



STEM CELL EPIGENETICS



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Aim: Google tools for SC epigenetics

Problems:

1. Make glossary of key words
2. Make site, writing conspectus
3. Questions, answers, discussions

⇒ Understanding of biology

	Key Markers - Human	Key Markers - Mouse
T Cell	CD3 CD4 CD8	CD3 CD4 CD8
B Cell	CD19 CD20	CD45R/B220 CD19 CD22 (B cell activation marker)
Dendritic Cell	CD11c CD123	CD11c CD123
NK Cell	CD56	CD335 (Nkp46)
Stem Cell/ Precursor	CD34 <i>hematopoietic stem cell only</i>	CD34 <i>hematopoietic stem cell only</i>

Fig. 1. A few clusters of differentiation (CDs) [3]

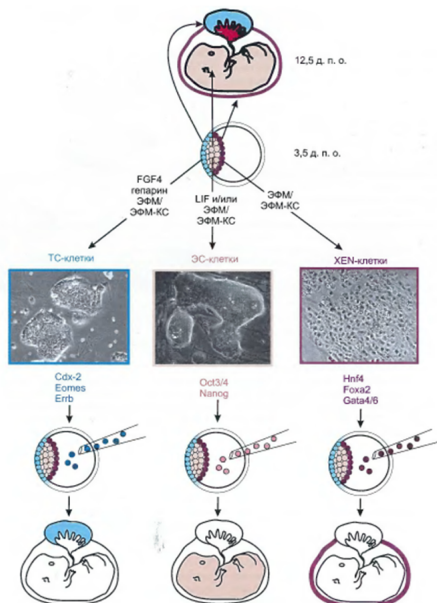


Fig. 3 Origin of stem cells from blastocysts [5, p.288]

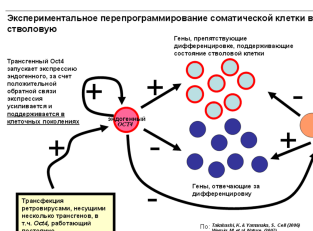


Fig. 8 Reprogramming of somatic cells in the SC [5, p.91]

Some questions
Why cells specialized?
Why and where — stem cells?
What are the difference cells?

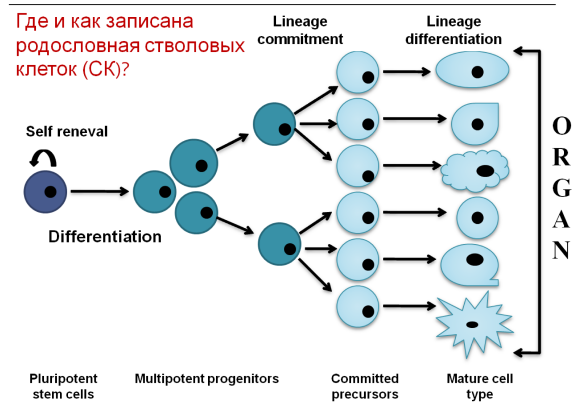


Fig. 2. Differentiation scheme [5]

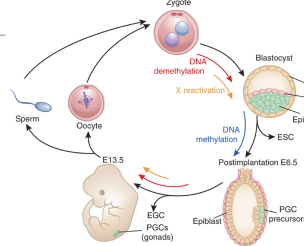


Fig. 4 Epigenetic programming and reprogramming [8]

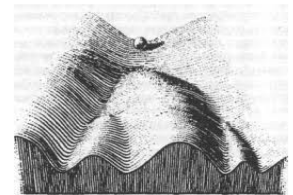


Fig. 5 Conrad Hal Waddington: epigenetic landscape [4]

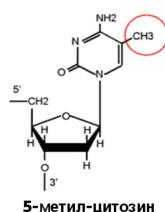


Fig. 7 DNA methylation

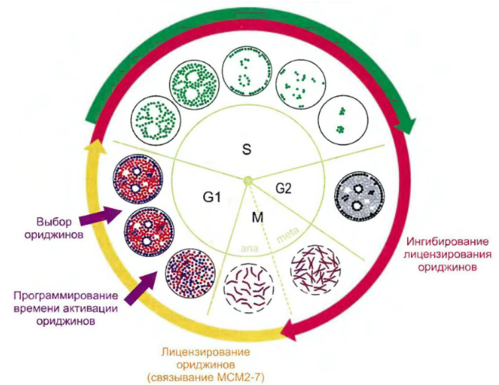


Fig. 6 T.D. Kolesnikova. The program replication [5, p. 116]

CONCLUSION: Google tools help me:
 - to make site & glossary etc.

- to understand stem cell epigenetics

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