Dr. Ramana Madupu is Computational Biosciences Program Manager at the Office of Biological and Environmental Research (BER), in Department of ENERGY (DOE). BER supports a diverse portfolio of fundamental research and technology development to achieve a predictive systems-level understanding of complex biological systems to advance DOE missions in energy and the environment. By integrating genome science with advanced computational and experimental approaches, BER seeks to gain a predictive understanding of living systems, from microbes and microbial communities to plants and other whole organisms. The program's most challenging but critical goal is the creation of robust computational frameworks for data integration, analysis, and sharing that can accommodate the wide variety of heterogeneous data streams being generated across the Genomic Science community. Ramana is currently is managing  the KBase - DOE’s Systems Biology Knowledgebase program ([www.kbase.us](http://www.kbase.us)). Towards achieving its goals, BER is interested in computational innovation for developing advanced approaches to connect large and diverse data sets within multiscale modelling frameworks, development of discrete mathematics and graph-based algorithms for analysis of large-scale influence networks in biological data; integration of large-scale biophysical codes to facilitate multiscale predictions required at all levels of biological systems science.

Program Link http://genomicscience.energy.gov/compbio/index.shtml