Micro Lecture Exam 4 Study Guide

* Review the Powerpoints
* Be familiar with the differences between the innate and adaptive immune system
	+ Remember that innate immune system components are found in plants and all animals; adaptive immunity is only found in vertebrate animals
* What are the 3 main cell types that form from a myeloid stem cell?
* Innate immune system
	+ What is the first line of defense?
		- i.e skin, stomach acidity, etc
	+ What is the second line of defense?
		- i.e cells of the innate immune system (what do neutrophils do?, eosinophils?, basophils? Macrophages? Natural killer cells?)
	+ What is complement? What is the MAC? What is opsonization?
	+ What are the 4 signs of inflammation?
	+ What is a pyrogen?
	+ What is normal microbiota? How does a baby acquire normal microbiota?
	+ What are toll-like receptors?
	+ What are defensins? What are interferons?
* What is the sequence of phagocytosis?
* Adaptive immunity
	+ What are B cells? What are the major classes of antibodies?
	+ T cells?
		- Cytotoxic T cells
		- Helper T cells
	+ What are antigen presenting cells?
	+ What is the MHC? What cells express MCH class I? MHC class II?
	+ What is the primary response? Secondary response?
	+ Why is vaccination important? What is herd immunity?
	+ What is active immunization? Passive immunization?
* Review immunological testing techniques
	+ What molecule causes the clumping in an agglutination assay?
	+ What is a Kirby-bauer test?
* What is the key to picking a successful chemotherapeutic agent?
* What is multi-drug resistance?