

Download Bacterial Genomics Genome Organization And Gene Expression Tools

Gene expression

Gene expression is the process by which information from a gene is used in the synthesis of a functional gene product. These products are often proteins, but in non-protein coding genes such as transfer RNA (tRNA) or small nuclear RNA (snRNA) genes, the product is a functional RNA. The process of gene expression is used by all known life—eukaryotes (including multicellular organisms ...

Genomics

Genomics is an interdisciplinary field of biology focusing on the structure, function, evolution, mapping, and editing of genomes. A genome is an organism's complete set of DNA, including all of its genes. In contrast to genetics, which refers to the study of individual genes and their roles in inheritance, genomics aims at the collective characterization and quantification of genes, which ...

GENOMICS

GENOMICS. N.B. Many of the tools that one needs for the analysis of genomes can be found in the DNA Sequence Analysis section. Here we have unique tools for genomic analysis which do not fit easily in that section.

The genome sequence of allopolyploid Brassica juncea and ...

The Brassica genus encompasses three diploid and three allopolyploid genomes, but a clear understanding of the evolution of agriculturally important traits via polyploidy is lacking. We assembled ...

Edit at will: Genotype independent plant transformation in ...

1. Introduction. Recent advances in genomics, computational plant biology and genome editing capabilities have created a great potential to actuate this progress into a wealth of scientific information as well as result in new crops and varieties [1,2]. The ability to conduct genome editing directly depends on robust genomics platforms, but then also on plant transformation technologies in ...

DOE Joint Genome Institute: A DOE Office of Science User ...

Evolution of a Fungal Gene Expression Regulator The abundance of fungal genomes underscores the need for a more comprehensive exploration of genomic DNA modifications (epigenome). In Nature Ecology & Evolution, a team conducted the largest analysis to date of 5mC, an important piece of the epigenome, across the fungal tree of life.

Gene Expression

Happy Thanksgiving (if you are an American)! It's been a busy few days in the world of personal genomics. By coincidence I have a coauthored comment in Genome Biology out, Rumors of the death of ...

Lateral gene transfer and the nature of bacterial ...

Given that they are single-celled organisms and that their genome sizes vary by little more than an order of magnitude in length, bacteria display extraordinary variation in their metabolic ...

CRISPR/Cas9 in Genome Editing and Beyond | Annual Review ...

INTRODUCTION: TOOLS FOR PROGRAMMABLE GENOME EDITING, TARGETING, AND REGULATION. Since the advent of the central dogma of molecular biology, scientists have endeavored to develop new technologies to modify or manipulate the genome.

Pseudomonas syringae

What's new on this site See list of recent updates to the structure, tools and databases on this site: Plant defense-related genes. Using large-scale forward-genetic screens, *Nicotiana benthamiana* genes have been identified that compromise PAMP-triggered immunity when silenced. Information on these genes can be found at the link in the Quick Links section above.