

# **Viral lab diagnosis**

## **Isolation and Cultivation of Viruses**

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# Cultivation of Virus

- Since the viruses are obligate intracellular parasites, they cannot be grown on any inanimate culture medium
- Viruses can be cultivated within suitable hosts, such as a living cell
- The primary purposes of viral cultivation are:
  1. To isolate and identify viruses in clinical specimens
  2. To prepare viruses for vaccines
  3. And to do detailed research on viral structure, multiplication cycles, genetics, and effects on host cells

# Cultivation of Virus

- Viruses not only need living cells to grow in but also they are specific about the type of cell they infect and grow in
- There is no universal cell that will support all viruses
- Viruses tend to be host specific; therefore:
  - human viruses grow best in cells of human origin,
  - bovine viruses in bovine cells,
  - canine viruses in canine cells,
  - while some viruses will not grow in vitro at all
- Therefore in the laboratory the suspected virus must be grown in a culture method known to support its growth