

## Ribosome

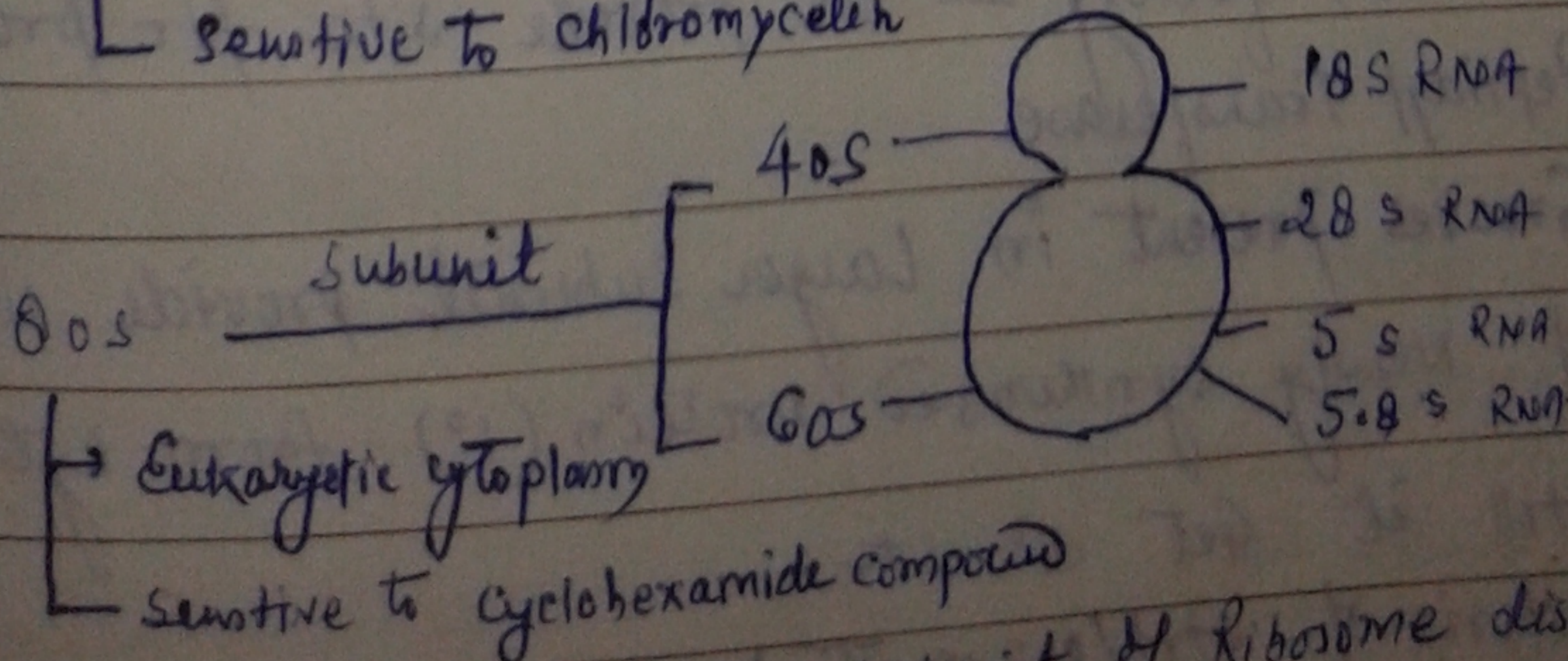
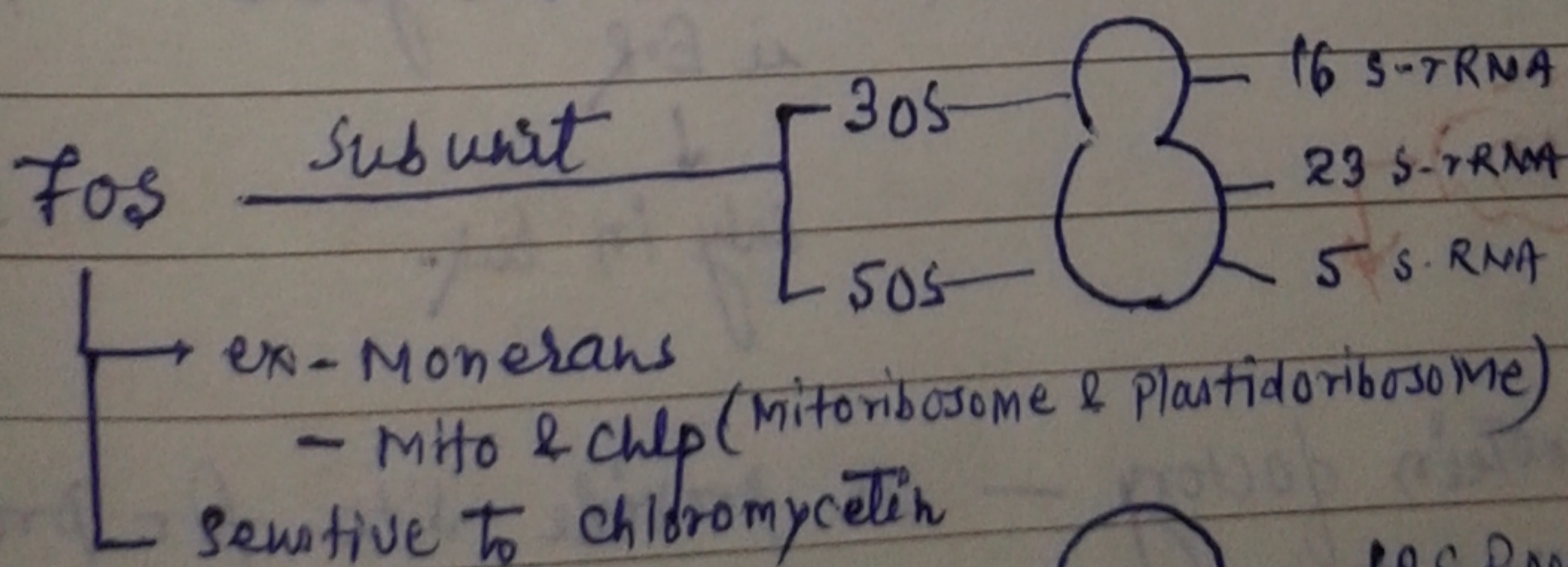
Robinson & Brown (1953) - discovered in plant

