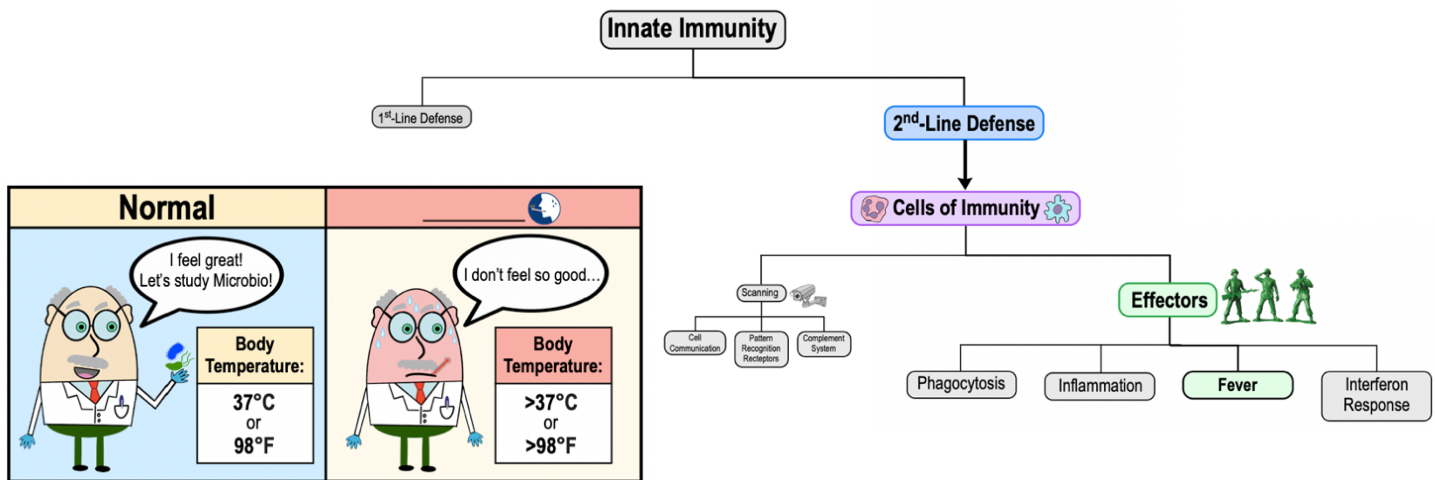


CONCEPT: FEVER

- **Fever:** an abnormally _____ body temperature (above 37.8°C) part of the 2nd line of defense in innate immunity.
 - Hypothalamus is known as the body's temperature-regulating center (normal body temperature = 37°C).
 - High body temperatures (above 37.8°C) _____ most bacteria from growing.
 - *Enhances* protective functions of the body (Ex. inflammatory response & release of inflammatory cytokines).
 - Due to _____ rates of enzymatic reactions in the body at higher temperatures.
 - _____: fever-inducing cytokines.
 - *Endogenous* pyrogens are made _____ the body & *exogenous* pyrogens are made externally.



PRACTICE: Lipopolysaccharide (LPS) is an endotoxin created by some gram-negative (-) bacteria that commonly causes fever in humans. Lipopolysaccharide is what type of molecule?

- a) Endogenous pyrogen.
- b) Exogenous pyrogen.
- c) Pathogenic pyrogen.
- d) External pyrogen.

PRACTICE: Fever can have positive effects on the process of fighting an infection. Which of these answers is not a positive effect fever can have during an infection?

- a) High body temperatures inhibiting the growth of many pathogenic bacteria.
- b) High body temperatures increase the enzymatic reactions associated with the immune system
- c) High body temperatures enhance the inflammatory response and release of inflammatory signals.
- d) High body temperatures constrict the blood vessels ensuring the infection does not spread throughout the body.