

Virology – Biology 3310/4310 Spring 2017

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Study Questions for Lecture 18 – Transformation and oncogenesis

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. Do RNA and DNA tumor viruses ‘need’ to transform cells? 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?