

Scheme of lectures BIOCHEMISTRY OF BLOOD

RED BLOOD CELLS

- Special metabolism of red blood cells
- Oxygen transport of hemoglobin
- Factors influencing oxygen binding capacity of hemoglobin
- Synthesis of heme group
- Degradation of heme group
- Circulation of bilirubin
- Classification of hyperbilirubinemias

PLASMA PROTEINS

- Serum protein electrophoresis
- Fractions of plasma proteins
- Serum total protein concentration-significance of decreased serum level
- Proteins: albumin
 alfa-1-antitripsin
 ceruloplasmin
 alfa-2-macroglobulin
 transferrin
 ferritin
 fibrinogen

 lipoproteins

WHITE BLOOD CELLS

- Classification of leucocytes
- Special metabolism of neutrophil granulocytes
- Oxidant and antioxidant factors and mechanisms
- Killing mechanisms of neutrophil granulocytes
- Respiratory burst in neutrophil granulocytes

BLOOD CLOTTING-COAGULATION CASCADE

- Characterisation of platelets and their role in blood clotting
- Coagulation factors
- Intrinsic and extrinsic pathways of coagulation cascade
- Inhibitors of coagulation
- Fibrinolysis