SYNTHETIC GENETIC CIRCUITS AND ITS APPLICATIONS

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Over the past 50 years of research related to bacterial and eukaryotic genetics and molecular biology has yielded tremendous information regarding functioning of genes and genetic circuits operative in living organisms. Furthermore, availability of substantial information regarding whole genome sequences of bacteria to human and technologies to synthesize large pieces of DNA has allowed scientists to design novel synthetic genetic circuits and test their functions critically to understand further how several such circuits work in parallel in a cell. Recent development indicates that engineered genetic circuits have also several practical applications, which has been briefly discussed.

VOL.78, NOS.3-4