# **Exercise 18**

# Parasitology F10

Helminthology and Protozoology: Simply Fascinating!

## **INTRODUCTION:**

Student Learning Objectives: After completing this exercise students will:

- 1. Demonstrate the ability to identify helminths, ova, and protozoa.
- 2. Describe the life cycles, hosts, and diseases caused by these parasites.
- 3. Perform the wet mount stain and acid fast stain on selected ova and parasites.

## Activities for today:

- Observe prepared slides of helminths, helminth ova, and protozoa.

## **Materials**

Work individually. This is NOT a group activity.

Prepared slides of selected Protozoa and Helminths and Ova Preserved specimens of helminths Lugol's Iodine (for wet smear) Microscope slides Cover slips Toothpicks Selected ova and parasites specimens (controls provided by Dr. Salameh) Acid Fast Stain (Kinyoun's cold method) Methanol Paper and pencils (provided by students)

## Observing and identifying ova and parasites

Lab presentation and CDC web site link <u>www.dpd.cdc.gov/dpdx</u> Read the assigned chapters in the text book before coming to lab.

In this exercise, you will be observing prepared slides of helminths, their ova (eggs) and parasitic protozoa. You will also observe preserved helminth specimens in jars, and get the chance to stain control specimens for identification. You will learn to identify these organisms on fecal and blood smears (other body fluids too), draw their life cycles, identify the intermediate hosts and definitive hosts, disease they cause, and methods of prevention and treatment for these diseases. Use paper and pencil to draw these parasites.

### Procedure for staining specimens: Iodine wet mount

- 1. Place a small drop of your specimen on a clean slide.
- 2. Add a drop of iodine to the specimen and mix with a toothpick.
- 3. Place a coverslip on top, without generating bubbles.
- 4. Observe and draw your findings.

### Acid Fast stain

- 1. Place a small amount (a drop) of the specimen on a clean slide.
- 2. Using a toothpick, smear the specimen and spread to a thin layer.
- 3. Allow specimen to air dry.
- 4. Fix in methanol for 10 minutes.
- 5. Allow to air dry.
- 6. Stain the slide using the Acid Fast stain (Kinyoun's stain).
- 7. Observe and draw your findings.

### Identifying ova and parasites on prepared slides

Use the form below to draw and enter information for the prepared slides, also posted on the course web site. You may also use plain paper, but make sure it includes all the necessary information. When you see an organism, call your instructor and have your findings verified and obtain the instructor's initials.

Name: Date:	Parasitology Lab	117
Organism	Life Cycle	
ID:		
Rx:		
Prevention:		
	1	
Organism	Life Cycle	
ID:		
Rx:		
Prevention:		