

# Wet Prep

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Squamous Epithelial Cells

Clue Cells

White Blood Cells

Trichomonas

Yeast

Red Blood Cells

Sperm

Artifacts

Images used with permission from The College of American Pathologists and the Michigan Department of Community Health (see Additional Resources for Web Link).

# Microscopic Examination of Vaginal Discharge

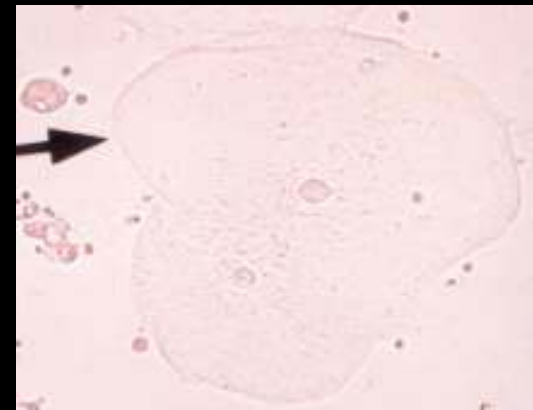
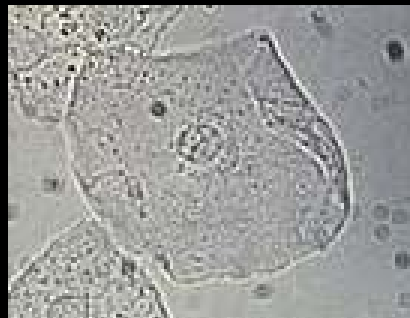
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- Normal Saline suspension used to view:
  - Trichomonas
  - Clue Cells
  - WBC
  - Sperm
  - Yeast
- KOH suspension (dissolves biologic materials except for cellulose found in cell walls) useful for visualizing yeast.

# Squamous Epithelial Cell

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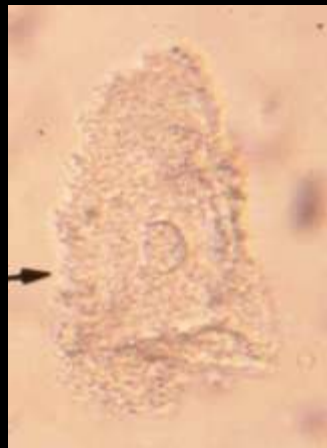
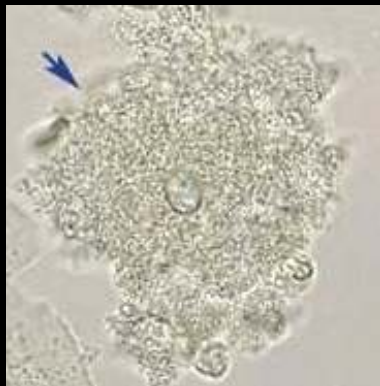
- Large, flat cell with a single, small nucleus.
- Distinct cytoplasmic borders



# Clue Cell

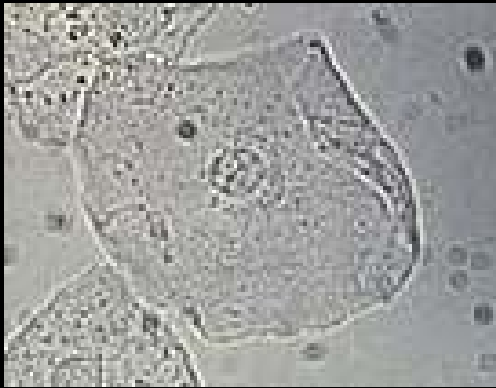
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- Squamous epithelial cell with adherent bacteria extending beyond the cytoplasmic borders giving a shaggy or bearded appearance.
- Lacy, granular appearance
- Indistinct borders

