

Next Generation Microbial Genomics: The Human Microbiome Project

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New DNA sequencing technologies are having a major impact on microbial and infectious disease genomics through dramatic reductions in cost and increases in data production. One of the more impressive applications is in the study of the Human Microbiome - the collection of all organisms that colonize the human body. One aspect is the ability to sequence thousands of individual organisms, for example to build a catalog of the human microbiome. Another major application is the sequencing complex communities of microbes (metagenomes) from different health states to correlate the microbiome to health and disease. Other applications include deep sequencing of patient samples to discover new (viral) etiologic agents. The impact on our view of human biology of these applications and technologies will be discussed.