**Molecular Immunology: Read and Learn**

There is an introductory and an advanced level article listed below. Select one based on your interest and read it carefully. If you encounter any new words, while reading the article, make a list of them and explore the web or the glossary at <http://www.roitt.com/glossary.asp>. Answer the following questions.

**Articles:**

*Introductory level*:

Toll like Receptors (<http://pdb101.rcsb.org/motm/143>)

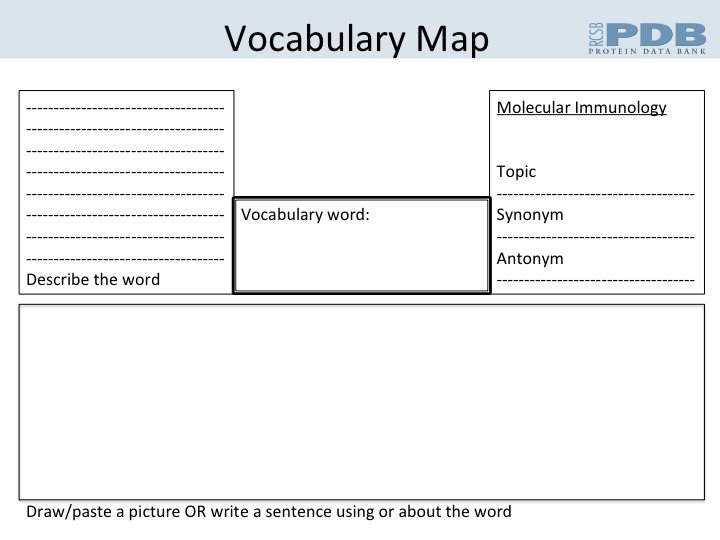
*Advanced level*:

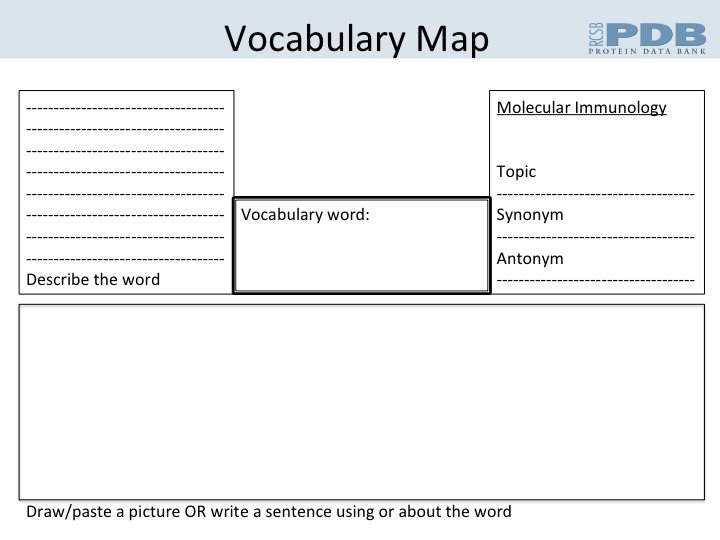
The structural biology of Toll-like receptors

(<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3075535/>)

**Questions:**

1. Write the title of the article that you read.
2. What is the main idea being presented in this paper? (Describe in 3-4 sentences and provide at least one supporting detail)
3. How would you apply or use your understanding of this idea (the one discussed in the article) to develop a new idea, tool or experiment?
4. Select any two new words that you encountered in the article and fill in the attached Vocabulary map sheets (one word or phrase per sheet). Submit these sheets along with your answers.

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**Vocabulary Check List:**

Do you know the meanings of and how to use the following words?

A: Adaptive, Antigen, Antigen Presentation, Antibody, Antimicrobial protein, apoptosis

B: B-cell

C: Cell mediated, CD4, CD8, Chemokines, clonal expansion, Complement proteins, constant region, co-receptor, Cytotoxic T-Cell, Cytokines

D: dendritic cells, Differentiation

E: ELISA, Epithelial barrier, Epitope

F: Fab region, Fc region, FACS

G: GALT, gut-associated lymphoid tissues

H: Helper T-Cell, Histamine, Histocompatibility, Humoral

I: Ig, Immune System, Immunity, Immunoglobulin, Induced killing, Inflamation, Innate, Interleukin2, IL2

J:

K:

L: Lysozyme, Lipopolysaccharide, Lymph node, Lymphatics

M: Macrophage, Major Histocompatibility Complex, memory cells, MHC I, MHC II

N: Natural Killer Cells, Non-self

O: Opsonization

P: Pathogen, Perforin, Phagocytosis

Q:

R: Regulatory T-Cells

S: Self-antigen, Specificity, Suppressor T-Cells

T: T-cell, T-cell receptor, Thymus, Toll-Like Receptors, TNF, Tumor Necrosis Factor

U:

V: Vaccine

W: Western blot

X: Xenograft

Y:

Z:

For additional help with vocabulary on this topic explore the glossary at <http://www.roitt.com/glossary.asp>