

**Virology Live Fall 2021**

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**Study Questions for session 18 – Transformation and oncogenesis**

*These questions are intended to summarize key points from this session and prepare you for the exams.*

1. What is meant by the term “transformation” as applied to cells in culture? What is the relationship between transformation and oncogenesis?
  
  
  
  
  
  
  
  
  
  
2. Explain the three ways that RNA tumor viruses transform cells.
  
  
  
  
  
  
  
  
  
  
3. What are the normal cellular functions of oncogenes identified by the study of RNA tumor viruses?
  
  
  
  
  
  
  
  
  
  
4. How do DNA tumor viruses transform cells? Know about the roles of T antigens, Rb, and p53.
  
  
  
  
  
  
  
  
  
  
5. Is transformation required for the reproduction of RNA and DNA tumor viruses? Explain why transformation of cells is an accident for both types of tumor viruses.
  
  
  
  
  
  
  
  
  
  
6. Why do DNA tumor viruses cause tumors only rarely, and in the ‘wrong’ hosts?