



IET OR
MICROBIOLOGY

Microbiome research and the fight against AMR

Thanks to federal investment in microbiome research, including the Human Microbiome Project (HMP), we now know that antibiotics and other antimicrobials leave their mark on both the microbiome and host immunity. Antimicrobials expand the host-specific pool of antimicrobial-resistance genes and organisms, degrade the protective effects of the microbiome against invasion by pathogens and may impair vaccine efficacy. Researchers are leveraging this developing knowledge of human and animal microbiomes to create new tools in the fight against AMR.

What is microbiome research?

MicrA coordinated effort to evaluate human, animal and plant microbiomes could propel the bioeconomy to the next level and address the most pressing concerns in health, food safety and antimicrobial resistance. ASM urges policymakers to create a mechanism for strategic leadership, interagency coordination and support across federal science agencies on fundamental microbiome research.

Policy Recommendations:

- Recognize the integral role of microbiome research in the U.S. bioeconomy and support the infrastructure needed to advance microbiome research.
- Provide robust and sustained funding for fundamental microbiome research.
- Through cross-cutting funding and coordination across federal science agencies, study the impact of antibiotic and antifungal therapy on human and animal gut microbiomes, environmental microbiomes and agricultural microbiomes.
- Streamline the regulatory process to increase clarity and decrease the amount of time needed for new microbiome therapeutics to reach the market.
- Reinststate the Microbiome Interagency Working Group at the White House Office of Science and Technology Policy with a directive to develop a new Interagency Strategic Plan for Microbiome Research.