VUMC Export Compliance

Export-Controlled & Restricted Biological Agents

What biological agents are restricted?

The pages below list certain agents and materials restricted for export by the U.S. Government. Be aware that this list is not exhaustive and is subject to change at any time.

1. For reference, the items on the pages below are located on the **Commerce Control List** from the U.S. Department of Commerce, as found here: https://www.ecfr.gov/current/title-15/part-774
2. Additionally, any agent on the Select Agent List found here: http://www.selectagents.gov/SelectAgentsandToxinsList.html
3. As well as any item on the Australia Group List of Human and Animal Pathogens found here: https://www.dfat.gov.au/publications/minisite/theaustraliagroupnet/site/en/human_animal_pathogens.html

What is an export?

An export is defined as any oral, written, electronic, or visual disclosure, shipment, transfer or transmission of any commodity, technology (information, technical data, assistance) or software code to anyone outside the U.S., including U.S. citizens, or to a non-U.S. entity or individual, wherever they are located.

- It is important that VUMC faculty and staff are aware of export control requirements and how they may affect their work. If you work with any of the following (or similar) agents and/or you intend to send samples or data abroad, or plan to collaborate with foreign colleagues either here or in foreign countries, we urge you to contact VUMC EC directly on the web at https://www.vumc.org/globalsupport/export-compliance or via email at export@vumc.org.

- We will help familiarize you with what restrictions apply to the agents in your lab and how to incorporate the export control requirements into your research program.

Viruses

- African horse sickness virus;
- African swine fever virus;
- Andes virus;
- Andean potato latent virus (Potato Andean latent tymovirus);
- Avian influenza (AI) viruses identified as having high pathogenicity (HP), as follows:
- AI viruses that have an intravenous pathogenicity index (IVPI) in 6-week-old chickens greater than 1.2; or
- AI viruses that cause at least 75% mortality in 4- to 8-week-old chickens infected intravenously.
    - Note: Avian influenza (AI) viruses of the H5 or H7 subtype should be sequenced to determine whether multiple basic amino acids are present at the cleavage site of the haemagglutinin molecule (HA0). If the amino acid motif is similar to that observed for other HPAI isolates, then the isolate being tested should be considered as HPAI.
- Bluetongue virus;
- Chapare virus;
- Chikungunya virus;
- Choclo virus;
- Classical swine fever virus (Hog cholera virus);
- Crimean-Congo hemorrhagic fever virus;
- Dobrava-Belgrade virus;
- Eastern equine encephalitis virus;
- Ebolavirus (includes all members of the Ebolavirus genus, e.g. Bundibugyo virus);
- Foot-and-mouth disease virus;
- Goatpox virus;
- Guanarito virus;
- Hantaan virus;
- Hendra virus (Equine morbillivirus);
- Japanese encephalitis virus;
- Junin virus;
- Kyasanur Forest disease virus;
- Laguna Negra virus;
- Lassa virus;
- Louping ill virus;
- Lujo virus;
- Lumpy skin disease virus;
- Lymphocytic choriomeningitis virus;
- Machupo virus;
- Marburgvirus (includes all members of the Marburgvirus genus);
- Middle East respiratory syndrome-related coronavirus (MERS-related coronavirus);
- Monkeypox virus;
- Murray Valley encephalitis virus;
- Newcastle disease virus;
- Nipah virus;
- Omsk hemorrhagic fever virus;
- Oropouche virus;
- Peste-des-petits ruminants virus;
- Porcine Teschovirus;
- Potato spindle tuber viroid
- Powassan virus;
- Rabies virus and all other members of the Lyssavirus genus;
- Reconstructed 1918 influenza virus (includes reconstructed replication competent forms of the 1918 pandemic influenza virus containing any portion of the coding regions of all eight gene segments);
- Rift Valley fever virus;
- Rinderpest virus;
- Rocio virus;
- Sabia virus;
- Seoul virus;
- Severe acute respiratory syndrome-related coronavirus (SARS-related coronavirus);
- Sheeppox virus;
- Sin Nombre virus;
- St. Louis encephalitis virus;
- Suid herpesvirus 1 (Pseudorabies virus; Aujeszky's disease);
- Swine vesicular disease virus;
- Tick-borne encephalitis virus (Far Eastern subtype, formerly known as Russian Spring-Summer encephalitis virus);
- Tick-borne encephalitis virus (Siberian subtype, formerly West Siberian virus)
- Variola virus;
- Venezuelan equine encephalitis virus;
- Vesicular stomatitis virus;
- Western equine encephalitis virus; or
- Yellow fever virus.

