The purpose of this document is to provide information on an agent/virus in order for all McMaster University staff and students to make an informed decision about entering our medical monitoring program.

Please review this document, print your name, sign and date the Memorandum of Understanding and Agreement and then provide it to your supervisor.

_Campylobacter jejuni, C. coli, C. fetus subsp. jejuni_ Campylobacter enteritis,
Vibrionic enteritis

The following summary is provided by the McMaster Biosafety Office.

For a complete copy of the excerpted text below please refer to: http://www.phac-aspc.gc.ca/lab-bio/res/psds-ftss/msds29e-eng.php

**HOST RANGE:** Humans, animals and birds

**INFECTIONOUS DOSE:** 500 organisms or less (by ingestion)

**MODE OF TRANSMISSION:** By ingestion of organisms in undercooked food or in unpasteurized milk or water; from contact with infected pets (puppies and kittens), farm animals or infected infants; possibly from cross-contamination from these sources to foods eaten uncooked or poorly refrigerated

**RESERVOIR:** Animals - swine, cattle, sheep, cats, dogs, other pets and rodents; birds, including poultry

**ZOONOSIS:** Yes - chronic carrier state established and animals constitute primary source of infection

**SUSCEPTIBILITY TO DISINFECTANTS:** Susceptible to many disinfectants - 1% sodium hypochlorite, 70% ethanol or isopropyl alcohol, 2% glutaraldehyde, iodines, phenolics, formaldehyde; commonly used disinfectants for drinking water treatment (0.1 mg/l of free chlorine, and 1 mg/l of monochloramine) are sufficient to kill _C. jejuni_

**PHYSICAL INACTIVATION:** Sensitive to moist heat (121°C for at least 15 min) and dry heat (160-170°C for at least 1 hour); highly sensitive to gamma irradiation and UV radiation
SURVIVAL OUTSIDE HOST: Will survive in moist environments (including droplets), especially at lower temperatures, but cannot tolerate drying; Feces - up to 9 days; milk - 3 days; glass slides - 24 hours; water - 2 to 5 days

LABORATORY-ACQUIRED INFECTIONS: 2 reported cases of laboratory-acquired infection

SOURCES/SPECIMENS: Feces, blood

PRIMARY HAZARDS: Ingestion, parenteral inoculation

SPECIAL HAZARDS: Infected laboratory animals

CONTAINMENT REQUIREMENTS: Biosafety level 2 practices, containment equipment and facilities for activities with clinical materials known or potentially infected and cultures; animals biosafety level 2 facilities and practices

PROTECTIVE CLOTHING: Laboratory coat; gloves when contact with infected materials is unavoidable. Good personal hygiene and frequent handwashing

The following summary is provided by Employee Health Services.

For a complete copy of the excerpted text below please refer to:

Facts

*Campylobacter jejuni* (C. jejuni) is a bacterium commonly found in the intestines of poultry, cattle, swine, rodents, wild birds and household pets like cats and dogs. It has also been found in untreated surface water (caused by fecal material in the environment) and manure.

*C. jejuni* is the most common type of campylobacter associated with human illness. Humans may develop an illness called campylobacteriosis if they consume food infected by *C. jejuni* bacteria.

Symptoms

Symptoms include diarrhea (often bloody or watery), abdominal pain, fever, nausea, and vomiting.

More severe illness such as septicemia can occur in people at greater risk, such as: pregnant women, people with weakened immune systems (immunocompromised), young children, and the elderly.

Campylobacteriosis affects children under five and young adults (15-29) more frequently than other age groups. Although long-term consequences are rare, some people may get the following illnesses:
- sudden gall bladder inflammation (which can feel like a sharp abdominal pain),
- Guillain-Barré syndrome (an auto-immune disorder affecting the nervous system),
- meningitis (inflammation of the brain and spinal cord),
- Reiter's syndrome (a condition that develops in response to an infection in another part of the body and can lead to chronic arthritis), or
- chronic colitis (inflammation of the colon).

Incubation can take from one to ten days after eating or drinking food containing the bacteria, although it usually happens between two and five days after. Symptoms may last one day to one week or longer, although the average is five days.

**Diagnosis**
Campylobacter infection is diagnosed when a culture of a stool specimen yields the organism.

**Treatment**
Almost all persons infected with Campylobacter recover without any specific treatment. Patients should drink extra fluids as long as the diarrhea lasts. In more severe cases, antibiotics can shorten the duration of symptoms if given early in the illness. There is no immunization available.

---

**Memorandum of Understanding and Agreement (“MUA”) for BSL2 Medical Monitoring Program**

**Note:** This MUA is to be signed by the employee/student and supervisor, filed and kept by the supervisor. It will be reviewed during the annual biosafety audit by the McMaster Biosafety office.

The employee/student named below acknowledges and agrees as follows:

- I have read and understand all of the information in this Medical Monitoring Information Sheet provided jointly by the McMaster Biosafety Office and Employee Health Services and reviewed the biologically hazardous agent to which I have potential exposure.
  Initial here____

- I will report a pregnancy or a compromised immune system (due to medication {steroid or other immunosuppressive therapy}, organ transplant, chemotherapy or radiation therapy, HIV infection etc.) to my supervisor and X (graduate students) or Employee Health Services Occupational Health Nurse at ext. 20310 (faculty and staff) Initial here____

- I will report an exposure to a biological agent to my supervisor immediately and complete a McMaster incident/accident report. Initial here____
• I will report any illness that resembles the symptoms listed in this Medical Monitoring Information Sheet to my supervisor. **Initial here**

• I recognize my responsibility to observe all safety practices and precautions while present in the BSL2 laboratory. **Initial here**

• I am aware of, and wish to participate in, the medical monitoring program (RMM #605) for this biological level 2 agent. Please circle: [yes] [no] **Initial here**

Employee/Student print name: ____________________________  Supervisor print name: ____________________________

Signature: ____________________________  Signature: ____________________________

Date: ____________________________  Date: ____________________________