**Agent Summary: Influenza A (H1N1), PR8**

**Agent information:**

* Virus Classification: *Orthomyxoviridae, Influenzavirus A;* segmented negative sense, single stranded RNA viruses.
* Species, Influenza A virus (Serotype A); subtype H1N1; Strain PR8; IRD: A/Puerto Rico/8/1934; GenBank: A/Puerto Rico/8-1-MA/1934 (H1N1).
* Original Source: Influenza A virus, A/Puerto Rico/8/1934 (H1N1) was isolated from a human in Puerto Rico in 1934.
* PR8 is an attenuated, mouse mouse-adapted Influenza A strain.
* Influenza A subtypes are classified by the glycolprotein surface proteins for hemagglutin (H) or neuroaminidase (N).
* Influenza A subtypes, H1N1 and H3N2, are currently circulating in the human population.
* Current flu vaccines include the H1N1 and H3N2 subtypes.
* Antigenic alterations, in the HA and NA sites, occur frequently in influenza A, and may alter virulence and be responsible for the occurrences of pandemics. Reassortment of related subtypes, including transspecies reassortment, may also attribute to pandemics.
* Mode of transmission: Influenza A viruses are highly communicable, generally through inhalation of virus-containing aerosols and droplets, or by mucous membrane contact.
* Virus hosts: Humans, swine, horses, birds, other mammals. Zoonosis is possible.
* Especially susceptible individuals include the immunocompromised, young children and older adults.
* Clinical manifestations of influenza A infection include: fever, headache coughing, sneezing, nasal discharge, sore throat, muscle pain and malaise.
* Influenza type A (H1N1), PR8 is an infectious agent and requires biosafety level2 containment (BSL2). Infected animals require ABSL2 containment.
* Use personal protective equipment (PPE) as described in the associated SOP 2.0.

**References:**

1. 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>)
2. Influenza Research database (IRD), Release date 2019. <https://www.fludb.org/brc/fluStrainDetails.spg?strainName=A/PR8/1934&decorator=influenza>
3. Pathogen Safety Data Sheets: Infectious Substances-Influenza virus type A. Modified 2/18/2011. <https://www.canada.ca/en/public-health/services/laboratory-biosafety-biosecurity/pathogen-safety-data-sheets-risk-assessment/influenza-virus-type-a.html>

Enter the following information:

1. Name of the Principle Investigator: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_
2. Applicable IBC protocol number(s) (approved or submitted): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. List the laboratory work locations (Building/room[s]) for Influenza A, a BSL2 agent:

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

1. List the animal facility building/room(s) for Influenza A, ABSL2 containment:

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

\*Note: confirm with ULAR that the rooms listed above are suitable for ABSL2 animals.

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