

PublisherInfo		
PublisherName	:	BioMed Central
PublisherLocation	:	London
PublisherImprintName	:	BioMed Central

Finishing fourteen

ArticleInfo		
ArticleID	:	4670
ArticleDOI	:	10.1186/gb-spotlight-20030107-01
ArticleCitationID	:	spotlight-20030107-01
ArticleSequenceNumber	:	22
ArticleCategory	:	Research news
ArticleFirstPage	:	1
ArticleLastPage	:	2
ArticleHistory	:	RegistrationDate : 2003-1-7 OnlineDate : 2003-1-7
ArticleCopyright	:	BioMed Central Ltd2003
ArticleGrants	:	
ArticleContext	:	130594411

Jonathan B Weitzman

Email: jonathanweitzman@hotmail.com

Draft genome sequences require careful finishing (closing the gaps and ironing out the inconsistencies) if they are to become really useful resources. In an Advanced Online Publication in *Nature* Heilig *et al.* report the first finished human chromosome for the year 2003 (*Nature*, 1 January 2003, DOI:10.1038/nature01348). Chromosome 14 now joins the three other completed chromosomes, namely chromosomes 22, 21 and 20. Human chromosome 14 has a number of loci of interest to immunologists, notably the T-cell receptor locus and the immunoglobulin heavy chain locus, as well as genes linked to genetic diseases such as Niemann-Pick disease, early-onset Alzheimer's disease and Usher syndrome. The finished sequence, in a single contig that is over 87 megabases long, covers the entire euchromatic region, and the sequence quality is 99.99%. The general landscape of chromosome 14 resembles that of the whole genome; the G+C content is 40.9%, it is peppered with repetitive elements comprising 46% of the sequence, and the gene density is 10 genes per Mb. There are 1,050 annotated gene and numerous pseudogenes, around half of which correspond to 'known genes'. This report represents another step towards a finished human genome sequence.

References

1. *Nature*, [<http://www.nature.com>]
2. The DNA sequence of human chromosome 22.
3. The DNA sequence of human chromosome 21.
4. The DNA sequence and comparative analysis of human chromosome 20.
5. The human chromosome 14, [<http://www.genoscope.cns.fr/chr14>]