SUPERHEROES AGAINST SUPERBUGS

PRESENTS

KNOW YOUR SUPERBUGS

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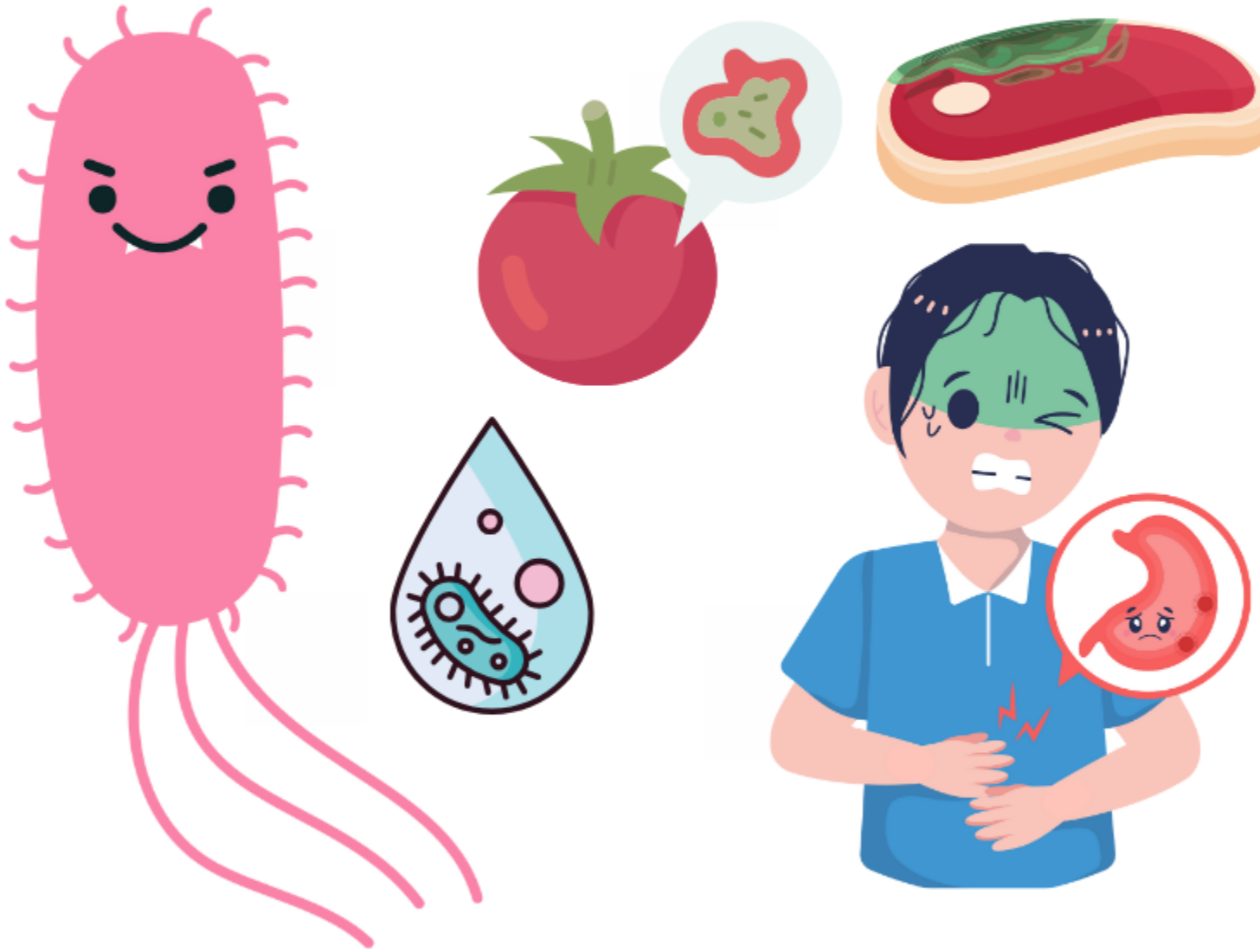
#1 ESCHERICHIA COLI



E. coli, a common bacteria that causes stomach infections in humans, has developed extensive resistance to antibiotics.

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#1 *ESCHERICHIA COLI*

- *E. coli* infection can lead to severe gastroenteritis, diarrhea, hemorrhagic colitis, and urinary tract infections.
- It spreads through the consumption of contaminated food and water as well as via person-to-person contact.
- Drug resistance in *E. coli* strains occurs through replication and horizontal gene transfer mechanisms.
- Maintaining hygiene and sanitation, avoiding raw food and contaminated water can help prevent *E. coli* infections.

