

MYCOPLASMAS

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- **Mycoplasma** (plural **mycoplasmas** or **mycoplasmata**) is a genus of bacteria that lack a cell wall around their cell membranes.
... **Mycoplasma** species are the smallest bacterial cells yet discovered, can survive without oxygen, and come in various shapes. For example, *M. genitalium* is flask-shaped (about 300 x 600 nm).

DISCOVERY

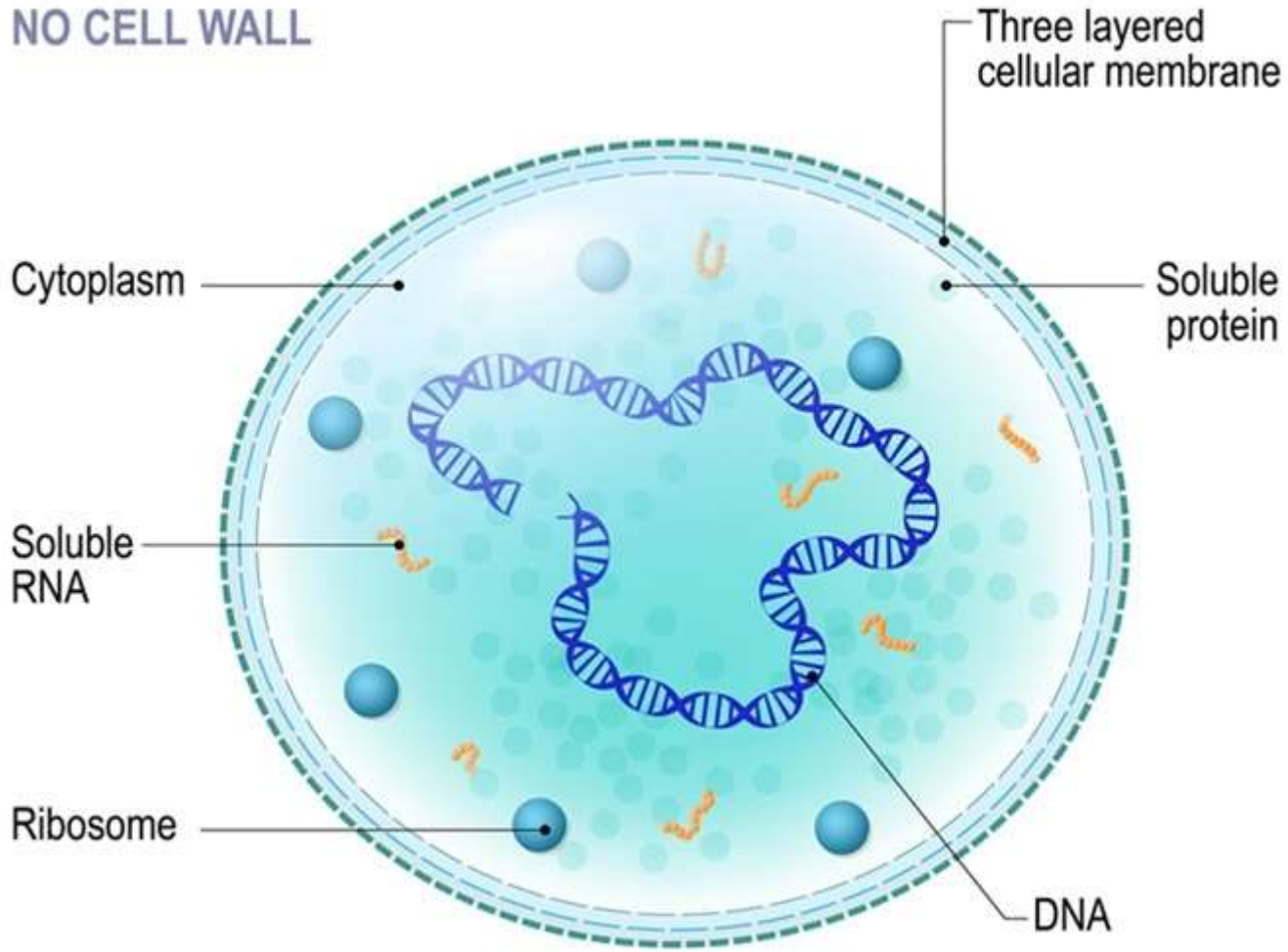
- In 1898 the French Scientist E. Nocard and E.R. Roux discovered some peculiar organisms from pleural fluids of cattle suffering from bovine pleuropneumonia. Similar organisms were later isolated from other animals and also from human beings. These were named as pleuropneumonia like organisms(PPLO).

WHY THESE ARE CALLED “ JOCKERS OF THE PLANT KINGDOM”

- Mycoplasmas are highly Pleomorphic (pleo=many; morphe=forms) varying in shape from spherical to branched filamentous structure. Since these organisms have no definite shape they are called “jockers of the plant kingdom”.

Mycoplasma

NO CELL WALL



Characteristics of Mycoplasmas

- Cell wall is absent and [plasma membrane](#) forms the outer boundary of the cell.
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- Due to the absence of cell wall these organisms can change their shape and are [pleomorphic](#).
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- Lack of nucleus and other membrane-bound organelles.
- Genetic material is a single [DNA](#) duplex and is naked.
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- Ribosomes are [70S](#) type.
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- [Heterotrophic nutrition](#). Some live as [saprophytes](#) but the majority are parasites of plants and animals. The parasitic nature is due to the inability of mycoplasmal bacteria to synthesise the required growth factor.
- Mycoplasmas are resistant to wall attacking antibiotics such as Penicillins

Diseases caused by mycoplasma in human beings

- Bunchy top of papaya
- Citrus greening
- Little leaf disease of brinjal
- Witche's broom of legumes
- Big bud od tomato
- Potato purple top
- Mulberry dwarf

Diseases caused in human beings

- Pneumonia is caused by *Mycoplasma pneumoniae*.
- Mycoplasma urethritis caused by *Mycoplasma hominis*.

Diseases in animals

- Pneumonia in cattle is caused by *Mycoplasma mycoides*
- Inflammation of genitals is caused by *Mycoplasma bovis*.

Thank
you