
CANADIAN SCIENCE CENTRE FOR HUMAN AND ANIMAL HEALTH

- This Winnipeg based state-of-the art laboratory complex is jointly operated by the Public Health Agency of Canada and the Canadian Food Inspection Agency.
- It houses the Canadian Food Inspection Agency's National Centre for Foreign Animal Disease as well as the Public Health Agency of Canada's National Microbiology Laboratory.
- As the first facility in the world to combine laboratories for human and animal disease research at the highest level of biocontainment, it provides a unique environment in which researchers can collaborate as they study established, emerging and re-emerging diseases of both humans and animals.
- The facility contains Canada's only Biosafety Level 4 (BSL 4) laboratories, providing the capability to work safely with the most serious human and animal diseases.
- The BSL 4 laboratories ensure Canada's diagnostic capabilities for any known disease agent that may be brought into the country. It also enables research into these deadly diseases, including the Ebola, Marburg and Nipah viruses, to identify just a few. The BSL4 laboratories also allow scientists to work safely with new agents prior to their biosafety classification.
- Sixty-one percent of laboratory space is Biosafety Level 2, while 35% is dedicated to Biosafety Level 3 laboratories. The BSL 4 laboratories represent less than 4% of the laboratory area.
- Currently about 400 Government of Canada employees work at the complex.
- BSL 3 and 4 laboratory areas contain airtight rooms and ductwork, and feature interlocking and airtight bio-seal doors and damper systems. Air-locks for entry and exit maintain negative air pressures to direct air inward, ensuring organisms being studied remain in the laboratory.
- Air exiting the laboratories is filtered using High Efficiency Particulate Air (HEPA) filtration. HEPA filters can filter out particles 85 times smaller than the smallest known disease-causing agent.
- Solid and liquid waste sterilization is accomplished in part through a 20,000 litre liquid sterilization system and a specially-designed autoclave to heat and break down solid waste.
- Three 1000-kilowatt generators handle emergency power back-up to all heating, ventilation and air conditioning systems, and to essential life safety systems.