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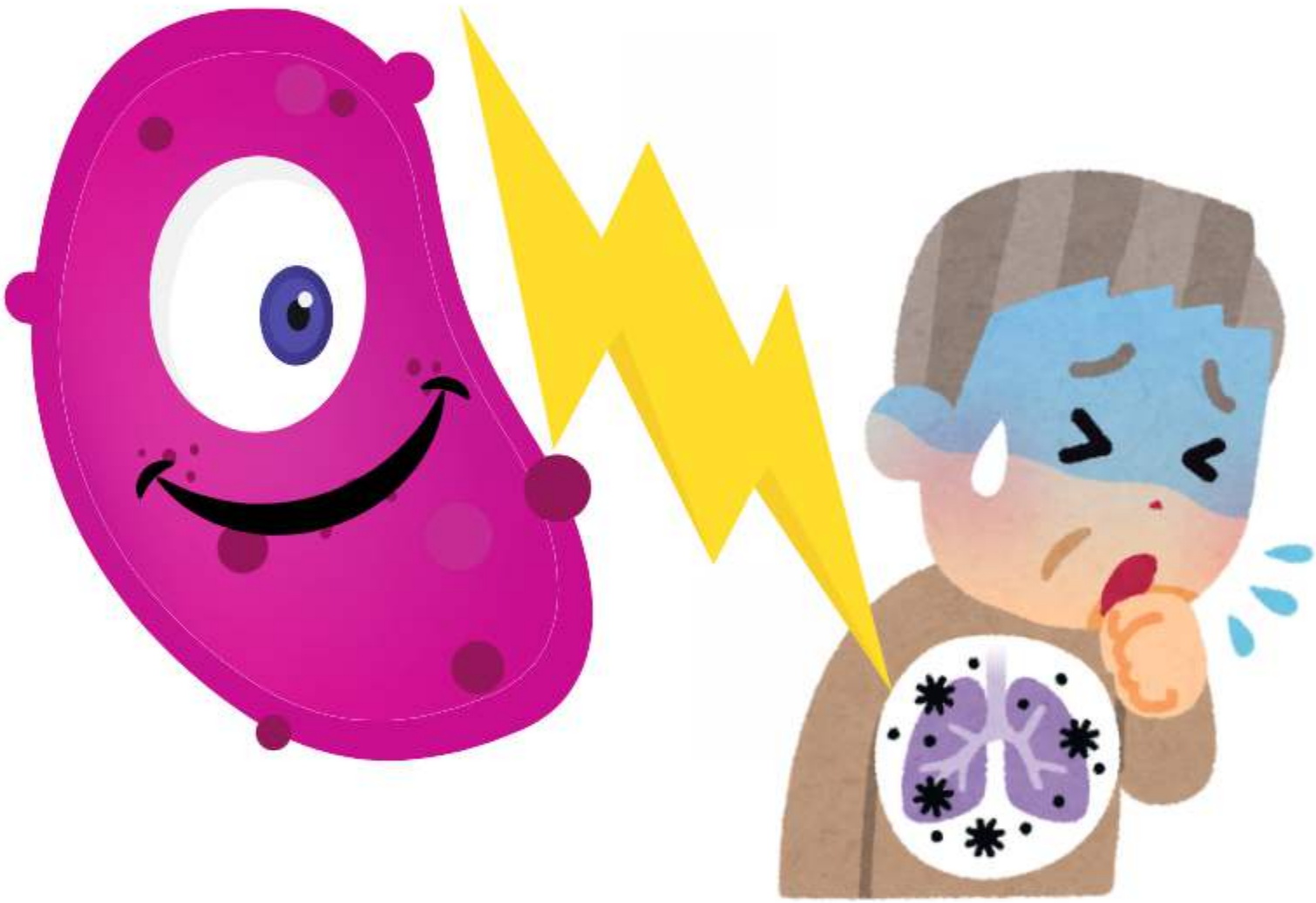
#2 KLEBSIELLA PNEUMONIAE



Klebsiella pneumoniae is a bacterium that causes pneumonia and urinary tract infections.

#2 KLEBSIELLA PNEUMONIAE

- *Klebsiella pneumonia,* commonly found in the mouth, skin, and intestines, can cause pneumonia, meningitis, and blood sepsis upon entering the respiratory system, bloodstream, and brain.

- *Klebsiella* species are important pathogens in nosocomial infections (originating in hospital settings).

- Practicing hand hygiene and proper handwashing is important to prevent infection.

