

MEMOS ON INTERNATIONAL
BIORISK MANAGEMENT NETWORKS

World Health Organization (WHO) Advisory Committee for Variola Virus Research (ACVVR)



Purpose

ACVVR was mandated to develop a research plan for work on medical countermeasures against smallpox and to advise WHO on research priorities in order to reach consensus regarding variola virus stocks.

ACVVR meets annually to:

- ♦ advise WHO on all actions to be taken with respect to variola virus,
- ♦ develop a research plan for priority work on the variola virus,
- ♦ devise a mechanism for reporting of research to the global health community, and
- ♦ outline an inspection schedule to confirm the strict containment of variola virus and ensure a safe and secure research environment.

Formation

Following the 1979 report of the Global Commission for the Certification of Smallpox Eradication, the World Health Assembly (WHA) recommended disposal of remaining variola virus stocks and called for the creation of a panel of experts on orthopoxviruses to advise on possible dates for stock destruction. Expert disagreement on the advisability of destroying all remaining stocks led WHA member states to make four key recommendations in 1999: (1) variola virus stocks must be destroyed save those maintained by the State Research Center of Virology and Biotechnology (VECTOR) in Russia and the Centers for Disease Control and Prevention (CDC) in the United States, (2) the stocks must be destroyed no later than 2002, (3) any research on orthopoxviruses must be transparent and conducted in consultation with WHO, and (4) the WHO Director-General was to appoint an expert committee to continually evaluate at what point the stocks in the US and Russia should be destroyed. This fourth recommendation formed the basis for ACVVR.

Structure

ACVVR reports directly to the WHO Director-General.

The scientific subcommittee (1999-2017)

ACVVR is empowered to provide oversight on a number of items, with greater emphasis placed on the review and approval/disapproval of live variola virus research proposals. A scientific subcommittee was formed during ACVVR's first meeting in 1999 to carry out this task, but in 2017 it was disbanded in favor of the entire ACVVR reviewing all proposals.

The WHO inspection teams

The first WHO inspection teams were deployed to the CDC and VECTOR in 2009. The inspection teams are composed of international experts agreed to by both parties prior to the inspections. In addition to the inspection teams, observers from the site not under inspection are permitted to attend the inspection and site tour at the other repository, but they are not allowed to attend the final discussion on findings and observations. The observers are, however, encouraged to provide input on best practices and help to preserve impartiality in the inspection process.

Key Activities

CDC and VECTOR Inspections

Initially, representatives from the CDC and VECTOR would update ACVVR members on their activities including viability trials and inventorying stored smallpox isolates. In 2007, the WHO Director-General established biennial inspections of the CDC and VECTOR by WHO inspection teams to ensure the safety and security of the isolates and to provide assurance that research involving variola virus was conducted in a safe and secure environment. Each site is evaluated using the European Committee for Standardization (CEN), Committee Workshop Agreement (CWA) 15793, "Laboratory Biorisk Management Standard" every two years. The findings are reported to the WHA and are publicly available with redactions.

Membership

ACVVR is composed of up to 25 experts with a variety of expertise, such as orthopoxviruses, synthetic biology, public health policy, global health security, bioterrorism and public health preparedness, biosecurity, risk management, bioethics, and law. The experts serve in their personal capacity for terms of up to three years.

WHO periodically releases announcements seeking expressions of interest from scientists who would like to serve on ACVVR.



Key Resources

ACVVR website

who.int/groups/who-advisory-committee-on-variola-virus-research ▶

ACVVR Meeting Reports

who.int/groups/who-advisory-committee-on-variola-virus-research/meeting-documents ▶

ACVVR Terms of Reference

cdn.who.int/media/docs/default-source/documents/health-topics/smallpox/tors-acvvr_august2021.pdf?sfvrsn=27920ee7_5 ▶

World Health Organization, "Research using live variola virus" governance overview

who.int/activities/research-using-live-variola-virus ▶

Variola Virus Repository Safety Inspections:

who.int/activities/variola-virus-repository-safety-inspections ▶