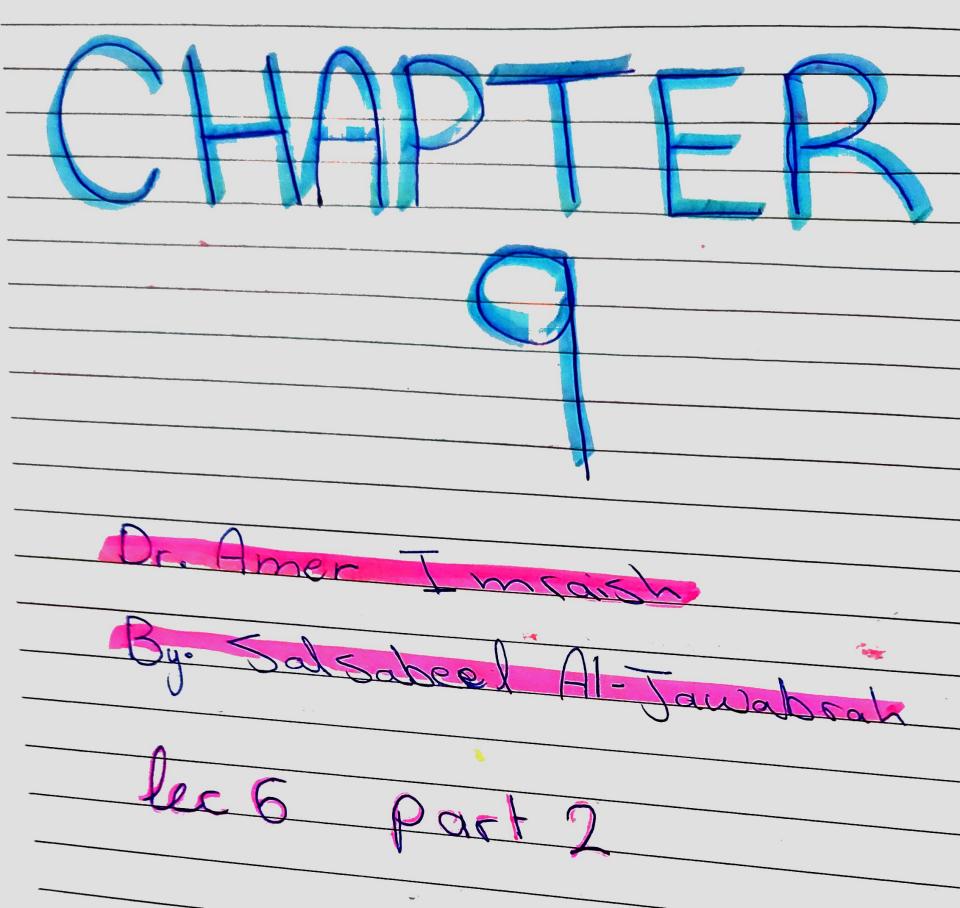


## Cell & Molecular Biology Notes

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\* Oxygen provides encry through dischemical pathway and used to power the activities (certular metabolism) (collutar respiration inside the mito chanderia) The shape of mitchoustria depends on the cell Brain Cells - myscles cells have also of mitochandsia because they need alot of energy. Often cells have more than one cell. especially the cells with a high level of energy sequirements. Mitachandria are produced independently. It can have with one another or split in two There is DNA in Mitochendriq, it is possible to find mutation inside the mitochendriq. Pusion between 2 millochendsia to decrease the influence of mutation on the Cell (Dilytion of the mutation)-Cation is important in Signal transduction Cell death = apoptosis pathway. itematico gos & End of the fill iso

E E E Hitochondrial membrane 2 tayet inner membrane - invagination mitochandrial proteins are produced in the cylocall ( their DNA is located in the huckens) Hitochordeial DWA is extremely small that produces just 13 proteins => they are incorporated in the cellular respiration Matrix Contains; DNA, sibosomes (transcription, translation) thnes membrane involved in the cellular perpitation it contains (electron transport chain) (ATP synthese) Cardiolipin a type of ghospho lipid in Animals and bacteria The inner mentarane is impermeable to escale the Ht gensient with is electrochemical ع شان ما سان المربع المجري المحري المجري المحري المجري المحري المجري المجري المجري المجري المحري المجري المجري المجري المجري المجري المجري المجري المجري المحري المجري المحري nuclear DNA is linear while mitochandrial DNA is ciscular.

Gluces NADH + ATP Cellular respiration isjoep gols \* 9,9 Peroxisomes Oxidative enzymes oxidase ROS - Telative oxygen species (H2O2) O+H2O J peroxisonell Jozi pousti sissonel Catalase (in a sector Spern needs energy, if the mitochandria becomes disoseered, this will sesult in a non motile Nitochondrial DNA is inherited from the mother