- Hospitals and healthcare facilities need to follow strict cleaning procedures to prevent the spread of *Klebsiella.*

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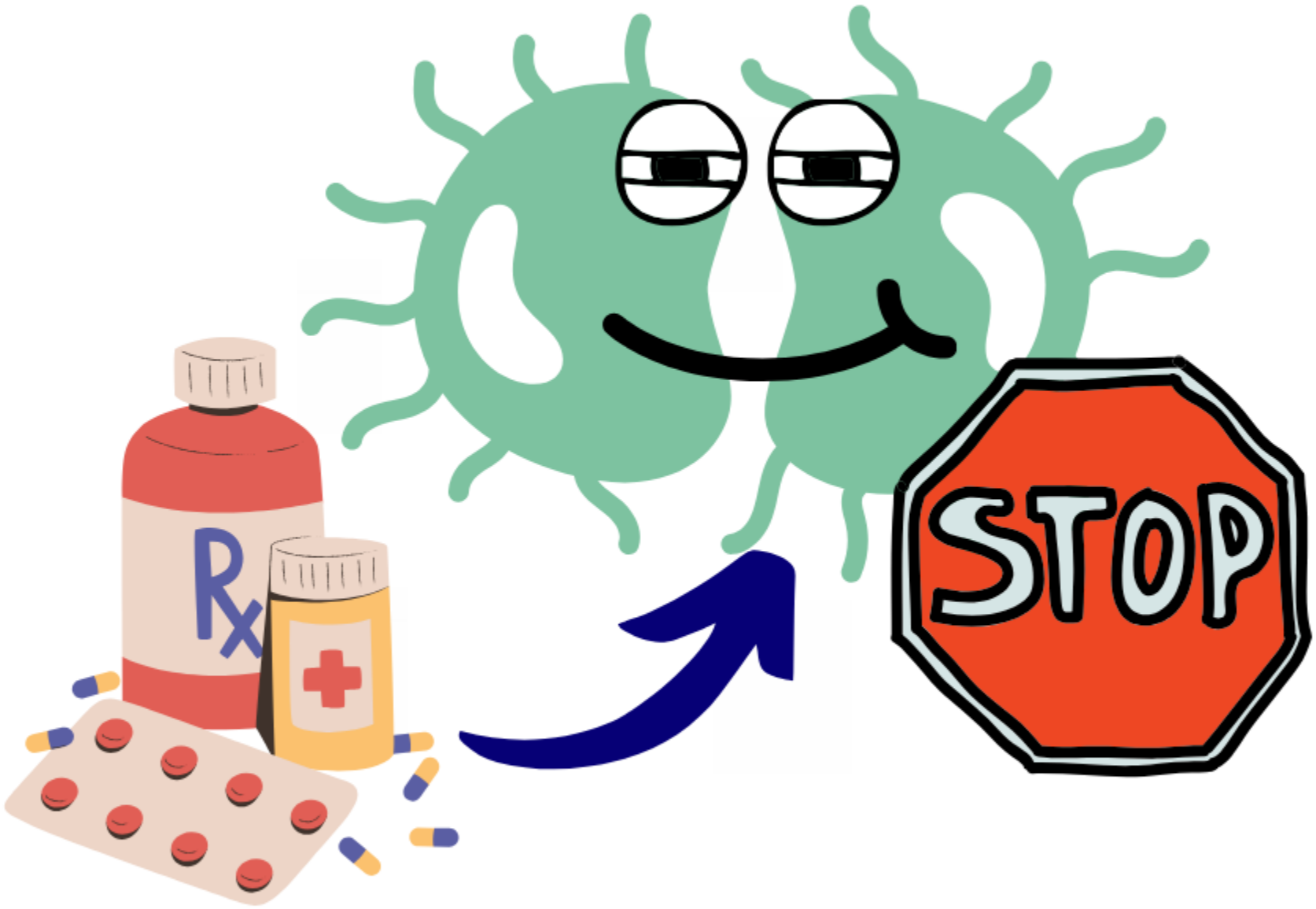
#3 NEISSERIA GONORRHEAE



Gonorrhea is a sexually transmitted infection caused by *Neisseria gonorrhoeae*, a bacterium that has developed extensive drug resistance.

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#3 NEISSERIA GONORRHEAE

- The *N. gonorrheae* primarily affects the genital and reproductive organs but can also manifest in the throat and rectum.
- Timely diagnosis and treatment with the right regimen of antibiotics are crucial to preventing complications and further transmission.
- Unfortunately, gonorrhea has developed resistance to nearly all the antibiotics used for its treatment.
- Practicing safe sex and regular screening for STIs can help prevent this catastrophic disease.

