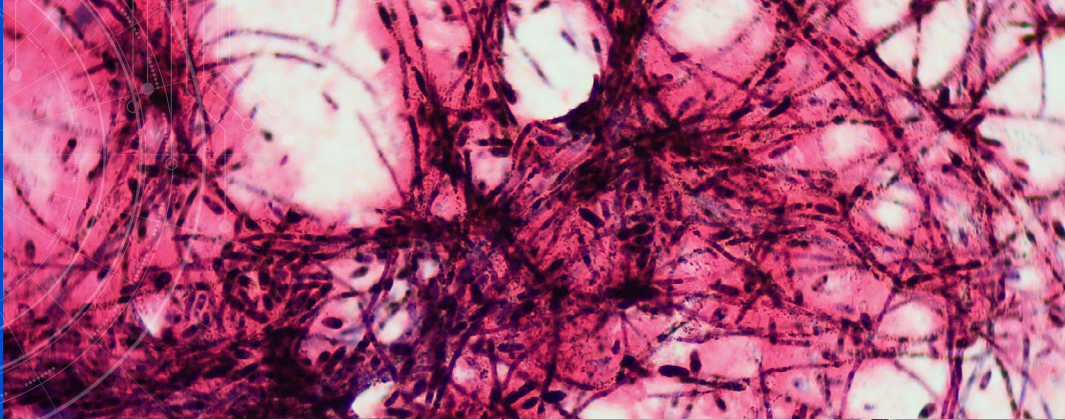




SOUTHWEST RESEARCH INSTITUTE



# Microbiology and Virology Laboratory Services

Southwest Research Institute® (SwRI®) offers advanced research capabilities in biological science, combining chemical expertise with biological strategies for innovative problem solving. Using the latest technologies in state-of-the-art laboratories, SwRI scientists provide multidisciplinary, integrated approaches to meet client requirements.

## Laboratory Capabilities

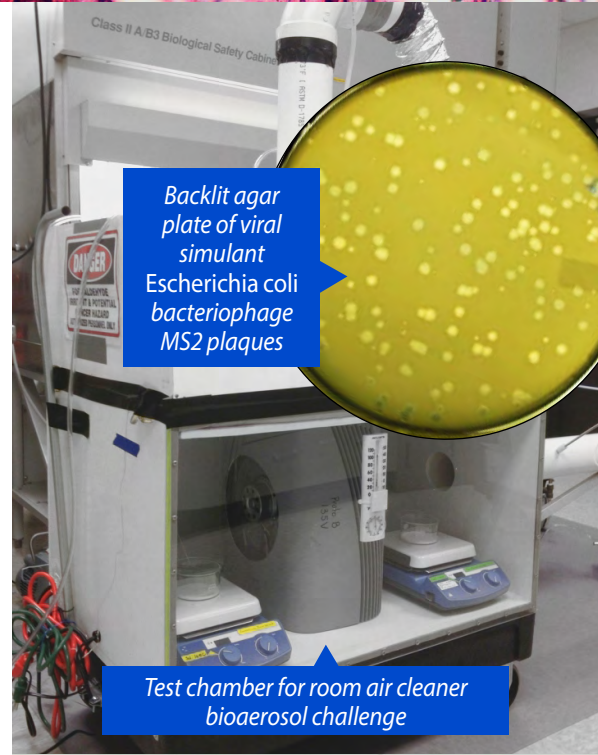
The SwRI Microbiology and Virology Laboratories function at Biological Safety Level 2 (BSL-2+) and are equipped with Class II, Type A2 biological safety cabinets. SwRI scientists and technicians have expertise in a wide variety of technical areas, including:

- Good Laboratory Practices (GLP)
- Bacterial/fungal/viral growth analysis, assays, and experimental design
- Detection, quantification, and identification
- Antimicrobial disinfectant and biocide efficacy
- Aerobic and anaerobic environments
- Microbial-induced corrosion
- Microbial fuel analysis
- Skin sensitization/materials toxicity
- Enzyme utilization
- Biofilms and bioaerosols
- Controlled biological systems
- Food microbiology
- Field and environmental sampling and collection
- Cytotoxicity

## Staff Expertise

SwRI scientists are exploring new developments in sustainability of decontamination methods, controlled release biocides, and microbial-induced corrosion. Standard methodologies (EPA, FDA, ASTM, IP, AOAC, and CLSI) are followed as requested by clients.

Technical staff members have significant field and laboratory expertise with pathogenic and non-pathogenic *Bacillus* species and their bacteriophages; BSL-2, -3, and -4 design, operation, procedures, and training; and ELISA (enzyme-linked immunosorbent assay), plaque, and end-point assays. Other laboratory evaluations include growth analysis (various media, concentrations, and environmental parameters) and enzyme utilization studies.

