

# Bacterial Diseases

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# Match the organism with the disease

Disease	Micro-organism
Granuloma inguinale	
Rhinoscleroma	
Chancroid	
Cat-Scratch disease	
Bacillary angiomatosis	
Lymphogranuloma venereum	

# Answers

Disease	Micro-organism
Granuloma inguinale	<i>Calymmatobacterium granulomatis</i>
Rhinoscleroma	<i>Klebsiella rhinoscleromatis</i>
Chancroid	<i>Hemophilus ducreyi</i>
Cat-Scratch disease	<i>Bartonella henselae</i>
Bacillary angiomatosis	<i>B. henselae</i> <i>B. quintana</i>
Lymphogranuloma venereum	<i>Chlamydia trachomatis</i>

# Special Stains?

Bacterium	Gram +	Gram -	Acid Fast
Nocardia			
M. tuberculosis			
Pseudomonas			
M. leprosum			
Actinomyces			
Bartonella henselae			
Bacillus anthracis			

# Answers

Bacterium	Gram +	Gram -	Acid Fast
Nocardia	+		Weakly +
M. tuberculosis			+
Pseudomonas		+	
M. Leprosum			+ (Fite)
Actinomycosis	+		
Bartonella henselae		+	
Bacillus anthracis	+		

# Bacterium staining with Silver stains?

- *Hemophilus ducreyi*
- *Bartonella henselae*
- *Actinomyces*
- *Francisella tularensis*
- *Klebsiella rhinoscleromatis*

# Answers

- *Bartonella henselae*
- Actinomycosis
- *Klebsiella rhinoscleromatosis*

Actinomycosis may stain with GMS stain or Grocott silver method.

# Staphylococcal Scalded Skin Syndrome

## Syndrome characteristics include:

- Exfoliative toxins targeting BP180 antigen
- Cleavage plane between stratum spinosum and granular layers
- Phage group II staphylococcus cultured on blood agar plates
- Non-transmissible



# Answers

- Cleavage plane between stratum spinous and granular layers

Phage group II staphylococcus are not cultured however the disease is highly transmissible. The exfoliative toxins (ET) target desmoglein-1.

# Michaelis-Gutmann

## Inclusion Bodies characteristics:

- PAS positive Diastase sensitive
- PAS positive Diastase resistant
- von Kossa positive
- Perl's stain negative
- Gram stain negative

# Answers

- PAS positive Diastase resistant
- von Kossa positive

Perl's stain positive for iron deposits. A Gram stain and stain for Acid Fast organisms may occasionally reveal the causative organisms.

# Acid fast bacilli correct associations:

Bacterium	Characteristic
<i>M. tuberculosis</i>	Culture at 30-33C
<i>M. marinum</i>	Fite stain optimal for detection
<i>M. leprae</i>	May show sporotrichoid spread
<i>M. kansasii</i>	May be negative in skin biopsies of mild forms of miliary tuberculosis

# Answers

Bacterium	Characteristic
<i>M. tuberculosis</i>	May be negative in skin biopsies of mild forms of miliary tuberculosis
<i>M. marinum</i>	Culture at 30-33C
<i>M. leprae</i>	Fite stain optimal for detection
<i>M. kansasii</i>	May show sporotrichoid spread

# Characteristics of Early Indeterminate Leprosy include:

- Granulomas
- Acid fast bacilli
- Schwann cell atrophy
- Mild perivascular and periappendageal chronic inflammatory infiltrate

# Answers

- Acid fast bacilli
- Mild perivascular and periappendageal chronic inflammatory infiltrate

By definition, granulomas are absent, otherwise it would be a tuberculoid leprosy. Schwann cell hyperplasia is a characteristic.