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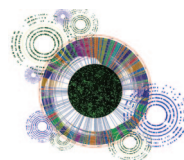
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ON THE COVER This image combines microscopy and genomic mapping of *Lactobacillus reuteri*. The central fluorescent image was generated by confocal fluorescent microscopy of *Lactobacillus reuteri* stained with acridine orange. The colorful circular image is the optical map of the *L. reuteri* genome. The other circular images represent genome maps of two *L. reuteri* strains.

This issue of *Clinical Chemistry* contains a review by Petrosino and colleagues, who nicely describe the application of next-generation DNA pyrosequencing to metagenomics and human microbiome research. Advances in DNA sequencing are providing new capabilities for sequencing the collective genomes of microbial communities. By coupling sequencing with improved annotation and bioinformatics approaches, scientists will be able to understand the functional genomics of the human microbiome. See pages 856–866. Image reproduced with permission by J. Versalovic, M.D.

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