyte
Pre LH Surge
LGR8 receptor
P
p34cdc2
Cyclin B
Inactive MPF
Germinal Vesicle
RNA Pol II
Lamin B
EGF receptor
Ca++
Smooth ER
cAMP
Connexin 37
Connexin 43
cAMP
Cumulus Cell
phosphatase
Cdc25 homolog (active)
P
phosphatase
Cdc25 homolog (inactive)
R
C
R
C
PKA (inactive)
PKA (active)


Granulosa cell
LH receptor
LH
ZP
Oocyte
LH Surge
Germinal Vesicle
RNA Pol II
Lamin B
LGR8 receptor
INSL3 from thecal cells
EGF-like Growth Factors
$G_{\alpha i}$
cAMP
Adenyl Cyclase
P
p34cdc2
Cyclin B
Inactive MPF
EGF receptor
Ca^{++}
Smooth ER
cAMP
PDE 4D gene
cAMP
Cumulus Cell
Connexin 37
Connexin 43
Gap Junction
cAMP + Ca^{++}
cAMP
AMP
PDE 3A
PDE 3A gene
cAMP


Granulosa cell
LH
LH receptor
ZP
Oocyte
Low cAMP
Germinal Vesicle
P
MEK
MAPK
P
LGR8 receptor
INSL3 from thecal cells
cMos
Cyclin B mRNA
RNA Pol II
Lamin B
EGF-like Growth Factors
Gαi
Adenyl Cyclase
P
p34cdc2
Cyclin B
Inactive MPF
p34cdc2
Cyclin B
Active MPF
EGF receptor
Ca++
Ca++
Smooth ER
PKC
MAPK
cAMP
Cumulus Cell
Connexin 37
Connexin 43 (phosphorylated And Degraded)
cAMP
PDE 3A
phosphatase
Cdc25 homolog (active)
P
phosphatase
Cdc25 homolog (inactive)
Gap Junctions Breakdown
PKA (active)
R
C
R
C
PKA (inactive)

Active Maturation Promoting Factor