

Microbial Pathogenesis

MBB 445



Explore the biology of viruses and bacteria and the deadly diseases they cause.

Topics

- Viruses
- Bacteria
- Immunology
- Vaccines
- Pandemic
- SARS-COV2
- HIV
- Cholera
- Sexually transmitted diseases
- Virulence factors

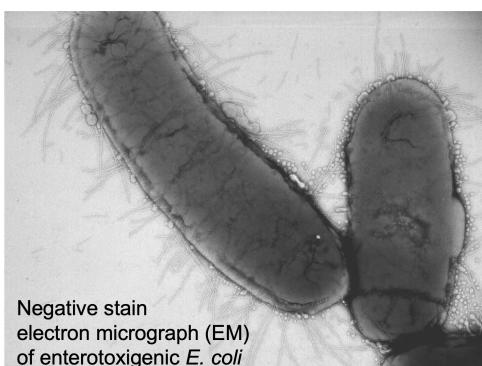
INSTRUCTORS:

Mark Brockman, Lisa Craig

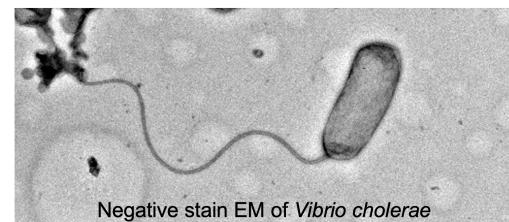


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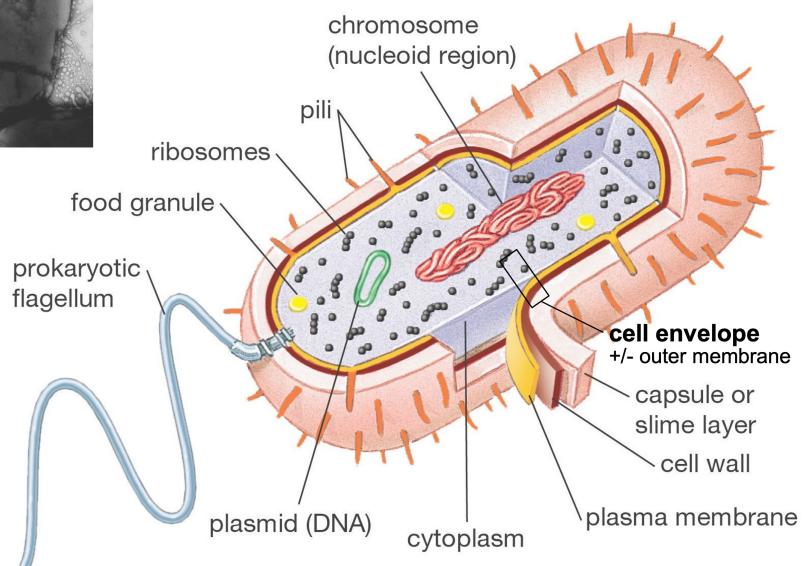
Bacterial structure



