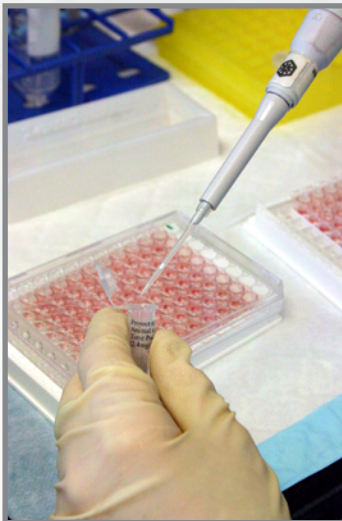




Clinical observations on study animals in ABSL3 enhanced facility.



Hemagglutination assay

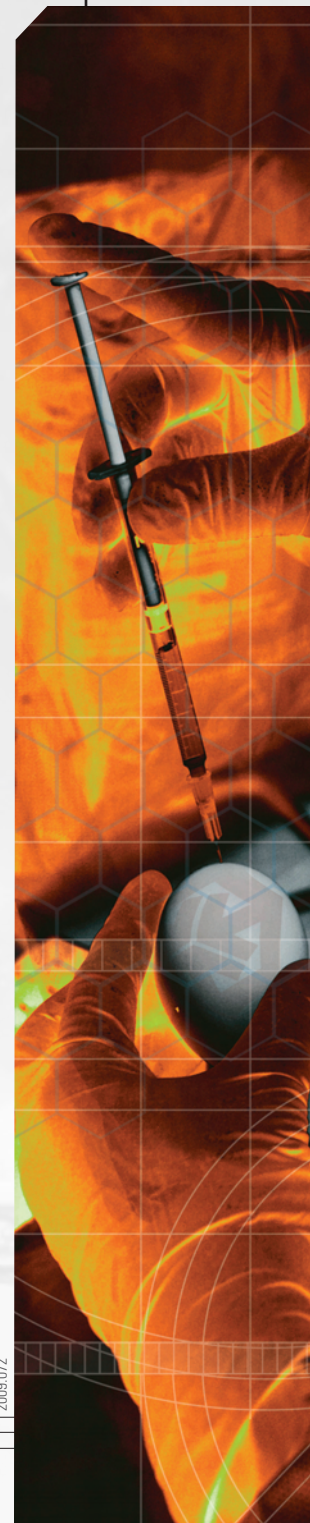
About MRIGlobal

MRIGlobal is an independent, not-for-profit organization that performs contract research for clients in government, industry, and academia. Founded in 1944, MRIGlobal is one of the nation's leading research institutes conducting research in the areas of national security and defense, life sciences, food and agriculture, energy and environment, and transportation safety. MRIGlobal has facilities in Kansas City, MO; Frederick, MD; Rockville, MD; and Palm Bay, FL; and manages multiple laboratories for the federal government. MRIGlobal is one of two entities in the Alliance for Sustainable Energy, LLC, that manages the National Renewable Energy Laboratory in Golden, CO, for the U.S. Department of Energy.

For more information on MRIGlobal's Center for Influenza Virus Research, please contact:

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The MRIGlobal Center for Influenza Virus Research

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Clients who need comprehensive research services have been looking to MRIGlobal since 1944. MRIGlobal's Center for Influenza Virus Research has the experienced staff, approved state of the art facilities with validated equipment, regulatory certifications, and quality systems to support a variety of influenza virus programs.



Virus isolation by tissue culture performed in biosafety cabinet in BSL3 laboratory.

Core Capabilities

Life Sciences services have remained a core capability of MRIGlobal. With more than 30 years of experience providing biological model development, testing, and validation services to federal agencies (EPA, FDA, and NIH) and the pharmaceutical and biotechnology industries, MRIGlobal's experience specific to influenza virus, including highly pathogenic avian influenza virus (HPAIV) H5N1, pandemic H1N1, and seasonal H3N2 strains include:

- All necessary permits, licensing, and certifications to acquire, maintain, and work with influenza viruses, including H5N1 and H1N1 strains.
- Existing stocks of seasonal, veterinary isolates, reverse genetics reassortants, vaccine, and H5N1 strains.

- Personnel GLP trained in various aspects of influenza testing, from *in vitro* characterization to animal exposure and evaluations.
- Existing standard operating procedures (SOPs) for working with influenza viruses, including H5N1 and H1N1 strains.
- Biocontainment laboratories; BSL2 and BSL3 enhanced, ABSL2 and ABSL3 enhanced with isolator caging for both rodents and ferrets.
- Registered with CDC and USDA for transferring and receiving select agents.
- Preclinical toxicology to support vaccine development.
- Validated nose-only bioaerosol challenge system, with real-time plethysmography.



Bioaerosol exposure with wild-type HPAIV

Capacity

- Over 3,000 ft² of BSL2 and BSL3 enhanced laboratories, 4,000 ft² of ABSL2 and ABSL3 enhanced laboratories, and 10,000 ft² of conventional ABSL1 laboratory space
- Biocontainment animal care facilities to support up to 10,000 mice and 200 ferrets

Experience

- Evaluation of influenza POC diagnostics, including HPAIV.
- Ferret intranasal and bioaerosol challenge studies with H5N1 and H1N1 strains.
- Mouse intranasal challenge with H5N1 and H1N1 strains.
- Propagation and molecular sequence characterization of influenza viruses, including H5N1 and H1N1 strains.
- Egg infectious dose and TCID₅₀ in MDCK, MV1 Lu, and other cells.
- Plaque assays.
- Immunogenicity assays and ELISAs.
- Isolation and titration of virus from infected tissues, organs, nasal washes, feces and rectal swabs.
- Hemagglutination assays using human, guinea pig, horse, chicken, or turkey cells.
- Hemagglutination inhibition assays using human or animal sera.
- Microneutralization assays.
- Handling, storing (inventory-tracked), packaging, and shipping dangerous pathogens, including HPAIV and select agents.



Candling Avian influenza virus infected egg.

