

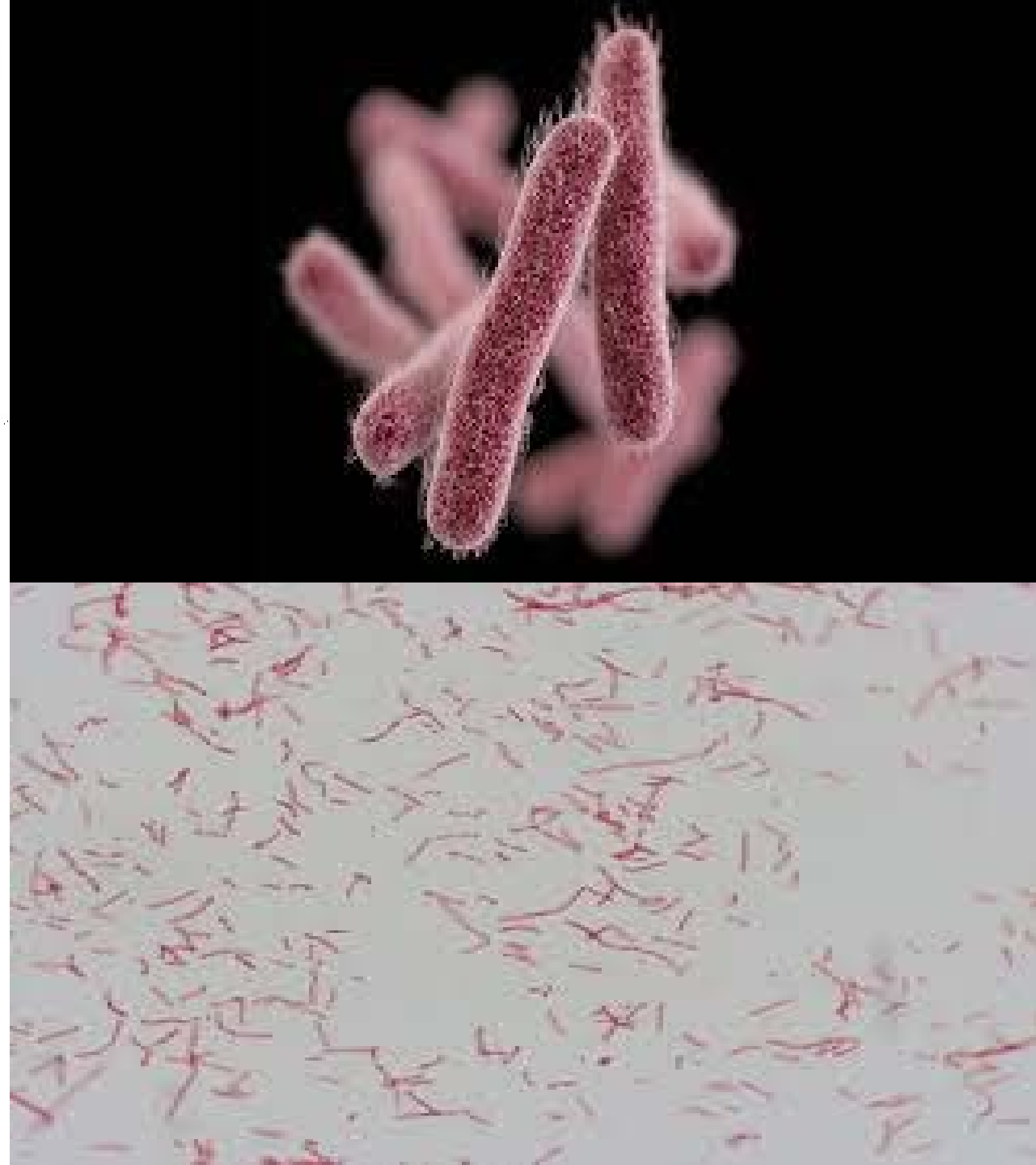
Shigella

General Characteristics of Shigella

- Coliform bacilli (enteric rods)
- Nonmotile gram-negative facultative anaerobes
- Four species

