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DISCOVERING THE CHEMISTRIES OF OUR HIDDEN MICROBIAL SELF

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Research on human microbiota has created numerous correlations to health and disease and insights into its biological diversity. Microbial mediators of these impacts have proven harder to pin down, and much is left unknown of the chemical diversity encoded by human microbiomes. Certainly, like in other diverse environments one may infer that competition within these microbes is driving metabolic capacities to select for antibiosis agents and mediators of cell-cell communication. The breadth of natural products secreted by our microbial flora and their biological actions is still largely unknown and underappreciated. Evidence exists that members of the human microbiota exclusively produce evolved small molecules with selective antimicrobial activity against human pathogens. In this talk I will review and expand upon the current knowledge concerning antibiotics and bioactive small molecules derived from human microbiota and their distribution across body sites. A specific focus will be placed on the enabling technologies that seeks to accelerate the discovery rate of small molecules from the human microbiota.