Negative stain
electron micrograph (EM)
of enterotoxigenic *E. coli*



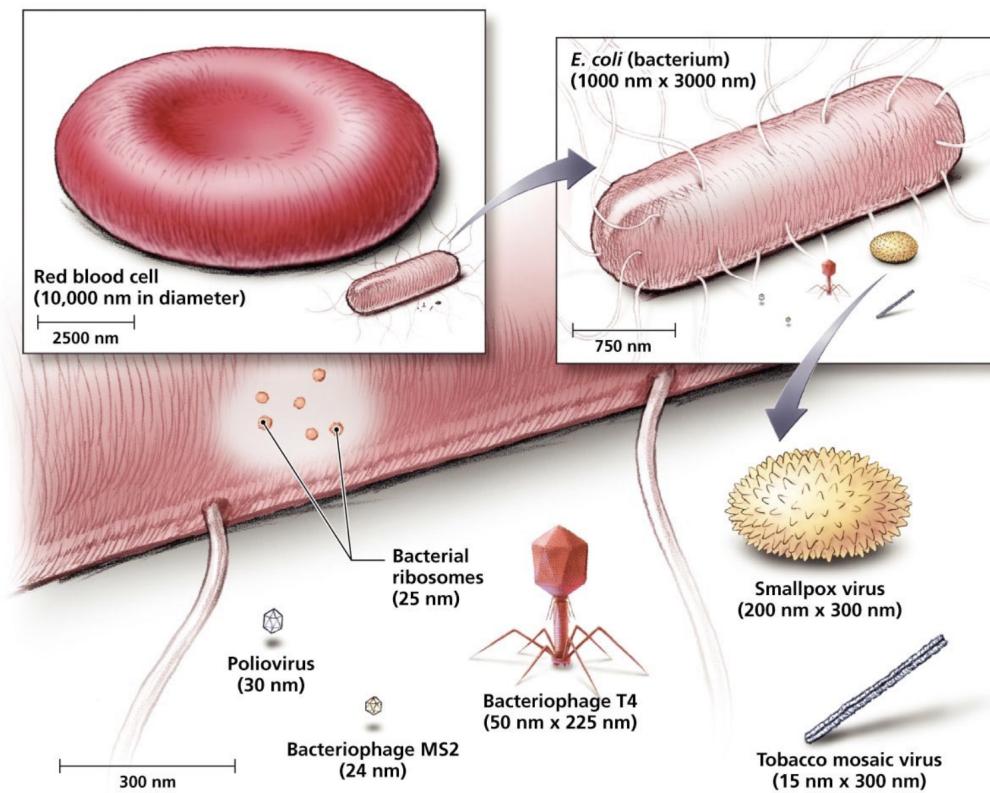
Negative stain EM of *Vibrio cholerae*



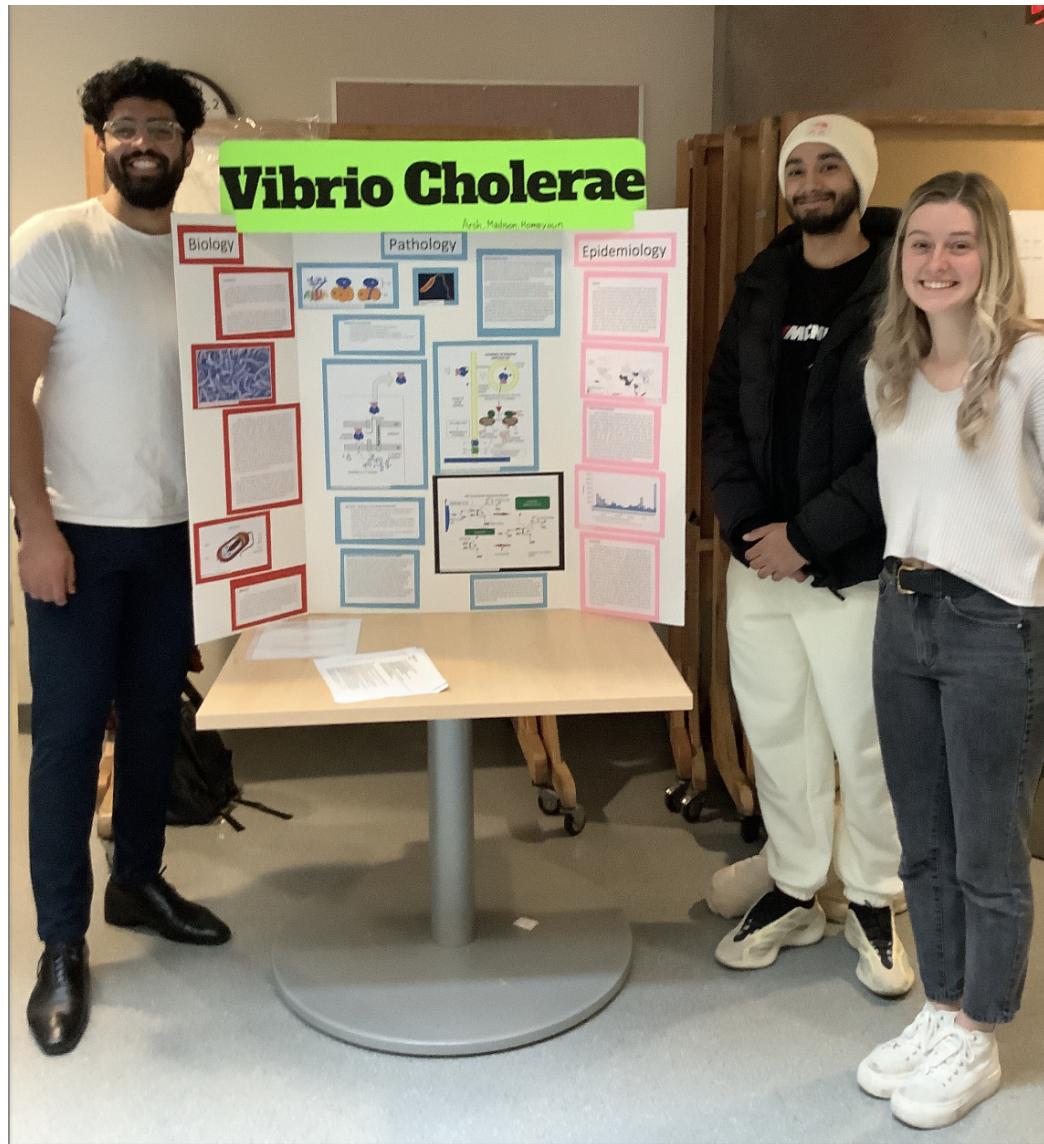
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Viruses: small and simple compared to bacteria

