

20.201 Statins Case Study

November 13 and 18, 2013

(A) Read the following papers for class on Wed Nov 13

Golan Chapter 19 (3rd Edition; Chapter 23 in the 2nd Edition)

Statins - Public Citizen story about Crestor: This is Sydney Wolff's diatribe against Crestor, which started the FDA investigation and culminated in the FDA permission to remarket the drug.

(B) Read the following papers for class on Mon Nov 18

Niemi M (2010) Transporter pharmacogenetics and statin toxicity. *Clin Pharmacol Therap* 87: 130-3. This article reviews the pharmacogenetic basis for rhabdomyolysis toxicity associated with statin use.

The SEARCH Collaborative Group (2009) SLCO1B1 variants and statin-Induced myopathy - A genomewide study. *New England J Med* 359: 789-799. Read this important paper for the main point: they found a genetic polymorphism associated with statin toxicity, which will allow a genetic test to avoid rhabdomyolysis associated with statin use. *Don't worry about completely understanding the statistics underlying GWAS; we will cover basics in class.*

(C) Homework assignment in preparation for Mon Nov 18

Use any available resources to learn about the **Chi-Squared Test** that is used to discover if there is a relationship between two categorical variables. In a one-page write-up, illustrate the use of the test with a set of data. This write-up will be due at the start of class on Monday Nov 18. Come to class on Monday Nov 18 prepared to discuss how the test works.

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20.201 Mechanisms of Drug Actions
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