Cancer Biology Lectures 2016

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The lectures below were all presented at Emory University by CancerQuest founder/director Dr. Gregg Orloff. The talks are targeted at advanced undergraduate biology students and do asume some previous biology knowledge. The lectures cover the basics of cancer biology and touch on some of the causes of cancer, including viruses. Cancer treatments and drug resistance are covered in the last talk. Each talk is approximately one hour long.

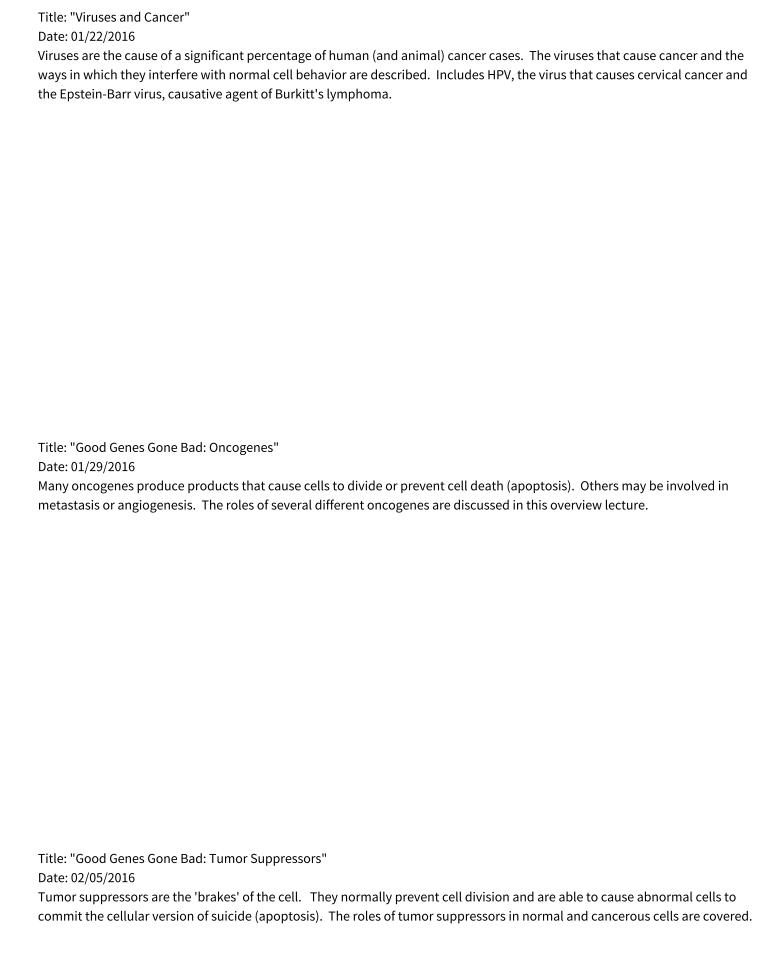
Title: "An Introduction to Cancer and Cancer History"

Date: 01/15/2016

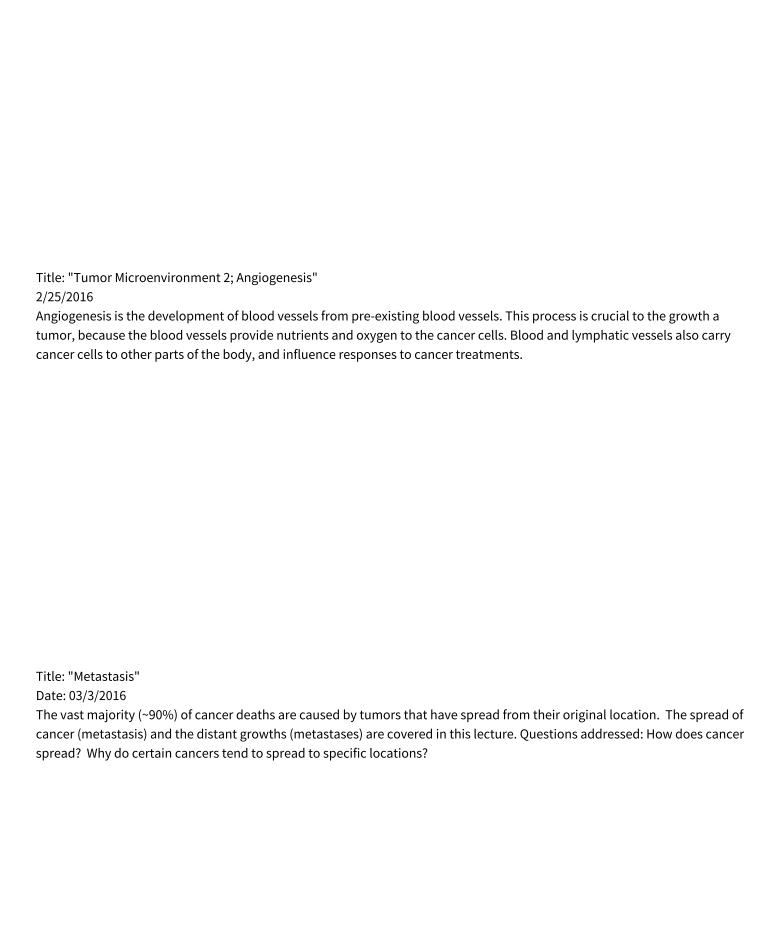
This is the introductory lecture to Cancer Biology (Biology 415) at Emory University. A bit of the history of cancer is covered as well as a general overview of cancer biology and the topics to be covered in the remaining lectures.

