

1. Record Nr.	UNINA9910968179803321
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Titolo	Promise and challenges in systems microbiology : workshop summary
Pubbl/distr/stampa	Washington, D.C., : National Academies Press, c2004
ISBN	1-280-17631-8 9786610176311 0-309-53077-6
Edizione	[1st ed.]
Descrizione fisica	1 online resource (48 p.)
Disciplina	579/.17
Soggetti	Microbial ecology Microbiology
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di contenuto	FrontMatter -- Preface -- Acknowledgments -- Contents -- 1 Introduction -- 2 Workshop Proceedings -- 3 Summary of Key Points -- Appendixes -- Appendix A--Progress and Promise in Systems Microbiology--Agenda -- Appendix B--Participant Biographies.
Sommario/riassunto	Microbiologists have become interested in applying ecosystems biology to understand and harness complex biological processes in microbial communities. A systems approach, which attempts to use comparative, high-throughput assays, and mathematical or computational models, has been used to generate a picture of system-wide activity that can yield insight into processes operating within a single cell. But the concept of integrating advances in genomics, proteomics, and metabolomics and incorporating them into mathematical models can also be applied to microbial ecosystems, which typically occur in consortia of related and unrelated organisms. Research on microbial communities using a system-based approach could provide a broader perspective on controls on biological processes and how they operate in and among microorganisms. The National Academies of Sciences, Engineering, and Medicine held a workshop on Progress and Promises of Systems Microbiology in August 2003, with the intent of providing a forum for discussion of the tools, technology, and programs that are needed to advance the study of microorganisms

through a systems approach. Participants also discussed ways to encourage collaboration among scientists of different disciplines. This report summarizes the presentations and discussions from the workshop.

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