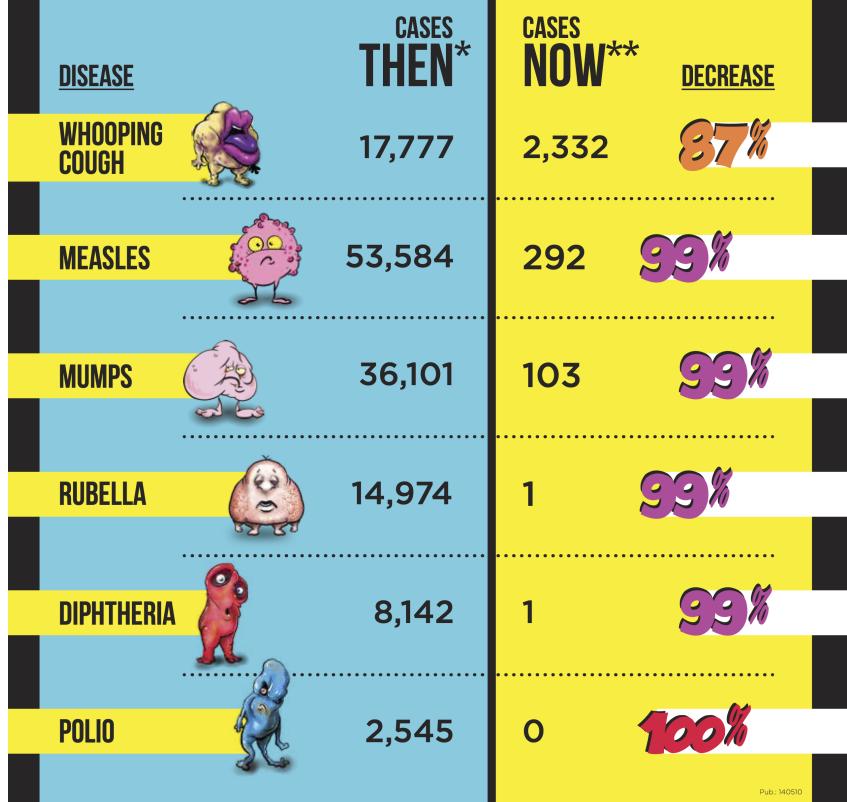
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VACCINES WORK



* Average number of cases reported annually in Canada during the five years before routine vaccine use, or the closest possible five years where stable reporting was occurring.

** Average number of cases reported annually in Canada from 2011 to 2015.

Some numbers are subject to change as reports are updated. For details about the data sources and methods, visit Canada.ca/vaccines