

# Connecting Diverse Disciplines in Biology Through Massively Parallel Sequencing

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**Abstract:** A large number of research fields, such as Anthropology and Enzymology, that relate to Biology have traditionally been disconnected from each other. In the past decade, the rapid advances in DNA sequencing technologies is ushering in a new era that promises to deliver new levels of understanding in diverse disciplines – from personalized medicine and diagnostics to new discoveries on the origin and prehistoric migrations of humanoids. Like the technique of Polymerase Chain Reaction, the NextGen sequencing platform is opening new connections between diverse sub-fields in Biology. The cross-feeding of ideas and technologies through application of advanced DNA sequencing technologies is creating new areas of interdisciplinary research, such as paleophysiology, that was not possible before. This lecture will focus on a discussion of what enabled this “revolution” in Biology to begin and the current “disrupting” platform that is being adopted worldwide for novel applications. Finally, we will discuss some personal perspectives on where and how we think this technology will be extended in the next five years in order to assess the new opportunities for research and development.