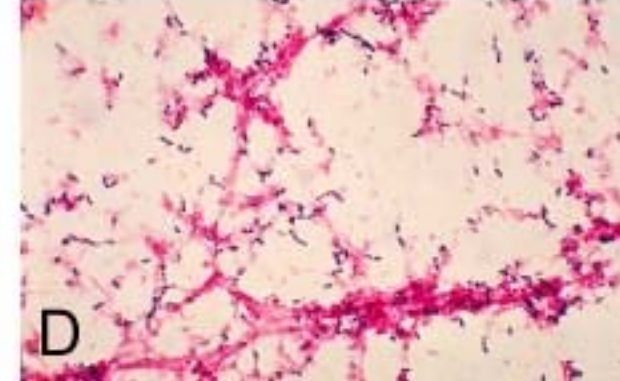
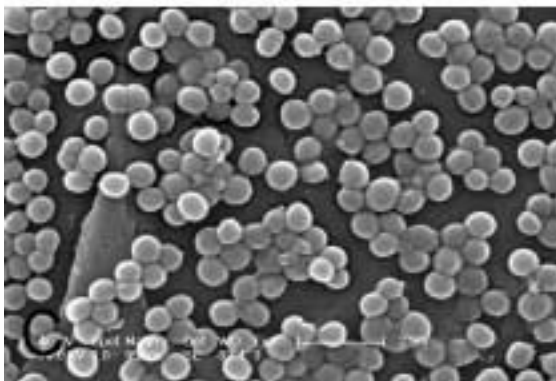
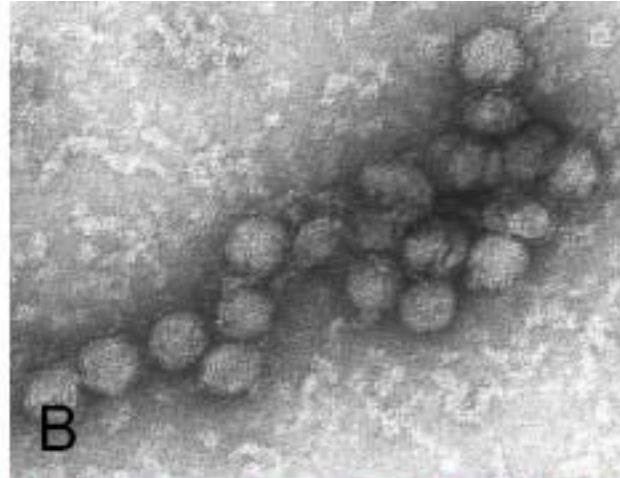
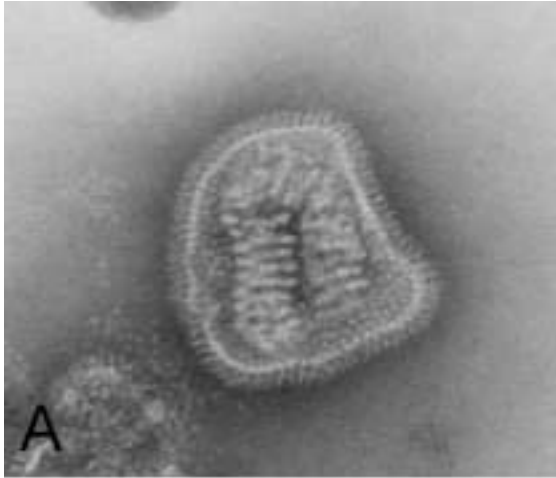


Holy Family Catholic High School



Form 10 A4



UNIT 11.4
Controlling
infectious disease

Developing
medicines

+

Immunity

17th April 2007

Learning Objectives



- Explain how can we develop new medicines.
- Describe why can't use antibiotics to treat diseases caused by viruses.
- Describe the meaning of mutation and antibiotic resistance.
- Explain how does our immune system work.

Medicines and treat disease...

Two main types of medicines

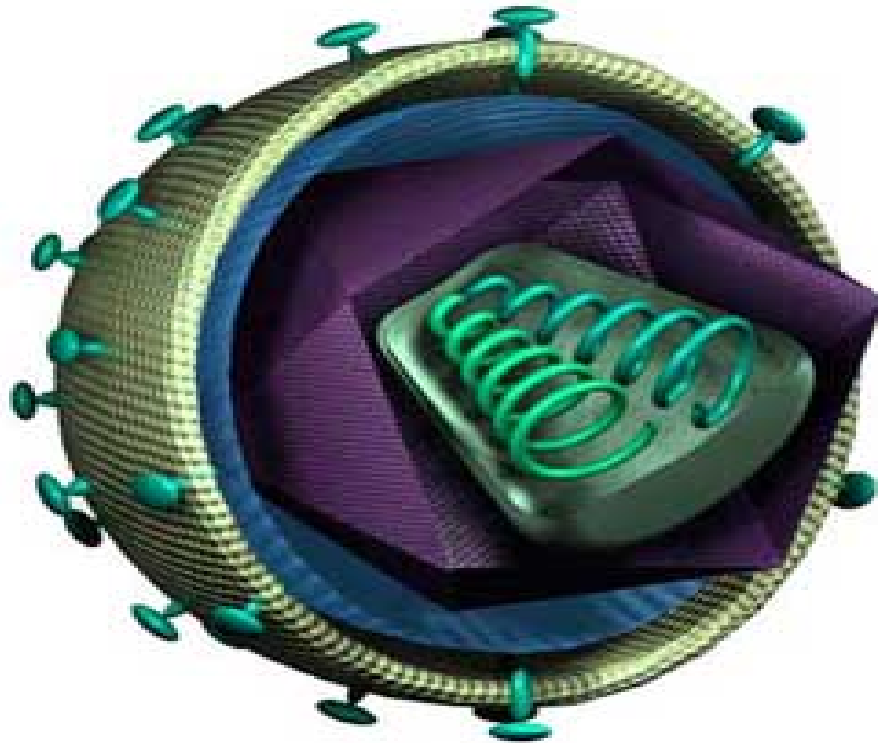
- Those that treat the symptoms only but do not cure the disease.

e.g paracetamol

- Those that kill bacteria.

e.g Penicillin

What about problems of drugs that
treat viruses?



What is an ANTIBIOTIC?

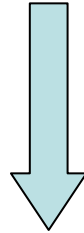
They are medicines that can be used to kill **ONLY** bacteria inside the body.

e.g Penicillin



What is an antibiotic resistance?

- Caused by the direct action of the antibiotic. When it kills the bacteria it selects for those bacteria that are resistant.
- The resistance is caused by genes in the bacterial chromosome, formed by **MUTATION**.



A change in the genetic content of a cell caused by chemicals like radiation, Xrays.