



The European CSA Human Microbiome Action (2021 -2024)

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INTRODUCTION

Humans are substantially microbial ecosystems, living in close functional interaction with their extensive skin and mucosal microbiomes. Human-microbe interplay is a major driver of health and well-being and the profiling of microbiomes will be an essential feature of personalised preventive nutrition and precision medicine in the future.

METHODOLOGY

In order to keep the momentum of microbiome research and optimise its impact, coordination needs to be in place and consensus built amongst all key actors at international level. This notably concerns i) clinical trial design and analytical standards, ii) definitions of healthy microbiomes as a function of numerous factors, accounting for confounders, iii) demonstrating causality of altered host-microbes interactions in disease and iv) processes for the identification and validation of clinically relevant, validated biomarkers. The European CSA Human Microbiome Action (<http://www.humanmicrobiomeaction.eu/>) brings together a strong EU partnership and broad stakeholders group involving all the actors along the innovation chain, including citizens, to i) map the current scientific state-of-play ii) identify the path and actions required to achieve impact iii) build consensus on priorities and means as part of a roadmap for the EU microbiome science and its translation.

RESULTS

This will lead to a set of recommendations, validated by the Human Microbiome Action International Strategic Steering Committee, addressed to the European Commission, international research programs, funding and regulatory agencies and decision makers of our health systems. To ensure take-up and sustainability of project outcomes, Human Microbiome Action will promote unified repositories for sharing standards, SOPs and data, as well as initiate the creation of the European Microbiome Centers Consortium, a world microbiome network of excellence.

DISCUSSION

Human Microbiome Action will contribute to the recognition of the importance of human-associated microbiomes for the future of mankind.