Bacteria

- Bacillus anthracis;
- Brucella abortus;
- Brucella melitensis;
- Brucella suis;
- Burkholderia mallei (Pseudomonas mallei);
- Burkholderia pseudomallei (Pseudomonas pseudomallei);
- Chlamydia psittaci (Chlamydophila psittaci);
- Clavibacter michiganensis subspecies sepedonicus (syn. Corynebacterium michiganensis subspecies sepedonicum or Corynebacterium sepedonicum);
- Clostriduim argentinense (formerly known as Clostridium botulinum Type G), botulinum neurotoxin producing strains;
- Clostridium baratii, botulinum neurotoxin producing strains;
- Clostridium botulinum;
- Clostridium butyricum, botulinum neurotoxin producing strains;
- Clostridium perfringens, epsilon toxin producing types;
- Coxiella burnetii;
- Francisella tularensis;
- Mycoplasma capricolum subspecies capripneumoniae ("strain F38");
- Mycoplasma mycoides subspecies mycoides SC (small colony) (a.k.a. contagious bovine pleuropneumonia);
- Ralstonia solanacearum, race 3, biovar 2;
- Raythayibactor toxicus
- Rickettsia prowazekii;
- Salmonella enterica subspecies enterica serovar Typhi (Salmonella typhi);
- Shiga toxin producing Escherichia coli (STEC) of serogroups O26, O45, O103, O104, O111, O121, O145, O157, and other shiga toxin producing serogroups;
    - Note: Shiga toxin producing Escherichia coli (STEC) includes, inter alia, enterhaemorrhagic E. coli (EHEC), Verotoxin producing E. coli (VTEC) or vercytotoxin producing E. coli (VTEC)
- Shigella dysenteriae;
- Vibrio cholerae; or
- Xanthomonas albilineans;
- Xanthomonas axonopodis pv. citri (Xanthomonas campestris pv. citri A) (Xanthomonas campestris pv. citri);
- Xanthomonas oryzae
- Yersinia pestis

Toxins

- Abrin;
- Aflatoxins;
- Botulinum toxins;
- Brevetoxins;
- Clostridium perfringens alpha, beta 1, beta 2, epsilon and iota toxins;
- Conotoxins;
- Diacetoxyscirpenol;
- Gonyautoxins;
- HT-2 toxin;
- Microcystins (Cyanginosins);
- Modeccin;
- Nodularins;
- Palytoxin;
- Ricin;
- Saxitoxin;
- Shiga toxins (shiga-like toxins, verotoxins, and verocytotoxins);
- Staphylococcus aureus enterotoxins, hemolysin alpha toxin, and toxic shock syndrome toxin (formerly known as Staphylococcus enterotoxin F);
- T-2 toxin;
- Tetrodotoxin;
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- Volkensin

Fungi

- Coccidioides immitis;
- Coccidioides posadasii;
- Cochliobolus miyabeanus (Helminthosporium oryzae);
- Colletotrichum kahawae (Colletotrichum coffeanum var. virulans);
- Magnaporthe oryzae (Pyricularia oryzae);
- Microcyclus ulei (syn. Dothidella ulei);
- Puccinnia graminis ssp. graminis var. graminis/Puccinia graminis ssp. graminis var. stakmanii (Puccinia graminis[syn. Puccinia graminis f. sp. tritici]);
- Puccinia striiformis (syn. Puccinia glumarum);
- Peronosclerospora philippinensis (Peronosclerospora sacchari);
- Phoma glycinicola (formerly Pyrenochaeta glycines)
- Sclerophthora rayssiae var. zeae;
- Synchytrium endobioticum;
- Thecaphora solani;
- Tilletia indica

Vaccines & Immuotoxins

- Vaccines against items controlled above;
- Immunotoxins containing items controlled above;
- Medical products containing toxins (e.g. botulinum toxin, conotoxin, etc.)
- Diagnostic and food testing kits containing items controlled above

NOTE: <u>Genetic elements</u> from any of the categories above are also controlled.

Specifically, any nucleic acid sequences which code for biological toxins, any nucleic acid sequences that are a hazard to human health when transcribed or translated, or any nucleic acid sequence that would make any restricted microorganism above more pathogenic.

This also covers microorganisms that have been genetically altered to express the above genetic elements.