



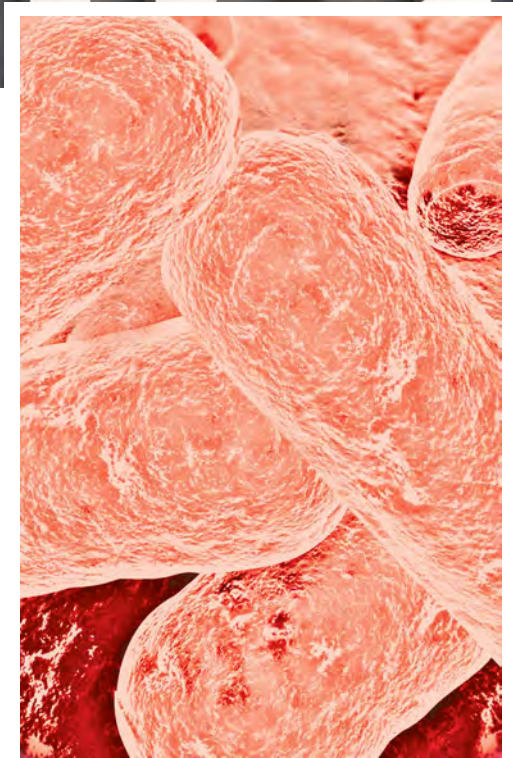
# Legionella Identification and Prevention Strategies (LIPS)

## Legionella

- A Gram negative, environmental bacteria with more than 50 known species
- Isolated from both environmental and clinical specimens
- Colonizes in nature or manmade water systems with few exceptions
- Causative agent for extrapulmonary syndromes and legionellosis
- More than 25,000 known cases of Legionnaires' each year
- About 90-95% are undiagnosed and with over 4,000 deaths each year
- 77% non-hospital and 23% hospital acquired

## Identification

- Separate protocols for environmental and clinical specimens
- Collection of water samples (1 liter or 100 to 250 ml) using sterile techniques
- CDC ELITE program for Legionella isolation & identification
- Culture, antigen, serology, DFA and PCR methods for specific identity





- Health and hygiene
- Community outbreak
- Contamination of air, soil and water
- Immunocompromized individuals
- People suffering from lung diseases
- Children and elderly with various health conditions

## How we can Help

- Periodical monitoring of water contamination
- Optimal management of building water system
- HACCP (hazard analysis and critical control points) Plan
- Cooling towers, HVAC system and air conditioning units
- Hot water systems, decorative fountains, waterfalls, whirlpools, misters, etc.

## Legionella Action Limits

Colony Forming Units (CFU) of Legionella per milliliter

Action	Cooling Tower	Domestic Water	Humidifier
1	100	10	1
2	1,000	100	10

Action 1:

Prompt cleaning and/or biocide treatment of the system

Action 2:

Immediate cleaning and/or biocide treatment.  
Take prompt steps to prevent exposure.

Cooling Tower



Potable Water



Air Handler Unit



**For more information please contact EDLab  
Dr. Rajiv Sahay or Alan Wozniak at  
1.00.422.7873**