VIRULENCE AND THE MECHANISMS OF GENE REGULATION

II Date: Friday, August 17, 2018 – 10:30am


KEY CONCEPTS AND LEARNING OBJECTIVES:

A. Educational Goal

After completing the assigned readings and attending the lecture, you will be able to describe mechanisms by which one bacterial pathogen, V. cholerae adapts to its changing environment by regulating the transcription of a virulence regulon.

B. Educational Objective

1. List the steps required for V. cholerae to cause disease

2. List the two subunits of cholera toxin and describe their roles in producing diarrhea.

3. List 3 other virulence factors, their roles, and the genes that encode them.

4. Describe how ToxR and ToxT regulate the ToxR regulon.

5. Describe how temperature can regulate the ToxR regulon.
CONTENT SUMMARY

*Vibrio cholerae*

I. Pathogenesis

II. Cholera Toxin

III. Virulence Factors Involved in Colonization

IV. Regulation of Virulence Gene Expression