

Chapter 14

Select Agents

The CDC and USDA have designated certain biological agents and toxins as Select Agents. A Select Agent has the potential to pose a severe threat to public, animal or plant health, or to animal or plant products. These materials require federal registration and approval to receive, possess, or transfer them.

The CDC Department of Health and Human Services (HHS) regulates select agents targeting humans, the United States Department of Agriculture (USDA) regulates select agents targeting animals, and the USDA Plant Protection and Quarantine (PPQ) regulates select agents targeting plants. Before possessing, using, or receiving select agents, the University and Principal Investigator must register with the CDC and/or the USDA to receive authorization for each individual that will access the select agents. Registration includes background checks for individuals seeking access to the agents, security plans, and inventories.

If you wish to begin work with a select agent contact EHS to begin the registration process.

To register a new select agent worker in your lab first contact EHS and when instructed follow the worker registration process here: <http://www.ehs.unc.edu/ih/biological/agents.shtml>

If you want to transfer a select agent, within the University or to another entity, contact EHS to request a transfer approval.

If you discover a select agent in your lab that has not been registered, contact EHS immediately.

HHS Select Agents and Toxins

- Abrin
- Botulinum neurotoxins
- Botulinum neurotoxin producing species of *Clostridium*
- Cercopithecine herpesvirus 1 (Herpes B virus)
- *Clostridium perfringens epsilon toxin*
- *Coccidioides posadasii/Coccidioides immitis*
- Conotoxins
- *Coxiella burnetii*
- Crimean-Congo haemorrhagic fever virus
- Diacetoxyscirpenol
- Eastern Equine Encephalitis virus
- Ebola virus
- *Francisella tularensis*
- Lassa fever virus
- Marburg virus
- Monkeypox virus

- Reconstructed replication competent forms of the 1918 pandemic influenza virus containing any portion of the coding regions of all eight gene segments (Reconstructed1918 Influenza virus)
- Ricin
- *Rickettsia prowazekii*
- *Rickettsia rickettsii*
- Saxitoxin
- Shiga-like ribosome inactivating proteins
- Shigatoxin
- South American Haemorrhagic Fever viruses: Flexal, Guanarito, Junin, Machupo, Sabia
- Staphylococcal enterotoxins
- T-2 toxin
- Tetrodotoxin
- Tick-borne encephalitis complex (flavi) viruses: Central European Tick-borne encephalitis, Far Eastern Tick-borne encephalitis, Kyasanur Forest disease, Omsk Hemorrhagic Fever, Russian Spring and Summer encephalitis
- Variola major virus (Smallpox virus)
- Variola minor virus (Alastrim)
- *Yersinia pestis*

OVERLAP Select Agents and Toxins

- *Bacillus anthracis*
- *Brucella abortus*
- *Brucella melitensis*
- *Brucella suis*
- *Burkholderia mallei* (formerly *Pseudomonas mallei*)
- *Burkholderia pseudomallei* (formerly *Pseudomonas pseudomallei*)
- Hendra virus
- Nipah virus
- Rift Valley fever virus
- Venezuelan Equine Encephalitis virus

USDA Select Agents and Toxins

- African horse sickness virus
- African swine fever virus
- Akabane virus
- Avian influenza virus (highly pathogenic)
- Bluetongue virus (exotic)
- Bovine spongiform encephalopathy agent
- Camel pox virus
- Classical swine fever virus
- *Ehrlichia ruminantium* (Heartwater)

- Foot-and-mouth disease virus
- Goat pox virus
- Japanese encephalitis virus
- Lumpy skin disease virus
- Malignant catarrhal fever virus (Alcelaphine herpesvirus type 1)
- Menangle virus
- *Mycoplasma capricolum* subspecies *capripneumoniae* (contagious caprine pleuropneumonia)
- *Mycoplasma mycoides* subspecies *mycoides* small colony (Mmm SC) contagious bovine pleuropneumonia)
- Peste des petits ruminants virus
- Rinderpest virus
- Sheep pox virus
- Swine vesicular disease virus
- Vesicular stomatitis virus (exotic): Indiana subtypes VSV-IN2, VSV-IN3
- Virulent Newcastle disease virus ¹

USDA PLANT PROTECTION AND QUARANTINE (PPQ)

Select Agents and Toxins

- *Peronosclerospora philippinensis* (*Peronosclerospora sacchari*)
- *Phoma glycinicola* (formerly *Pyrenochaeta glycinis*)
- *Ralstonia solanacearum* race 3, biovar 2
- *Rathayibacter toxicus*
- *Sclerophthora rayssiae* var *zeae*
- *Synchytrium endobioticum*
- *Xanthomonas oryzae*
- *Xylella fastidiosa* (citrus variegated chlorosis strain)

¹ A virulent Newcastle disease virus (avian paramyxovirus serotype 1) has an intracerebral pathogenicity index in day-old chicks (*Gallus gallus*) of 0.7 or greater or has an amino acid sequence at the fusion (F) protein cleavage site that is consistent with virulent strains of Newcastle disease virus. A failure to detect a cleavage site that is consistent with virulent strains does not confirm the absence of a virulent virus.