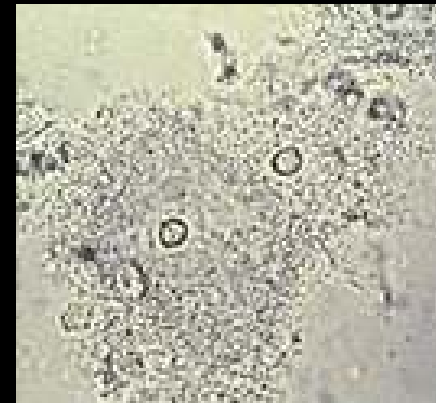


# Side-by-Side Squamous Epithelial Cell vs Clue Cell

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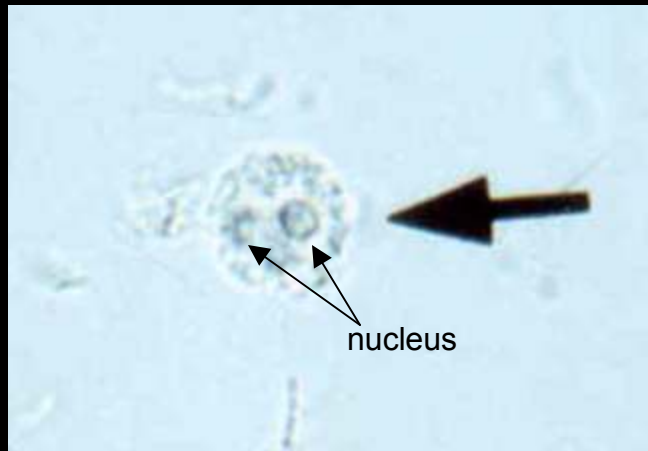
Squamous epithelial cell  
Note distinct borders



Clue cell  
Note indistinct, shaggy borders

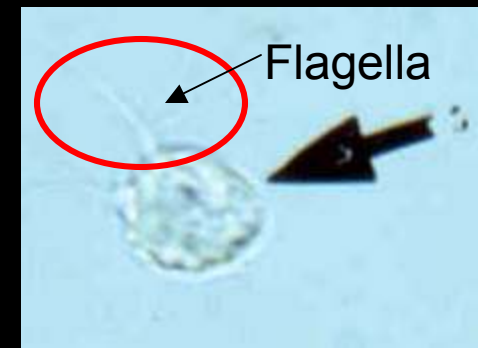
# Side-by-Side White Blood Cell vs Trichomonas

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## White Blood Cell

- Small, round, multilobed nucleus present.



## Trichomonas

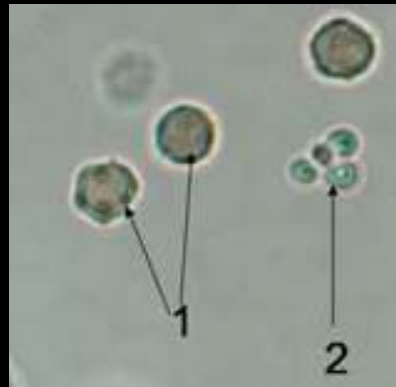
- Flagella present
- Pear-shaped organism
- Look for “falling leaf” movement under the microscope

# Side-by-Side Yeast vs Red Blood Cell

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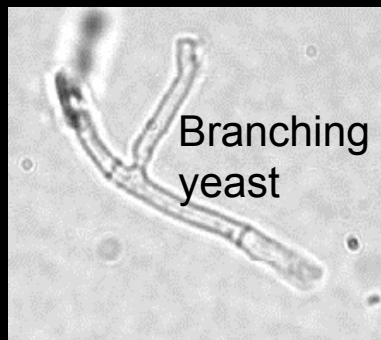
## 1. Red Blood Cell

- Small round cells, may be crenated in older samples.
- May have a dimple in the middle.
- Smaller than white cells, but larger and more uniform than yeast.



## 2. Yeast

- Oblong cells, may be budding.
- May form pseudohyphae (elongated budding yeast cells that have not detached from each other).
- May exhibit branching.



# Sperm

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- Small oval head with a long, slender tail.
- Head 4-6  $\mu\text{m}$  long, tail 40-60  $\mu\text{m}$  long.

