

# Functions of CD8<sup>+</sup> Effector T Cells

# Chapter 11

## I. Introduction

## II. Differentiation

### A. Activation

#### a. signal

##### 1) B7

##### 2) CD28

#### b. signal

##### 1) cytokines

#### c. signal

##### 1) CD40L - CD40

#### d. licensing

### B. Effectorization

## III. CD8<sup>+</sup> Effector Functions

### A. Synapse formation

### B. Killing

#### 1. overview

#### 2. granules

#### 3. contents

##### a. perforin

##### b. granzymes

##### 1) apoptosis

##### c. granulysin

#### 4. FAS-L

##### a. FAS

### C. Protection

#### 1. cathepsin B

#### 2. serine proteinase inhibitor

## IV. Exhaustion

### A. repeated stimulation

### B. Chronicity

## V. Memory CD8<sup>+</sup> T cells