

Infrastructures and Databases to Facilitate R&D



Conducting scientific research requires significant research infrastructure, including facilities, resources and related services. The establishment of common databases, allowing for the sharing of knowledge and facilitating networking, is important to facilitate and accelerate R&D. This chapter provides a list of significant infrastructures and databases relevant to the animal health sector.

ACDP - Australian Centre for Disease Preparedness

A high-containment animal research centre in Australia, part of the CSIRO, working globally to support animal and human health organizations and enhance biosecurity.

<https://www.csiro.au/en/about/facilities-collections/acdp/acdps-global-role>

ANIMUSE - ANimal antiMicrobial USE Enabling Data-Based Decision Making

WOAH's global database that tracks antibiotic use in animals, helping stakeholders report, access and analyse data to promote responsible antimicrobial use.

<https://amu.woah.org/amu-system-portal/home>

ARS Microbial Genomic Sequence Database (USDA)

Houses annotated genomic sequences of pathogens relevant to animal health, supporting the development of diagnostics and vaccines.

<https://www.ars.usda.gov/research/programs-projects/microbial-genomics/>

CAB Abstracts – CABI (Centre for Agriculture and Bioscience International)

A major bibliographic database covering international scientific literature on agriculture, veterinary sciences, animal production and health, including grey literature. It facilitates access to global research and trends in animal health.

<https://www.cabidigitallibrary.org>

DA4A Database – List of Animal Health Diagnostics

D4A proposes an [open-access database](#) of approximately 3000 animal health diagnostics. It is possible to look for a kit via different methods: keyword, producer, disease, target species or by an overview of a [mapping](#) of diagnostics by diseases.

DISCONTTOOLS - Disease Control Tools

An open-access database identifying research gaps in animal health, helping funders and researchers prioritize and plan future studies on over 50 infectious diseases.

<http://www.DISCONTTOOLS.eu/>

EMPRES - Emergency Preventions System for Animal Health

An FAO web application supporting Veterinary Services by organising and accessing global disease data, aiming to control and eliminate serious livestock diseases.

<https://empres-i.apps.fao.org/>

ERINHA - European Research Infrastructure on Highly Pathogenic Agents

A pan-European infrastructure providing access to high containment facilities to accelerate research on high-risk pathogens and enhance outbreak preparedness.

<https://erinha.eu/>

EVAg - European Virus Archive global

A non-profit organisation offering a global collection of virus samples and reagents, facilitating scientific research, education and disease control.

<https://www.european-virus-archive.com/>

GLASS - GLobal Antimicrobial resistance and use Surveillance System

A WHO global database for surveillance of antibiotic use and antimicrobial resistance in human health, including environmental and food chain data.

<https://www.who.int/initiatives/glass>

GLEWS - FAO Global Information and Early Warning System on Food and Agriculture

Monitors global food security, issuing reports and warnings to help countries and development partners plan and respond to potential food crises.

<http://www.fao.org/gIEWS/en/>

Global AMR R&D Hub - Global Antimicrobial Resistance Research and Development Hub

A collaboration hub for coordinating global antimicrobial research efforts, providing a dashboard with real-time data on AMR R&D initiatives and funding flows.

<https://dashboard.globalamrhub.org/>

ISIDORE - Integrated Services for Infectious Disease Outbreak Research

Offers an integrated portfolio of research services and resources to study epidemic-prone pathogens, enhancing Europe's capacity for controlling infectious diseases.

<https://isidore-project.eu/>

The Immunological Toolbox

A platform for veterinary researchers to find reagents and collaborate, aiming to facilitate veterinary vaccine development by providing a comprehensive resource database.

<https://www.ed.ac.uk/roslin/facilities-resources/immunological-toolbox>

US NADC - National Animal Disease Center

One of the largest animal health research centres in the world, conducting research on animal diseases and serving as a reference laboratory for diagnostics and vaccines.

<https://www.ars.usda.gov/midwest-area/ames/nadc/>

WAHIS - World Animal Health Information System

WOAH's global animal health database, reporting outbreaks of listed and emerging diseases, with interactive tools for data visualisation and extraction.

<https://wahis.woah.org/#/home>