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Miniature Genome

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The 'Year of the Genome' ends with the publication of a tiny genome, that of the marine chordate *Oikopleura dioica*. *Oikopleura* is a small pelagic chordate that measures just 5 mm. It is easy to culture and has a short life cycle (2-4 days) and high female fecundity (around 300 oocytes). In the December 21 *Science*, Seo *et al.* report the genome sequence of *O. dioica* (*Science* 2001, **294**:2506). They used large-scale shotgun sequencing to assemble contigs covering 32.6 Mb. The total genome is estimated to be 65 Mb, making it the smallest chordate genome known. They estimate that the genome contains some 15,000 genes, at a density of one gene every 5 kb; introns and intergenic regions were very short. The compact nature of this genome may make it an interesting model for future genomic studies.

References

1. *Oikopleura dioica*: larvacean, [<http://jellieszone.com/oikopleura.htm>]
2. *Science*, [<http://www.sciencemag.org>]