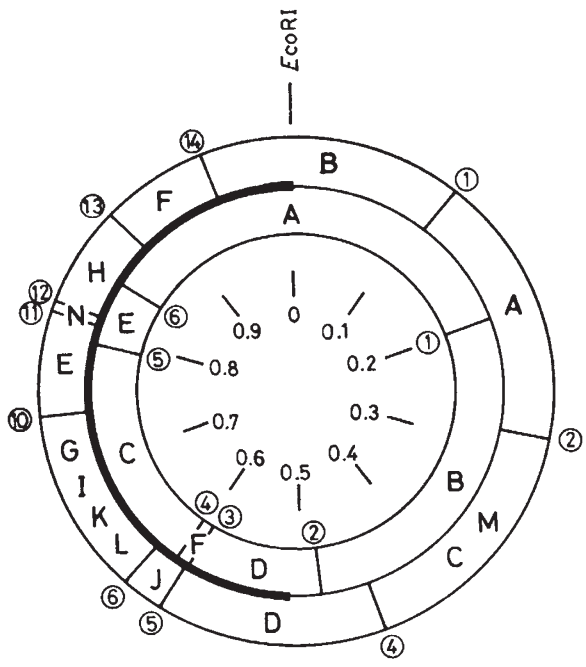

Fig. 3 Physical map of the colE1 genome constructed by the cleavages with R·*Eco*RI, R·*Hae*II and R·*Hae*III. The inner and outer rings show *Hae*II and *Hae*III fragments, respectively. The *Eco*RI cleavage site was designated the zero point, and each cleavage site was numbered in the clockwise direction (circled numbers). The map distance from the zero point is shown as the fraction of the length of colE1 DNA in the same direction. Heavy line indicates the region carried by pML21.

To determine the positions of *Hae*III-B and -F in *Hae*II-A, the location of the *Eco*RI site in *Hae*III fragments and the constituent *Hae*III fragments of pML21 were analysed. The electropherogram of combined digests of colE1 DNA with R·*Eco*RI and R·*Hae*III indicates that *Hae*III-B was split with R·*Eco*RI into two fragments, *Eco*RI-A·*Hae*III-B1(11.4%) and *Eco*RI-A·*Hae*III-B2 (5.9%) (I and II in Fig. 1*e*). Digestion of the mini-colE1 segment of pML21 with R·*Hae*III yielded *Eco*RI-A·*Hae*III-B2, *Hae*III-E, -F, -G, -H, -I, -J, -K, -L, -N and two new fragments "Y" and "Z" (Fig. 1*g*). Thus it was concluded that *Eco*RI-A·*Hae*III-B2 and *Hae*III-F were within *Eco*RI-A·*Hae*II-A2. The appearance of the two new fragments indicates that non-colE1 DNA in the mini-colE1 segment of pML21 contains one *Hae*III site.

We can usefully summarise all the foregoing data in a single cleavage map of the colE1 genome, incorporating the various cleavage sites and molecular weight estimates of the fragments (Fig. 3). The *Eco*RI site was designated the zero point and measurement of the map distance as the fraction of the length of colE1 DNA was made in the direction A B D F C E of *Hae*II fragments from this point. According to this expression, pML21 carries the region 0.51 to 1.0. Earlier work indicates that replication initiates at 18% distant from the *Eco*RI site and proceeds towards the distal *Eco*RI site[4-6]. The replication origin of colE1 is present in pML21 (ref. 7). Therefore, the origin and direction of DNA replication can be deduced to be 0.82 and anticlockwise on the map in Fig. 3.

We thank Dr K. Sugimoto for helpful discussion and a critical reading of the manuscript.

ATSUHIRO OKA
MITURU TAKANAMI

Institute for Chemical Research,
Kyoto University,
Uji, Kyoto 611, Japan

Received June 24; accepted September 21, 1976.

1 Bazaral, M., and Helinski, D. R., *J. molec. Biol.*, **36**, 185–194 (1968).
2 Hershfield, V., Boyer, H. W., Yanofsky, C., Lovett, M. A., and Helinski, D. R., *Proc. natn. Acad. Sci. U.S.A.*, **71**, 3455–3459 (1974).
3 Cabello, F., Timmis, K., and Cohen, S. N., *Nature*, **259**, 285–290 (1976).
4 Inselburg, J., *Proc. natn. Acad. Sci. U.S.A.*, **71**, 2256–2259 (1974).
5 Tomizawa, J., Sakakibara, Y., and Kakefuda, T., *Proc. natn. Acad. Sci. U.S.A.*, **71**, 2260–2264 (1974).
6 Lovett, M. A., Katz, L., and Helinski, D. R., *Nature*, **251**, 337–340 (1974).
7 Inselburg, J., and Oka, A., *J. Bact.*, **123**, 739–742 (1975).
8 Smith, H. O., and Nathans, D. A., *J. molec. Biol.*, **81**, 419–423 (1973).
9 Oka, A., and Inselburg, J., *Proc. natn. Acad. Sci. U.S.A.*, **72**, 829–833 (1975).
10 Takanami, M., Okamoto, T., Sugimoto, K., and Sugisaki, H. *J. molec. Biol.*, **95**, 21–31 (1975).
11 Roberts, R. J., Breitmeyer, J. B., Tabachnik, N. F., and Myers, P. A., *J. molec. Biol.*, **91**, 121–123 (1975).
12 Greene, P. J., Betlach, M. C., and Boyer, H. W., in *Methods in Molecular Biology*, 7 (edit. by Wickner, R. B.), 87–111 (Dekker, New York), (1974).
13 Hershfield, V., Boyer, H. W., Chow, L., and Helinski, D. R., *J. Bact.*, **126**, 447–453 (1976).

Corrigendum

In the article "Prehistoric exploration at Hadar, Ethiopia" by G. Corvinus (*Nature*, **261**, 571; 1976) no acknowledgement was given to the institution which funded the work. The author wishes to thank the Centre National de Recherche Scientifique for a grant in 1974 and for a fellowship in 1975.

Errata

In the article "Reactions involving singlet oxygen anion" by W. H. Koppenol (*Nature*, **262**, 420; 1976) for 'effects', page 420, paragraph 1, line 6, read 'involvement'. Also, page 421, line 29, insert 'quantitatively' between 'reacts' and 'with'.

In the article "New cranium of *Homo eructus* from Lake Ndutu, Tanzania" by R. J. Clarke (*Nature*, **262**, 485; 1976) the following corrections should be made. In the first paragraph on page 485 humanoid should read hominid. The semicolon in the third line of the second paragraph on page 486 should be replaced by a comma and the last word in the same line should be 'lacking'. The last sentence in the same paragraph should read 'In addition, there are the isolated right tympanic plate and both isolated petrous temporals'. There is no scale on Fig. 1: the distance from *a* to O is 12 cm.

In the article "RNA polymerase specificity and the control of growth" by A. Travers (*Nature*, **263**, 641; 1976) the following corrections should be made on page 643: Paragraph 3, the sentence beginning in line 16 should read '. . . addition of T7 DNA results in a reduction of T2 RNA synthesis and a stimulation . . .'; and the sentence beginning in line 28 should read '. . . the relative competition of T2 RNA and rRNA synthesis is virtually independent of the nature of the competing template.'; and in paragraph 6, the second sentence should read 'In two instances where stable RNA synthesis is shut off *in vivo*, ppGpp accumulation and T4 infection . . .'