Lecture 4 – Thrombocytes/Platelets 1 & 2

OBJECTIVES

1. Diagram megakaryocyte localization in the bone marrow.

2. List the transcription products that trigger and control megakaryocytopoiesis and endomitosis.

3. Diagram terminal megakaryocyte differentiation, the proplatelet process, and thrombocytopoiesis.

4. Describe the ultrastructure of resting platelets in the circulation, including the plasma membrane, tubules, microfibrils, and granules.

5. List the important platelet receptors and their ligands.

6. Characterize platelet function, including adhesion, aggregation, and secretion.

7. Reproduce the biochemical pathways of platelet activation, including integrins, G proteins, and the eicosanoid and the inositol triphosphate-diacylglycerol pathways.