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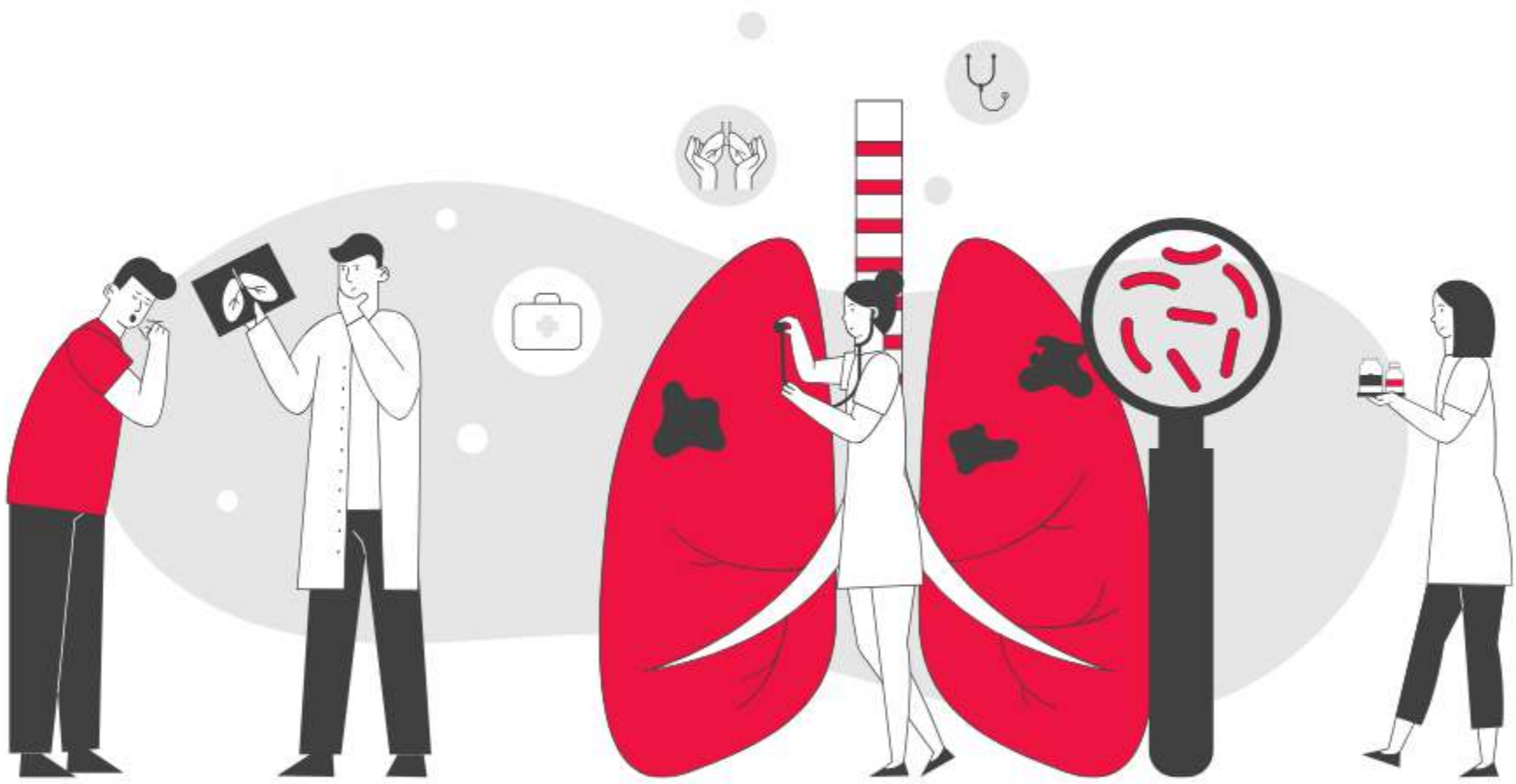
#4 MYCOBACTERIUM TUBERCULOSIS



Tuberculosis is an infectious disease of the lung caused by *Mycobacterium tuberculosis*, a bacteria which has developed multi-drug resistance.

