

Introduction to Microbiology

Case Study *Campylobacter jejuni* and foodborne illness

Answers as discussed in the tutorial

1. Use information in your notes to describe the both colony and cell morphology of *C. jejuni*.

Gram-negative bacilli and can be spiral-shaped, S-shaped, or curved. Most exhibit characteristic corkscrew motility mediated by polar flagella.

Growth on enrichment agar produces small, grey 'creeping colonies'

2. Describe how you would carry out an enrichment for *Campylobacter jejuni*. You should mention the key components agar you would use and the temperature and time of incubation. There is a good outline procedure for enrichment on the website in the section entitled "Methods for Identification and Detection of *Campylobacter* - Culture-Based Methods".

The pathogen is isolated by culturing on selective media followed by incubation at 41.5°C for 44 hours under low oxygen (2%) conditions. Food and environmental samples require an additional pre-enrichment designed to facilitate the recovery of damaged cells. Enrichment is carried out using a selective enrichment broth medium which is incubated at 37°C for five hours. Clinical samples can be cultured directly onto selective media. Mention Temperature, Microaerophile, Enrichment media with antibiotics to suppress growth of other enterics, lysed blood and charcoal.

3. *C. jejuni* is described in the paper as being ubiquitous in the ambient environment, why is the characteristic unexpected?

A microaerophile therefore would not expect to grow in conditions of high oxygen and low CO₂.

4. Key to survival are enzymes that allow *C. jejuni* to survive aerobic stress. Name two specific enzymes mentioned in the paper that help protect the bacterium from the toxic effects of oxygen. How might they work?

Two enzyme KATa and SodB. Latter is a super oxide dismutase catalyses conversion of toxic superoxide radical into molecular oxygen and hydrogen peroxide.

5. Using your knowledge of the role structural components in bacteria name and describe the mode of action of two structures that have been associated with the survival and pathogenicity of *C. jejuni*.

Structures such as the capsule and flagella which allow motility and maybe also secretion although we will return to this in the next section. Also LOS (don't just copy the acronym) which is lipooligosaccharide.

Microbiology Case Study Answers

SB Merriam



Microbiology Case Study Answers:

Encyclopedia of Case Study Research Albert J. Mills, Gabrielle Durepos, Elden Wiebe, 2009-10-21 Case study research has a long history within the natural sciences social sciences and humanities dating back to the early 1920 s At first it was a useful way for researchers to make valid inferences from events outside the laboratory in ways consistent with the rigorous practices of investigation inside the lab Over time case study approaches garnered interest in multiple disciplines as scholars studied phenomena in context Despite widespread use case study research has received little attention among the literature on research strategies The Encyclopedia of Case Study Research provides a compendium on the important methodological issues in conducting case study research and explores both the strengths and weaknesses of different paradigmatic approaches These two volumes focus on the distinctive characteristics of case study research and its place within and alongside other research methodologies Key Features Presents a definition of case study research that can be used in different fields of study Describes case study as a research strategy rather than as a single tool for decision making and inquiry Guides rather than dictates readers understanding and applications of case study research Includes a critical summary in each entry which raises additional matters for reflection Makes case study relevant to researchers at various stages of their careers across philosophic divides and throughout diverse disciplines Key Themes Academic Disciplines Case Study Research Design Conceptual Issues Data Analysis Data Collection Methodological Approaches Theoretical Traditions Theory Development and Contributions From Case Study Research Types of Case Study Research

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California. Court of Appeal (2nd Appellate District). Records and Briefs California (State)., **Boston Medical and Surgical Journal**, 1894

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American Book Publishing Record, 2003

Journal of the American Pharmaceutical Association American Pharmaceutical Association, 1921

Journal of Pharmaceutical Sciences, 1921 Vols for 1912 45 include proceedings of the association s annual meeting

Plant Physiology, 1927

Journal of the Textile Institute Textile Institute (Manchester, England), 1928 List of members in v 1 8

Parliamentary Papers Queensland. Parliament. Legislative Assembly, 1912 *Medical Record* George Frederick
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