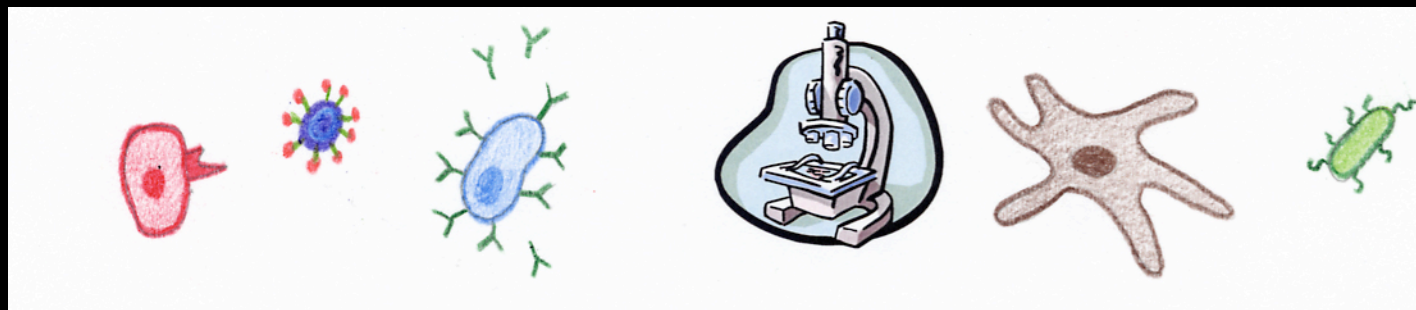


What's so great about a little
Cell?

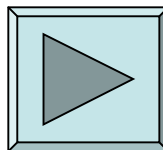
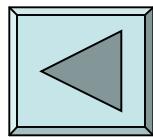
Relating Cell Structure to
Function in the Immune System



Important Thought

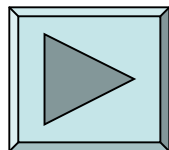
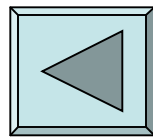
The cell is the most basic unit of life, performing all of the functions necessary for life. In the eukaryotic vertebrate cell these functions are performed by various organelles within the cell. The cell membrane plays a role in the dynamic process of molecular movement in and out of the cell. At this level of organization we clearly see connections between the structure of the cell and its function.

When our bodies are presented with invading pathogens, such as bacteria, viruses or parasites, our cells of the immune system must respond quickly and with purpose in order to overcome the infection. Structure and function play an important role in the specificity of the immune response. What is invading the body? How will the cells respond? And how will the infection be controlled? Our immune system makes good sense! Form fits function.



Your Task

You will choose a cell in the immune system. Through investigating web resources and researching on your own, you will learn about the structure and function of your cell. You will develop an annotated bibliography to document your resources. Once knowledge is gained, you will show your understanding by addressing specific prompts about your cell.



**First choose one of the following cells to focus on.
Then click on the name to bring you to web resources.**

- [T-cells](#)

(choose either CD4⁺ T helper cells or CD8⁺ T cytotoxic cells)

- B-cells

- [Natural Killer cells](#)

- [Basophils / Mast cells](#)

- [Phagocytic cells](#)

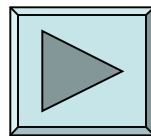
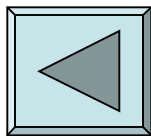
- [Dendritic cells](#)

- [Bacteria](#)

- [Virus](#)

- [General Information](#)

Remember you will be doing an annotated bibliography



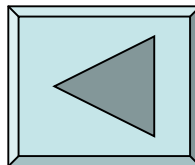
T Cells

T Helper CD4+

http://www.hhmi.org/biointeractive/animations/tcell/tcell_frames.htm

T Cytotoxic CD8+

<http://www.cellsalive.com/antibody.htm>



General

<http://press2.nci.nih.gov/sciencebehind/immune/immune01.htm>

<http://www.cellsalive.com/toc.htm#immun>

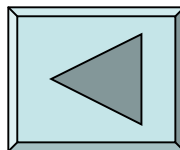
<http://www.blink.uk.com/immunoanimations/index1.html>

