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light sheet microscopy--Michael J. Taormina, Matthew Jemielita, W. Zac Stephens, Adam R. Burns, Joshua V. Troll, Raghuveer Parthasarathy, and Karen Guillemin""; ""A13 Clinical application of fecal microbiota transplantation in Clostridium difficile infection and beyond--Josbert J. Keller and Els van Nood""
""A14 Consumption of human milk glycoconjugates by infant-associated bifidobacteria: Mechanisms and implications--Daniel Garrido, David C. Dallas, and David A. Mills""""""A15 Bacteriophage adhering to mucus providea non host-derived immunity--Jeremy J. Barr, Rita Auro, Mike Furlan, Katrine L. Whiteson, Marcella L. Erb, Joe Pogliano, Aleksandr Stotland, Roland Wolkowicz, Andrew S. Cutting, Kelly S. Doran, Peter Salamon, Merry Youle, and Forest Rohwer""
""A16 Topographic diversity of fungal and bacterial communities in human skin--Keisha Findley, Julia Oh, Joy Yang, Sean Conlan, Clayton Deming, Jennifer A. Meyer, Deborah Schoenfeld, Effie Nomicos, Morgan Park, NIH Intramural Sequencing Center Comparative Sequencing Program, Heidi H. Kong, and Julia A. Segre""

Sommario/riassunto

"Individually and collectively, resident microbes play important roles in host health and survival. Shaping and shaped by their host environments, these microorganisms form intricate communities that are in a state of dynamic equilibrium. This ecologic and dynamic view of host-microbe interactions is rapidly redefining our view of health and disease. It is now accepted that the vast majority of microbes are, for the most part, not intrinsically harmful, but rather become established as persistent, co-adapted colonists in equilibrium with their environment, providing useful goods and services to their hosts while deriving benefits from these host associations. Disruption of such alliances may have consequences for host health, and investigations in a wide variety of organisms have begun to illuminate the complex and dynamic network of interaction - across the spectrum of hosts, microbes, and environmental niches - that influence the formation, function, and stability of host-associated microbial communities. Microbial ecology in states of health and disease is the summary of a workshop convened by the Institute of Medicine's Forum on Microbial Threats in March 2013 to explore the scientific and therapeutic implications of microbial ecology in states of health and disease. Participants explored host-microbe interactions in humans, animals, and plants; emerging insights into how microbes may influence the development and maintenance of states of health and disease; the effects of environmental change(s) on the formation, function, and stability of microbial communities; and research challenges and opportunities for this emerging field of inquiry"--