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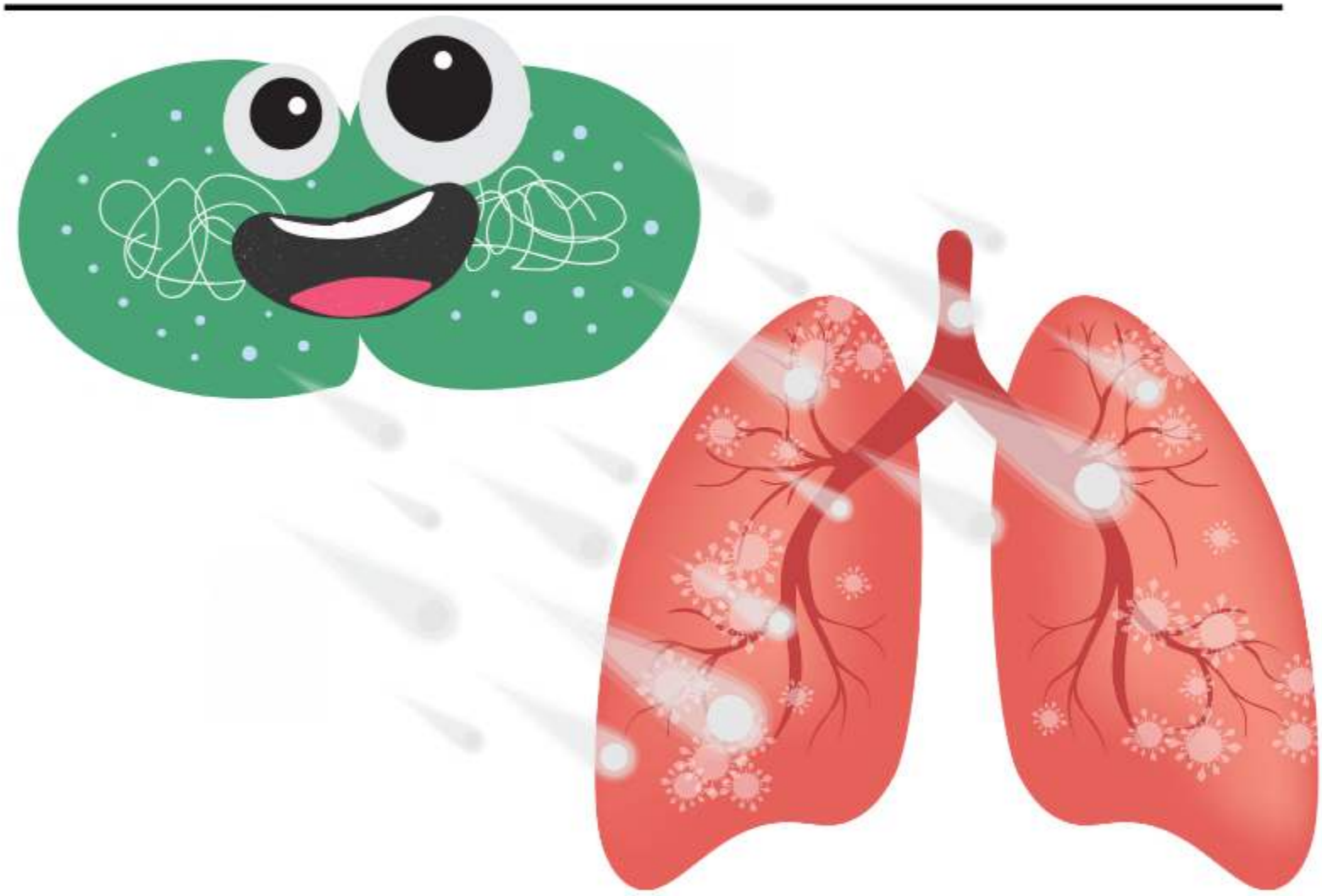
#4 MYCOBACTERIUM TUBERCULOSIS

- *M. tuberculosis* can attack any body part, including the kidney, spine, and brain, in addition to the lungs.
- It can spread through the air from one person to another via cough, sneeze, speech and spit.
- To prevent infection, people should avoid close contact or prolonged time with known TB patients and avoid crowded, enclosed spaces when possible.
- The Bacillus Calmette-Guérin (BCG) vaccine can reduce the risk of active infection.

#5 STREPTOCOCCUS PNEUMONIAE



Streptococcus pneumoniae is a bacteria that causes pneumonia by attacking the lungs, and it has developed multi-drug resistance.

#5 STREPTOCOCCUS PNEUMONIAE

- *S. pneumoniae* is part of the normal upper respiratory tract flora in humans but can become pathogenic when the immune system is compromised.
- Other than pneumonia, it can also cause meningitis, sepsis, ear and sinus infections.
- Pneumococcal bacteria spreads through direct contact with respiratory secretions, like saliva or mucus.
- Pneumococcal vaccines like PCV and PPSV can help avoid pathogenic infection.