Shigella sonnei (most common in industrial world) ٢

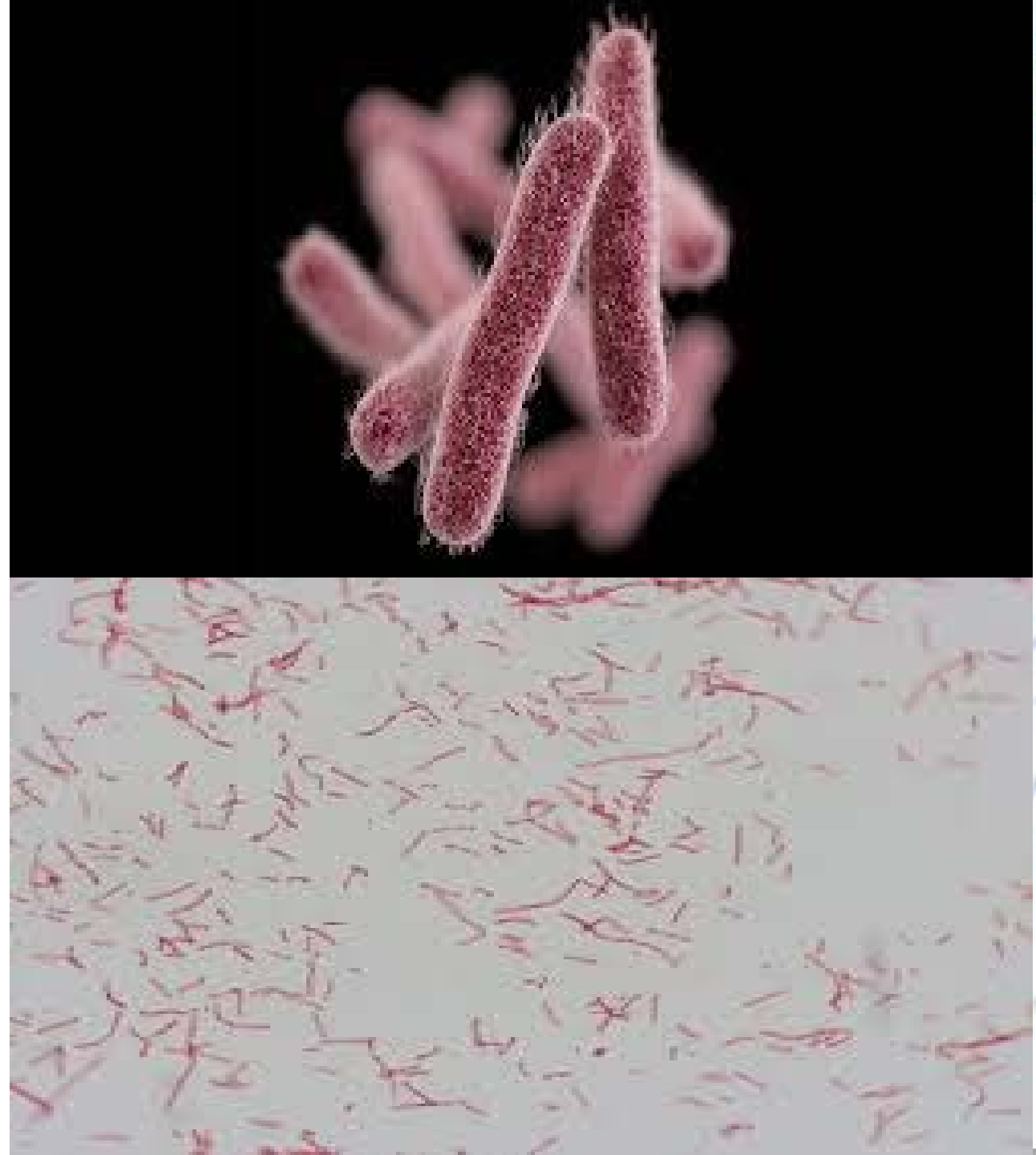
Shigella flexneri (most common in developing countries) ٢



Shigella boydii

Shigella dysenteriae

- Non-lactose fermenting
- Resistant to bile salts
- Non sporulation .
- Grow in the (XLD) agar and produce red colonies .



Pathogenesis of Shigella

Shigellosis (dysentery disease)

Two-stage disease:

➤ Early stage:

- Watery diarrhea attributed to the enterotoxic activity of Shiga toxin following ingestion and noninvasive colonization, multiplication, and production of enterotoxin in the small intestine
- Fever attributed to neurotoxic activity of toxin

➤ Second stage:

- Adherence to and tissue invasion of large intestine with typical symptoms of dysentery
- Cytotoxic activity of Shiga toxin increases severity



Proteus

- gram negative, facultative anaerobe rod
- causes infections in human urinary tract (pyelonephritis, kidney stones) followed by septicaemia
- motile bacterium with peritrichous flagella
- Morphology change in swarming process
- Non lactose fermenter .
- Culture of it produce a specific odor ,

Habitat : found in intestine of man , animal , contaminate soil and stagnant water .

Type :

Proteus vulgaris *Proteus mirabilis*

Proteus morganii *Proteus rettgeri*

Diseases : otitis media , urinary tract infection , contamination of burns , gastroenteritis.



Thank You

Questions?

Comments and opinions would be appreciated.