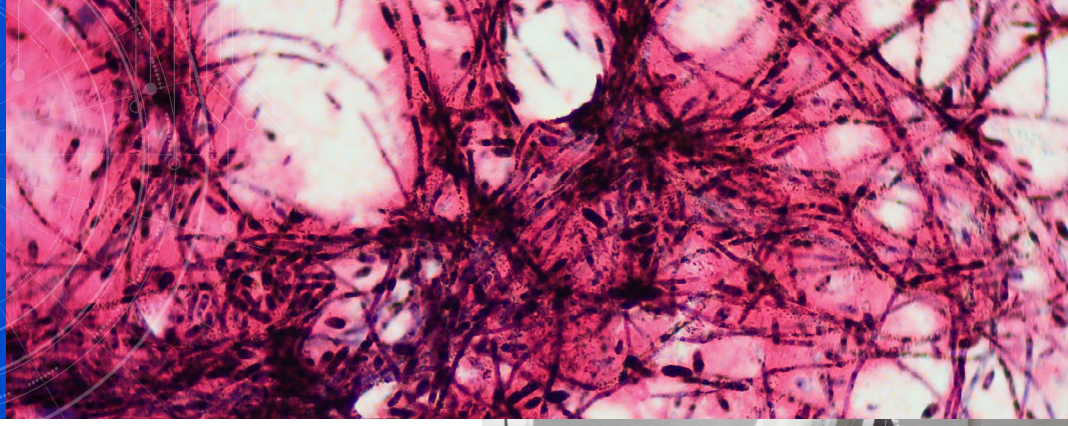
SwRI®

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

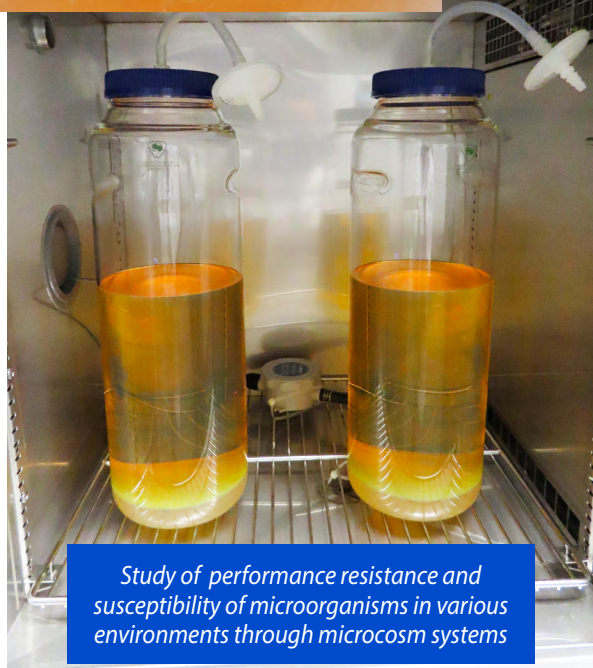
SwRI scientists are exploring new developments in sustainability of decontamination methods, controlled release biocides, and microbial-induced corrosion. Standard methodologies (EPA, FDA, ASTM, IP, AOAC, and CLSI) are followed as requested by clients.

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.

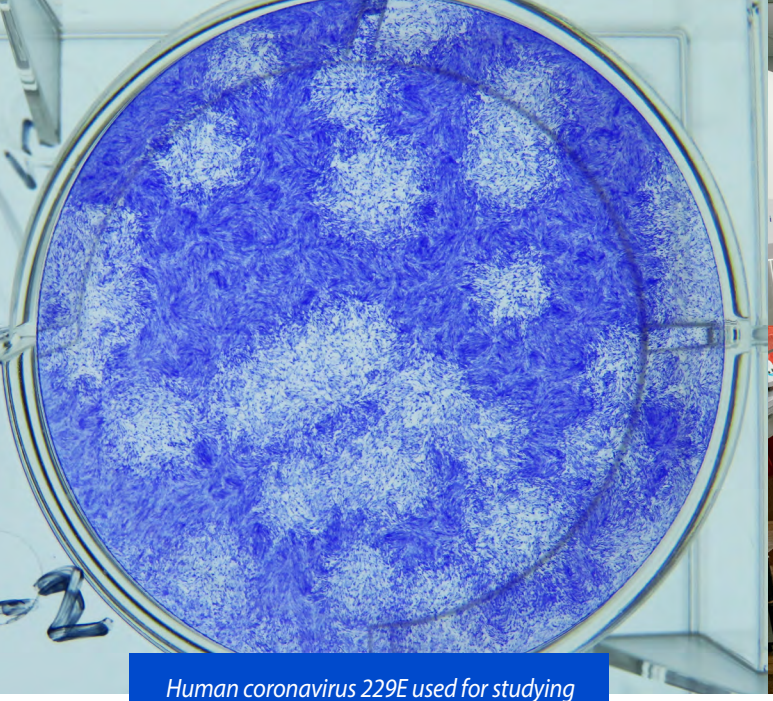
Backlit agar plate of viral simulant Escherichia coli *bacteriophage MS2 plaques*

Test chamber for room air cleaner bioaerosol challenge

Close-up of developed biofilm at water-fuel interface

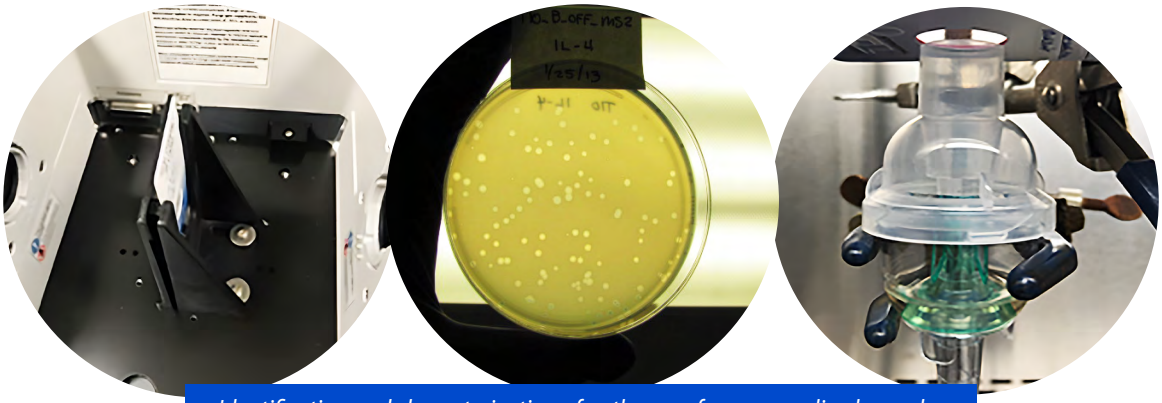


Study of performance resistance and susceptibility of microorganisms in various environments through microcosm systems



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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Designed & printed by SwRI MPS 14 0524-272137 tp