FEMS MICRO MILAN 2025
Congress — Exhibition

The International Union of Microbiological Societies (IUMS)
The global voice of microbiology

Introduction: The International Union of Microbiological Societies (IUMS) is the global voice of microbiology, uniting regional and national societies of microbiology. IUMS aims to raise the awareness of microbiology's importance and to seek sustainable solutions of key planetary problems. Microbes play a key role in climate change, fixing C02, supporting every form of life but also causing infectious diseases including pandemics.

Objective: IUMS aims to foster international exchange, dialogue, and collaboration among microbiologists. We advocate for the preservation of global microbial diversity, and promote the global understanding of microbiology's role in health, the environment and industry.

Method: IUMS is part of the International Council of Scientific Unions, an organization which unites 40 international scientific Unions and Associations and over 140 national and regional scientific organizations. IUMS promotes its mission through organizing conferences, facilitating research collaborations, and engaging with policymakers.

Findings: Recently, IUMS and the American Society of Microbiology formed a Scientific Advisory Group of 12 microbiology experts, along with ethics and economy specialists, to analyze and prioritize sustainable, microbe-driven solutions across various fields.

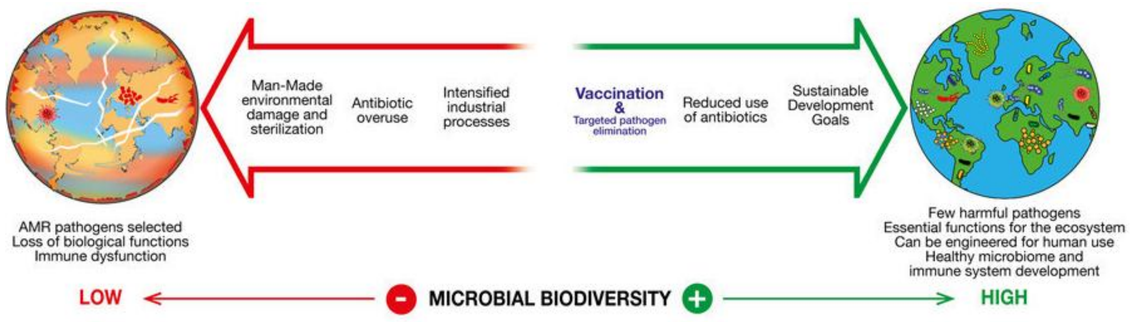
Conclusion: IUMS plays a pivotal role in uniting the global microbiological community to address planetary challenges like climate change and health crises. By fostering collaboration and advocating, IUMS promotes global alignment of microbiological societies worldwide to design solutions for human health, climate change, food and energy production while preserving global microbial diversity.

www.iums.org

➢ Save the microbes to save the planet. A call to action by the IUMS

Call to action to mobilize all microbiological societies globally to **promote the development of sustainable solutions to control infectious agents while preserving the global microbial diversity and the healthy life of our planet.**

Key strategies:
- Limit Broad Antimicrobial Use
- Curb Antibiotic Overuse in Agriculture
- Support the UN Sustainable Development Goals (SDGs)



➢ Microbes, planetary health, and the Sustainable Development Goals (SDGs)

- **Microorganisms are essential to life on Earth** and the functioning of the biosphere. Playing a central role in the biochemical processing of elements, synthesizing new materials, supporting human health, and facilitating life in managed and natural landscapes
- Microbial research and technologies are directly or indirectly relevant for achieving each of the SDGs.

➢ Microbes can capture carbon and degrade plastic - why aren't we using them?

The **Scientific Advisory Group** of the IUMS and the American Society for Microbiology (ASM) have partnered to publish the report:

"Microbial Solutions for Climate Change

Toward an Economically Resilient Future".

This groundbreaking report highlights innovative microbial strategies that can help combat climate change and build a more resilient world.

The report highlights 3 key microbial-based solutions to address climate change:

- Microbes for a non-fossil carbon economy
- Microbes for food security and ecosystem resilience
- Microbes for urgent methane mitigation

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