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Dictyostelium chromosome

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Dictyostelium discoideum occupies a unique position at the border between free-living cells and multicellular organisms. In the July 4 *Nature*, the *Dictyostelium* Genome Sequencing Consortium reports the sequencing of the largest chromosome, chromosome 2, from the *D. discoideum* genome (*Nature* 2002, **418**:79-85). The chromosome is approximately 8 megabases long, representing about a quarter of the genome. The sequence is extremely A+T rich, averaging 86% in intergenic regions. The researchers predicted 2,799 coding genes and 73 tRNA genes, and extrapolate to estimate a total gene number of 11,000 *Dictyostelium* genes. About 35% of genes had a match in other eukaryote genomes. The high gene density is similar to that found in yeast. The Consortium notes that the *Dictyostelium* genome appears more similar to metazoa than to plants or fungi. Further analysis of the *Dictyostelium* genome will undoubtedly provide insights into how it has evolved for unicellular and multicellular life.

References

1. Genetic networks that regulate development in *Dictyostelium* cells.
2. *Nature*, [<http://www.nature.com>]
3. *Dictyostelium discoideum* genome project, [<http://genome.imb-jena.de/dictyostelium>]