Legionnaires’ Disease

- First outbreak reported in 1976 in Philadelphia during a convention of the American Legion, 34 people died
- Further serious outbreaks occur year by year; recent outbreaks have been reported from Spain and the UK (August 2002)
- Up to 15% of infected people do not survive the disease

L. pneumophila is a parasitic bacterium

- Air-conditioning units, jacuzzis and saunas provide ideal growth conditions for amoebae and ciliated protozoa, the natural hosts for L. pneumophila [1]
- L. pneumophila is able to infect humans through inhalation of contaminated aerosols
- Infection begins with binding of bacteria to human alveolar macrophages, followed by coiling phagocytosis and localization in a unique phagosomal vacuole [1]
- The bacteria multiply inside the macrophages to large numbers, until the host cell bursts
- Infection causes Legionnaires’ Disease or Pontiac Fever

Structural Infectomics:
Identification and Characterization of Potential Virulence Factors in Legionella pneumophila
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