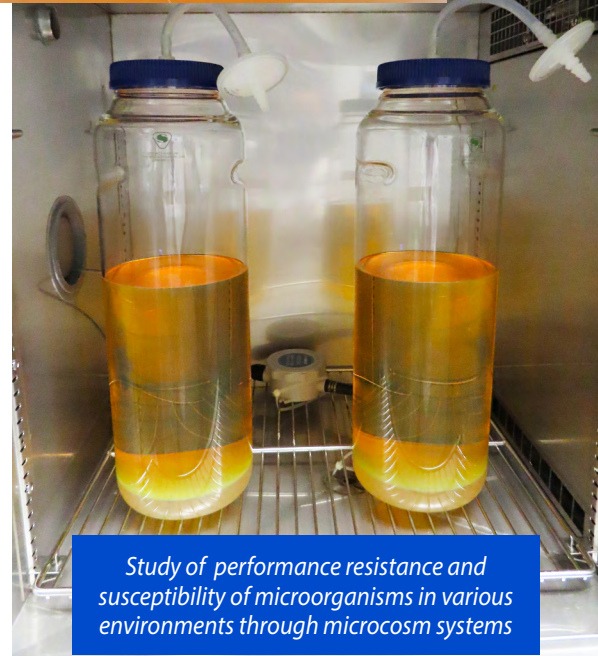


Backlit agar plate of viral simulant *Escherichia coli* bacteriophage MS2 plaques

Test chamber for room air cleaner bioaerosol challenge

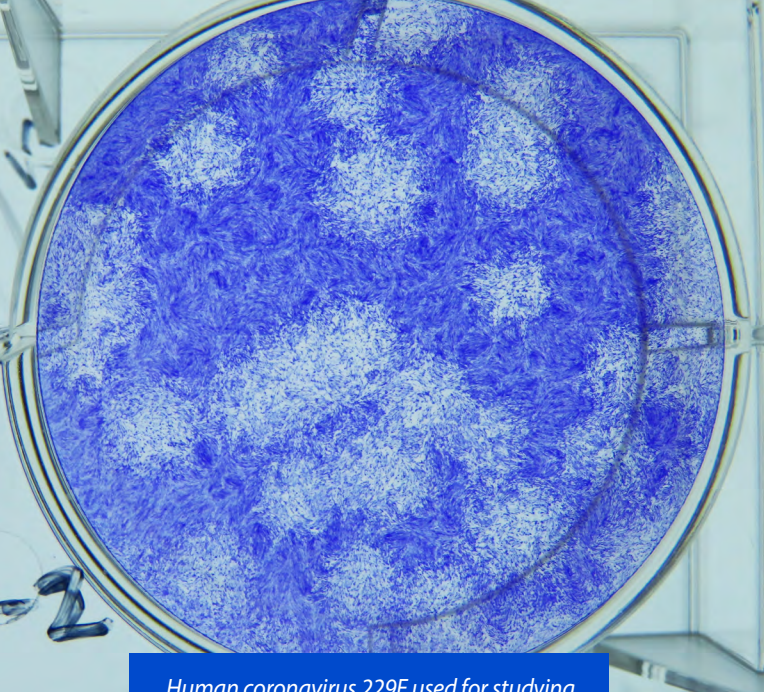


Close-up of developed biofilm at water-fuel interface



Study of performance resistance and susceptibility of microorganisms in various environments through microcosm systems

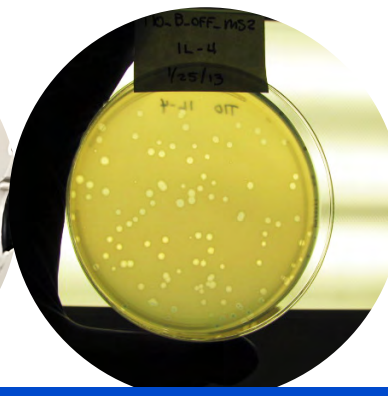
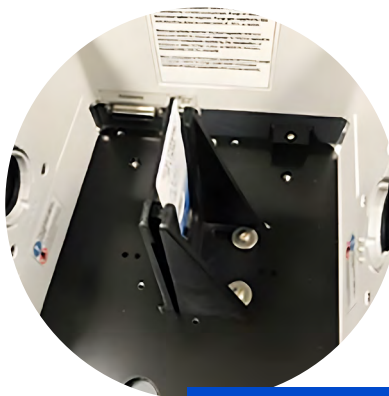




Human coronavirus 229E used for studying real-time pathogen detection



Individual suites dedicated to bacterial, viral, and anaerobic work in the SwRI microbiology facility



Identification and characterization of pathogens from aerosolized samples

We welcome your inquiries.  
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## SOUTHWEST RESEARCH INSTITUTE

Southwest Research Institute® is a premier independent, nonprofit research and development organization. With eleven technical divisions, we offer multidisciplinary services leveraging advanced science and applied technologies. Since 1947, we have provided solutions for some of the world's most challenging scientific and engineering problems.

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