**Agent Information**

* *Cryptococcus neoformans* (*C. neoformans*) is a fungal pathogen. It is a spherical yeast that can differentiate into several morphological forms including yeast (typical form found in infections and in the environment), chlamydospores, pseudohyphae, and hyphe. Both basidiospores and asexual yeasts are infectious.
* *C. neoformans* distribution is worldwide and is associated with pigeon feces. It can be found in soil, bird guano, blood, urine, bone marrow specimens, brain, CSF, eye, respiratory system, skin and mucous membranes.
* The host range of *C. neoformans* includes humans and animals, both wild and domestic.
* *C. neoformans* infection (cryptococcosis) can cause a variety of diseases in the CNS, respiratory system (pulmonary cryptococcosis) and skin in immunocompetent and immunocompromised individuals. However, most exposed individuals do not become ill.
* *C. neoformans* infection in the CNS can be fatal, if left untreated.
* Transmission is through inhalation of spores present in the environment, not person-to-person contact.
* Primary hazards to lab workers are (1) airborne, due to basidiospore or desiccated yeast inhalation and (2) parenteral inoculation. Bites from infected laboratory animal and handling infected dropping of birds are of concern.
* *C. neoformans* is a Risk Group 2 agent and requires biosafety level two containment and work practices.

**References:**

* Pathogen Safety Data Sheets: Infectious Substances – *Cryptococcus neoformans*. Revised 2018. <https://www.canada.ca/en/public-health/services/laboratory-biosafety-biosecurity/pathogen-safety-data-sheets-risk-assessment/cryptococcus-neoformans.html>
* Biosafety in Microbiological and Biomedical Laboratories-6th Edition (BMBL 6). U.S. Department of Health and Human Services, CDC, NIH (<https://www.cdc.gov/labs/pdf/CDC-BiosafetyMicrobiologicalBiomedicalLaboratories-2020-P.pdf>)
* *NIH GUIDELINES FOR RESEARCH INVOLVING RECOMBINANT OR SYNTHETIC NUCLEIC ACID MOLECULES (NIH GUIDELINES)*, April 2019. DEPARTMENT OF HEALTH AND HUMAN SERVICES, National Institutes of Health. <https://osp.od.nih.gov/wp-content/uploads/NIH_Guidelines.html>
* Fungal Diseases-*C. neoformans* Infection. (2019) Centers for Disease Control and Prevention, National Center for Emerging and Zoonotic Infectious Diseases (NCEZID), Division of Foodborne, Waterborne, and Environmental Diseases (DFWED) <https://www.cdc.gov/fungal/diseases/index.html>

Enter the following information:

1. Name of the Principal Investigator: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. Applicable IBC protocol number(s) (approved or submitted): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. List the laboratory locations (building/room[s]) for *C. neoformans*, a BSL2 agent:

* Procedures:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and Storage: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. If introducing *C. neoformans* or *C. neoformans*-containing agents into animals, list the animal facility locations (building/room[s]) for these animals. ABSL2 containment is required. Confirm with ULAR that the rooms listed below are suitable for ABSL2 animals.

Procedures:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and Housing:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Date of Agent Summary form completion: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_