Palade (1955) - discovered in Animal & also coined the Term.  
also called Palade particle.

- \* Also known as RNP (Ribonucleo protein particle) -  $\gamma$ -RNA + Protein
- \* They are smallest cell organelles
- \* They are Amembranous & -vely charged Particle
- \* Most abundant cell organelles (upto 30,000 in single E. coli)

### \* Types -

- \* Two Types on the Basis of sedimentation coefficient in centrifuge & is measured in svedberg unit.



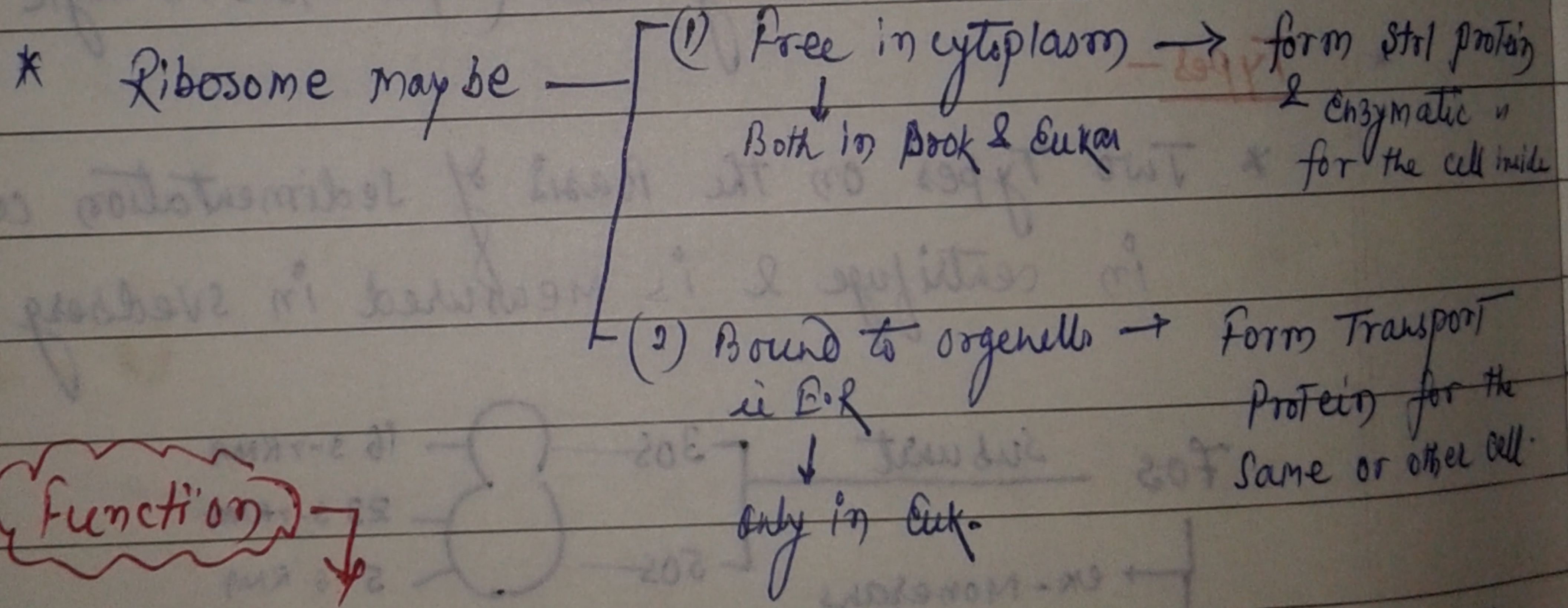
- \* Below  $0.0001 M Mg^{2+}$  Both subunits of Ribosome dissociate

\* Polyribosome (Rich 1963) or Polysome →

\* Group of Ribosome attached to the m-RNA during protein synthesis.

\* They are formed when many copy of same polypeptides are required.

\* Peptidyl Transferase is a component of large subunit. Helps in formation of peptide bond b/w A. acid.



Function

\* Protein factory — as provide site for protein synthesis.

\* Peptidyl Transferase

\* Grooves present in large subunit provide site for protection of newly synthesized protein (1°) from cytosolic enzyme till it get 2° str.

\* Synthesis of strl/enzymatic/Transport protein.