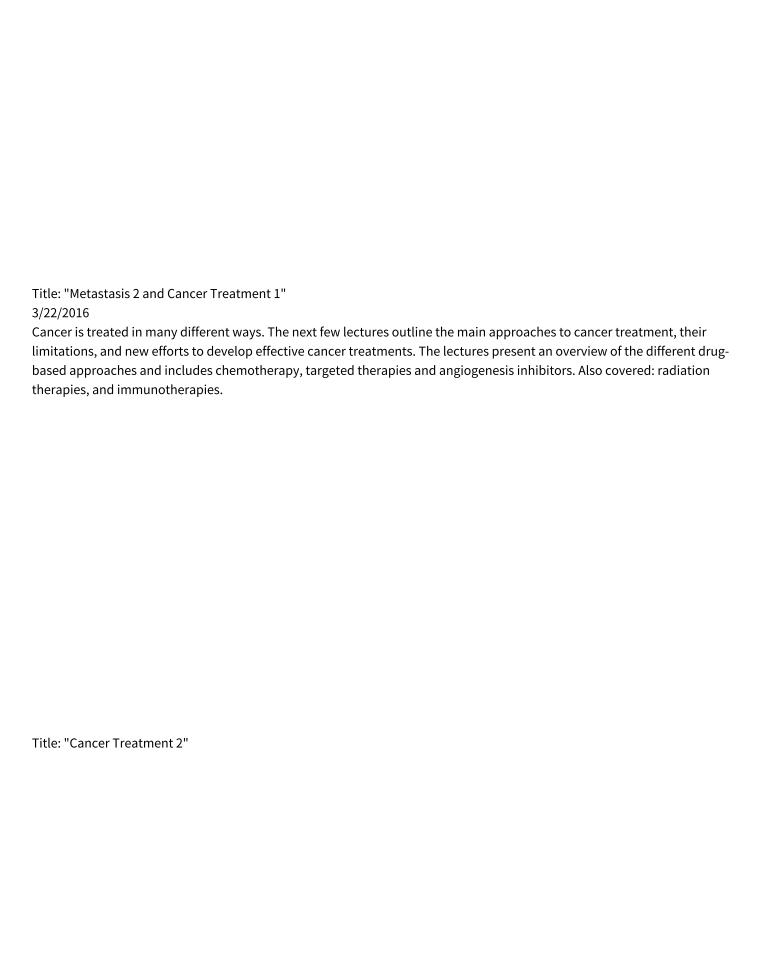
Title: "The Cancer Cell" Date: 01/18/2016

The key features of cancer cells and tumors are covered in this lecture. Special attention is paid to the 'Hallmarks of Cancer' a set of features first outlined by Drs. Weinberg and Hanahan in a 2000 article published in the journal Cell.



Title: "Immortality and Death"
2/9/2016 Cancer cells, unlike normal cells do not have a limited lifespan. This lecture describes what allows to continue to divide and then discusses the ways that normal cells die, a process called apoptosis. Apoptosis is triggered by many cancer drugs and is a critical aspect of cancer cell survival and death.
Title: "Cell Death Part 2; The Tumor Microenvironment" 2/16/2016 Cancer cells make up only a small percentage of what is actually inside a tumor. The other cells types include immune cells, blood vessel cells, and fibroblasts. The tumor microenvironment is critical in the development of a tumor and in the spread of cancer cells to distant parts of the body.





Title: "Cancer Treatment 3" Title: "Drugs & Drug Resistance" Date: 04/14/2009

Despite the many treatments for cancer, many cancer patients still die of their disease. The major reason for the deaths associated with cancer is the development of resistance to the treatments. This lecture finishes cancer treatments and addresses drug resistance and, briefly, cancer prevention.