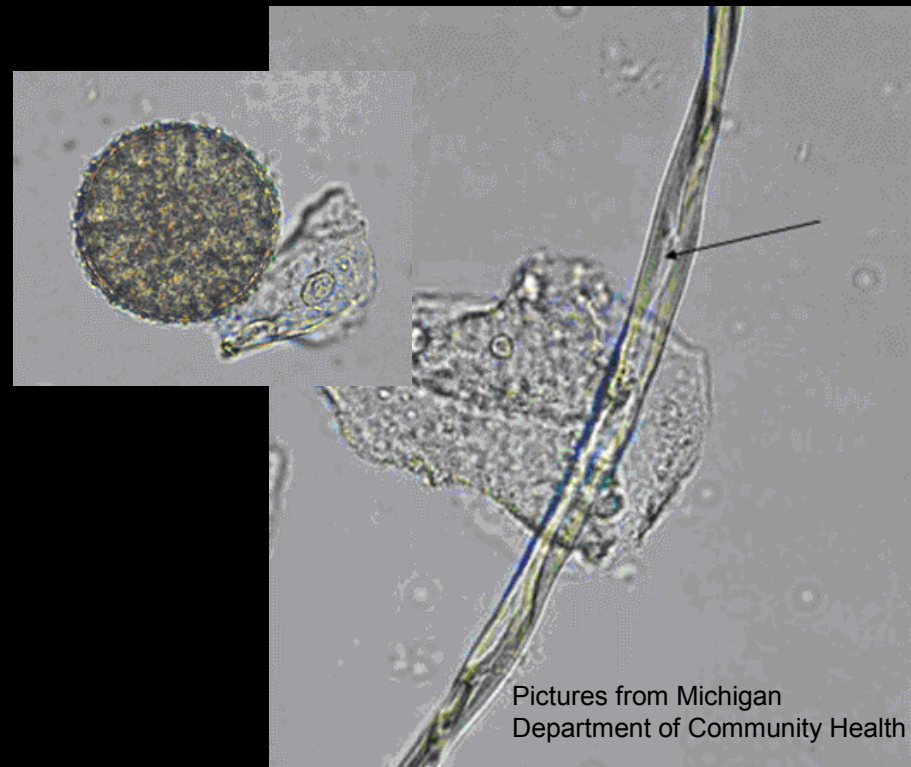




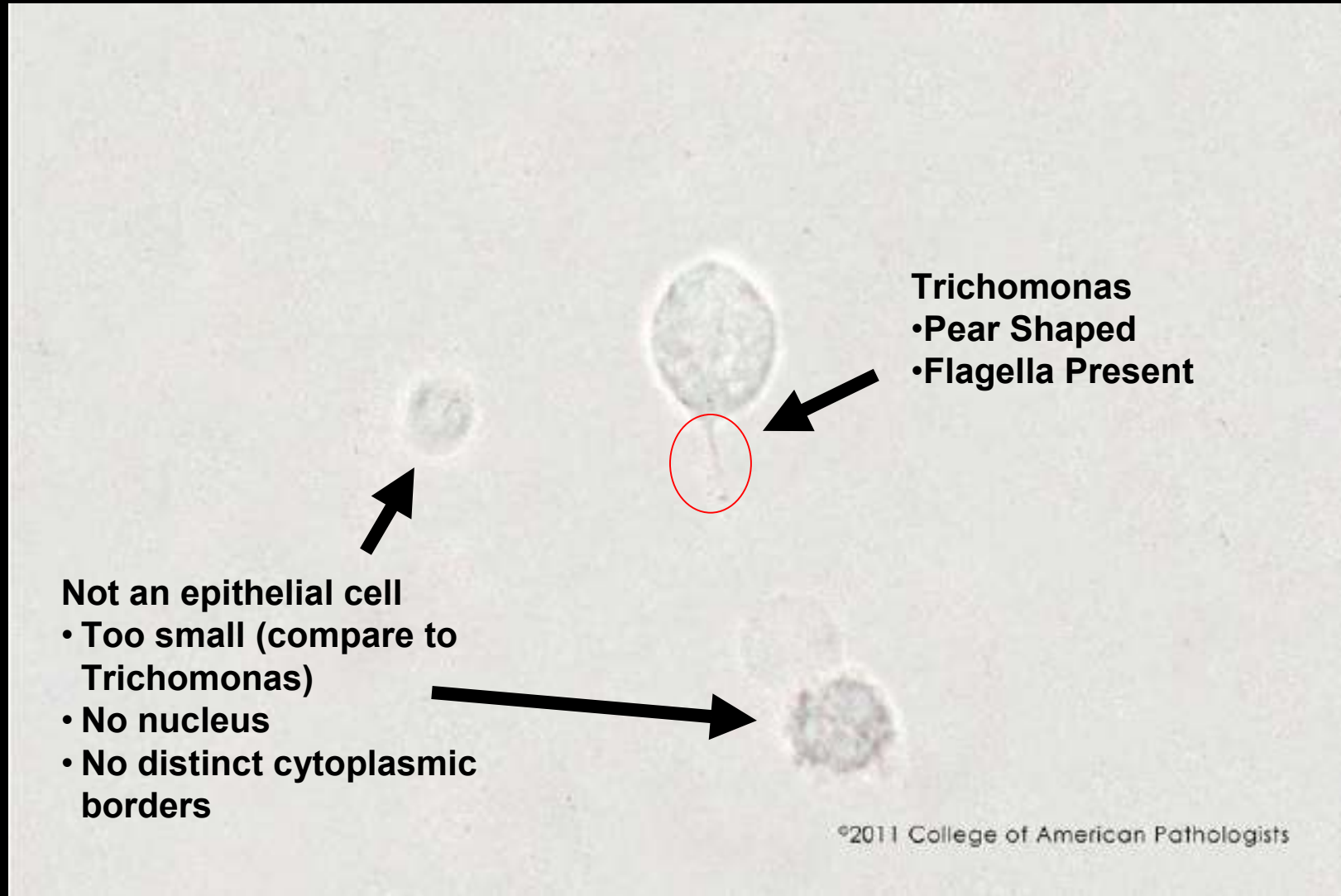
# Artifact

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