<http://brodylab.eng.uci.edu/cgi-bin/jpbrody/animation/files/12-974484448.html>

<http://www.albany.net/~tjc/immune-system.html>

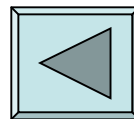
<http://www.learner.org/channel/courses/biology/units/hiv/index.html>

<http://science.nhmccd.edu/biol/ap2int.htm>



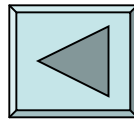
Virus infection

[http://www.dukecancervaccines.org/latestflash.
htm](http://www.dukecancervaccines.org/latestflash.htm)



Dendritic Cells

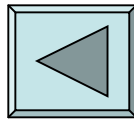
<http://CSI.Washington.edu/education/info/dendritic.html>



Natural Killer Cells

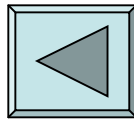
<http://www.cat.cc.md.us/courses/bio141/lecguide/unit3/intro/nk/nk.html>

http://www.cancervaccines.com/media/natural_killer_cells.cfm



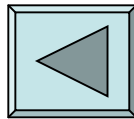
Bacterial Infection

<http://www.hhmi.org/biointeractive/disease/animations.html>



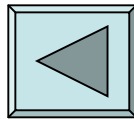
Mast Cells

<http://www.cellsalive.com/mite1.htm>



Phagocytic Cells

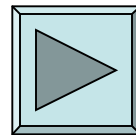
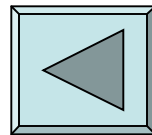
<http://www.cellsalive.com/mac.htm>



Wow!! You must know a lot.

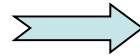


Now you will develop an annotated bibliography of the resources you viewed.

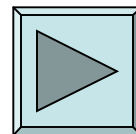
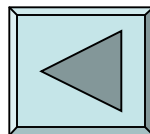


Use your annotated bibliography guide sheet to develop your annotated bibliography

Click here to view Student Sheet

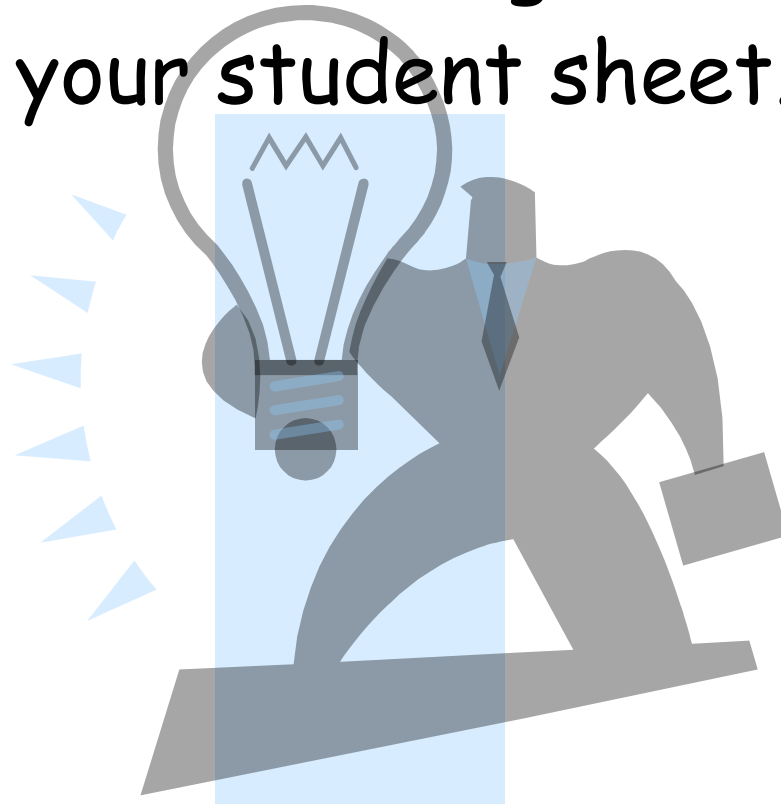


Student Sheet

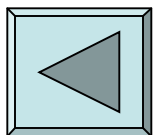
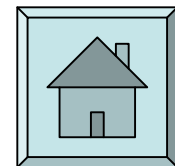


Finally.....

Use your critical thinking skills to address prompts on your student sheet.



Click here to return to beginning



Click here to view Student Sheet



Student Sheet