

EXECUTIVE SUMMARY: *(State in layman's terms the application's broad, long-term objectives and specific aims, making reference to the potential public benefits of the project for California.)*

Most of the leading cell phone companies are based in California. For example, Qualcomm in San Diego, is one of the leading cell phone software manufacturers and a leading employer of graduate students from San Diego State University's Computer Science Department. In addition, both Apple and Google are based in Silicon Valley, and are spearheading the cell phone revolution. In addition, California is the world-leader for biotechnology related companies with large concentrations of biotech companies in San Diego and San Francisco, and statewide the biotech industry employs more than 200,000 people. The research proposed here is a marriage of these two industries, using the latest advances in cell phone technology to allow biologists to access and visualize their data whenever and wherever they are.

The new cell phone interfaces, stunningly realized by Apple's iPhone and Google's Android services allow new approaches to data access for on the go information consumers. By developing applications and interfaces for cell phone users, we will enhance the research productivity of California's biotech industry while training students in Computer Science and Bioinformatics.