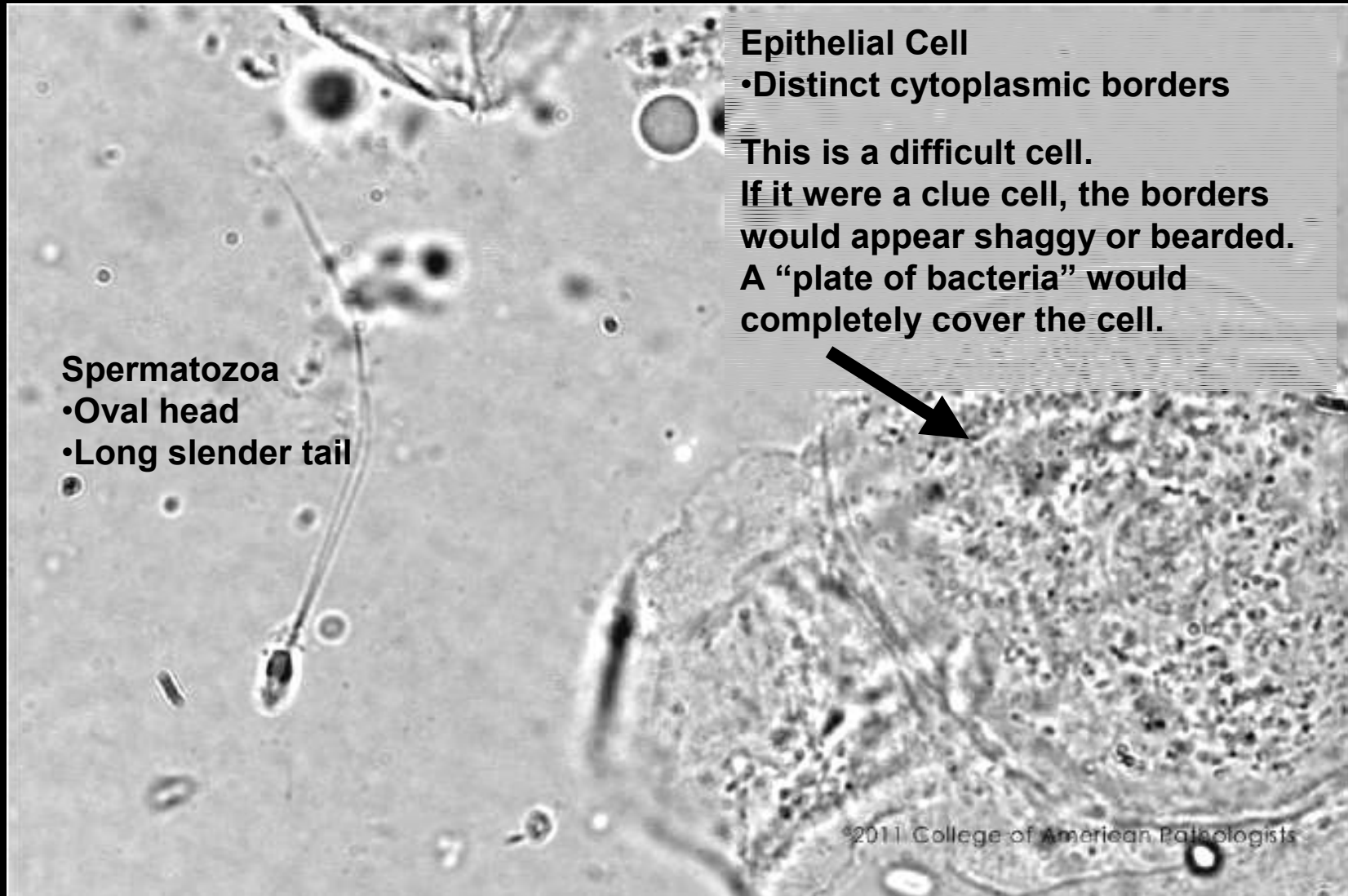
- Highly refractile.
- Very smooth edges – looks too perfect to be natural.



