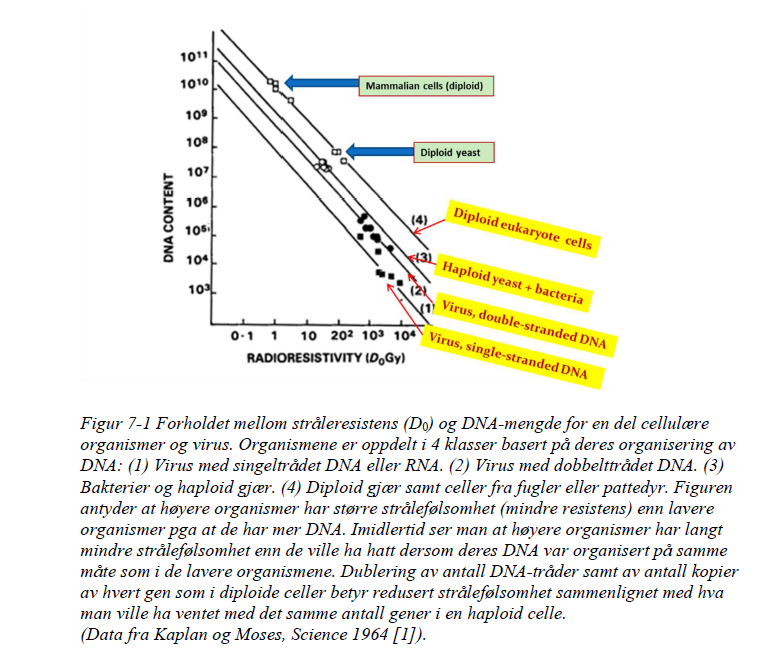
* **How was it shown that the amount of DNA is proportional to radiosensitivity?**

I et forsøk fra 1964 ser man jo mer DNA en celle har jo mer strålefølsom er den. Som tyder på at DNA er proporsjonal med radiosensitiviteten. Man ser også at dobbelstrand DNA har høyere resistivitet.



* **What is radioactive suicide?**
* **What are the most used radioactive nuclides for incorporation in DNA?**
* **How do they decay and what are the ranges of the emitted electrons?**
* **What are the 3 most important processes that give the local effects of the radionuclides?**
* **How can radionuclides become incorporated into DNA?**
* **How does the effective half-life depend on biological and physical half-lives?**
* **How do suicide experiments determine the radiosensitive target of the cell?**
* **What is the radiosensitive target of the cell?**
* **Describe an experiment to evaluate the radiosensitivity for single strand breaks vs. double strand breaks**
* **Derive the equation to describe the inactivation of phage particles by incorporated [32P]**
* **What can we conclude from plotting the fraction of functional single- and double-stranded vira as a function of disintegrations of incorporated radionuclei**
* **What are the 3 spontaneous alterations that require DNA-repair?**
* **Explain why nucleotide can only be attached on the 3’-end**
* **What is the consequence of this for replication?**
* **Describe replication with the most important enzymes**
* **What is an Okazaki fragment?**
* **How many damage sites need to be repaired after removal of RNA primers?**
* **What are the two most frequent chemical reactions resulting in spontaneous DNA-damage types?**
* **What kind of DNA damage is induced by UV-irradiation?**
* **How is it repaired?**
* **What is the difference between base excision repair and nucleotide excision repair?**
* **What kind of DNA damage are base excision and nucleotide excision repair for?**
* **What are the two repair processes for DSBs?**
* **Which one is error free and which is error prone?**