KMGGPGC

Assignment

M.Sc. Zoology
Semester-II

Title of Assignment: Haemopoiesis and formed elements:-

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PLEURIPOTENTIAL STEM CELL:-

- Primitive mesenchymal cell from yolk Sac endoderm.
- Seeds liver spleen, bone marrow.
- In adults Pleuriopotential haemo -poietic Stem cell found in bone marrow.
- Mobilized by dextran Sulphate -infection.

✗ COMMITTED HEMOPOIETIC CELLS:-

- Committed unipotential progenitor cells an intermediate

| Stage | b/w primitive multipotential Stem cell and differentiated blast of Specific Series. |

- Erthyrocytes come from a two progenitors.

→ Burst forming unit = erythroid (BFU-E)

→ Colony forming unit = erythrod (CFU-E)

BFU-E is the progenitor of CFU-E.

- BFU-E produces large eryth-roid colonies in large amount of erythrryopoietin or humeral factor called Burst prootoming activity (BPA)

- <u>CFU-E</u> forms small colonies in 48 hours in a small amount of erythropoietin.

* Factors Regulating Hemopoiesis:-

- ✓ Both endogenous and exogenous
- ✓ Micro enviroment and humoural Substance.
- ✓ Inter lukin-3 (IL-3).
- ✓ Erythropoietin
- ✓ Other Specific protein mono -cytopoietin, lymphocyte, mitogenic factor, T-cell growth factor (IL-1).

* Lymphoid Tissue :-

o Lymphatic tissue constitute the lymphoid organ and accumulation of lymphoid cell in loose connective tissue of body.

o Thymus and bursa of fabicirus (birds) are primary lymphoid organ.

o Stomata of secondary lymphoid tissue is rich in reticular fibres and phagocytic reticular cells (macrophages.)

* ERYTHROPOIESIS :-

→ Erythron is the functional unit constituting the mass of circulating erthyrocytes & the erythropioetic tissue in the bone marrow.
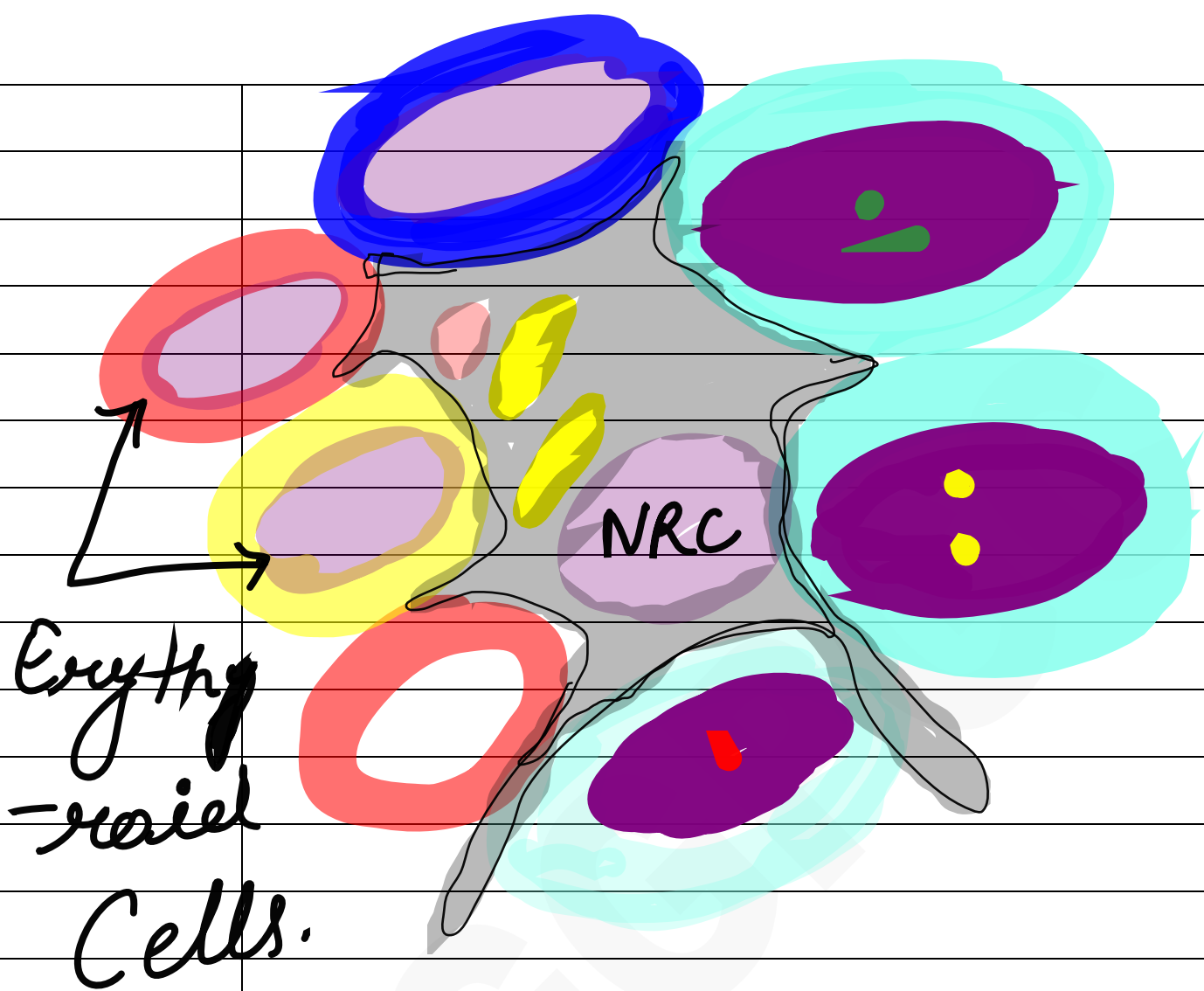
NRC

Erythro
-raiel
Cells.

Fig:- An erthroibastic island having
corrona of erythroid
Cells encirciling the
reticulay cell where
haemosidevin occur in its
Cytoplasm. Note Nucleoli of
early erythroid series
& nucleus of
reticulum cell.

Thank You

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