# Survey Slide 1



# Survey Slide 2



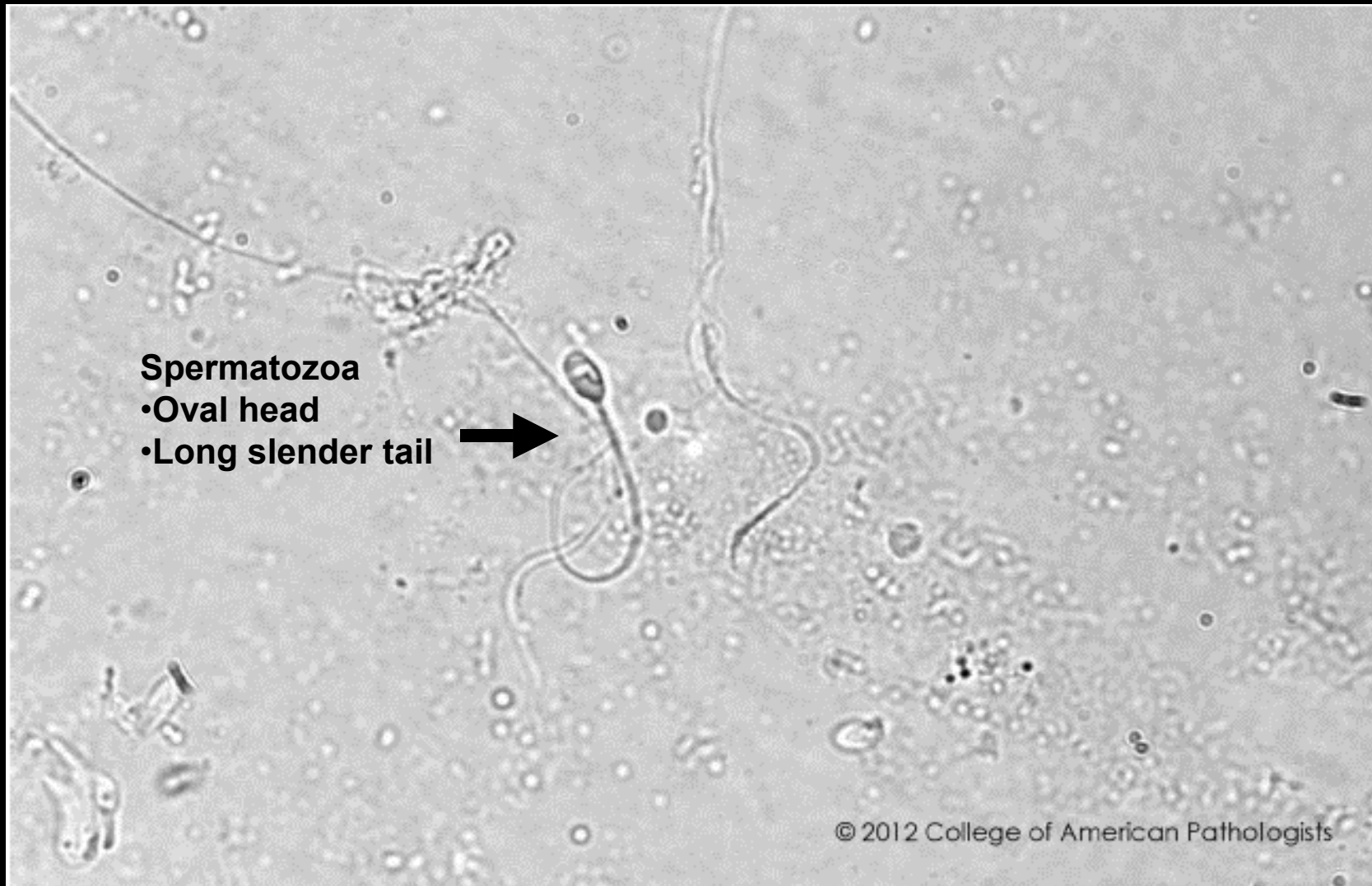
**Spermatozoa**  
•Oval head  
•Long slender tail

**Epithelial Cell**  
•Distinct cytoplasmic borders

This is a difficult cell.  
If it were a clue cell, the borders  
would appear shaggy or bearded.  
A “plate of bacteria” would  
completely cover the cell.

# Survey Slide 3

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# Additional Resources

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Copy and paste link into your web browser.

<http://www.womenshealthapta.org/secure/ob101/My%20Documents4/Procedures/Wet%20Mount/Wet%20Mount.htm>

<http://emprocedures.com/obgyn/wetprep/analysis.htm>

[http://www.michigan.gov/mdch/0,1607,7-132-2945\\_5103\\_7168-74548--,00.html](http://www.michigan.gov/mdch/0,1607,7-132-2945_5103_7168-74548--,00.html)

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