**1.What is the point of Brachytherapy?**

**2.How is OER defined based on target theory?**

**3.How is OER defined for curves with shoulder?**

**4.In what cases is oxygen a sensitizer for irradiation?**

**5.In what cases does oxygen protect against irradiation?**

**6.What is the effect of oxygen for macromolecules irradiated inside a cell?**

**7.What is it in cells that changes the effect of oxygen on radiation response and how does it work?**

**8.What is the direct effect of oxygen?**

**9.What is the indirect effect of oxygen?**

**10.What is the explanation for the protective effect of oxygen observed in some cases for molecules irradiated in salt water? And why was it again that this does not occur in cells?**

**11.What is the OER for very high LET irradiation?**

**12.Can you plot OER as a function of LET? And add RBE as a function of LET?**

**13.Can you plot radiosensitivity(1/D0) as a function of oxygen concentration?**

**14.What is the diffusion distance in tissue for oxygen?**

**15.What limits the diffusion distance?**

**16.What happens to anoxic cells?**

**17.What happens to hypoxic cells? Why is hypoxia so important?**

**18.What is the difference between chronic and acute hypoxia?**

**19.How can the fraction of hypoxic cells in a solid tumor be determined in mice?**

**20.How can hypoxia be measured in humans?**

**21.Which methods are non-invasive?**

**22.Why is reoxygenationone of the 5 R’s?**

**23.How can we explain to different timings for reoxygenation?**

**24.What is the oxygen concentration where the radioresistancestart to change (from max resistance)?**

**25.What is the oxygen concentration where cellular respiration becomes inhibited?**